

Computer Science & Engineering Division
College of Engineering

RESULTS REPORT
TOWARDS THE FUTURE SURVEY

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I. INTRODUCTION

The Computer Science & Engineering Division at the College of Engineering, University of Michigan (“CSE”) wants to move forward, and this survey was taken to help CSE do just that. All CSE survey participants were asked for feedback to help design the future culture and atmosphere of CSE (the “Towards the Future Survey”). While many steps were taken during this last year and much data was collected regarding past misconduct at CSE, the CSE Climate Assessment Committee (CLASS) is ready to focus on the best next steps and a broader view of the quality of life for all participants in CSE. Vital to the ongoing effort to enhance CSE’s culture and atmosphere is feedback from those who live and work at CSE. The Towards the Future Survey’s goal was to assess what steps should be taken to ensure that CSE is a place in which students, faculty, and staff feel safe and thrive.

The Towards the Future Survey questions probed experiences, feelings, and reactions to many aspects of the CSE culture and atmosphere and were focused on how things are currently or in the very recent past. It was designed to learn the reactions that those responding (“Participants”) had to recent CSE programs and activities that were aimed at improving culture and atmosphere. The goal of the Towards the Future Survey was also to solicit ideas for where and how improvements to the experience at CSE could be made.

While most everyone is aware of CSE’s well publicized past issues regarding allegations related to sexual misconduct by certain individuals, the Towards the Future Survey was intentionally designed to explore all areas of culture and atmosphere. So, while included, sexual misconduct was not as extensively explored as it has been by the many other efforts at CSE to address these problems. The future-looking emphasis of the Towards the Future Survey was not intended in any way to communicate that “everything is behind CSE.” Rather, the Towards the Future Survey took past issues into account and was designed to look at all aspects of CSE’s atmosphere and culture and to explore views on a holistic approach to improving the campus experience at CSE. The Towards the Future Survey is part of CSE’s ongoing efforts to find ways to encourage excellence in a safe, equitable, and inclusive environment.

II. GOALS

The Towards the Future Survey was intended to gather important input regarding current culture and atmosphere at CSE based on the experiences and feelings of CSE students, faculty, staff, and recent alumni. The Towards the Future Survey had three main goals:

- To know what next steps to take to meaningfully enhance the near-future culture and atmosphere.
- To learn more about the current culture and atmosphere and experiences that impact quality of life issues at CSE.
- To evaluate the success of recent steps to improve culture and atmosphere.

III. CREATION OF THE SURVEY

Giffen & Kaminski, LLC (“Giffen & Kaminski”) was hired to design, execute, and analyze the Towards the Future Survey. Giffen & Kaminski is a women-owned law firm experienced in Title IX work, climate assessments, surveys, and investigations.

Giffen & Kaminski developed the Towards the Future Survey in consultation with and input from members of CLASS, a statistician, and a small group of CSE faculty, staff, and students. The final survey reflects that collaboration. Giffen & Kaminski has preserved the confidentiality of the people who participated in the development of the Towards the Future Survey. No comments or suggestions made by any person have ever been attributed to that person.

During development of the Towards the Future Survey, Giffen & Kaminski reviewed numerous resources, including prior surveys and information developed by CSE and CLASS in the last year.

A Frequently Asked Questions (“FAQs”) section was included in the Towards the Future Survey and each Participant had to review the FAQs before they agreed to take the Towards the Future Survey. The FAQs section was used to inform Participants about the nature and purpose of the Towards the Future Survey. The FAQs section highlighted that Participants would remain anonymous and alerted Participants that certain of the questions sought sensitive information.

At launch, the CLASS Chair emailed the potential Participants, and her email included a link to the Towards the Future Survey. The Towards the Future Survey was sent to a total of 7,782 potential Participants made up of all CSE current Undergraduate Students (5,246), all current CSE Graduate Students (843), all Post Docs (11), all current Staff (59), all current Faculty (153), CSE Discontinued Graduate Students (32), and all CSE Alumni who graduated within the past three years for whom email addresses were known (3,134). The total number of people by position is greater than the total number of surveys sent because many of the people invited have multiple roles but only received one invite. For example, some of the Staff are also Undergraduate Students. The Towards the Future Survey was open from May 26, 2021 until June 9, 2021. Reminder emails were sent to encourage potential Participants to complete the survey.

The initial question of the Towards the Future Survey asked if the Participant was over 18 years of age and if they were willing to take the Towards the Future Survey. Of the 825 people who opened the Towards the Future Survey, only 2 declined to proceed. Most questions in the Towards the Future Survey were optional. Questions about overall climate were asked of all Participants. Other parts of the Towards the Future Survey were available only to Students and/or Alumni, and another part pertaining to employment issues was open only to Faculty and/or Staff. There were often follow-up questions that were presented only to those with specific responses to an initial question. For

example, if a response indicated that there was no involvement by the Participant in a certain type of action, then the next set of follow-up questions were not presented to that Participant.

Participants in the Towards the Future Survey were not identified, and there was no electronic method to determine the identity of the person who provided any particular response. Participants were informed that their responses would not be a report of misconduct to the University of Michigan or any of its offices or resources. Resources regarding where and how to report sexual misconduct or discrimination were provided in the Towards the Future Survey.

IV. SURVEY RESPONSE RATE AND PARTICIPANT DEMOGRAPHICS

A total of 825 people opened the Survey out of the 7,782 invited to participate, and 823 Participants took the Survey. The demographics of Participants are generally representative of CSE overall. An analysis of the demographics of Participants is found below. Overall, it is reasonable to deduce that responses to the Towards the Future Survey are reasonably representative of the attitudes and experiences of the entire CSE community.

A. PARTICIPATION BY POSITION

The Participants were asked to classify themselves into the following groups of similarly situated people ("Position(s)").

1. Students

27%¹ of the Undergraduate and Graduate Students were employed at CSE. 6% indicated they transferred from another UM college to CSE and 6% from a school not associated with UM.

a. Undergraduate Students

353 Participants identified their Position as an Undergraduate Student. Of those who identified as Undergraduate Students, they identified their CS Major or CS Minor status or intentions as follows:

¹ All percentages in this Report are rounded to the nearest whole number and therefore may not equal 100%.

TABLE 1

Declared CS Major	274
Does not intend to declare CS Major	21
Uncertain whether to declare CS Major	6
Declared CS Minor	50
Does not intend to declare CS Minor	0
Uncertain whether to declare CS Minor	2

Of the Undergraduate Students, only 8% were first-generation college students, and 67% were enrolled in the College of Engineering with 28% enrolled in the College of Literature, Science, and the Arts. There was a split in how many Undergraduate Students had taken computer science classes in high school or in a postsecondary school with 60% indicating that they had. 61% of the CSE Students were enrolled as a first-time Undergraduate Student.

b. Graduate Students

124 Participants identified their Position as Graduate Students. Of those who identified as Graduate Students, 102 reported that they are in a CSE doctoral program, and 22 identified that they are in a CSE master's program. 19% indicated they were first-time Graduate Students. The breakdown of CSE Graduate Student funding was fellowship 10%, research assistantship (GSRA) 6%, teaching assistantship (GSI) 9%, and no CSE funding 21%. 54% of the Graduate Students responded that they had never been employed as a Graduate Student instructor at CSE.

2. Faculty and Staff

95 Participants identified their Position as Faculty or Staff. Of the 57 who identified as Faculty, 42 reported that they are Tenure-Track Faculty, 11 reported that they are Lecturers, and 4 identified that they are a Research Scientist, Research Fellow, or Postdoc. 38 Participants identified as Staff.

3. Former CSE Students ("Alumni")

233 Participants identified their Position as a former Undergraduate or Graduate Student who participated in a CSE program within the last three years. The Alumni Participants further identified themselves as follows:

TABLE 2

Former Student who received a CSE Undergraduate degree	176
Former Student who received a CSE Graduate degree	43
Former Student who discontinued a CSE Undergraduate Program	11
Former Student who discontinued a CSE Graduate Program	3

In the Alumni Participant pool, 66% were enrolled in the College of Engineering, and 33% were enrolled in the College of Literature, Science and the Arts. Of the Alumni Participants, 97% graduated and 3% withdrew. In the Alumni group, 82% of the Participants had no CSE funding, 11% had a teaching assistantship (GSI), 9% had a research assistantship (GSRA), and 2% had a fellowship.

The invited Participants and response rates for each by Position are as set forth in Table 3.

TABLE 3

Position	Invited	% of Total Invited	Number of Participants by Position	Share of all Participants by Position	Response Rate by Position
Alumni	3,166	33%	222	28%	7%
Faculty	164	2%	57	7%	35%
Staff	59	1%	38	5%	64%
Graduate Student	843	9%	124	16%	15%
Undergraduate Student	5,246	55%	353	44%	7%
Total invited	9,478		794		8%

794 people answered the Positions question. This represents an overall response rate of 8%. While not a high overall response rate, it is higher than anticipated given the high degree of “survey fatigue” reported during survey creation. As Table 3 demonstrates, two groups had robust response rates, Faculty 36% and Staff 65%.

B. PARTICIPANT DEMOGRAPHICS

1. Student Comparisons

Table 4 compares gender and race/ethnicity data of the overall population in CSE for Alumni and Students obtained during winter 2021 to the gender and race/ethnicity identified by Participants in these Positions. It is important to note that pre-existing data regarding gender and race/ethnicity is not perfectly correlative as Survey Participants were permitted to identify a gender identity as other than “Male” or “Female.” Further, Survey Participants were permitted to identify more than one race/ethnicity or not identify a race or ethnicity.

TABLE 4

Group	Alumni Overall	Alumni Participants	Undergraduate Students Overall	Undergraduate Student Participants	Graduate Students Overall	Graduate Students
Female	20%	37%	23%	41%	22%	39%
Male	80%	55%	77%	53%	78%	55%
Hispanic	3%	3%	5%	3%	1%	0%
American Indian or Alaska Native	0%	0%	0%	0%	0%	0%
Asian/Asian American	33%	51%	28%	43%	13%	51%
Black/African American	1%	0%	2%	0%	0%	0%
Native Hawaiian or Other Pacific Islander	0%	0%	0%	0%	0%	0%
Caucasian/ White	30%	32%	36%	43%	24%	32%
Two or More Races	2%	3%	4%	3%	1%	8%
Unknown	31%	5%	7%	5%	3%	8%
International	N/A		19%		57%	

As demonstrated above, Participants who identified as Female are over-represented and Participants who identified as Male are under-represented in the Survey relative to their presence in CSE. These results are consistent with national trends that women are more likely to participate in climate surveys.

People who identified as Asian/Asian American, and to a lesser extent Participants who identified as White/Caucasian, were over-represented in the Survey as compared to their representation in the CSE community overall.

2. Staff & Faculty Comparisons

Table 5 compares the demographics for Staff and Faculty.

TABLE 5

Category	Staff Overall	Staff Participants	Faculty Overall	Faculty Participants
Female	70%	64%	19%	12%
Male	30%	21%	81%	77%
Hispanic	2%	0%	2%	0%
American Indian or Alaska Native	0%	0%	0%	0%
Asian/Asian American	5%	9%	35%	12%
Black/African American	2%	0%	3%	0%
Native Hawaiian or Other Pacific Islander	0%	0%	0%	0%
Caucasian/ White	89%	70%	57%	71%
Two or More Races	2%	0%	2%	0%
Unknown	0%	16%	2%	14%

Unlike the Student categories, Women are not over-represented among Staff or Faculty Participants. The most significant deviation between overall populations and Participants is the over-representation of those who identified as Caucasian/White among Faculty and the under-representation of those who identified as Caucasian/White among Staff. The effect of the Survey's category of "prefer not to say" is evident in the "unknown" category.

3. Sexual Identity

78% of all Participants identified as heterosexual or straight, and 8% identified as bisexual. 8% preferred not to answer the question regarding Sexual identity. All other Participants identified among a range including gay, lesbian, queer, and questioning. Data on the sexual identity of the overall population of CSE are not available.

4. Religious Identity

A variety of different religious identities (and lack of religiosity) was identified by Participants. The most numerous Participant identifications were 24% as Christian, 24% with no group, 20% as atheist, and 15% as agnostic. The only other group reaching 10% was the group that preferred not to answer the question at 10%.

5. Immigration Status

The majority (78%) of Participants were U.S Citizens. The remaining Participants reported 14% Non-U.S. Citizen, 3% Permanent Resident, and 5% preferred not to say. As shown by the lack of discussion of the differences in this Report, Survey responses showed little to no statistically significant difference based on Immigration status.

6. Disability

8% of Participants identified as disabled physically or mentally (“Disabled”), and 10% preferred not to identify one way or the other. Of those who identified as Disabled, they were asked what their disability impacted and could select more than one category of impact. 73% indicated their disability impacted their mental health, 31% identified that it impacted their learning, and about 10% indicated vision, hearing, or mobility. More than 60% indicated that public spaces, bathrooms, classrooms, meeting rooms, and computing resources met their needs. 45% indicated that work areas, facilities other than classrooms, instructional material, online learning, break rooms, and teaching methods met their needs, which indicates some improvement is needed in these areas. Only 17% indicated that the lockers met their needs. Of those identifying as Disabled, 48% indicated that they had requested an accommodation related to their disability. 52% of those requesting an accommodation were satisfied or very satisfied with the response to the request, and 36% were dissatisfied or very dissatisfied with the response.

V. METHODS OF ANALYSIS

A. CREATION OF DEMOGRAPHIC GROUPING

An important part of the analysis was focused on comparing what various groups of Participants viewed as the issues facing CSE and what these Participants identified as their preferred potential ways to address these issues.

Some of the potential identities discussed in Section IV above had too few Participants to use them as a group for purposes of analysis and comparison with other groups. For example, while 294 people indicated that they are White/Caucasian and 268 identified as Asian/Asian American, fewer than 5 selected Black/African American, Native American/Indigenous Person, Alaska Native, Pacific Islander or Native Australian.

Proper data analysis requires that there be enough responses within each group to ensure variability in the responses, and for the Towards the Future Survey, it was determined that to properly represent a group, at least 20 people were required to identify as part of the group. As a result of the need for at least 20 in a group, some of the selections offered to Participants were combined in this Report to create groups deemed suitable for analysis. The following groups were used for results analysis:

VARIABLE	ANALYSIS GROUPS
Position	Undergraduate Students, Graduate Students, Faculty, Staff, Alumni
Gender identity	Women, Men, Other Gender identity
Sexual identity	Bisexual, Heterosexual, Other Sexual identity
Race/Ethnic identity	Asian/Asian American, White/Caucasian, Other Racial identify
Immigration status	US Citizen, Non-US Citizen, Other Immigration status

B. STATISTICALLY SIGNIFICANT

For all reported analyses, a p level of .01 or less is considered statistically significant. The p level indicates the likelihood that there is a reporting of group differences that do not exist. So, for example, $p < .05$ means there is a 5% or lower probability that the reported group differences are spurious findings. A $p < .01$ means there is a 1% or lower probability while $p < .001$ indicates that there is a tenth of a percent or lower probability of a spurious finding being reported. Thus, a lower p level means less error in terms of reporting non-existent differences as real, but there is a trade-off. The lower the p level, the more likely a group difference could be missed, i.e., reporting no difference when there is indeed a difference. Conversely, when there are many participants, it is easier to find a significant difference between groups and hence to “overidentify” such differences. Therefore, although statisticians typically use a p level of .05 or less to indicate statistical significance, in larger sample studies, especially those with many questions, a lower p is used to avoid reporting group differences that are random findings.

Often, the p level would be lowered to .001 or even .0001 when the number of Participants and the number of questions are as high as they were in the Towards the Future Survey. However, because the Towards the Future Survey is exploratory and designed to identify many possible concerns and solutions, it was determined that it was best not to be overly conservative and to instead report anything with $p < .01$ as statistically significant.

C. ONEWAY ANALYSIS OF VARIANCE

Most of the analyses used in this Report are Oneway analysis of variance (“ANOVA”). ANOVA is used when there is one grouping variable with 3 or more groups and a continuous scale. On a continuous scale, the numbers measured mean something in relation to each other. For example, a 2 is actually greater than a 1 in terms of satisfaction, and the difference between 1 and 2 is similar in size to the difference between 2 and 3.. The statistical test associated with an ANOVA is an F test. The F test informs whether there are any significant differences among the 3 (or 4 or 5) groups. But it does not specify which group differs from any other group.

Specifying differences requires a post-hoc test. While there are several possible post-hoc tests, the Tukey, a widely-used, moderately-conservative test, was chosen for the analysis in this Report. The ANOVA and the Turkey tests compare the groups’ average scores to each other. For example, are Women more likely to disagree that CSE is a welcoming place compared to Men or compared to people with Other Gender Identities? More specifically, do Women have a higher average score on this question?

Throughout this Report, there will be indications and/or tables indicating groups that significantly differ from one another in their responses. When two groups are reported as significantly different, it means that:

1. The F test for the ANOVA was significant at $p < .01$
2. Follow-up Tukey tests indicated a difference significant at $p < .01$ as well as the direction of difference in those average scores.

D. X² OR CHI-SQUARE

A X² is used when an examination of the relationship between two categorical variables (often yes/no/maybe) questions is desired. For example, Question 30 asks whether the Participant is a person with a physical or mental disability (Y/N). An X² is properly used to see whether more Men or Women reported disabilities. Again, findings are significant at $p < 01$.

E. CORRELATIONS

A correlation examines the relationship between two continuous variables. For example, are people who disagree that CSE is sexist less likely to agree that hiring more women faculty members is important? For a correlation statistic, an r value is reported, which captures the direction and size of the relationship between the two variables. Correlation coefficients (r values) can range from -1.00 to +1.00. A negative correlation means that as a score on one variable increases, the score on the other variable decreases. Thus, if a person strongly agrees that the college is welcoming, that same person

might be more likely to disagree that the college is racist or homophobic. A positive correlation means that the variables change in the same direction, e.g., as trust in the administration generally increases, satisfaction with its handling of sexual harassment complaints might increase.

Aside from the direction of the relationship, negative and positive correlations are interpreted similarly. A correlation that is close to zero is considered weak. If a correlation is greater than .40 (or less than -.40), it is moderate, and as it approaches 1.00 (or -1.00), it is considered strong. The p level is again used to assess statistical significance, with the same meaning as is described above.

