



Chemical & Physical Sciences  
UNIVERSITY OF TORONTO  
MISSISSAUGA

# CPS EDI Climate Report

**2023**

*Results from a survey of undergraduate students in the Department of Chemical and Physical Sciences*

**University of Toronto Mississauga**

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## Contents

Message from the Department Chair _____	1
Summary of Results _____	2
Acknowledgements _____	4
Background and Objectives _____	5
Demographics _____	7
Climate questions _____	13
Personal Experience _____	18
Specific Comments _____	22
Suggested Improvements _____	23
Next Steps _____	25
References _____	27
Appendix: survey _____	28

## Message from the Department Chair

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The Department of Chemical and Physical Sciences (CPS) is wonderfully diverse in terms of STEM disciplines – we embrace the fields of astronomy, chemistry, Earth science, and physics in our vibrant and interdisciplinary academic and research programs. However, our department, like STEM fields in general, suffers from a lack of other forms of diversity, and has struggled to create a welcoming, equitable, and inclusive environment for all. For example, in Canada, women make up only 12% of full professors in STEM fields (Canadian Association of University Teachers, 2018), consistent with low representation in CPS. Racialized and Indigenous faculty are similarly underrepresented in academia both in terms of numbers and ‘power, prestige, and influence’ (Henry et al., 2017).

CPS has undertaken a number of [initiatives](#) over the last few years to address areas of concern. We implement best practices in hiring faculty and postdoctoral fellows, and have developed a [core values statement and land acknowledgement](#). We have sponsored events and training sessions, and graduate students have participated in discussion seminars around supporting equity, diversity, and inclusion. We support graduate students through funding initiatives, staffing, mentoring programs, and development of a template agreement for working in the laboratory and field. Finally, we are an inaugural partner in the [UTM STEM Scholars program](#), which supports high-achieving Black undergraduate students on the path from high school to graduate school.

However, our efforts thus far have been driven by ideas raised informally within the department and from general resources, but without specific, quantitative guidance as to the demographics and concerns of our community members. We require data to ensure that we’re targeting the right problems in the right way, and to track our progress over time. We therefore have undertaken the administration of this survey, along with a parallel survey of our faculty, staff, postdoctoral fellows, and graduate students. We will repeat this survey annually, publishing the resulting report, good and bad, on our website, along with our plan for addressing any concerns that are raised. We will continue to work towards increasing diversity in the department and within our disciplines, and ensuring that all members of our community feel safe, included, and valued.

- *Lindsay Schoenbohm, Professor and Chair, Department of Chemical and Physical Sciences, February 27, 2024*

## Summary of Results

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- The EDI climate throughout the department of Chemical and Physical sciences is broadly positive, though areas of concern are evident.
- Responses to EDI statements on a Likert scale highlighted that undergraduate students do not feel a sense of belonging or common purpose within the department. They do feel a sense of trust, respect, and access to opportunity.
- Non-binary respondents are less satisfied with the department climate compared to men and women.
- Muslim respondents are less satisfied with the department climate compared to Christian participants; non-religious participants fall in between.
- Seven respondents (10%) stated they had experienced discrimination, highlighting a range of sources, with gender and sex selected the most, though race, ethnicity, religion, and sexual orientation also selected as 'more frequent' sources of discrimination. Only disability was not selected as a source of discrimination. These events happened most often in classroom, laboratory, or tutorial settings.
- Three respondents (4%) felt they had been excluded in the department based on their disability and religion. These events happened most often in classroom, laboratory, or tutorial settings.
- Eleven respondents (16%) said they had witnessed discrimination in the department. Race, religion, gender, sex, sexual orientation, disability, and political opinions were all highlighted as more frequent sources of discrimination of others. Only age was not selected as a source of discrimination of others. These events happened most often in classroom, laboratory, or tutorial settings.
- When asked about incidents of discrimination, and for general comments and suggestions for improvements, multiple participants highlighted:
  - A lack of diverse faculty as cause for concern.
  - A need for greater awareness, sensitivity, respect, and empathy on specific issues including:
    - students affected by worldwide issues;
    - religious diversity, including addressing anti-Semitism and respect for students wearing head coverings;
    - students living with mental health issues; and
    - accessibility-related accommodations for students.

- A desire for further departmental support of equity, diversity, and inclusion initiatives, including:
  - sharing the results of this survey;
  - hosting events to promote community and a sense of inclusion; and
  - greater visibility for the departmental Equity, Diversity, and Inclusion Committee

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## Acknowledgements

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### *Land Acknowledgement*

We wish to open with acknowledging that Canada resides on the traditional territories of the First Nation, Inuit and Métis peoples of Turtle Island. More specifically, we wish to acknowledge this land on which the University of Toronto operates. For thousands of years, it has been the traditional land of the Huron-Wendat, the Seneca, and the Mississaugas of the Credit. Today, this meeting place is still the home to many Indigenous people from across Turtle Island and we are truly grateful to have the opportunity to work on this land.