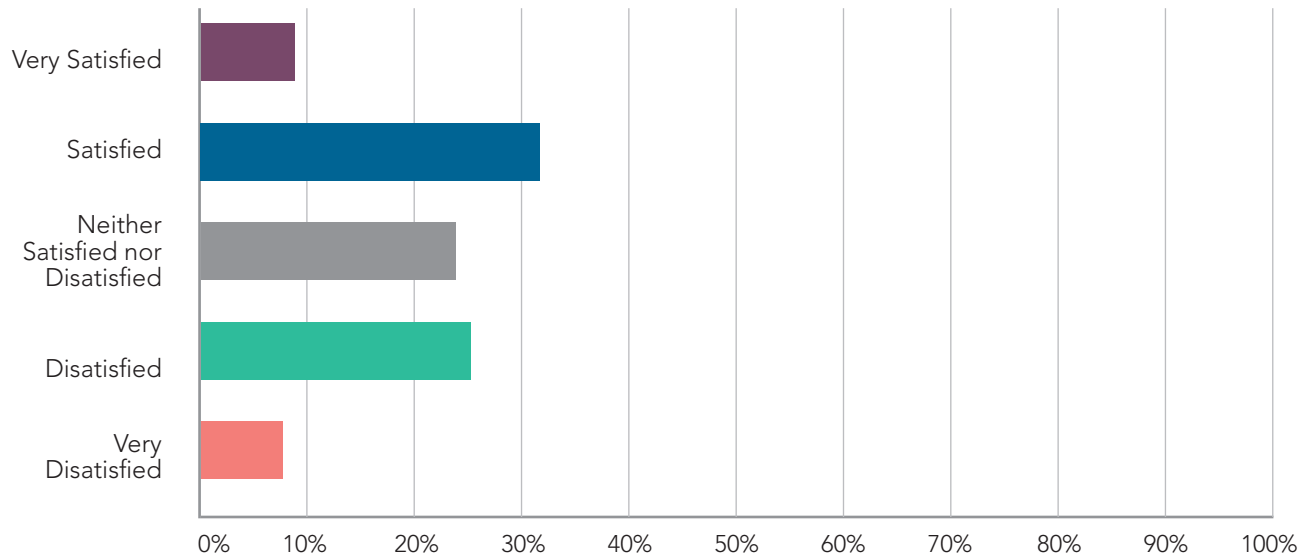
VI. SURVEY RESULTS – BY TOPIC

Most Survey questions asked Participants to provide a qualitative response, including their level of agreement or disagreement with a statement or concept. The results outlined below analyze the qualitative responses.

In addition, Survey questions requested narrative responses from Participants. Narrative responses included both opinions and anecdotes. This Report includes the range of narrative responses along with illustrations where appropriate. If a trend could be identified, the narrative responses are grouped by trend. Narrative responses that tended to undermine the anonymity of the Participant or identified specific people in the response are not included. Information learned in interviews during the design phase of the Towards the Future Survey are included in this Report as part of the narrative responses. The written and interview responses are referred to as “Narrative” responses in this Report.

A. GENERAL CULTURE AND ATMOSPHERE

Numerous questions in the Survey tested the general view of Participants regarding the culture and atmosphere at CSE. Question Number 3 asked all Participants how satisfied or dissatisfied they were with the overall climate at CSE. Climate was defined as the shared meaning CSE community members attach to events, policies, practices, and procedures they experience and the behaviors they see being rewarded, supported, and expected. The responses are summarized in Table 6.

TABLE 6

41% of Participants indicated that they were either very satisfied or satisfied while 35% responded that they were either very dissatisfied or dissatisfied. Thus, there is a wide gap in the Participants opinion of the overall climate, and this gap is reflected through the responses.

As indicated in Table 7, there are groups that were relatively more dissatisfied with the climate than other groups.

TABLE 7

	Group Difference by Level of Dissatisfaction	F Statistic
Position	Graduate Students > Undergraduate Students, Staff, & Alumni	F (4, 750) = 9.99, p < .001
Gender identity	Other gender > Men	F (2, 630) = 7.97, p < .001
Sexual identity	Not significant (NS)	
Race/Ethnicity identity	NS	
Immigration status	NS	

The level of dissatisfaction for Graduate Students is greater than the level of dissatisfaction for Undergraduate Students, Staff & Alumni, and for the group Other Gender, the level of dissatisfaction is greater than it is among Men.

As to Covid, the Participants overwhelmingly indicated that CSE responded well to the pandemic. In response to Question Number 5, only 9% of the Participants indicated that they disagreed or strongly disagreed with the statement that CSE responded well to Covid.

Question 8 asked Participants their the level of agreement with statements that used specific descriptors for the climate in CSE. The level of agreement for each description of the climate is set forth in Table 8.

TABLE 8

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
Welcoming	17%	43%	20%	15%	3%
Diverse	10%	31%	23%	25%	10%
Competitive	41%	41%	12%	6%	0%
Racist	2%	10%	25%	39%	24%
Supportive	10%	41%	27%	17%	6%
Sexist	10%	22%	27%	26%	15%
Cooperative	12%	48%	24%	13%	4%
Hostile	5%	15%	24%	40%	17%
Isolating	17%	30%	23%	22%	8%
Homophobic	2%	4%	29%	36%	30%
Respectful	14%	52%	21%	10%	3%
Ageist	4%	8%	35%	33%	21%
Transphobic	2%	5%	32%	34%	27%
Inclusive	10%	41%	29%	16%	4%
Contentious	8%	25%	40%	20%	6%
Safe	16%	37%	29%	11%	6%
Collegial	14%	41%	36%	7%	3%

Over 50% of Participants agree that CSE's climate is welcoming, competitive, supportive, cooperative, respectful, inclusive, safe, collegial, not transphobic, not ageist, not homophobic, not hostile, and not racist. While many Participants had positive views of CSE's climate, many Participants viewed the climate as not diverse, competitive, sexist, and isolating.

Participants were asked in Question 9 how satisfied they were with the reputation of CSE. 39% indicated they were satisfied or very satisfied, and 40% rated themselves as dissatisfied or very dissatisfied. 20% were in the middle, neither satisfied nor dissatisfied. Undergraduate Students and Alumni indicated greater satisfaction with CSE's reputation than did Graduate Students, Faculty, and Staff. A value of 3 was the midpoint of the scale ("neither satisfied nor dissatisfied"), and average scores for Undergraduate Students and Alumni were 2.8 and 2.9 respectively. So, at best, their satisfaction with the reputation could be described as tepid. The other Position groups are closer to being dissatisfied (a score of 4) with mean scores of 3.5 for Graduate Students, 3.7 for Faculty, and 3.7 for Staff.

Otherwise, there was broad agreement across Gender identity, Sexual identity, Race/Ethnic identity, and Immigration status, with an overall mean of 3.06.

Question 10 tested how strongly Participants agreed that CSE considers offensive language, jokes, and behaviors unacceptable. Here, 55% agreed, but a large percentage (24%) disagreed, which is another example of a large disparity in experiences or reaction to experiences. The other statistically significant differences were Graduate Students, who disagreed with the statement more than did Undergraduate Students, and Other Gender identity disagreed more than did Men.

Question 11 asked the Participants to indicate how strongly they agreed or disagreed with certain statements about their experience at CSE. Table 9 indicates Participants who agreed or strongly agreed as "Agree" and Participants who disagreed or strongly disagreed as "Disagree." Participants who neither agreed nor disagreed make up the remainder of the group and are not indicated. Table 9 also demonstrates the differences between groups and the level of difference using the continuum of 1 for strongly agree and 5 for strongly disagree.

TABLE 9

	POSTION	GENDER IDENTITY	SEXUAL IDENTITY	RACE/ ETHNICITY IDENTITY	IMMIGRATION STATUS
I feel valued Agree 47% Disagree 32%	Alum > Staff	Woman, Other Gender identity > Man	NS	Other Race/ Ethnicity > Asian/Asian American	NS

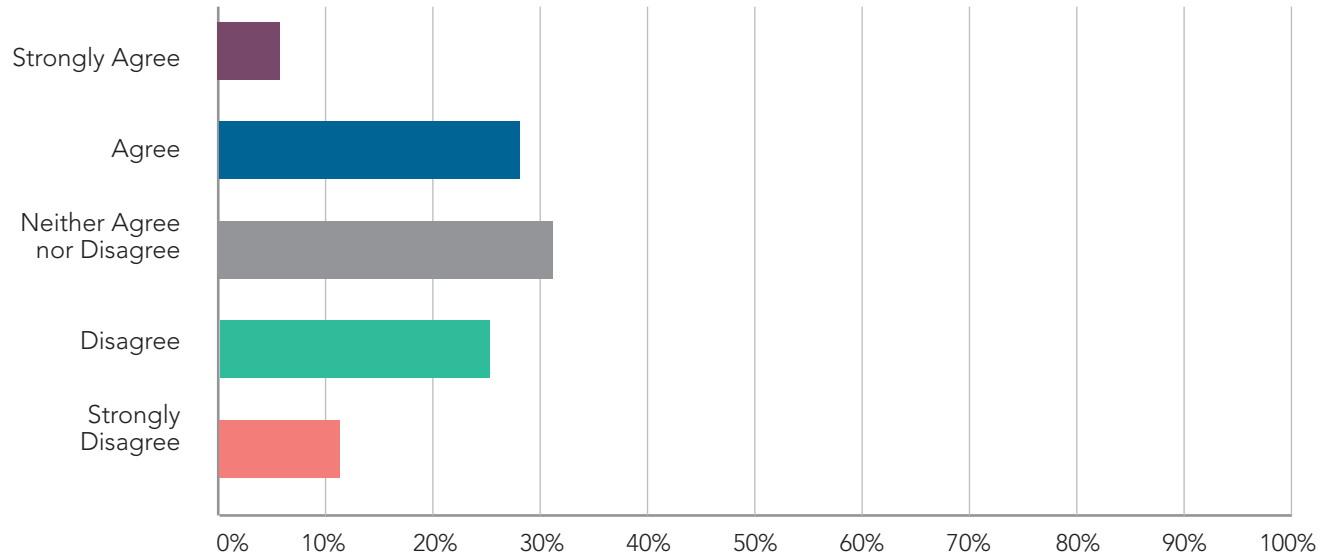
I'm treated with respect Agree 70% Disagree 12%	NS	Woman, Other Gender identity > Man	Other Sexual identity > Heterosexual	NS	NS
My opinions are respected by my peers Agree 68% Disagree 11%	NS	Woman, Other Gender identity > Man	Bisexual > Heterosexual	NS	NS
My opinions are respected by my evaluators Agree 66% Disagree 12%	Alumni > Staff	Other Gender identity > Man	NS	Other Race/Ethnicity > Asian/Asian American	NS
I feel a sense of community Agree 46% Disagree 31%	NS	Woman, Other Gender identity > Man	NS	Other Race/Ethnicity > Asian/Asian American	NS

Alumni indicated feeling less respected and valued than Staff did. Staff are particularly satisfied with the respect they receive from those who evaluate them (mean = 1.8, where 2 would be "Agree"). All other groups, including Alumni, have mean scores between 2 and 3. Given the number of comparisons, there were not many significant differences among the groups.

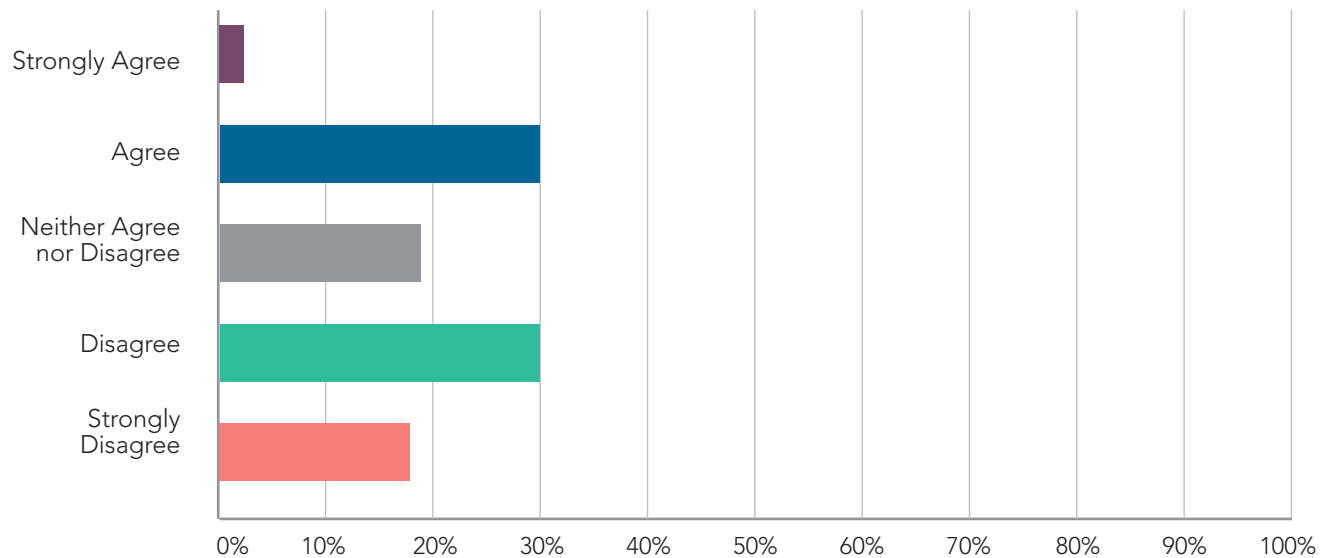
Analysis of this set of questions reveals that Women and people who identify as Other Genders most clearly feel "out of place" at CSE. These questions were answered by 236 Women, 351 Men, and 46 people who identified as Other Gender. Where 4 signifies disagree and 2 agree, there is no group that approaches a mean of 4. The mean scores for people identifying as Women is closer to 3, and for Men, the mean scores fall closer to 2. While people identifying as Other Gender generally fell between 2 and 3, there are two exceptions. For the question "I feel valued as an individual at CSE," this group's average score is 3.4, and for the question "I feel a sense of community at CSE," the average score is 3.5, where 4 would be disagree.

There is a similar pattern among Participants identifying as Other Race/Ethnicity, who reported less comfort at CSE than did Asian/Asian American Participants. The most pronounced difference is on the "I feel a sense of community" question, where the mean score of those identifying as Asian/Asian American is 2.7 while those identifying as Other Race/Ethnicity have an average score of 3.1.

Graduate Students and Undergraduate Students (jointly “Students”) were asked in Question 65 if they agreed that CSE provided the resources needed to support their physical and mental well-being. Table 10 demonstrates the range of responses received.

TABLE 10

Responses of Alumni who were asked the same question (Question 123) are indicated in Table 11.

TABLE 11

Students were asked in Question 73 if they agreed that they were encouraged to treat other students with respect. Alumni were asked the same question in Question 132. The results are consistent.

Alumni were asked in Question 119 if they would recommend CSE to prospective students. 81% said yes, and 19% said they would not. In the Narrative to this question, Alumni indicated that they would recommend CSE despite the negative culture and atmosphere because the education provides a great launching point to a good job. Alumni also noted that they would recommend CSE with a warning about how Women are not well treated, how CSE lacks diversity on all levels, and how CSE is extremely competitive for no valid educational reason.

When asked to rate how important it is to expand mental health resources to various groups, the Participants responded as set forth in Table 12.

TABLE 12

	VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
Improve, develop, or expand mental health resources for Students	67%	26%	6%
Improve, develop, or expand mental health resources for Faculty	45%	41%	14%
Improve, develop, or expand mental health resources for Staff	46%	42%	12%

All Participants were asked in Question 58 to rate the importance of various other potential activities in order to increase a sense of community. The ratings are set forth in Table 13.

TABLE 13

	VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
Develop mentoring program between more senior and more junior Students	32%	44%	24%
Develop mentoring program between new Faculty and Faculty with high teaching reviews from students	48%	41%	11%

Develop department-level programming to increase new Students' feeling of being welcome and included	46%	40%	15%
Foster group work among the Students	38%	39%	23%
Develop opportunities for Student peer review	22%	42%	37%
Offer opportunities to work with students and faculty outside of assigned labs	40%	44% 199	16% 70
Provide organized study groups for Students	31%	39%	30%
Encourage break-out discussion groups for Students in class	23%	41%	35%
Develop chat platforms for undergraduate students	22%	37%	41%
Develop chat platforms for graduate students	18%	39%	43%

The two highest-rated ideas were to develop a mentoring program for new Faculty with Faculty who have high teaching reviews from Students and develop programming to increase new Students' feeling of being included. The two least-rated programs were to develop chat platforms for Undergraduate Students and for Graduate Students.

A summary of the Narrative responses applicable to this category is attached hereto as Exhibit 1. A summary of the Narrative responses relating Participants' favorite part of their experience at CSE is attached as Exhibit 4.

B. DIVERSITY

One of the conclusions that can be drawn from the Towards the Future Survey responses is that CSE should continue to increase its efforts to diversify. Participants were asked for a Narrative response to this question: What are the top three ways CSE could improve its culture, climate, or itself? There were 454 responses listing the person's top 3 ways to improve, and of those, 88 included some

mention of the need to promote diversity at all levels of CSE. In the second and third listing of the top ways to improve, promoting diversity was among the most often mentioned. While this list is not exhaustive, it includes ideas suggested multiple times by Participants:

- Fix the gender imbalance and place more women in leadership
- Educate male students about the experience of female students
- Put more emphasis on individual uniqueness
- Have different tracks for students to encourage diversity
- Decrease use of sexist language by professors
- Have a more diverse student population
- Have a more inclusive atmosphere
- Have more celebration of diversity
- Ban the use of discriminatory language
- Greater commitment to women’s groups on campus
- Create a board of diverse students for leadership to listen to their thoughts and opinions
- Faculty should correct misogyny from students when they hear it
- Faculty should have more training on inclusive teaching
- Develop a strong network for minority students
- More student diversity training
- Less sexism

Additional Narrative responses to other questions fit this category as well. A summary of the Narrative responses using the words of the responses and applicable to this category is attached hereto as Exhibit 2.

Thousands of statistical tests were performed in reviewing the data for this Report. The differences were frequent and consistent with respect to Gender identity as it relates to concerns about diversity. That said, there was consistently no difference among the other groups, which could indicate that the Participants are unified in their support for increasing diversity.

1. Views Regarding Diversity in CSE

Question 8 asked the Participants to rate their level of agreement with various descriptive characteristics of CSE, several relating to diversity. A summary of those responses is set forth in Table 8 above.

Table 14 below shows statistically significant differences between various groups in their responses to Question 8 regarding the characteristics that reflect views on diversity.