In addition, we acknowledge the colonial roots of science. We will strive to connect with Indigenous communities that might be impacted by our research, or on whose traditional land we may wish to conduct research. We will also strive to approach research and teaching from different perspectives, acknowledging that there are multiple ways of knowing. We commit to acting on U of T's Answering the Call [Wecheehetowin Final Report](#).

If you are interested in improving your understanding of which traditional territories you live or work upon we wish to direct you to [Native Land Digital](#) and their many online resources.

### *Personal Acknowledgement*

This report would not have been possible without the engagement of 70 members of the Department of Chemical and Physical Sciences undergraduate community. We thank those who provided their demographic information, feelings and thoughts on their experiences within this department.

### *Data Availability*

The data collected as part of this project are confidentially held by the department's chair Prof. Lindsay Schoenbohm. To protect the identities of respondents, the metadata of this survey (i.e., list of all responses) will not be shared.

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## Background and Objectives

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The department of Chemical and Physical Sciences at the University of Toronto Mississauga aims to be a safe and inclusive space for people to learn and work. Following discussions within the department's Equity, Diversity and Inclusion (EDI) committee, the need for a department survey was agreed upon to assess the current EDI 'climate' and establish which areas required immediate intervention.

This survey is the result of these discussions and aims to establish how undergraduates currently feel within the department. It is formed of four sections. The first section aims to collect basic demographic data from the department's undergraduate population, drawing on the [U of T Student Equity Census](#) for terminology in order to facilitate comparison. The second incorporates the [Diversity Engagement Survey \(DES\)](#) from Person et al. (2015) which allows participants to respond to 18 statements about the department on a Likert scale. These responses can be used to establish trends in climatic 'behaviors' in the department including trust, respect, appreciation of individual attributes, sense of belonging, access to opportunity, equitable reward and recognition, common purpose, and cultural competence. The third section is adapted from the [Academic Department Climate and Inclusion Survey](#) from Princeton University and allows participants to highlight personal experience of discrimination, exclusion or witnessing discrimination of others. The final section allows respondents to provide any additional comments and suggest what the department should be doing to improve EDI in the future.

The objectives of this work are to:

1. Establish the current EDI climate for the department.
2. Highlight targets for discrimination and exclusion.
3. Allow members of the department to highlight areas of concern and suggest possible future work.

## Methodology

Between March 31<sup>st</sup> and May 1<sup>st</sup>, 2023, we distributed the survey with emails through the department's internal listservs to students registered in CPS programs. The survey contained 31 questions, though an additional 9 questions could be asked depending on the participants' responses.

In total, 70 eligible respondents completed the survey. This sample is approximately 6% of the total undergraduate population of the Department of Chemical and Physical Sciences (n=~1200).

*Glossary of terms used*

**Racialized Person(s):** This term is used to describe all participants that racial identify as anything other than 'white' or Indigenous. This aligns with the federal government's definition of a 'visible minority' and is necessary to compare our results to federal statistics.

**2SLGBTQ+:** This acronym incorporates all participants who provided a sexual orientation other than 'straight'. The acronym itself stands for: Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, and a '+' to represent many other terms on the spectrum of sexuality and gender (e.g., Pansexual, Intersex, Asexual, Gender Queer).

**Disabled:** A person with a disability is a person who has a long-term or recurring impairment that could be categorized into one of 10 types (vision, hearing, mobility, flexibility, dexterity, pain, learning, developmental, memory and mental health-related) and considers themselves to be disadvantaged in employment by reason of that impairment, or believes that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment. Persons with disabilities are also those whose functional limitations owing to their impairment have been accommodated in their current job or workplace.

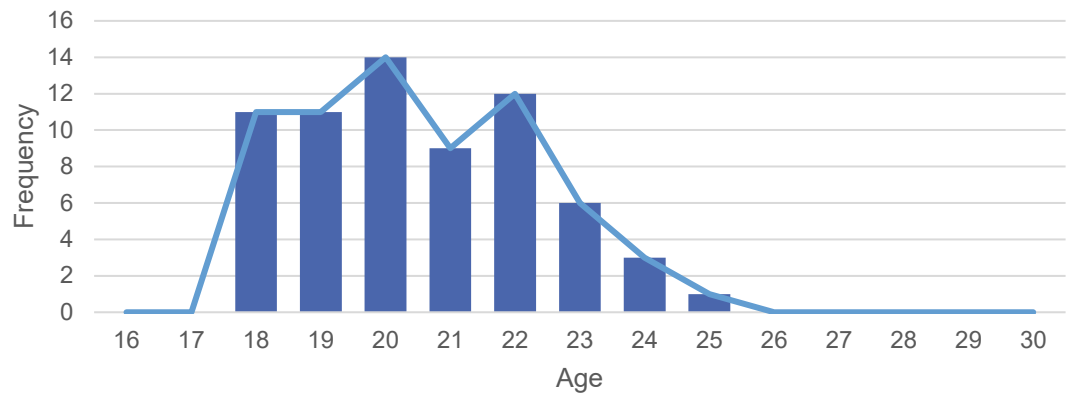
**PNTA:** This acronym simply stands for 'Prefer Not To Answer' and is primarily used in charts throughout this report to highlight the number of participants who decide not to provide a response to a given question.