TABLE 14

	POSITION	GENDER IDENTITY	SEXUAL IDENTITY	RACE/ ETHNICITY/ IDENTITY	IMMIGRATION STATUS
Diverse	NS	Women > Men	NS	NS	NS
Racist	Undergraduate Student > Graduate Student	Men > Women, Other Gender identity	Heterosexual > Bisexual, Other Sexual identity	NS	NS
Sexist	NS	Men > Women, Other Gender identity	Heterosexual Other Sexual identity > bisexuality	NS	NS
Homophobic	NS	Men > Women, Other Gender identity	Heterosexual > Bisexual, Other Sexual identity	NS	NS
Respectful	NS	Women, Other Gender identity > Men	Other Sexual identity > Heterosexual	NS	NS
Ageist	NS	Men > Women, Other Gender identity	NS	NS	NS
Transphobic	NS	Men > Women, Other Gender identity	Heterosexual > Bisexual, Other Sexual identity	NS	NS
Inclusive	NS	Women, Other Gender identity > Men	NS	Caucasian/ White > Asian/ Asian American	NS

There were few differences among the Positions or Race/Ethnicity groups in their ratings of the characteristics. There were, however, several differences in relation to Gender identity and Sexual identity. In general, Women and people identifying as Other Gender identity were more likely to express concerns about diversity than were Men. Men tended to disagree more strongly that CSE is racist, sexist, homophobic, ageist, and transphobic and tended to rate CSE as more inclusive, respectful, and diverse than Women did. Given that 55% of the responding sample was comprised of Men compared to 37% Women and 7% identifying as Other Gender identity, it is not surprising that Men found the environment more accepting and less problematic. Similar findings emerged for Sexual identity, with those identifying as Heterosexual generally less likely to express concerns about diversity issues than people identifying as Bisexual or Other Sexual identity.

One interesting finding is that Racial/Ethnic identity did not differ between the groups in terms of their rating of CSE as racist. Across the sample, people tend to disagree that CSE is racist (mean = 3.72). By far, the largest Racial/Ethnic groups are Asian/Asian American (42%) and Caucasian/White

(47%). Black/African American constituted less than one percent of the sample and Latino/Latina/Latinx only 4%. These groups constitute less than half of the “Other Race/Ethnicity” group and are likely too small to create statistically significant differences for this group even if they did agree that CSE is racist.

Question 11e asked if the Participant thought that there was too much emphasis placed on diversity, equity, and inclusion in CSE. A higher score indicates more disagreement. The differences between various Group responses are set forth in Table 15.

TABLE 15

IDENTIFICATION	DIFFERENCES	F STATISTIC
Position	NS	
Gender identity	Women > Men, Other Gender identity	F (2, 630) = 22.31, p < .001
Sexual identity	NS	
Race/Ethnicity identity	Caucasian/White > Other Ethnicity identity	F (2,629) = 5.96, p = .003
Immigration Status	US > Other Status	F (2, 629) = 7.18, p = .001

Given the high number of possible differences, there are very few here. Only 16% of Participants indicated strong agreement or agreement with the statement. Thus, the differences demonstrated tend to be between degrees of disagreement. For example, among the Immigrant status groups, the “Other Status” group’s mean was closer to “neither agree nor disagree” while the US citizen group’s mean was closer to “disagree” (but both means were between these two scale points). Nonetheless, Women’s mean score was just over 4, which indicates disagreement with the statement, while the other two groups’ means were closer to the “neither agree nor disagree” scale value.

To test the amount of interaction people had with those different from themselves, Questions 20-23 asked how often the Participants interacted with Students, Staff, or Faculty in groups different from their own. Question 20 asked how often Participants interacted with various groups of people. The responses are represented in Table 16.

TABLE 16

	VERY FREQUENTLY	FREQUENTLY	OCCASIONALLY	RARELY	NEVER	DO NOT KNOW
Race or ethnicity is different from your own	40%	35%	120%	4%	1%	1%
Nationality is different from your own	36%	31%	24%	6%	1%	2%
Gender is different from your own	39%	28%	22%	9%	1%	1%
Sexual identity or sexual orientation is different from your own	12%	12%	21%	21%	3%	30%
Educational background is different from your own	17%	24%	21%	16%	3%	19%
Socioeconomic background is different from your own	19%	24%	21%	11%	2%	24%

Thus, as to interaction with Students of a different Race/Ethnic identity, Nationality, and Gender identity, more than 60% of the Participants indicated they frequently interacted with people in groups different from their own. As to interaction with Students of different Sexual identity, educational background, or socioeconomic background, less than 50% indicated that they frequently interacted with people in groups different from their own.

Question 21 asked the same question with the same scale but concerned interaction with Faculty. The results were similar in all categories with Race/Ethnic identity, Nationality, and Gender tending towards frequent and Sexual identity, educational background, and socioeconomic background being less frequent.

Question 22 looked at frequency of interaction with different Staff. The responses were different: 57% as to Race/Ethnicity identity, 41% as to Nationality, 54% as to Gender identity, 15% as to Sexual identity, 32% as to educational background, and 25% as to socioeconomic background. Overall, the numbers were lower for interaction with Staff who are not in the same groups as the Participants.

The number of interactions with non-faculty researchers who are different from the Participants was even lower: 21% as to Race/Ethnicity identity, 20% as to Nationality, 16% as to Gender identity, 6% as to Sexual identity, 11% as to educational background, and 10% as to socioeconomic background.

The next set of questions (Questions 24-28) tested Participants' views as to how much various groups care about diversity, equity, and inclusion (collectively "DEI"), and the lower the score the more the Participant believed that the group cared.

Question 24 probed the view as to the level of caring about DEI among Undergraduate Students. The only differences among the Participants in responding to this question was that Other Gender identity Participants thought that there was less caring among the Undergraduate Students than did Men. Over 57% of Participants strongly agreed or agreed that Undergraduate Students cared. Only 14% strongly disagreed or disagreed. There appears to be little concern about the commitment of Undergraduate Students on the issues presented by DEI.

Question 25 then probed the same issue regarding Graduate Students' caring about DEI. Undergraduate Students and Alumni rated Graduate Students' caring about the issue less than did Graduate Students, Faculty, and Staff. While it was less as among the groups, just under 7% of the entire Participant group disagreed or strongly disagreed that Graduate Students care about DEI, and 63% agreed or strongly agreed that they cared.

Question 26 looked at the same issue as it relates to Faculty caring about DEI. While 61% agreed or strongly agreed that Faculty care about the issues, nearly 15% disagreed or strongly disagreed that Faculty care. The only differences found were Graduate Students and Alumni rated Faculty as caring lower than did Undergraduate Students, and Other Gender identity rated Faculty lower than did Men.

Question 27 asked about Staff's level of caring. 64% of the Participants indicated that the Staff cared about DEI, and only 8% indicated that they did not care about these issues. As to group differences, Other Gender identity found that Staff cared less than did Men, and Bisexual Participants found that Staff cared less than did Heterosexuals.

Finally, Question 28 asked about the level of concern the Participant had about DEI. 86% of Participants indicated that they strongly agreed or agreed that DEI was important to them, and only 5% disagreed or strongly disagreed that it was important. There were some group differences as set forth in Table 17

TABLE 17

	GROUP DIFFERENCES	F STATISTIC
Position	NS	
Gender identity	Men > Women; Other Gender identity > Women	F (2, 572) = 13.31, p < .001
Sexual identity	NS	
Race/Ethnicity identity	Other Race/Ethnicity > Caucasian/White	F (2, 573) = 5.33, p = .005
Immigration status	Other status > Non-Citizen	F (2, 573) = 5.48, p = .004

The differences reflect how strongly the Participants agreed that DEI was important to them. For example, in the Gender identity category, the mean score was 1.5 for Women and 1.9 for Men where 1 = strongly agree and 2 = agree.

When the Faculty were asked if they believed that the CSE leadership demonstrated that DEI was important (Question 161), more than 60% were satisfied or very satisfied with the leadership's demonstration, and about 17% indicated they were dissatisfied or very dissatisfied.

First-generation students ("First Gen students") self-identified. Question 29 inquired whether adequate support was given to First Gen students, and more than 50% neither agreed nor disagreed that enough support was given. The remainder of the responses were evenly split between agreeing that enough support was given and disagreeing. There were no marked differences among the groups.

2. Views on Future Steps to Take Relating to Diversity

The Towards the Future Survey questioned Participants regarding potential steps to take to increase DEI. Questions 50-55 tested how important it was to increase efforts to recruit and retain various groups in various Positions. The scoring scale indicated that a score of 1 meant it was more important and a score of 3 meant it was less important. So, the higher the score, the less important increased DEI effort was to the Participant.

In response to Question 50 regarding the importance of increasing efforts to recruit and retain Women in various Positions, more than 60% thought it was very important to recruit and retain Undergraduate Students, Graduate Students, Tenure Track Faculty and Lecturers. 50% indicated it was very important to recruit and retain Staff. There were some differences among the groups as set forth in Table 18. In Table 18, "greater than" means less important than the other, e.g., Men greater than Women means Men found it less important.

TABLE 18

Importance to Recruit & Retain Women as:	Undergraduate Students	Graduate Students	Tenure Track Faculty	Lecturers	Staff
Positions	NS	NS	NS	NS	Faculty > Undergraduate Student
Gender identity	NS	Men > Women	Men > Women	Men > Women	NS
Sexual identity	NS	NS	NS	Heterosexual > Bisexual	NS
Race/Ethnicity identity	NS	NS	NS	NS	NS
Immigration status	NS	NS	NS	NS	NS

Question 51 asked how important it was to increase efforts to recruit and retain African Americans. 70% of Participants thought it was very important to recruit and retain African American Undergraduate Students, 67% to recruit and retain African American Graduate Students, 65% African American Tenure Track Faculty, 63% African American Lecturers, and 59% African American Staff. The only differences between the groups were that Women thought recruiting and retaining African Americans was more important for each position than did Men.

Participants also indicated it was important to increase efforts to recruit and retain Latinx/Hispanic Americans in each of the Positions, with each Position having between 57% (Staff) and 69% (Undergraduate Student) of the Participants indicating it was very important. As with recruitment and retention of African Americans, Women found it more important than Men did to recruit and retain Latinx/Hispanic Americans. Asian/Asian Americans found it more important than did Caucasian/White for the Positions of Lecturers and Staff.

In response to Question 53, the number of Participants finding it very important to increase efforts to recruit and retain Asian Americans fell significantly. Only 31% - 37% of the Participants found it very important.

Question 53 inquired about the importance of increasing efforts to recruit and retain members of any other minority or underrepresented group. Again, as with all the other questions in this area, Women

consistently found it more important than did Men. However, as to each Position, between 55% and 64% of the Participants thought it was important to increase the efforts, and between 12% and 15% found it less important. When asked to identify which underrepresented group the Participants found it important to increase efforts, the overwhelming majority identified LGBTQ+. The next category identified most frequently was economically disadvantaged people.

Overall, the data suggest that Undergraduate Students, Graduate Students, Faculty, Staff, and Alumni all hold similar attitudes about the importance of hiring Women and members of minority groups. Generally, 80-90% of participants rated recruitment and retention of Women and members of minority groups into all types of positions as important or very important. Men tended to rate hiring Women and Racial/Ethnic minorities as lower in importance than did Women.

Question 55 set forth various suggestions to improve diversity and asked Participants to rate the suggestions as either very important, important, or less important. Table 19 shows the results for Question 55.

TABLE 19

	VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
Provide unconscious bias training to Students	39%	40%	21%
Provide unconscious bias training to Faculty	58%	30%	12%
Provide unconscious bias training to Staff	51%	33%	15%
Provide unconscious bias training to researchers	48%	34%	18%
Assess whether minimum GPA requirements unfairly disadvantage students	39%	34%	27%
Promote the use of teaching examples that emphasize diversity	40%	40%	20%
Seek out diverse role models as guest speakers	50%	35%	15%

Across the board on this Question, Women listed the solutions as more important than did Men. 50% or more of the Participants found it was important or very important to take these steps with the most important being to provide unconscious bias training to Faculty.

Question 61 asked Participants to rate various strategies to attract more Women students from a score of 1 being the least important to a score of 5 being the most important. The Participants responses by percentage are set forth in Table 20.

TABLE 20

	1 (LEAST IMPORTANT)	2	3	4	5 (MOST IMPORTANT)
Hire more women tenure track faculty	7%	4%	19%	35%	36%
Hire more women lecturers	7%	6%	22%	35%	31%
Establish more one-on-one mentoring	8%	11%	25%	31%	25%
Hire more women research faculty	8%	9%	29%	31%	24%
Additional training for Faculty on gender sensitivity issues	8%	11%	26%	25%	30%
Have more women in positions of power in CSE	7%	4%	20%	26%	43%
Have more women in positions of power at UM	8%	7%	20%	26%	389%
Highlight CSE women's achievements in marketing materials	9%	10%	30%	28%	23%
Highlight women with successful careers in computer science in marketing materials	11%	5%	26%	33%	25%
Have more women's affinity groups on campus	12%	12%	33%	24%	19%
Modify the qualifications for admission to graduate programs	31%	21%	23%	11%	12%
Modify the qualifications for admission to undergraduate programs	32%	21%	24%	13%	11%
Modify the qualifications for CSE major declaration	32%	23%	21%	14%	11%
Recruit from different places than currently	19%	15%	28%	18%	20%

Provide less of a competitive environment	17%	16%	21%	20%	26%
Better enforcement of anti-harassment policies	7%	5%	19%	24%	44%
Better enforcement of anti-discrimination policies	8%	7%	22%	23%	40%
Adopt more comprehensive and stricter anti-harassment policies	9%	9%	20%	23%	38%
Adopt more comprehensive and stricter anti-discrimination policies	10%	8%	22%	22%	37%

There is overwhelming consistency in Participants' level of endorsement of these strategies independent of their Position. Similarly, there is remarkable consistency across Sexual identities. On the other hand, there are numerous differences related to Gender identity. It should be noted that Women endorse all policies, except those related to changing requirements and in the noted areas in Table 21 and do so to a greater degree than do Men.

TABLE 21

	Position	Gender identity	Sexual identity	Race/Ethnicity
Hire more tenure track women	NS	Women > Men	NS	NS
Hire more women lecturers	NS	Women > Men, Other Gender identity	NS	Caucasian/White > Other Race/Ethnicity
Establish more one-to-one mentoring	NS	Women > Men	NS	NS
Hire more women researchers	NS	Women > men, Other Gender identity	NS	NS
Gender sensitivity training for faculty	NS	Women > Men, Other Gender identity	NS	NS
More women in positions of power at CSE	NS	Women > Men, Other Gender identity	NS	Caucasian/White > Other Race/Ethnicity
More women in positions of power at UM	NS	Women > Men, Other Gender identity	NS	NS
Highlight women's CSE achievement	NS	Women > Men, Other Gender identity	Heterosexual > Other Sexual identity	NS
Highlight women in computer field	NS	Women > Other Gender Identity	Heterosexual > Other Sexual identity	NS

Add women's affinity groups	NS	Women > Men	NS	NS
Modify grad school qualifications	NS	NS	NS	NS
Modify undergrad qualifications	NS	NS	NS	NS
Modify major	NS	NS	NS	NS
Recruit from new places	NS	Women > Men	NS	NS
Less competitive environment	Undergrad > Grad	Women > Men	NS	NS
Enforce harassment policies more	NS	NS	NS	NS
Enforce anti-discrimination policies more	NS	NS	NS	NS
Stricter harassment policies	NS	Women > Men	NS	NS
Stricter anti-discrimination policies	NS	Women > Men	NS	NS

In the Narrative responses to this question (Question 61), there was a wide range of opinions. Predominately, the comments suggested that ridding CSE of harassment and/or a culture that ignores harassment would help diversity efforts. Several Participants mentioned that couples should not be hired if one member of the couple is a superstar and the other is hired only to encourage the superstar to come to CSE. It was noted that it might be better to make it more competitive and difficult for students so that regardless of Gender, the best rise to the top.

In Question 62, Participants were asked about various strategies to attract more minority students with a rating of 1 being the least important and a rating of 5 being the most important. The responses by percentage as to each strategy are set forth in Table 22. Over 40% rated as most important the hiring of more minority tenure-track faculty, having more minorities in positions of power at CSE, and better enforcement of anti-harassment policies. Modifying any of the qualifications was rated below 15% as being the most important option and by 25% as being the least important option.

TABLE 22

	1 (LEAST IMPORTANT)	2	3	4	5 (MOST IMPORTANT)
Hire more minority tenure track faculty	7%	5%	17%	29%	42%
Hire more minority lecturers	7%	4%	20%	2%	37%
Establish more one-on-one mentoring	7%	8%	25%	32%	28%
Hire more minority research faculty	10%	8%	23%	28%	31%
Additional training for Faculty on minority bias issues	9%	7%	22%	27%	35%
Have more minorities in positions of power in CSE	8%	3%	22%	25%	41%
Have more minorities in positions of power at UM	10%	4%	24%	26%	37%
Highlight CSE minority achievements in marketing materials	10%	10%	28%	30%	23%
Highlight minorities with successful careers in computer science in marketing materials	10%	9%	28%	29%	25%
Have more minority affinity groups on campus	10%	12%	30%	28%	21%
Modify the qualifications for admission to graduate programs	26%	20%	26%	15%	13%
Modify the qualifications for admission to undergraduate programs	26%	20%	28%	13%	13%
Modify the qualifications for CSE major declaration	27%	23%	23%	14%	14%
Better enforcement of anti-harassment policies	10%	7%	21%	22%	40%

Better enforcement of anti-discrimination policies	9%	7%	20%	24%	40%
Adopt more comprehensive and strict anti-harassment policies	12%	9%	22%	20%	37%
Adopt more comprehensive and strict anti-discrimination policies	12%	9%	22%	20%	38%

The results show agreement among Position groups on strategies to increase minority representation among Students. Generally, people lean toward thinking the strategies are all important except for those strategies concerning the modification of standards for admission or the major. People tend to agree that these are less important strategies.

Women generally rate each of the strategies as more important than Men do, even the strategy to modify undergraduate admission requirements.

Only two differences emerged for the Race/ethnicity group. No differences emerged among the Immigration Status or Sexual identity groups on any of these variables. The differences are presented in Table 23.

TABLE 23

	Gender identity	Race/Ethnicity Identity
Hire more tenure track minority	women > men	Caucasian > Asian
Hire more minority lecturers	women > men	Caucasian > Another ethnicity
Establish more one-to-one mentoring	women > men	NS
Hire more minority researchers	women > men	NS
Minority sensitivity training for faculty	women > men, other gender	NS
More minorities in positions of power at CSE	women > men	NS
More minorities in positions of power at UM	women > men	NS
Highlight minorities' CSE achievement	NS	NS

Highlight minorities in computer field	NS	NS
Add minority affinity groups	women > men	NS
Modify graduate school qualifications	NS	NS
Modify undergraduate student qualifications	women > men	NS
Modify major qualifications	NS	NS
Enforce harassment policies more	women > men	NS
Enforce anti-discrimination policies more	women > men	NS
Stricter harassment policies	women > men	NS
Stricter anti-discrimination policies	women > men	NS

C. SEXUAL MISCONDUCT

The Towards the Future Survey asked numerous questions regarding Sexual Misconduct. Sexual Misconduct was defined as any kind of improper, non-consensual sexual touching of any nature whatsoever, including non-consensual sexual intercourse or forcible touching. It also includes sexual slurs; demeaning jokes; use of explicitly sexual pictures or videos whether delivered verbally in writing or electronically through emails, texts, or social media; and stalking or unwanted contact that makes an individual feel unsafe.

Regarding the prior publicized claims of Sexual Misconduct, 55% of the Participants disagreed or strongly disagreed that information about these claims was handled appropriately, and only 15% agreed or strongly agreed that the information was handled appropriately. There was little group difference in the responses to this question, but Graduate Students had a higher disapproval of how the information was handled than did Undergraduate Students, Staff, and Alumni. Women also disapproved more than Men.

When asked what information, other than confidential information, Participants would like to know in the future, the responses were varied. The most often repeated suggestion was that it should be known that an investigation is being conducted, the timeline for a decision, and the outcome of the investigation. There were numerous suggestions that the accused should be placed on leave until the investigation is concluded and the determination is made. The other suggestions that were repeated more than 5 times were: inform students what procedure is being followed; provide a timeframe for decision; decide more quickly; require administrators and faculty to report suspected improper

behavior; share actions taken to protect other students; inform as to where the misconduct occurred; survey to learn of issues and publicize survey results; provide more information on prevention; provide more resources on reporting; annually publicize the number of reports; publicize investigations and the general outcome of each investigation; make everything public; keep everything confidential and offer more help to the victims. The overall tone of the 280 Narrative responses was upset, angry, and displeased with the method or timing of the information provided.

In an effort to determine if there were ongoing boundary issues that did not yet rise to the level of harassment or Sexual Misconduct but could be early warning signs or signs of boundary confusion, the Participants were asked if Faculty had engaged in certain conduct or made certain requests. The responses are set forth in Table 24.

TABLE 24

	NEVER	1 - 3 TIMES	4 - 7 TIMES	MORE THAN 7 TIMES
Referred to you by pet names	97%	2%	1%	0%
Asked you questions about sexual preferences, history, or fantasies	99%	1%	0%	0%
Referred to you in a demeaning way	89%	8%	2%	0%
Asked you to perform personal errands	97%	1%	0%	1%
Led conversations on sexual topics	97%	2%	1%	0%
Requested you do work that is not credited or compensated	89%	7%	2%	3%
Disregarded professional obligations to you, such as a letter of recommendation	95%	5%	0%	0%
Engaged in disrespectful conversations with you regarding your personal beliefs or aspects of your identity	96%	2%	0%	1%
Expected work significantly above your level	76%	16%	5%	3%
Expected work significantly below your level	89%	8%	1%	1%

Students were asked the same series of questions regarding Staff, and the responses to each question were more than 91% in the Never category with most of the categories being 98% or above. "Expected to work significantly above your level" had the highest recorded incidents, but even that was 5 in the 1 to 3 times response.

Reviewing responses from all Students regarding whether they had experienced in the last 7 years any Sexual Misconduct from anyone at CSE, 7 Participants (3%) indicated that they had (“Survivors”) and 238 said they had not. While a low percentage, having any “yes” responses to this question is reason for concern. The Survivors identified the persons who had engaged in the Sexual Misconduct as 3 Undergraduate Students, 4 Graduate Students, 2 Faculty, and 1 work supervisor. Given these numbers, some of the Survivors identified more than one person with whom they had experienced Sexual Misconduct. 6 of the Survivors told a friend about the conduct, 2 told family, and 2 told Faculty. None of the Survivors reported to the police or to any other office or administrative person at CSE or UM. When asked why they did not report to CSE or UM, only 2 Survivors responded and indicated either that they felt the incident was too minor or that CSE and UM are not trustworthy.

In Question 80, all Students were asked if they believed that CSE would respond effectively to a report of hostile, harassing, or intimidating behavior at CSE. 51% of Students indicated they were not confident that the response would be effective while 26% indicated they were confident that the response would be effective. This low confidence level reveals a low likelihood that Students will report.

Question 81 tested if Students know where to report by asking how knowledgeable the Students are about certain campus offices. The responses regarding the campus offices are in Table 25.

TABLE 25

	VERY KNOWLEDGEABLE	KNOWLEDGEABLE	SOMEWHAT KNOWLEDGEABLE	NOT KNOWLEDGEABLE AT ALL
I know where to go in CSE to get help if I or someone else Experiences Sexual Misconduct	8%	25%	43%	24%
I know the formal procedures in CSE to report an incident of Sexual Misconduct	6.0%	17%	34%	43%

I know my UM rights if I experience Sexual Misconduct	8%	23%	35%	34%
I know my UM rights if I were accused of Committing Sexual Misconduct	7%	12%	28%	53%

These responses indicate a very real need for more education regarding how and where to report Sexual Misconduct.

In line with the response from all Participants, Students overwhelmingly indicated in response to Question 82 that they do not believe that CSE provides enough information regarding the outcome of Sexual Misconduct investigations. In fact, 51% disagreed or strongly disagreed that enough information regarding the outcomes of Sexual Misconduct investigations is provided, and only 24% agreed or strongly agreed that they are provided enough information.

When only Undergraduate Students were asked (Question 92) if they had experienced any of the conduct or behavior set forth in Table 24, nearly 99% in all categories indicated Never. The responses regarding Graduate Students are set forth in Table 26.

TABLE 26

	NEVER	1 TO 3 TIMES	4 TO 7 TIMES	MORE THAN 7 TIMES
Referred to you by pet names	99%	1%	0%	0%
Asked you questions about sexual preferences, history or fantasies	99%	1%	0%	0%
Referred to you in a demeaning way	99%	1%	1%	0%
Asked you to perform personal errands	99%	1%	0%	0%
Led conversations on sexual topics	99%	1%	0%	0%

Requested you do work that is not credited or compensated	99%	1%	0%	1%
Disregarded professional obligations to you, such as a letter of recommendation	99%	1%	0%	1%
Engaged in disrespectful conversations with you regarding your personal beliefs or aspects of your identity	99%	1%	0%	0%
Expected work significantly above your level	93%	7%	1%	1%
Expected work significantly below your level	97%	23%	0%	1%

The same set of questions as in Table 24 was posed to Students regarding research scientists, research fellows, and postdocs, and the response percentages were nearly identical to Graduate Students. In other words, very few, if any, had these experiences.

Graduate Students were asked the same series of questions regarding Faculty requests and behavior, and there was a small increase in the percentage of occurrences as set forth in Table 27.

TABLE 27

	NEVER	1 TO 3 TIMES	4 TO 7 TIMES	MORE THAN 7 TIMES
Referred to you by pet names	95%	3%	2%	0%
Asked you questions about sexual preferences, history or fantasies	98%	2%	0%	0%
Referred to you in a demeaning way	89%	7%	3%	2%
Asked you to perform personal errands	90%	7%	0%	3%
Led conversations on sexual topics	95%	2%	3%	0%
Requested you do work that is not credited or compensated	77%	13%	2%	8%

Disregarded professional obligations to you, such as a letter of recommendation	80%	17%	3%	0%
Engaged in disrespectful conversations with you regarding your personal beliefs or aspects of your identity	90%	5%	2%	3%
Expected work significantly above your level	70%	20%	7%	5%
Expected work significantly below your level	80%	15%	3%	2%

When the Graduate Students were asked the same set of questions with respect to research scientists, research fellows, and postdocs, virtually all the responses were Never.

When Alumni were asked if they experienced any Sexual Misconduct from anyone associated with CSE, 6 people indicated that they had: 3 with an Undergraduate Student, 1 with a Graduate Student, and 2 with Faculty. 3 Alumni indicated that they told no one, and 3 indicated that they had reported it to someone. The 3 who reported informed more than one person and, unlike the current Students, they did use CSE and UM resources as follows: 1 told the Title IX office, 2 told CSE Faculty, 2 told other UM Faculty, 1 told CSE Staff, 1 told the UM health services, and 1 told the human resources office. The 3 who did not report indicated that they did not think the incidents were serious enough to report, they were concerned about being believed, and they felt CSE and UM could not be trusted to do the right thing.

Two members of the Faculty and Staff responded that they had experienced Sexual Misconduct from a Faculty member. Both Participants indicated that they reported the Sexual Misconduct and did so to Faculty, Staff, and one to the human resources office. One reported experiencing worry, and one reported absence from work.

Faculty and Staff were asked in Question 158 how confident they were that CSE would respond effectively to hostile, harassing, or intimidating behavior at CSE, and 38% indicated they were either confident or very confident while 45% indicated they were only somewhat or not confident. Again, this confidence level needs to be raised in order to increase the likelihood that Sexual Misconduct is reported.

As with other groups, Alumni did not indicate a strong belief that CSE would respond effectively to hostile, harassing, or intimidating behavior. 49% responded that they were not confident or not at all confident that the response by CSE would be effective, and only 29% indicated they were confident or very confident that any response would be effective.

As with the Students, the response to Question 159 inquiring how knowledgeable Participants felt regarding various reporting structures, the responses indicated a need for further education. The responses are shown in Table 28.

TABLE 28

	VERY KNOWLEDGEABLE	KNOWLEDGEABLE	SOMEWHAT KNOWLEDGEABLE	NOT KNOWLEDGEABLE AT ALL
I know where to go in CSE to get help if Someone Experiences Sexual Misconduct	30%	34%	27%	9%
I know the formal procedures in CSE to report an incident of Sexual misconduct	17%	27%	45%	11%
I know my UM rights if I experience Sexual Misconduct	14%	22%	34%	30%
I know my UM rights if I were accused of Committing Sexual Misconduct	6%	15%	28%	51%

As with Students, and even more so, Faculty and Staff do not think that enough information regarding the outcome of investigations into Sexual Misconduct has been provided. 63% indicated that they disagree or strongly disagree that enough information has been provided while only 20% agree or strongly agree that there was enough information.

44% of Participants were satisfied or very satisfied with the educational opportunities to learn about Sexual Misconduct, and 25% were dissatisfied or very dissatisfied with the opportunities. Women were more dissatisfied than Men, and Bisexuals were more dissatisfied than Heterosexuals.

As has repeatedly been the case, there are few significant group differences with respect to the views on Sexual Misconduct. But, as has also been common, the differences that do emerge show that Men and Heterosexuals are generally more comfortable and satisfied at CSE than are Women and those with sexual identities other than Heterosexual. This theme is repeated in several of the following questions.

Generally, there is little difference in the Sexual Misconduct data. But the four differences that did emerge all indicate that Graduate Students are less comfortable with and confident about CSE's

handling of Sexual Misconduct and the overall climate. Overall, Students are generally at best unsure of the responses to Sexual Misconduct, which is illustrated by a score of around 3, which indicates a negative reaction/attitude as the mean score approaches 4.

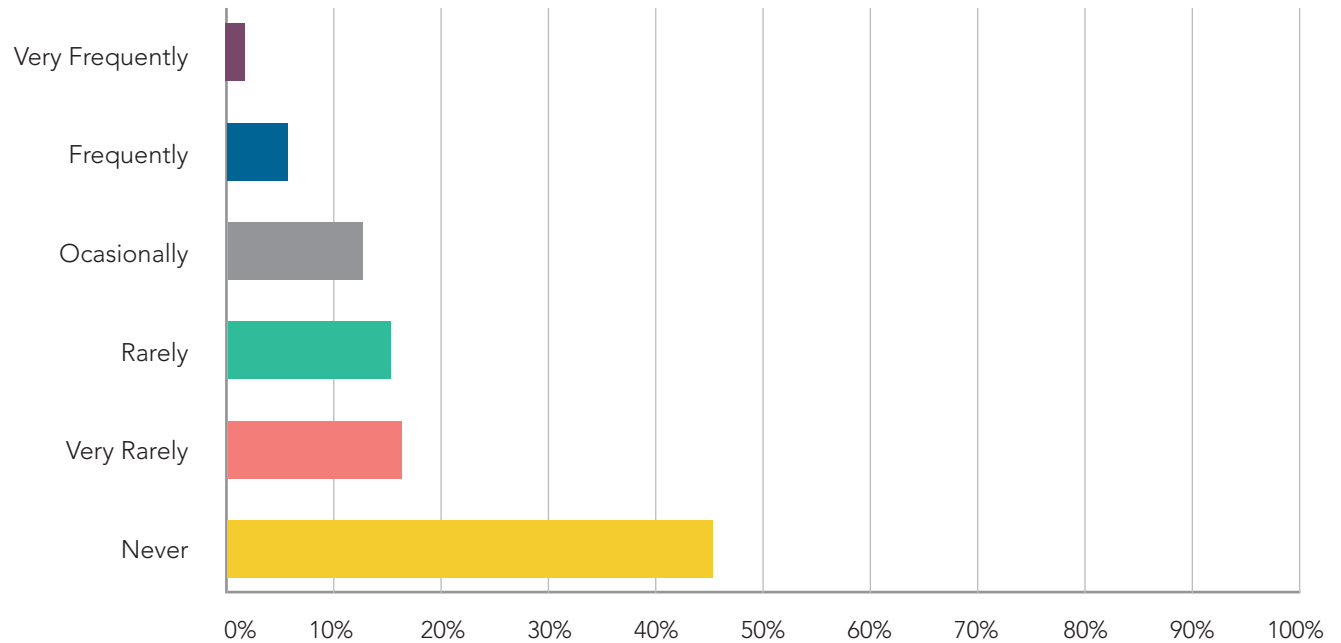
In an effort to determine what, if any, correlation there was between general discontent with overall climate and atmosphere and responses to Sexual Misconduct, Pearson correlations among 3 variables were analyzed: (1) satisfaction with CSE's climate (Question 3); (2) the appropriateness of CSE's response to recent claims about sexual misconduct (Question 46); and (3) confidence that CSE will respond appropriately to reports of Sexual Misconduct (Question 80). Pearson correlations can range from -1.00 to 0 to 1.00. If two variables change in the same direction (i.e., as the score on one increases the score on the other increases), then the correlation will be positive (as all correlations reported in Table 29 are). The asterisks in Table 29 indicate that the correlation is statistically significant at $p < .001$. Finally, the strength of the correlation may be interpreted as follows: around .10 is weak, about .30 is moderate, and anything .50 or greater is considered strong. These are all strong, positive relationships. So, people who report a lack of confidence in CSE's ability to handle Sexual Misconduct claims also report dissatisfaction with how recent claims have been handled as well as less comfort with the overall environment. Similarly, those reporting dissatisfaction with how recent claims were processed also were less satisfied with the overall climate.

TABLE 29

	Question 3	Question 46	Question 80
Question 3 General Climate Satisfaction	1.00	.59***	.61***
Question 46 Handled Prior Claims Properly		1.00	.68***
Question 80 Would Handle Future Claim Properly			1.00

D. DISCRIMINATION

All Participants were asked how frequently they personally experienced discrimination of any kind at CSE. The responses are set forth in Table 30.

TABLE 30

More specifically, in Question 35 all Participants were asked if during the last seven years they had experienced certain adverse impacts because of their gender identity, sexual identity, sexual orientation, race/ethnicity, pregnancy, marital status, nationality, disability, religion, age, or veteran status. They were asked to select all that applied. The responses are set forth in Table 31.

TABLE 31

	NEVER	1 TO 3 TIMES	4 TO 7 TIMES	MORE THAN 7 TIMES
Denial of a promotion, assignment, or project	93%	6%	0%	0%
Denial of services	94%	6%	0%	0%
Unfair grading	90%	9%	1%	1%
Derogatory remarks	71%	20%	6%	4%
Derogatory gestures	89%	9%	1%	1%
Threats	97%	2%	0%	1%

Pressure to be silent about your sexual orientation	94%	3%	1%	2%
Pressure to be silent about your gender identity	96%	3%	1%	1%
Bullying	89%	8%	1%	2%
Physical violence	99%	1%	0%	0%
Been singled out	77%	16%	3%	4%

224 Participants answered Question 37, which asked Participants to identify the basis of any discrimination they had experienced, and they could select more than one category. 25% indicated that the discrimination they experienced was based on Gender identity, and 15% indicated it was based on Race/Ethnicity identity. Categories with 4% or more responses were: Sexual identity, Nationality, age, socioeconomic background, and Immigration status. In the listing of other categories, there were at least 5 comments indicating the discrimination was based on political views.

The Participants who experienced discrimination were asked in Question 38 to describe the person(s) who engaged in the discrimination and to select all categories that applied. The overwhelming majority indicated that the person engaging in the discriminatory conduct was either an Undergraduate Student or Faculty. The responses by percentage are set forth in Table 32.

TABLE 32

ANSWER CHOICES	
Undergraduate Student	58%
Graduate Student	15%
Faculty	41%
Staff	20%
Non-CSE staff	4%
Research scientist, research fellow, or postdoc in CSE	3%

Supervisor or employer in CSE	6%
Co-worker in CSE	4%
Do not know the association with CSE or UM	8%
Not associated with CSE but associated with UM	4%

Of those experiencing discrimination, only 8% of them, or 19 people, reported their experiences to anyone in authority at UM or CSE. Of those reporting, only 5% were satisfied with the response while 20% were dissatisfied and 35% were very dissatisfied. This level of dissatisfaction is a major issue and is also something which must be addressed if the desire is to increase reporting.

All Participants were asked where they would go at UM and/or CSE for information or help if they were to experience discrimination. Response percentages are set forth in Table 33.

TABLE 33

	I WOULD GO FOR INFORMATION	I WOULD GO FOR HELP
UM Title IX webpage	98%	12%
UM Title IX Coordinator	64%	54%
UM campus counselor	50%	74%
UM campus health services	51%	72%
UM campus security	43%	71%
CSE Staff member	63%	64%
CSE Faculty member	59%	73%
UM (Non-CSE) Faculty member	70%	57%
UM (Non-CSE) Staff member	74%	47%

My Supervisor at work	65%	66%
The Chair of my Department	66%	60%
Dean's Office	60%	62%
Human Resources Department	66%	56%
Michigan Engineering CARE Center or Office of Student Support & Accountability	66%	63%
CSE Diversity Committee Chair	72%	60%
Other	70%	57%

41% of Participants were satisfied or very satisfied with the opportunities offered to learn about discrimination or civil rights, and 24% were not satisfied with those opportunities.

To determine what impact experiences of discrimination had on overall responses regarding culture and atmosphere, several statistical tests were performed to see if there was a correlation between experiencing discrimination and overall dissatisfaction. Question 37 asked Participants to check as many bases of discrimination as they experienced at CSE. Most of the categories were not checked frequently enough to analyze. About 300 people reported that they had never experienced discrimination. A bilevel variable was created for the group that checked the option they had not experienced discrimination and the other group that did not check that option.

The Chi-Square test analyzes the level of association between the demographic characteristic and the experience variable. Cramer's V tests the strength of the association. A value of less than .2 is considered weak (although it may still be statistically significant), .2 to .6 is considered moderate, and greater than .6 is interpreted as strong.

	Woman	Man	Other Gender identity
I have not experienced discrimination at CSE	82	209	9
Choice not checked	154	142	37
Total	236	351	48

Chi Square (2) = 50.22, $p < .001$. Cramer's V = .28, $p < .001$.

This is a moderately strong association. A smaller percentage of Women and people identifying as Other Gender checked the “I have not experienced discrimination” box.

	Bisexual identity	Heterosexual identity	Other sexuality identity
I have not experienced discrimination at CSE	8	250	41
Choice not checked	31	230	72
Total	40	480	113

Chi square (2) = 19.77, $p < .001$, Cramer's V = .18, $p < .001$.

While most people identifying as Heterosexual said they had never experienced discrimination, a substantial majority of people identifying as Bisexual or Other Gender did not check that box, which suggests that they have experienced discrimination.

	Asian/Asian American	Caucasian/White	Other Ethnic Identity
I have not experienced discrimination at CSE	132	134	34
Choice not checked	116	145	71
Total	248	279	105

Chi square (2) = 12.92, $p = .002$, Cramer's V = .14, $p = .002$.

As has been the case throughout this Report, people identifying as Asian/Asian American are least likely to have indicated any concern or problems with discrimination.

These results are consistent with other areas indicating that Men, people identifying as Heterosexual, and people identifying as Asian/Asian American are more satisfied and comfortable at CSE. These three groups are also less likely to report that they have ever experienced any incident of discrimination at CSE. Indeed, most of the Participants in each of these groups indicated that they had never experienced any form of discrimination.

A T-test was also used to examine whether there is a significant difference between the scores on Question 3 regarding general culture and atmosphere for people who checked that they had experienced discrimination at CSE versus those who did not check that they had experienced discrimination.

HAVE YOU EXPERIENCED DISCRIMINATION? (QUESTION 37)

	No	Not Checked
Question 3 Mean	2.68	3.12

$t(768) = 5.38, p < .001.$

Similarly, people who reported they had experienced discrimination reported greater discomfort with CSE's overall climate.

But who reports more experience of discrimination? To examine that, an analysis was done looking at the two variables in Question 36 that had enough variability: derogatory remarks and being singled out. The clearest answer to the question of who experiences derogatory remarks and being singled out is Women or people who identify as Other Gender.

QUESTION 36 DEROGATORY REMARKS

	Woman	Man	Other Gender Identity
Never	116	263	17
1-3 Times	63	35	9
4-7 Times	27	4	2
More than 7 Times	11	4	5
Total	217	306	33

Chi Square (6) = 86.87, $p < .001$, Cramer's V = .39

While 86% of Men say they have never experienced derogatory remarks, only 53% of Women and 51% of people identifying as Other Gender chose never.

QUESTION 36 SINGLED OUT

	Woman	Man	Other Gender Identity
Never	136	271	19
1-3 Times	56	26	8
4-7 Times	12	3	1

More than 7 Times	13	3	7
Total	217	303	34

Chi Square (6) = 78.97, $p < .001$, Cramer's V = .38

Again, women (63%) and people identifying as Other Gender (56%) are less likely to report never having been singled out in a situation than are Men (89%).

In another analyses, the "derogatory remarks" variable was combined into two levels: "Never" and "At least once". Independent group T-tests were performed on the difference between the mean of the two groups (Never vs. At least once) for each of the three questions.

Question	Never	At least once	T	p
3 General Climate Satisfaction	2.75	3.51	t (555) = 7.52	<.001
80 Would Handle Future Claims Properly	3.28	4.06	t (234) = 4.26	<.001
46 Handled Past Claims Properly	3.36	4.02	t (528) = 5.77	<.001

The results indicate that people who reported having experienced derogatory questions at least once scored higher on each question. The higher score means they were more dissatisfied with CSE's overall climate and how CSE handled recent sexual misconduct complaints. They are also less confident that CSE will handle future reports of sexual misconduct well.

For the next analysis, the "singled out" variable was combined into two levels: "Never" and "At least once." The analysis was the same as that described for the "derogatory comments" variable.

Question	Never	At least once	t	p
3 General Climate Satisfaction	2.79	3.54	t (553) = 6.86	<.001
80 Would Handle Future Claims Properly	3.32	4.19	t (234) = 4.31	<.001
46 Handled Prior Claims Properly	3.35	4.22	t (527) = 7.11	<.001

The results of the three T-tests are the same as for the derogatory comments variable. People who reported having been “singled out” at least once had higher scores on each of the three questions.

A summary of the Narrative responses using the actual language of the responses that are applicable to this category is attached hereto as Exhibit 3.

E. ACADEMICS AND FACULTY

Numerous questions probed Participants’ views of the educational experience at CSE, including interactions with Faculty. Some of the questions were divided by Position and some were to all Participants. All questions about academics and instruction are discussed in this section of the Report.

The first question posed was to all Participants (Question 6) and asked how satisfied the Participant was with the attention that Faculty give Students, with a rating of 1 indicating very satisfied and a rating of 5 indicating very dissatisfied. 53% indicated that they were satisfied or very satisfied, and 36% indicated they were dissatisfied or very dissatisfied. The different Positions did not have significant differences in their ratings on this question, but Other Gender identity was more dissatisfied than Men, and Bisexual identity was more dissatisfied than Heterosexual identity.

All Participants were asked (Question 7) if they agreed that Faculty communicate well with Students outside of the classroom, with 1 indicating strongly agree and 5 indicating strongly disagree. 49% agreed or strongly agreed that the Faculty communicate well outside of the classroom while 21% disagreed or strongly disagreed. Again, Other Gender identity disagreed more than did Men. Caucasian/White and Other Race/Ethnicity identity disagreed more with the statement than did Asian/Asian Americans. There were no other significant differences in the responses among the groups.

Some of the characteristics asked about in Question 8 (results summarized above in Table 8) are relevant to this inquiry as well as to general climate, e.g., the ratings describing CSE as competitive, supportive, hostile, and collegial. In Questions 6, 7, and 8, there was consistency in the relative dissatisfaction with Faculty support of people who identify as Other Gender identity.

Question 56 asked the Participants to rate various curriculum improvement suggestions from 1 being very important to 3 being less important. The two rated by the most Participants as very important were to place teaching-focused Faculty in core courses (60% rated very important) and increase Student access to instructional Faculty (59% rated very important). Table 34 shows the breakdown of responses by percentage.

TABLE 34

	VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
Place teaching-focused faculty in core courses	60%	32%	8%
Reduce workload for undergraduate students	32%	34%	34%
Reduce workload for graduate students	23%	37%	40%
Reduce class size	36%	36%	28%
Develop effective waiting lists for classes	54%	33%	12%
Increase student access to instructional faculty	60%	33%	7%
Offer more preparatory instruction before core courses	29%	38%	33%
Offer more resources to non-CSE majors	26%	34%	40%
For each course, provide recorded walkthroughs of basic information and concepts that can be reviewed by students at any time	47%	37%	16%
Restructure graduate student program to allow more flexibility in concentrations	29%	47%	24%

Undergraduate Students placed more importance on reducing workloads, more effective class waiting lists, and more recorded walkthroughs. Where any differences between the groups related to a suggestion emerged, these differences are shown below in Table 35, and the suggestions with no differences are not shown.

TABLE 35

	Position	Gender identity	Sexual identity	Race/Ethnicity identity	Immigration Status
Teaching focused faculty in core courses	Graduate Students, Faculty > Alumni	NS	NS	NS	Other status > U.S. Citizen
Reduce undergrad workload	Graduate Students, Alumni > Undergraduate Students	Men > Women	NS	NS	NS
Effective waiting list for classes	Graduate Students > Undergraduate Students, Alumni	NS	NS	NS	NS
Offer more prep before core courses	NS	Men > Women	NS	NS	NS
Recorded walk-throughs for all classes	Faculty > Undergraduate Students	NS	NS	NS	NS
Restructure grad programs for greater flexibility in concentrations	NS	NS	NS	Caucasian/ White > Asian/ Asian American	NS

Regarding communications, Question 57 asked Participants to rate intra/inter student/faculty/staff communication suggestions from 1 being very important to 3 being less important. The suggestions most of the Participants found to be very important (from 60% to 69%) was for CSE to clearly and quickly respond to issues and that CSE should explain the decision process and timing as to any issues. The percentage responses are set forth in Table 36.

TABLE 36

	VERY IMPORTANT	IMPORTANT	LESS IMPORTANT
Communicate response to issues in CSE clearly as they arise	69%	29%	2%
Communicate responses to issues in CSE quickly	62%	34%	4%

As to any issues in CSE, explain the process for decision making	66%	31%	3%
As to any issues in CSE, explain the anticipated timing for decision making	60%	33%	7%
Develop additional methods for students to report an issue	48%	38%	13%
Develop additional methods for staff to report an issue	44%	41%	16%
Develop additional methods for faculty to report an issue	42%	42%	16%
Post information in all common areas on how to report an issue	45%	37%	17%
Develop more opportunities for students to review faculty and provide feedback	47%	39%	14%
Mandate that faculty offer a minimum number of office hours that are more than currently offered	28%	36%	36%
Develop a forum where anonymous student questions are answered by faculty	41%	36%	23%
Develop a forum where anonymous student questions are answered by staff	33%	37%	30%
Publicize guidelines for protection and support during advisor conflicts or changes	50%	38%	11%
Provide faculty support on how to establish and hold effective office hours	44%	39%	17%

Establish a mechanism for student input in faculty hiring	41%	37%	21%
Hire a dedicated staff member as an advocate for students	45%	34%	21%

Not surprisingly, Faculty responses indicated that they place less emphasis on having a Student advocate, involving Students in Faculty hiring, providing more chances for Students to review Faculty, and mandating a higher number of office hours than they currently hold. Where there were differences between the groups related to a suggestion, those differences are shown below in Table 37, and those suggestions with no differences are not shown.

TABLE 37

	Position	Gender Identity	Sexual Identity	Race/ Ethnicity identity	Immigration Status
More opportunities for Students to review Faculty	Undergraduate Students, Faculty > Graduate Students	NS	NS	NS	NS
Mandate more office hours for Faculty	Faculty > Undergraduate Students, Alumni	Men > Women	NS	NS	NS
Forum for Faculty to answer anonymous Student questions	NS	NS	NS	NS	Other status > Citizen, Non-citizen
Forum for Staff to answer anonymous Student questions	NS	NS	NS	NS	US Citizens > Non-citizen; Other status > US Citizen, Non-citizen
Publicize guidelines for support during advisor conflicts or changes	Undergraduate Students > Graduate Students	NS	NS	NS	NS
Student input into Faculty hiring	Undergraduate Students, Faculty > Graduate Students	Men > Women	NS	NS	NS
Hire Staff member as Student advocate	Faculty > Undergraduate Students, Graduate Students, Alumni	NS	NS	NS	NS

Students alone were asked in Question 66 if Faculty members treated them with respect when they asked a question, and the potential responses could range from 1 being always to 5 being never. The responses were heavily skewed towards always and most of the time (85%). Only 1 person rated it as rarely and no one chose never. People identifying as Other Gender expressed less positive feeling than did those identifying as Men. The remaining groups had no significant differences in their ratings.

Undergraduate Students were asked in Question 88 to select actions they believed would have made them more successful in their core courses, and they were permitted to select as many actions as applied. In Question 89, Undergraduate Students were asked the same question regarding other 200-, 300-, or 400-level EECS courses. The responses to Questions 88 and 89 are presented by percentage in Table 38.

TABLE 38

ANSWER CHOICES	Core Courses	Other Courses
Greater preparation before enrolling in the course	44%	15%
Dedicating more time to study and project completion	62%	22%
Joining a study group	49%	8%
Greater access to instructional assistants, supplemental instruction, or other instructional aids	62%	22%
Greater access to the instructor	45%	8%
Better treatment by classmates	11%	1%
Better treatment by course staff	16%	3%
More opportunities to gather with classmates outside of class	46%	8%
Did not take		12.50%

Undergraduate Students were asked if there were any other suggestions as to what would have made them more successful in the courses. The most selected answers included less cheating by others, more time for assignments, less emphasis on “weeding out” students, and having Faculty who care about teaching the courses.

A relatively high number (44%) of Undergraduate Students indicated that they had requested to withdraw, to have an incomplete, or to have a pass/fail grade in an EECS course.

In a list of how good or poor the Undergraduate Students experiences were with various interactions, the vast majority (upwards of 50 – 60%) of the responses were positive, but some of the negatives were substantial and are repeated in other questions. The highest positive response was to Undergraduate Students' interest in computer science, with 39% of Participants indicating their interest was very good and 52% indicating it was good. The responses to Question 91 are summarized in Table 39.

TABLE 39

	VERY GOOD	GOOD	NEITHER GOOD NOR POOR	POOR	VERY POOR
Your level of interest in or engagement with computer science	39%	52%	7%	2%	0%
Your preparation for core classes: EECS 203, 280, and/or 281	18%	48%	23%	9%	2%
Your preparation for upper-level classes: EECS 300- and 400-level	18%	40%	35%	6%	1%
Instructional faculty presenting what is expected of you in your courses, e.g., assignment directions,	22%	50%	21%	4%	3%
Your understanding of where to go when you need help in any of your courses	27%	46%	18%	7%	1%
The quality of instruction in core classes: EECS 203, 280, and/or 281	27%	48%	19%	6%	0%
The quality of instruction in upper-level classes: EECS 300- and 400-level	18%	36%	41%	4%	1%
The amount of interaction you have with your Instructors	6%	26%	30%	29%	9%
The amount of interaction you have with instructional assistants or tutors	13%	39%	26%	17%	5%

The amount of interaction you have with fellow students to discuss or collaborate on coursework	16%	31%	31%	17%	4%
Your instructors' ability to diagnose your learning needs	6%	21%	38%	23%	12%
Your instructional assistants' ability to diagnose your learning needs	7%	30%	40%	18%	5%
Your access to instructors or instructional assistants about questions	11%	40%	26%	20%	3%
The degree to which your questions about class work are fully and clearly answered	13%	43%	26%	15%	3%
In general, your opportunities to interact socially with other students outside of classes	12%	23%	28%	26%	12%
Undergraduate advising and assistance with declaring a major, selecting courses, and program completion	18%	34%	28%	13%	7%
CSE's responsiveness to Students' concerns or complaints	5%	26%	38%	16%	13%

Where Graduate Students were asked about their experiences, there was too small a sample to find any statistically significant differences among the various groups. 65% of Graduate Students indicated that they had a mentor(s) at CSE, and in every case, the mentor was a Faculty member. A majority (84%) of Graduate Students with mentors indicated that they were satisfied or very satisfied with their mentor.

As to satisfaction with their classroom experience, 67% of Graduate Students indicated they were satisfied or very satisfied while only 6% indicated they were dissatisfied or very dissatisfied.

Satisfaction of Graduate Students with their research group experience is a bit lower, with 24% saying they were dissatisfied or very dissatisfied, but a majority (57%) indicating they were satisfied or very satisfied. One of the Narrative responses expressed concern about not being given proper credit for ideas and ideas being credited to others; hence, the low rating.

79% of Graduate Students receive their academic advising from a Research Advisor and 12% from the Graduate Advising Office with the remainder from the Program Guide. The Graduate Students are mostly satisfied or very satisfied (68%) with the academic advising they are receiving, with 27%

indicating that they are dissatisfied or very dissatisfied. In the Narrative responses regarding academic advising, there were several comments that the advisors themselves were not very well informed.

As to satisfaction with research advising, 68% of Graduate Students responded that they were satisfied or very satisfied, with 19% responding that they were dissatisfied or very dissatisfied. The Narrative responses ranged from glowing commentary to comments that the research advising is terrible. Most comments fell between these extremes. Satisfaction with research advising is clearly not a uniformly held opinion.

80% of Graduate Students responded that they were given adequate support for their teaching, and no one responded that they strongly disagreed. 6% disagreed that they were given adequate support. When asked if they were given adequate time for teaching, 76% responded that they were and 16% responded that they were not, with the remainder neither agreeing nor disagreeing.

Question 109 asked Graduate Students to respond how strongly they agreed or disagreed with various statements regarding their experience at CSE. The responses were overwhelmingly more positive than negative, but there were many areas where more than 10% of Participants indicated that they had a negative experience. These negative responses are at a level that they should not be ignored. Table 40 demonstrates the responses.

TABLE 40

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
I feel I was prepared to begin graduate study in CSE	27%	41%	19%	13%	0%
I receive clear and consistent academic advising	14%	44%	27%	11%	3%
I feel valued and respected by my instructors	24%	54%	19%	3%	0%
I feel comfortable asking questions	22%	59%	11%	6%	2%
I know where to go if I need academic support	16%	52%	21%	10%	2%
I know what is expected of me in my classes or labs	14%	70%	8%	8%	0%
My workload and project deadlines are reasonable	10%	56%	27%	5%	3%

I feel part of a larger CSE community	8%	40%	22%	21%	10%
I feel comfortable with my research group	25%	42%	22%	8%	2%
I know what is expected of me in my research group	20%	54%	10%	10%	5%
I feel valued and respected by others in my research group	27%	53%	15%	3%	2%
I feel valued and respected by the leaders of my research group	27%	46%	17%	5%	5%

Graduate Students indicated overall satisfaction with how they were assigned to a lab or research team, with 71% responding that they were satisfied or very satisfied and 11% indicating they were dissatisfied or very dissatisfied. Graduate Students likewise responded that they are satisfied or very satisfied (72%) with the support they are given by their research group and the time they are given for research (69%).

Alumni strongly indicated (74%) that they would rate their preparation for the job market as good or excellent with 24% having the opposite view and rating their preparation as fair or poor. Similarly, 65% of Alumni rated their preparation for further academic study as good or excellent, and 18% rated it as fair or poor.

Alumni were asked to rate their experience as to various issues from very good to very poor. The response percentages are set forth in Table 41.

TABLE 41

	VERY GOOD	GOOD	NEITHER GOOD NOR POOR	POOR	VERY POOR	NOT APPLICABLE
Your level of interest in or engagement with computer science	41%	52%	4%	2%	1%	0%
Instructional faculty presenting what is expected of you in your courses, e.g., assignment directions, deadlines, amount of study time, etc.	19%	58%	13%	6%	4%	0%

Your understanding of where to go when you needed help in any of your courses	23%	46%	17%	12%	2%	2%
The amount of interaction you had with your instructors	7%	30%	27%	27%	7%	2%
The amount of interaction you had with instructional assistants or tutors	15%	47%	22%	8%	4%	3%
The amount of interaction you had with fellow students to discuss or collaborate on coursework	17%	49%	17%	15%	2%	1%
Your instructors' ability to diagnose your learning needs	47%	21%	30%	27%	10%	9%
Your access to instructors or instructional assistants about questions	10%	47%	22%	16%	3%	2%
The degree to which your questions about classwork were fully and clearly answered	9%	57%	18%	12%	3%	2%
In general, your opportunities to interact socially with other students outside of classes	7%	36%	29%	17%	8%	3%
Advising assistance	7%	25%	19%	23%	21%	5%
CSE's responsiveness to students' concerns or complaints	1%	21%	27%	13%	26%	12%
The degree to which your questions were fully answered in your research group	3%	18%	9%	4%	3%	64%
The amount of interaction you had with leaders in your research group	3%	19%	8%	3%	4%	64%
Your research group leaders' ability to diagnose your learning needs	2%	14%	13%	4%	3%	63%
Your understanding of where to go when you needed help in any of your research groups	3%	15%	10%	4%	4%	64%

Some important information contained in these responses include rating of responsiveness to Student concerns or complaints as very poor by nearly 26% of Alumni, rating of advising assistance as very poor by 21% of Alumni, and rating areas directly related to learning or help with coursework as good or very good by more than 50% of the Alumni.

VII. RESPONSES TO PROGRAMS

This section addresses Participants' answers to questions about their experiences of CSE programs or other efforts to address issues concerning Sexual Misconduct, Diversity, Discrimination, and Overall Climate.

CSE has held many programs, dialogues, and discussions to address concerns raised by the Sexual Misconduct complaints, which had public attention, and start improving the culture and atmosphere at CSE. It has been obvious that trust needs to be rebuilt. The Survey asked numerous questions to learn who had attended the various activities and programs and what impact, if any, they were having. The reactions to these past efforts were reviewed in order to help shape future actions.

Question 42 asked all Participants to identify any programs related to Sexual Misconduct that they had attended. The results are set forth in Table 42.

TABLE 42

ANSWER CHOICES	
Not applicable	15%
Attended a formal training by UM staff	25%
Attended a program not a formal training	10%
Attended a rally	1%
Saw posters around CSE or UM about prevention	26%
Saw posters around CSE or UM about reporting	26%
Saw or heard CSE staff or faculty discuss prevention or reporting	29%
Read a report about CSE or UM prevention or reporting	34%
Attended a discussion group	12%

Attended a Town Hall in which these subjects were discussed	20%
Viewed a CSE or UM web site for information	31%
Read or heard about it in a student publication or media outlet	47%
Did not attend or engage in any of the above	12%

Interestingly, the most reported activity (nearly 47% of Participants) indicated they had read about issues in a student publication or a media outlet. Despite all the programming held by CSE, most people did not attend or get information from these programs.

The same question was asked about programs related to discrimination or civil rights. Responses revealed that less than 20% of Participants had attended or participated. The exceptions were hearing the Faculty or Staff discuss reporting (20%), attending a training (23%), and reading or hearing about it in a student publication (30%).

Participants were also asked to identify any activities in which they had participated or would be interested that were designed to improve culture. Table 43 shows the responses by program.

TABLE 43

	PARTICIPATED	WAS INTERESTED BUT COULD NOT PARTICIPATE	WAS NOT INTERESTED	DID NOT KNOW ABOUT
Climate and Diversity Town Hall	20%	25%	30%	24%
Climate Activities Survey	38%	10%	21%	31%
Effective Office Hours Working Group	5%	8%	19%	68%
Overwork & Mental Health Working Group	2%	12%	19%	66%
Inclusive Environment Working Group	3%	11%	18%	69%
Gathering to Address Issues Related to Black Lives Matter Protests	10%	21%	21%	48%
Juneteenth Celebration	8%	19%	28%	45%

One-on-one Check-in Meeting for Graduate Students	12%	7%	20%	61%
Inclusive Teaching Training	15%	8%	2%	57%
Respond to Climate Questions on Course Surveys	31%	6%	17%	45%
Anonymous Drop Box	6%	8%	26%	60%
Diversity-Focused Speakers Series	6%	9%	21%	65%
Computing CARES Program	22%	15%	29%	34%
CS KickStart Program	4%	13%	24%	58%
EECS 198: Discover Computer Science Course	1%	11%	31%	57%
Explore Computer Science Research Program	5%	10%	21%	63%
Explore Computer Science Graduate Studies	5%	9%	24%	62%
Girls Encoded Program	4%	12%	27%	58%
Graduate Fellowship Workshops	5%	9%	23%	64%
Women in Computing	4%	16%	31%	50%
OnBoarding Buddies	3%	5%	20%	71%
MEECS	1%	6%	21%	72%

The rate of responses indicating that the program was not known should be an important takeaway from this series of questions. Obviously, the various programs cannot be successful if they are not attended, and the attendance will not improve if people are not aware of the programs. Whatever efforts are being made to advertise and inform people about these programs are not enough and need to be improved. These responses also show a high level of disinterest in participation. This disinterest could be for numerous reasons, including that the programs are not of interest, people do not consider the problem one that warrants an investment of time, or people believe that the program will not be successful. Determining what is the root of the disinterest would be helpful in planning next steps.

Those attending the programs were asked to rate them. Overall, the ratings were low, and the Participants reported the programs having low to no impact. Each program should be evaluated given the responses set forth in Table 44.

TABLE 44

	1 (THE PROGRAM HAD NO IMPACT OR WAS NEGATIVE)	2	3	4	5 (THE PROGRAM WAS POSITIVE AND HELPFUL)
Climate and Diversity Town Hall	25%	11%	32%	22%	10%
Climate Activities Survey	26%	14%	37%	16%	6%
Effective Office Hours Working Group	36%	5%	37%	12%	10%
Overwork & Mental Health Working Group	37%	7%	43%	7%	7%
Inclusive Environment Working Group	42%	7%	42%	4%	4%
Gathering to Address Issues Related to Black Lives Matter Protests Black Lives Matter Protests, Racism	35%	4%	36%	17%	8%
Juneteenth Celebration	33%	4%	39%	13%	12%
One-on-one Check in Meeting for Graduate Students	36%	14%	32%	12%	6%
Inclusive Teaching Training	31%	6%	36%	16%	11%
Respond to Climate Questions on Course Surveys	33%	11%	37%	13%	6%
Anonymous Drop Box or Email to Raise Climate Issues	36%	7%	36%	7%	13%
Diversity Focused Rackham Faculty Allies Speakers Series	35%	1%	40%	11%	13%
Computing CARES Program	23%	9%	34%	22%	12%
CS KickStart Program	36%	2%	41%	9%	12%
Discovery Computer Science Course	37%	4%	46%	11%	3%
Explore Computer Science Research Program	32%	3%	44%	9%	12%
Girls Encoded Program	32%	5%	41%	14%	9%

Graduate Fellowship Workshops	36%	5%	42%	11%	7%
Women in Computing	36%	3%	38%	18%	6%
OnBoarding Buddies	41%	3%	41%	13%	4%
MEECS	42%	5%	41%	8%	4%
ECSEL+	33%	3%	37%	11%	15%
Other student or community group (such as GEECS, SWE, HKN, KTP, etc.)	18%	5%	23%	19%	34%
Gathering on anti-Asian Racism	39%	6%	38%	13%	5%
Climate and DEI Speaker Series	31%	5%	39%	17%	9%

Students were asked about possible future programs and to respond whether they would participate in them in the future. The responses are in Table 45. One-on-one mentorship and increased office hours by Faculty were the activities in which Students indicated the most interest. Group tutoring in introductory classes and affinity groups had the least interest. It is not surprising given the make-up of the Student Participants that affinity groups held little interest. As among the diverse Students and Women, affinity groups had more interest.

TABLE 45

PROGRAM	YES	NO	MAYBE
One-on-one mentorship program	50%	18%	32%
Group mentorship program	31%	33%	36%
Affinity group	20%	43%	37%
Organized study group	34%	34%	31%
Increased office hours by faculty	58%	17%	25%
Group tutoring on introductory classes	30%	42%	28%
Anti-bias training	28%	36%	36%

Speaker series on discrimination and/or harassment	21%	36%	43%
Training regarding how to spot and report discrimination and/or harassment	28%	33%	39%
Development of a Code of Conduct for students	25%	39%	36%
Unconscious bias training	34%	31%	36%
Student chat platforms	38%	26%	36%

VIII. ADDITIONAL RESPONSES BY GROUP

A. COMBINED FACULTY & STAFF

A section of the Towards the Future Survey posed questions only to Faculty and Staff. The first such question inquired if Participants agreed that they could influence, contribute to, or participate in decisions made by CSE. 47% reported that they agreed or strongly agreed with the statement, and 35% disagreed or strongly disagreed. The remainder neither agreed nor disagreed. So, as with many other areas, there is a significant divergence of views.

There was more agreement on the satisfaction Staff and Faculty had about receiving feedback on their job performance. 56% of Staff and Faculty reported being satisfied or very satisfied with feedback, and only 16% indicated they were dissatisfied or very dissatisfied. The remainder was neither satisfied nor dissatisfied. With about the same level of difference, the Faculty and Staff indicated they were satisfied or very satisfied with understanding what they needed to succeed at CSE, and 11% indicated they were dissatisfied or very dissatisfied. More than 50% of the Staff and Faculty felt they had opportunities for advancement or promotion at CSE, and 27% did not feel they had any opportunity. The remainder was in the middle.

When asked for a Narrative response offering specific suggestions for improvement, the comments were far-ranging and contradictory, again reflecting divergence of belief. Comments included no longer focusing on past misconduct as well as comments that past misconduct needs to be further explored and punished before moving forward. Some proposed that the Student population should be reduced or the Faculty number increased. Others stated that the current system was working well to make sure only the best survived. There was resistance to Faculty being asked to do anything more because they were already underwater. Others suggested that the Faculty could do more to reach out to individual students. Some commented on the need to further diversify at all levels.

Others commented that forced acceptance of diversity was not proper and less emphasis should be placed on diversity and inclusion. No clear consensus on any course of action could be found in the Narrative responses.

One area important to atmosphere and culture is feeling that high performance is supported. 62% of the Staff and Faculty responded that they were satisfied or very satisfied that high performance was supported, and only 10% felt that it was not. Concerning DEI, 60% were satisfied or very satisfied, and 10% were dissatisfied or very dissatisfied with their supervisors showing that diversity and inclusion are important. A majority (52%) felt that their salary was determined by a fair process while 25% were dissatisfied or very dissatisfied with the process.

On reporting issues, 29% of Faculty and Staff expressed fear of retaliation if they report an issue about CSE. While not a majority, nearly a third is a large enough group to indicate that fear of retaliation needs to be addressed.

The Faculty and Staff were asked about what programs they would participate in if the programs were offered. Table 46 collects their responses.

TABLE 46

PARTICIPATE	YES	NO	MAYBE
A mentorship program	49%	22%	29%
An affinity group	21%	27%	52%
Small group discussions among faculty and staff on how to improve the student experience	45%	17%	38%
Feedback sessions with student groups on how to improve the student experience	56%	21%	24%
Training on gender identity issues and sensitivity	44%	24%	32%

Unconscious bias training	57%	21%	22%
Speaker series on discrimination and/or harassment	35%	21%	44%
Training regarding how to spot and report discrimination and/or harassment	54%	14%	32%
Development of a code of conduct for Staff	32%	33%	35%
Development of a code of conduct for Faculty	43%	25%	33%
Research on how to best attract more women and other underrepresented groups to faculty positions	40%	23%	37%
Research on how best to attract more women and other underrepresented groups to staff positions	27%	33%	40%

More than 50% of Faculty and Staff showed interest in feedback sessions with students, unconscious bias training, and training on spotting and reporting discrimination and/or harassment.

B. STAFF

Certain questions were asked only of Staff. 34% of Staff indicated they were satisfied or very satisfied with CSE's response to concerns brought up by Staff, 20% were dissatisfied or very dissatisfied, and the remainder were in the middle or not able to respond. 53% of the Staff were satisfied or very satisfied with leadership's demonstration that DEI was important, with 25% responding that they were dissatisfied or very dissatisfied.

Staff were asked if they were satisfied that the right people were in the right positions in the administration of CSE. 55% were satisfied or very satisfied, and 17% indicated that they were dissatisfied. No one reported being very dissatisfied. In the Narrative responses to this issue, the most common suggestion was that there should be more Women in leadership positions.

Staff responses indicate that Staff are evenly split between believing that CSE communicates changes and important information well and believing that CSE does not. The same is true of communications

regarding allegations of Sexual Misconduct. Staff are evenly split between believing that the allegations were handled well and believing they were not handled well.

Staff also rated several general statements regarding the CSE environment. These ratings are reflected in Table 47.

TABLE 47

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
I am encouraged to look for new and better ways to handle my job	31%	45%	21%	3%	0%
I am clear about what is appropriate behavior toward students	61%	29%	11%	0%	0%
I am clear about what is appropriate behavior toward other staff members	59%	31%	10%	0%	0%
I am clear about what is appropriate behavior toward faculty members	59%	31%	10%	0%	0%
I have the materials and equipment I need to do my job well	52%	31%	14%	0%	3%

55% of Staff Participants indicated that they were satisfied or very satisfied with the support they received from Faculty, and 13% indicated they were dissatisfied or very dissatisfied. The Narrative responses indicated dissatisfaction with some individuals and satisfaction with other individuals. Responses also mentioned how busy Faculty are, which makes it hard for them to be responsive or timely.

C. FACULTY

Some questions were posed only to Faculty. Faculty were split over how satisfied they are with CSE's responses to Faculty concerns. 36% were satisfied or very satisfied, 36% were dissatisfied or very dissatisfied, and the remainder were neither satisfied nor dissatisfied.

28% of Faculty were very satisfied with CSE's accommodating their other life responsibilities, and 17% were satisfied. On the other side of the coin, 31% were dissatisfied with the accommodation, and 6% were very dissatisfied. Once again, there was a big disparity in the view of how well CSE does.

As with Staff, a majority (63%) of Faculty are satisfied that the right people are in the right positions in the administration of CSE, but 22% disagree and are dissatisfied.

Communication seems to be an area Faculty Participants think should be improved. The Faculty were asked if they agree or disagree with various statements regarding communication. The results are set forth in Table 48.

TABLE 48

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
CSE communicates changes well	3%	31%	11%	46%	9%
CSE keeps me up to date on information I need	6%	50%	14%	22%	8%
CSE has handled communications about recent claims of sexual misconduct appropriately	8%	11%	19%	19%	42%
Conflict is resolved quickly and effectively	0%	9%	23%	23%	46%

Most Faculty agreed or strongly agreed that they know the appropriate behavior toward Students, Staff, and Faculty. 71% of the Faculty indicated that they had the materials and equipment to do their job, with only 6% disagreeing that they had the materials and equipment they needed.

In another area where there is substantial difference of opinion, 44% of Faculty indicated they had enough time for research or pursuing their goals while another 28% disagreed that they were given enough time. No Faculty indicated that they were very dissatisfied with the support they were provided for research, but 17% rated their level as dissatisfied. 58% were either satisfied or very satisfied. 20% of Faculty indicated a desire for more support in their teaching duties.

On a positive note, only 8% (3 people) indicated dissatisfaction with Chair and Executive Committee support while 54% responded they were satisfied or very satisfied with the support they received. In another more uniform response, 76% of the Faculty indicated satisfaction with Staff Support, and there were no responses that indicated any dissatisfaction.

85% of the Faculty agreed that coordination among the teaching Faculty is important, and only 3% thought it was not. A vast majority (74%) of the Faculty said they were treated with respect when coordinating with other Faculty, and 5% indicated they were not.

67% did not think that too much emphasis was placed on hiring research Faculty, and only 8% thought there was too much emphasis. A higher number (79%) did not think too much emphasis was placed on hiring teaching Faculty, and again, 8% thought there was too much emphasis.

IX. RECOMMENDATIONS

The following recommendations are based on the data from the Towards the Future Survey. While there are many subjects of concern to the CSE community as analyzed and set forth above, the major concerns can be summarized and grouped into three main categories. The Towards the Future Survey Participants also suggested in their Survey responses and in the Narrative many potential steps to take in the future. Those suggestions were considered in creating these recommendations. The recommendations are aimed to address and improve the three main categories of deepest concern to the CSE community, which are as follows:

1. The lack of Gender, Race/Ethnicity and Sexual identity diversity in all Positions. All groups within the CSE community believe that diversity, equity and inclusion are important and, while there are varying levels of concern, all groups agree that CSE is not sufficiently diverse.
2. The need for healing from the prior much-publicized Sexual Misconduct. This includes the need to re-build trust in both the institution's commitment to intolerance of Sexual Misconduct and in its ability to competently handle complaints of Sexual Misconduct. There is a fear of retaliation for reporting improper conduct and/or the belief that wrongful or improper conduct will not be properly handled.
3. Significant portions of the CSE community have concerns about the academic experience of Students in CSE. There are divergent views as to what the best academic experience is and how best to achieve it. There is a tension between alternative views on how best to continue to achieve academic excellence.

The following are recommendations to address each of these concerns. The recommendations are not intended to be exhaustive, not intended to suggest that some of the efforts are not already ongoing and are not presented in any particular order.

A. Steps to Improve Diversity, Equity and Inclusion

The data from the Towards the Future Survey show: (a) there is a lack of diversity as reflected in the underrepresentation of non-Male, non-Caucasian/White, and non-Heterosexual (collectively "Underrepresented") individuals in all Positions in CSE; (b) Underrepresented individuals experience the culture and atmosphere in CSE more negatively than other categories of individuals; and (c) a significant number of people are dissatisfied that CSE has not achieved a greater level of diversity, equity and inclusion.

Importantly, the Report does not include a fair representation of the range of voices and opinions of African American/Black or Latino/Latinx Americans or other ethnic or racial minorities because there are so few people in the CSE community and therefore so few Participants who identify as belonging to these ethnic or racial minorities. The same is true of people who identify as belonging to the Other Gender group and the Other Sexual identity group.

The recommendations are:

1. Publicize the results of the Towards the Future Survey so everyone knows that their voices are being heard, that diversity, equity and inclusion is a goal of the majority, and that the desire of the community is being acted upon.
2. Improve recruiting of Underrepresented individuals for all Faculty and Staff Positions. This includes defining available positions accurately but as broadly as possible to reduce self-deselection by potential Underrepresented candidates. Encourage open searches for candidates. Use expressed institutional values and policies that encourage Underrepresented candidates to respond to advertising for open positions. Establish goals of identifying candidates who are different from existing Faculty or Staff and reward those who are most successful in expanding Underrepresented candidates in candidate pools. Identify individuals at CSE or other institutions who are mentoring Underrepresented Students, Faculty, and Staff, and request suggestions for candidates and references. Request a statement by all candidates for open positions about their contributions to creating institutional change with respect to diversity, equity and inclusion. Create diverse search committees that include Underrepresented individuals. Search committee members should receive training and resources that increase their knowledge of the impact of evaluation biases and ways to overcome them. Ask search committees to document their efforts to maximize the diversity of the applicant pool, the fairness of their procedures, and the fairness of their outcomes.
3. Improve recruiting of Underrepresented individuals for Student Positions by diversifying the schools from where students are recruited, including reaching out to and creating partnerships with other institutions that have successfully created a culture of diversity, equity and inclusion in Computer Science. Reach out to Historically Black Colleges and Universities for help.
4. While not a substitute for improved recruiting of Underrepresented Faculty, Staff, and Students, acquire Underrepresented individuals to fill temporary roles in CSE, such as guest lecturers or workshop participants. Apply similar strategies to filling these roles as the strategies noted above for more permanent roles.

5. Encourage and incentivize implicit bias training for Students, Staff, and Faculty. Require new hires and Students to attend implicit bias training within the first three months of their joining the CSE community so that the message is given that diversity and inclusion are central to the culture and atmosphere at CSE.
6. Conduct exit interviews for Faculty and Staff, especially those who identify as Underrepresented, and include questions relating to their experience of diversity, equity and inclusion at CSE.
7. Provide cross-cultural coaching and awareness in Faculty and Staff development workshops and pay attention to training about using non-racially charged language and gender-balanced language.
8. Once hired, retaining Underrepresented Faculty and Staff is also of critical importance. More resources should be devoted to understanding the needs of new Faculty hires, particularly Underrepresented Faculty, and supporting them. Make the messaging clear about the benefits of Underrepresented Staff and Faculty joining CSE. Feedback from Underrepresented voices should be central to this effort.
9. Mentoring is generally perceived as being helpful to all Students and especially to Underrepresented Students. CSE should facilitate increased mentorship programs and opportunities for all Students and make sure Underrepresented Students are included.
10. A committee tasked with and empowered to achieve the goal of diversifying CSE at all levels should be formed or if already formed encouraged to be active and their activities well publicized. The committee should have representatives from all Positions and include Underrepresented voices.
11. Improve the classroom experience for Students by encouraging Faculty to be as inclusive as possible of Underrepresented Students' perspectives. Training on "imposter syndrome" and other ways to encourage people to speak up should be considered. Promote the use of teaching examples that emphasize diversity.
12. Where appropriate, look for opportunities to promote CSE Underrepresented Faculty and Staff to positions of responsibility and power in CSE.
13. Develop methods to measure the success of efforts to diversify; for example, follow up surveys with specific outreach to Underrepresented individuals.
14. Improve resources for Underrepresented Students. Determine what programs or support would help Underrepresented individuals feel included and be successful at CSE including bolstering if needed general academic success.

15. Improve the visibility of Underrepresented leadership, and highlight the successes of Underrepresented Students, Staff, Faculty, and Alumni.
16. Support Faculty, Staff, and Students who belong to an underrepresented Race/Ethnic identity groups by validating their racialized experiences and encourage them to be their authentic selves and find ways to communicate and demonstrate that they and their views matter to the CSE community.

B. Steps to Heal Past Sexual Misconduct Issues and Rebuild Trust

While there have been many programs and efforts to communicate regarding the well-publicized allegations of Sexual Misconduct (“Prior Complaints”), the injury done to the community is still forefront and impactful. Recommended steps are as follows:

1. Highlight CSE’s commitment to reduce all forms of Sexual Misconduct by Faculty, Staff, and Students by making this Report public and requesting that it be highlighted by all levels of leadership at every opportunity.
2. Where the University has made public statements and provided information about the Prior Complaints, provide the statements and information to Student newspapers and Student groups and encourage them to publish the statements and information. The University should also continue to and expand publishing statements and information on social media and take other steps to have the statements and information seen by more individuals, particularly Students.
3. Consider further limiting the permitted interactions with Students by Faculty or Staff when Faculty or Staff is accused of Sexual Misconduct. Publish any new or existing policy regarding such limitations and include it in the efforts to educate the CSE community about the policies and procedures regarding alleged Sexual Misconduct as discussed below.
4. Re-publish, through multiple networks, the procedures for investigation of alleged Sexual Misconduct and the rights of each party involved in an investigation. Encourage Faculty, Staff, and Students to learn and understand the procedures by putting on additional programs and sending additional information to each member of the community. Place posters regarding the information in all public spaces. Work with Student news sources to ask that they also publish the procedures and rights. Further develop social media sources for educating about the procedures and rights.
5. Ask Student news organization to publish any and all modifications or improvements made, including any made in the last year, to both the policies and procedures regarding Sexual Misconduct. Also provide notice through social media and other Student sources of any changes in the staffing of the people involved in administering the policies and procedures

- regarding Sexual Misconduct. Publish any requests for change in procedure or personnel made by CSE to the University. Continue publicizing future requests for changes and changes made.
6. When the investigations into the Prior Complaints close, to the extent possible and without violation of privacy concerns, publish the results of the investigations and at a minimum let the CSE community know that the issues raised have been dealt with closed.
 7. Where there is reported or suspected retaliation in any case, an investigation should be conducted, and appropriate actions taken quickly. The policy against retaliation should be widely publicized through all Student networks and social media.
 8. Periodically publish the number of investigations in the previous time frame, such as annually or semi-annually, and the outcomes in general terms so that the community can understand that actions are being taken based on reporting. (For example – 10 investigations with 5 violation findings) This type of reporting would increase confidence that the reporting of issues is taken seriously and acted upon.
 9. Require Faculty and Staff to be trained on when, where and to whom to make a report and encourage the use of the CSE and University resources.
 10. Make training on misuse of power imbalances a requirement for Faculty and Staff. The training should include how certain conduct impacts Students, such as use of derogatory comments, singling out of Students and assigning Students work that is significantly beyond or below the Students' abilities.
 11. The reporting process and procedures must be readily available and easily found by everyone.
 12. Have the University offices responsible for compliance with policies and conducting investigations appear on campus to answer questions and provide information so that the University people are visible to and known by the CSE community.

C. Steps to Address Concerns Regarding the Student Academic Experience

Many of the responses to the Toward the Future Survey show significant levels of dissatisfaction with the academic experience of Students and/or a dispute over what the academic experience should be.

For example, one area of dissatisfaction is the proper Student-to-Faculty ratio. Participants sense that ratio goals based on sound pedagogical reasoning and balancing academic needs and fiscal realities have not been made or have not been communicated clearly to the CSE community. The community

feels that growth has not been controlled or that there was inadequate preparation for the growth and no thoughtful decision was made as to proper Student-to-Faculty ratios.

Another example of a disagreement is the tension between alternative views on how best to continue to achieve academic excellence. Some believe the best way is to continue current practices. Others believe that with proper additional preparation, Students whose backgrounds did not prepare them as well as others, such as first-generation students, could thrive and excel in the CSE environment. Regardless of the approach, the key is to decide the proper approach and communicate the approach to the community to reduce confusion and dissatisfaction.

The following are recommendations regarding the academic experience:

1. Leadership should identify and concisely set forth the goals as to Student-to-Faculty ratio at the various Student levels and evaluate what is needed to achieve the ideal ratio. This analysis should be reviewed on a regular basis and should be communicated to the community so that the community is aware that growth or reduction is planned and purposeful and that it is geared towards improved academic experience for both Students and Faculty.
2. Leadership must decide the proper approach and communicate the approach to the community regarding how best to continue CSE's academic excellence. The approach should develop healthy competition that promotes academic excellence but discourages unhealthy toxicity that continues old networks and ideas that are exclusive and discriminatory. In particular, leadership should consider the degree to which Students who have not had an opportunity, for whatever reason, to be as prepared as others for the rigors of CSE should receive additional resources for further preparation.
3. Develop specific methods and procedures to regularly provide feedback to Faculty and Staff about their job performance and include as part of the feedback adherence to and adoption of the CSE-wide goals, including efforts to enhance diversity, equity and inclusion.
4. Further develop mentoring programs, including between more senior and more junior Students and between new Faculty and Faculty with high teaching reviews.
5. Develop department level programming to increase new Students' feeling that they are welcome and included.
6. Foster group work among Students and in so doing, review the Code of Honor and determine if any changes are required to help foster proper and appropriate group work among Students. Communicate the review and the results to CSE.

7. Offer opportunities for Students and Faculty to work together outside of labs.
8. Place teaching-focused Faculty in core courses.
9. Increase Student access to teaching Faculty, including additional office hours.
10. CSE should quickly respond to issues that impact the full CSE community, and given all the recent leadership changes, CSE should explain the decision process as to any issues that arise.
11. Help Students find and join a study group by, at a minimum, providing more opportunities for Students to gather with classmates outside of class.
12. Improve, develop, or expand mental health resources for Students. The current system is not enough, and there is a long waiting period to receive professional services.

EXHIBIT 1

GENERAL CLIMATE/ACADEMIC NARRATIVE RESPONSES

Some professors/lecturers are doing some amazing things to improve the climate, and many professors/lecturers clearly care for and support their students. However, the overall climate produced from students is incredibly focused on success at all costs (including cheating), overworking is looked upon positively (like students almost bragging about pulling all-nighters), lots of focus on money that can be earned instead of using degrees to make a positive focus in the world.

The only concern was some professors cared more about their research than being an effective lecturer.

I am satisfied with how my classes are run and professor I've had for my classes are inclusive; however, the many recent sexual misconduct allegations and competitive attitudes in CSE makes it difficult to view the culture as fully positive.

We are fractured and do not have the tools to protect the psychological well-being of our students.

There is a dogmatic adherence to policy, with little critical or human consideration for whether policies are actually relevant, good, or appropriate. When faced with statistics and evidence that contradicts the foundations of policy, evidence is ignored in favor of often arbitrary and capricious policy. The rules and guidelines need radical, fundamental change, starting with mechanisms that curtail the power and purview of policy itself.

And the hardness for anti-cheating only harms those who do not cheat.

I felt that CSE was an extremely supportive and caring community, and that while there have been extremely troubling individual cases of misconduct, the department as a whole has a good climate that is supportive of graduate students.

On the part of the faculty, there has little sense of "shared responsibility" and stewardship of the program, its students, and each other. The faculty are a collection of independent actors with little accountability to one another. This is changing in light of the ongoing crises of sexual assault, over-enrollment, etc. but from my perspective it is too little, too late.

Admit less people.

End collaboration with the military and defense industry.

Reduce unrealistic workload/performance expectations.

Smaller Classes.

There seems to be too much competition between students.

My time in CSE has been one event after another where a fellow grad student needed support and validation after experiencing mistreatment or callousness. The number of hours I've sunk into caring for others or myself at the expense of my research is stupefying. The bonds I've formed with other students are often just shared trauma.

I feel the administration does a good job rewarding those who go above and beyond to make the department exceptional.

Aside from misconduct, the unlimited enrollment issue is huge and negatively impacts everyone in the division. We need to address this issue and policies surrounding it, as it causes much unhappiness. It is clear to many of us that this long-festering problem has had a severely negative influence on the climate and culture of CSE.

Overall the climate was friendly and encouraging. It was easy to feel welcome in a CSE environment.

It's is much too competitive for my tastes. People ought to be more collaborative.

The typical CSE student gives me the impression they are selfish, motivated primarily by money, and do not give much thought to the wellbeing of others, whether it's classmates or people who use the technology they develop. The typical faculty member that I've met is usually distant, uncaring, and highly inflexible when compared to faculty members I've met in other departments/colleges.

Advisors have too much power - students are often treated like cheap labor.

Our climate has badly deteriorated in the time I have been a member of CSE. While we used to focus on excellence and doing science, we now spend much of our time and emotional energy discussing and dealing with crises. While we used to have the capacity to have meaningful one-on-one interactions with large numbers of students, we have grown so large so quickly--and are burdened with so many other duties--that this is much less possible. All of this is creating an extremely unpleasant working environment, and I am thinking of seeking a position elsewhere.

The climate here is bad and efforts are being made but talk is cheap. It feels like years before we will clean up this mess.

In most of my classes it honestly feels like professors don't have any concept of the amount of time their assignments take and how our mental health is affected by the pandemic. The assignments took me so long I barely had time to process everything else happening.

I feel like I received a good education but know some professors have said things like “More students should be failing these classes.” These classes seemed to require significantly more time than any other courses and it seemed the lack of sleep everyone was getting was almost a competition.

I feel very welcome in the CSE community and have only had positive experiences with faculty and staff in CSE.

I love our culture of curiosity and inclusivity!

Students seem to be in a constant state of stress. There is a scarcity of teaching resources (office hours, large class sizes, etc). In order to get through office hours, teaching staff and student teachers tend to provide answers rather than teach students how to solve problems, creating a student dependence on office hours and causing a feedback loop which further exacerbates the situation.

This department is broken. The existing power structures prevent any real change that might improve climate. All the recent Chairs have been grossly incompetent. I am actively attempting to persuade my advisor to change universities.

I’m extremely impressed with the dedication to excellence, advancement of science, and respect of all people in the faculty I work with.

Lots of competitiveness between students, lower level classes were made to be stressful for the sake of it.

Moreover, the students in the CS department are overwhelmingly bigoted, competitive, unempathetic, and jealous.

CSE is generally an excellent community and an excellent place. The downsides are not huge, but the stresses on students from the enrollment explosion and their difficulty in getting into classes they need or want is a significant downside.

I feel like there isn’t much community in the CSE environment. It’s very competitive, and there’s so many students that it’s hard to meet others and make real friends. Thus finding support or feeling like I’m belong in this “climate” is difficult at times.

I’m not thrilled with the climate surrounding the Engineering Honor code, as I feel in many aspects it encourages students to look for help on Google rather than from fellow students.

The core staff and faculty are committed and friendly, and really want to make this a great place to work and study. In my opinion, when we fall short, it is often due to our huge numbers and resultant inability to give students the individual attention they deserve, or that spot in the class they want.

Focus on improving the student-faculty power imbalance through an emphasis on reviewing and crediting faculty mentorship.

Hire a student advocate staff person.

Hire more faculty to deal with the size of CSE-majors.

Cut down on cheating. It damages the integrity of the university.

Lessen the competition.

More office hours.

Hire a PR person because these public statements are idiotic and harmful.

Hire more faculty to deal with the size of CSE-majors.

Allow for anonymous feedback for faculty.

CAPS needs to be improved especially for students who need long term therapy.

I know CAPS always has a huge wait list so it'd be cool if there was a CSE-specific CAPS.

CSE points students to outside resources for well-being like CAPS, but the internal culture doesn't support students taking care of their health. Requiring teaching faculty to explicitly discuss mental health and options that support students' health in the context of each class-- like the option to defer classwork or take a class pass/fail--would be a good start.

CSE should have stricter declaration requirements. The fact that almost anyone can declare CS leads to a very crowded and competitive environment.

Offer one-on-one mentorship with experienced staff or faculty.

Not try to actively kill us.

Reduce workload.

Reduce coursework.

Allow extensions on assignments.

More breaks.

More mentoring opportunities.

EXHIBIT 2

DIVERSITY NARRATIVE

The institutional climate has become increasingly racist and sexist against those who don't identify as a "minority," with special attention and preference (including funding opportunities) given to only to those who do not identify as Asian, white, or cis-male. Furthermore, there has been an upward trend in hostility towards all those who do not loudly tout strong left-wing political orthodoxy (an effect that, though apparent university-wide in the past, has only more recently become prominent within CSE as well.)

We have a culture of sexism, racism, and general tolerance of abuse of students. We need strong reform now.

Nobody in power speaks up or does anything much to stop harassment or abuse. Faculty in particular create the abuse and/or turn a blind eye to others. Some make inappropriate comments. There is often no supportive culture from the faculty towards their students.

it's just really sexist and elitist, lifting up disgusting sexual predators and putting down women, poc, or any other minorities in the major.

Very male dominated and not enough was being done to attract female students.

CSE's climate is one of marginalization. When someone makes a diminishing comment towards a group, most faculty avoid intervening -- I believe because they prefer to avoid conflict and focus on their own career priorities.

all men and most of them have bad social skills or are too competitive.

CSE is not a welcoming place for someone not in the "correct" one-third of the political spectrum. I have seen students, faculty, and job candidates mocked and belittled by faculty for having the "wrong" opinion. The lack of respect for those with differing opinions breaks the trust needed for dialectic.

It is scary being a woman in this department because of all of the past actions of members in this community. I have also seen many male students ignoring and talking through lectures addressing sexual misconduct and that really hurts to see as a woman.

If anything, it was other students who often perpetuated an exclusive culture. But once I found my group of friends who were also underrepresented students in CS, I had a good time!

CSE has demonstrated an effort toward diversity, which is wonderful, but I believe it has backfired

among students who do not already believe that issues exist. For students who see these issues, I believe the efforts help them feel supported. However, for other students, they feel unnecessary and like there is too much emphasis on DEI, which is counterproductive. To reach these students, I believe it would be impactful to make it clear the reality of the problems that do exist. This could be done by having individuals speak of ways they have been negatively affected by bias (hearing specific stories from people can really help others understand what is going on) and perhaps providing statistics like how many people of various groups have been affected by racism/sexism/other biases.

Fully commit. For CSE, DEI requires a drastic cultural shift, not just something that can be implemented with a few empty gestures for PR's sake.

More engagement and sharing sessions between students and staff. International students are often not very involved in Greek life and miss out of some social engagements that may happen on those channels.

Offer more financial assistance to students. Accept more students from diverse backgrounds.

We need to actively discuss the recruitment of graduate students from underrepresented populations during and throughout the admissions process. This is often an afterthought and should be at the forefront of the process. On the staff side, we need to recruit staff who are thoroughly invested in DEI -- especially if they are going to maintain supervisory roles within CSE. As it currently stands, some of the supervisors have not demonstrated an interest in DEI efforts (via their lack of engagement on DEI initiatives and/or the way that they treat their supervisees).

Be transparent with students but also do not release rushed statements that make false and harmful comparisons between student victims taking a stand and racial oppression. Make faculty undergo mandatory effective training to stop their abuses and biases - not something they can simply skip through. Recruit domestic ADOS black students and especially domestic ADOS black female students. Same with other domestic underrepresented minorities, and also women in CS in general.

Have actual repercussions for misconduct - faculty with tenure can practically do whatever they want without any kind of penalty.

I believe CSE can improve these efforts by hiring more diverse faculty and hosting workshops/panels with people in computer science fields to offer opportunities for students to find role models who resemble them. I also think pushing an outreach effort to local middle/high schools in the Detroit area could provide undergraduate students opportunities to give back and aid in middle/high school students potentially entering the field later on.

Place a higher emphasis on hiring faculty and students from under-represented groups, and focus on

providing them with the right support to ensure they succeed in their programs.

Stop conducting surveys and start making actual change. This is the fourth climate survey in two years. The problem no longer needs to be measured. The problem is a fundamental unwillingness to critically self-reflect and change behavior.

Our current model is "Attraction fully-prepared students and watch them do well." I would encourage us to instead take responsibility for the education of any student, regardless of their past preparation. This requires capacity (which we do not currently have) to dedicate to students who need additional support. The faculty generally does not understand the perspective of community members who feel marginalized in some way; helping them attain that perspective would be valuable.

I believe we have made efforts, but we can make even more. We could, for example, require that all faculty attend an annual seminar on DEI, to make sure that everyone is kept up to date with the latest findings and best practices in DEI.

Address professors who don't have diverse labs.

Additional resources for underrepresented groups: women; black and Latina more advising information for different tracks.

This space needs more women. Period. If there were more women as faculty/GSIs, CSE would be better overall and a lot more welcoming and inclusive to women. I realize that CSE thinks that they're trying to fix this, but it's still a de-facto boys' club.

More diversity consideration in the admission process. More CSE student groups.

There should be resources for diverse students in CS. In my experience, it was very discouraging to always feel behind and not know anyone that could relate to me on that level. I did not want to ask questions that would risk me sounding stupid in front of my more experienced peers. If there were study groups (not even necessarily for diverse students but especially for those groups), that would be incredibly helpful.

Hire more diverse faculty. Invite more diverse faculty.

Hire more diverse faculty/staff. If the department finds diverse faculty/staff are turning down job opportunities at the university, we need to find out why and address those issues. -Include mental health training/awareness to faculty/staff, not just email resources to students, especially during a pandemic! -Encourage conversations and acceptance of white male privilege, what that looks like, what that means, and what affects it has on others in CSE. Stemming from this, encourage conversations on what it means to be a first generation student, and how that may provide different

experiences/struggles.

More outreach to undergraduate students to from underrepresented groups to encourage them to study computer science because it is a field that they might not have ever considered studying it but they might find that they like it and it is not as scary and difficult and elitist as they might think.

I think the DE&I committee should be chosen based on a vote of everyone hired in CSE including graduate students every few years. Open suggestions and complaint boxes would be of help. Also all decisions that are made should be transparent and a periodic report on actions taken towards DE&I would help too.

Make the current climate more hospitable for minority members of the community so that we can honestly say that CSE is a good place to study/work when participating in recruiting. Also, look beyond traditional resume items for people who would make CSE a good place to study/work.

Most of the damaging things I've heard or experienced have been shared in private. I'm not sure how you get people to believe that women are as capable of computer science as men, or that minority candidates are not being unfairly given jobs, positions, and funding because of their demographics, or that accusations of sexual misconduct have consequences beyond reputational damage to the department or the accused. Maybe making these things more clearly abhorrent through increased community and social norms will decrease their frequency, because apparently, they are not yet regarded as harmful sentiments. I think it also comes back to the fact that most people in CSE just don't care enough to inconvenience themselves into helping. My sense is that most people think their research and teaching subject matter is value neutral (it's not) and think DEI get in the way of the "real mission" of the department. Better incorporating ethics and the social impacts of technology into the coursework could help make these topics *matter* more to the people who are here. Or at least make the next generation have a better chance.

I think a good place to start is to seek to offer more mentorship and support programs for our students of minority populations and backgrounds. I think there needs to be better attention focused on DEI when recruiting faculty and staff as well. While ongoing trainings and workshops for DEI are good to continue prioritizing and developing this area, it will not make a difference if the folks that are being recruited to teach and work in the department are continuously perpetuating these harmful behaviors with no remorse or desire to change.

Hold events targeting underrepresented groups, use employee trainings to diminish using a white heterosexist male lens in favor of a more general, less exclusive one.

The problem lies in lack of adequate mechanisms and support for reporting and investigating sexual and racial discrimination. Much of this has been delegated to OIE, which appears dysfunctional.

Put more women in leadership.

CSE should seriously consider recruiting from institutions other than the usual slate of CMU, Stanford, UC-Berkeley, etc. Also, if we wish to recruit more diverse students, faculty and staff, we are going to have to really improve our standing with communities of color. Perhaps offer more scholarships or fellowships? Or step up our presence at cooperating institutions and at diversity conferences? Speaking for myself, I would be very interested in participating in these types of efforts, if given the opportunity.

More female faculty. I had one female professor in CSE all 4 years.

I think CSE has done this successfully.

CSE should look to actively support various minority support groups within CSE. Supporting things like WISE is probably a good way to go. Profs + Lecturers + GSIs should be trained on what it can feel like to be a minority in the room (encourage empathetic teaching) + how they can make everyone feel welcome through their instruction. Again, when it comes to hiring CSE may have fundamentally shift its priorities. Is the purpose of a prof to churn out papers + research, or is it to be an effective leader + teacher + mentor in the department? I'd prefer it to be the latter.

CSE needs to have regular communication and emotional investment into 1) uncovering and explaining the existing process(es), 2) detailed examinations of how those processes have failed in specific contexts, and 3) crafting creative new policies to address the existing problems. I cannot stress this enough that this is paramount to rebuilding CSE.

Provide information more proactively.

Better communication and recognition that students need a soundboard to express their opinions openly and responsibly. A mandatory class in conflict resolution, sexual harassment, bias, and ethical responsibilities would be desirable for all students (and faculty).

Hire more women and remove faculty with a history of misconduct from their positions, especially teaching positions.

No specific suggestions, but it's ridiculous how if you look at an intro CS class you see way more women & people of color than you do if you look in an upper level CS class.

Many students in CSE know who is repeatedly disrespecting marginalized students (whether it be faculty or other students). There is no way to hold these people accountable and reporting them does nothing. There absolutely needs to be a way to remove these people from the program because they won't change.

Female and Black students are seriously unrepresented without any intention to increase their enrollment.

Stop continuing to allow professors and staff who have been accused of harassment to continue interacting with students. Actually enforce policies against sexism, racism, homophobia, transphobia, etc.

Fire the staff with demonstrated patterns of sexual abuse. Make literally ANY effort to hold those people accountable in any way. Otherwise, never expect to recruit diverse talent again.

Hire people based on merit and nothing else.

Focus more on diversity of thought and background. It often feels like we are bucketed by race, gender, etc. versus how we think, how we grew up, etc.

Many pockets of CSE faculty still believe that DEI in recruiting is a secondary effort, or even that it goes against the goal of recruiting the best individuals. As a result, they continue to recruit individuals from majority groups, as they feel more confident of those individuals' potential for success. In the graduate student space, a proven successful approach is that to recruit a "cohort" of students at the program level, which would then identify an advisor of choice after their arrival. In faculty recruiting, the most successful programs at attaining diversity in their ranks are those that 1) actively pursue diverse candidates, instead of evaluating the pool (and this takes place with the chair's direct effort and involvement), and 2) work proactively and set process to ensure that those individuals feel welcome and are supported for success.

I think groups like ECSEL+ play a huge role in promoting diversity, equity, and inclusion. But student-led groups can only do so much. The DEI committees should be more effective and have more buy-in from faculty members. Lack of funding or time cannot be an excuse for the inactions of faculty members. Faculty need to be more open to acknowledging issues and being active parts of solutions to these issues.

Speaking from a staff perspective looking at our CSE staff in particular I don't think it reflects a racially diverse group. I also think that some of the conversations I have been privy too or witnessed in my onboarding period reflect culturally ignorant and damaging practices towards racialized people that enter into CSE. I am unsure if the lack of accountability or having dialogue when these things are being said is because other colleagues don't find issue with the statements. Or if they are also unaware of the harm and negative that they are having on their colleagues and students. I would say that more conversations around these topics and in particular within specific functional areas/offices and departments are needed. This should be a part of evaluating and assessing our practice and should happen often.

CSE needs to back up their belief in diversity by actually hiring professors of color, who make the department actually look inviting to prospective students of color.

The bias in CSE hiring is completely explicit. "That person does software engineering (or graphics, or info viz). We don't do software engineering." There is a very narrow window of what is U-M CSE -- not all of "computer science" need apply. The retention numbers in undergraduate enrollment show that CSE is more about filtering out all of those students who don't fit our mold, as opposed to developing student abilities.

There already seems to be a large focus on diversity and inclusion.

Make a conscious effort to hire more female professors. As a female in a school that is so male-dominated, taking classes with female professors made an impact on me. It would be nice to see more of them in the department.

When allegations are credible, take steps to remove the person from teaching and/or advising students.

Highlight more underrepresented groups in the CSE workplace. Maybe host philanthropic events.

I believe CSE has demonstrated a solid commitment to DEI.

Acknowledge poor behavior, Remove those individuals, and hire diverse faculty and recruit diverse students and support them with awareness of the ways being a minority affects their day to day lives.

The DEI committee is a joke, and everyone knows it. This investigation is a joke, and everyone knows it.

Put extra effort into recruiting and interviewing high-quality women and people of color for faculty and staff positions. For students, make sure that all students receive enough support, particularly in the first and second year classes. Consider creating a summer program that recruits from low-income high schools, and if students successfully complete the summer program, they are guaranteed admission to CS at UM.

Fire harassers as it is negatively affecting the ability to hire underrepresented faculty, particularly women who don't feel safe coming.

maybe advertise orgs for minorities in CS more; acknowledge the difficulty of the material to those who may suffer from impostor syndrome more.

Gender diversity is the foremost issue - a strong "bro" culture exists and CSE will continue to experience its feedback loops until meaningful, intentional changes are made. This is difficult because pandering

to women only makes things worse and it will take a long time. But, I think something that would work is appealing to prospective premed students. I know a lot of women who are STEM inclined who chose premed over engineering largely because of the reputation, so this could be a good source of women in CSE that stay and thrive.

I'd like to see CSE & CoE stop being all-consumed with race, gender, sexual orientation, etc. and instead focus on educating its students. This is an educational institution after all, at least I thought it was.

I am not a fan of affirmative action. Diversity that comes from being explicitly conscious and acting on negative reports is great, but not when it comes from conscious effort to hire a person from X category.

Collaborate or conduct more outreach to HBC's, urban high schools, and other community-based groups that focus on intervention strategies targeting at-risk youth.

CSE can improve those efforts by seriously questioning why "diversity, equity, and inclusion" are desirable or beneficial goals in the first place.

Have ways to help us white people become more aware of systemic racism and overcome our prejudices. This should include hearing the stories of other CSE people who have experienced discrimination.

Hire a more diverse lecturer body. Fire the lecturers who have made racist comments or have been involved with sexual allegations. There must be a no tolerance system for professors who continually make students feel excluded in the community.

Stress on hiring more POC. Hire members of LGBTQ+. It terrifies me that there's not a single faculty member who publicly identifies as such. It creates a very isolating environment for individuals.

The next best thing that should be done is to actively discourage microaggressions and teach students how to recognize and counteract them. There is a lot of ignorance as to what microaggressions are, which is something the CSE department can help teach.

CSE bends over backwards to recruit and retain students, researchers, and staff from underrepresented groups and goes to great lengths to make sure everyone knows this. It would be better to simply evaluate everyone by the same standard, regardless of what demographic category they belong to, and not worry about political pressure.

provide students with safety and anonymity if they need to report something.

Hire more student women and underrepresented groups to teach classes.

Do not allow professors who are undergoing allegations regarding sexual/professional misconduct to teach.

Take more action against those who are creating a hostile environment.

Require DEI sessions that are outside of class lectures. When done in a huge lecture hall most students ignore it and there is little participation.

Hire more tenure track women.

More minor affinity groups.

More women in leadership.

Talk to the underrepresented minorities, ask them what would help them.

More follow ups on the results of those investigations.

More communication about what is going on and how CSE is addressing it.

Put more women/minorities in power.

Speak up when people say discriminatory things.

Make more educational programs about sexual misconduct or discriminations required instead of optional.

Listen to people of color, women and non-binary people, and other members of target identity groups—and then carry out meaningful action to support what they are saying.

Introduce mandatory sensitivity training for students, staff and faculty

More women in power positions in my classes that I could go to for help or advice I would do it so much. As it stands now, I have difficulty for asking what I really need

EXHIBIT 3

SEXUAL MISCONDUCT NARRATIVE

Apart from the 3 recent allegations of sexual misconduct, my personal experience of the CSE climate has been very positive.

I am dissatisfied not due to personal experience but because of the recent allegations against more than one member of the CSE community. Whether or not these allegations are true, it is very unsettling to hear about multiple occurrences from my faculty.

There is such a long list of things that are wrong with how climate is being addressed in the department. But I want to point out that the survey description started out as “this survey is not intended as a general climate survey or to review misconduct in the past. Rather, this survey is intended to look forward and begin a proactive approach to developing a culture and climate desired by a majority of the CSE community.” Without reviewing misconduct in the past, we cannot move forward. Without talking to the people who have actually suffered due to the existing climate policies, how can you expect people to “look forward” and “take a proactive approach”? The proactive approach must include centering the survivors, and those who have been forced to leave due to issues that have existed. If CSE actually wants to take a proactive approach, they need to first acknowledge there is a problem. That it was never a matter of “if” but a matter of “when,” all this would become public. Harassment has been occurring in the department for years. Students have been aware of this, and there have existed whisper networks.

Well I mean we got the rapist faculty that won't get dealt with by admin.

I am very concerned about the various misconduct charges that have occurred over the last year or so.

I am disgusted that CSE and the College have seemingly take no visible action in response to the very visible and publicly reported cases of sexual misconduct that have occurred in the department. Despite all the pretty words we have heard to the contrary, this lack of action sends a clear message to faculty, students, and the rest of the world that this type of behavior is indeed tolerated at this university and in this department. I feel that the only actions that have been taken (including this very survey) are aimed at protecting the University from liability, rather than actually trying to protect students.

Most of my personal interactions with faculty, staff, and students have been very positive. Yet, I am dissatisfied with the way that the department has handled very public sexual harassment allegations recently. More than any other issue, this is shaping the climate of the department right now.

The number of sexual harassment issues by faculty is seriously alarming (and all within the past 2 years or so).

Rampant sexual abuse issues.

CSE seems to just be letting professors who have been accused of sexual assault do what they want.

The only part holding back from me saying very satisfied is the recent allegations and events of CSE professors.

The students are great, but due to recent scandals, I am losing trust in my professors.

I am disheartened by the level of sexual harassment uncovered in the department, and while I believe that the faculty and administration general want to do the right thing, I believe there unseen abuse of students (overwork, hostile environments, etc).

Sexual misconduct allegations over the past few years have made me lose trust in the department. Especially when people who used to be in the head chair of the department are being charged...

Most notably, the multiple allegations of sexual misconduct (and their fallout) have left feelings of mistrust, confusion, anger, and frustration.

There is a general sense that "the hits just keep on coming," despite the real and positive efforts that so many are making.

The amount of faculty misconduct and sexual misconduct in CSE is ridiculous.

There have been some worrying developments regarding sexual assault, but they are handled pretty quickly.

I am very satisfied with my direct experience, but very concerned by the experiences I have heard about.

EXHIBIT 4

BEST PART OF CSE NARRATIVE

The professors that have been easily accessible and willing to help.

The people that make up CSE. There are many energetic students, staff, and faculty who work very hard to succeed and help others achieve their goals.

Professors who have taken the time to care for students and help them develop depth of understanding of difficult topics.

The career guidance.

Freedom to pursue teaching interests/innovations.

The reputation that comes with being in an R1 university. The building and the facilities that University of Michigan can afford me.

A few excellent professors, a few very engaging classes, and high quality career recruitment.

Learning the skills I need to be successful in my career (and personal projects) in the future.

The people in my cohort made for many fun memories and joyous experiences. In retrospect, a disturbing number of the memories were of banding together to combat or circumvent administration.

My advisor and professors related to my field are very supportive, encouraging and understanding.

The prestige.

I just feel connected and supported in every way.

Had the support of some really good professors to help with projects and publishing.

The facilities.

It felt like the professors were passionate about the topics they taught in Computer Science.

Good reputation.

My best experience has been the collaborating with other students on projects and lab assignments. It's always great to connect with classmates in a non-competitive way and make friends through classes.

Teaching opportunities for undergrads.

Interacting with renowned professors in their fields of interest.

The technical expertise of the faculty members.

Some of the professors are very supportive and take the time to engage with students in an appropriate manner. My research has gone rather smoothly because of this.

My advisor is amazing. Otherwise, the whole department is pretty meh.

Depth of innovation.

The higher quality of academic peers.

The friendliness of my peers, instructors, and advisors was easily the best part of CSE. Everyone is willing to help where needed, friendly advice is as easy to obtain as ever by just asking, and if you ever need to reach out or speak someone's willing to listen. The environment created by the professors and students in particular feels not competitive but focuses on making sure everyone's doing their best.

The research opportunities.

The professors who were passionate about what they were teaching.

The collaborative commiseration.

Job potential after graduating.

The community of students all facing the same challenges together.

It has a big community and many resources.

The variety of classes.