## Demographics

### Age

Participants were asked to disclose their age at the time of the survey. Of the 70 eligible participants, 67 provided an age (95.7%). The median age was 20, while the minimum and maximum were 18 and 25 respectively.



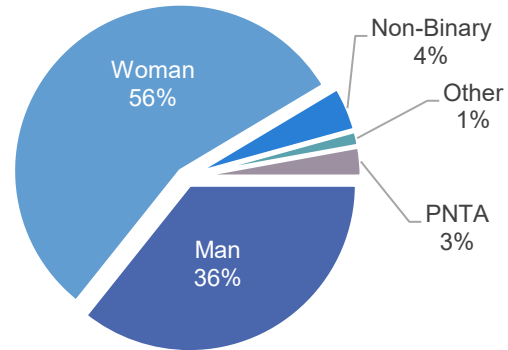
### Indigeneity

Participants were asked if they identified as an indigenous person. Participants could only respond 'Yes', 'No' or not provide an answer. Of the 70 eligible participants, 69 did not identify as indigenous and 1 chose not to provide a response.

### Gender

Participants were asked to provide their gender identity. We provided the following definition: "gender refers to current gender identity, which may be different from sex assigned at birth and may be different from what is indicated on legal documents." Participants could respond with one of the following options: man, woman, non-binary, or Two-spirit. Additionally, participants could choose not to answer the question or write in another option if their gender was not represented by one of the options.

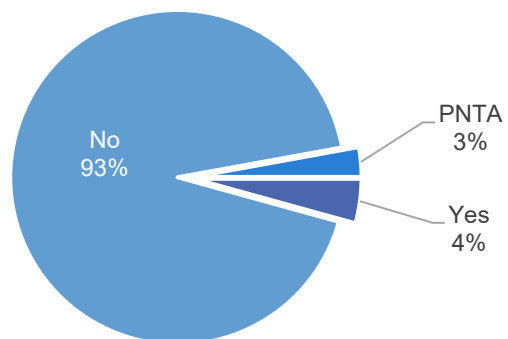
Out of 70 respondents, 68 provided a response (97%). The majority of participants identified as women (55.7%), followed by men (35.7%), and non-binary (4.3%). A very small proportion of respondents did not provide a gender identity (2.9%). Only one participant provided a different gender identity (1.4%).



### Trans identity

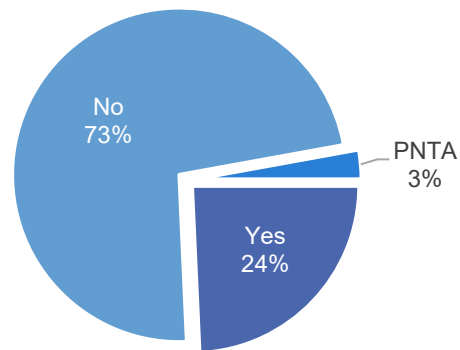
Participants were asked if they identified as a member of the trans community. We provided the following definition: “Trans is used here as an umbrella term for those who identify as transgender, trans, gender variant, gender non-conforming, genderqueer, or an analogous term.” Participants could respond with ‘yes’ or ‘no’ or decline to provide a response.

Out of 70 respondents, 4.3% of participants identified as a member of the trans community, while the remaining participants either did not identify as trans (92.9%) or did not provide a response (2.9%).



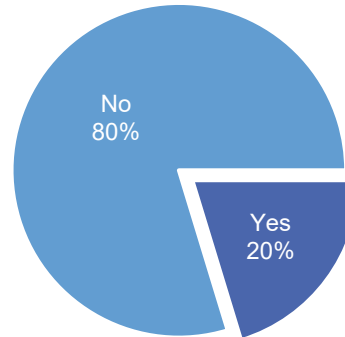
### 2SLGBTQ+ representation

Participants were asked if they identified as part of the of the 2SLGBTQ+ community. Respondents could select 'yes' or 'no' or not provide a response. Out of 70 respondents, 24.3% of participants identified as part of the 2SLGBTQ+ community, while the remaining participants either did not identify as part of the community (72.9%) or did not provide a response (2.9%).



### Disability

Participants were asked if they had a disability. We provided the following definition: "A person with a disability is a person who has a long-term or recurring impairment that could be categorized into one of 10 types (vision, hearing, mobility, flexibility, dexterity, pain, learning, developmental, memory and mental health-related) and considers themselves to be disadvantaged in employment by reason of that impairment, or believes that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment. Persons with disabilities are also those whose functional limitations owing to their impairment have been accommodated in their current job or workplace." Participants could respond with 'yes' or 'no' or could not provide a response. Out of 70 respondents, 20.3% of participants identified as having a disability, while the remaining participants did not (79.7%).

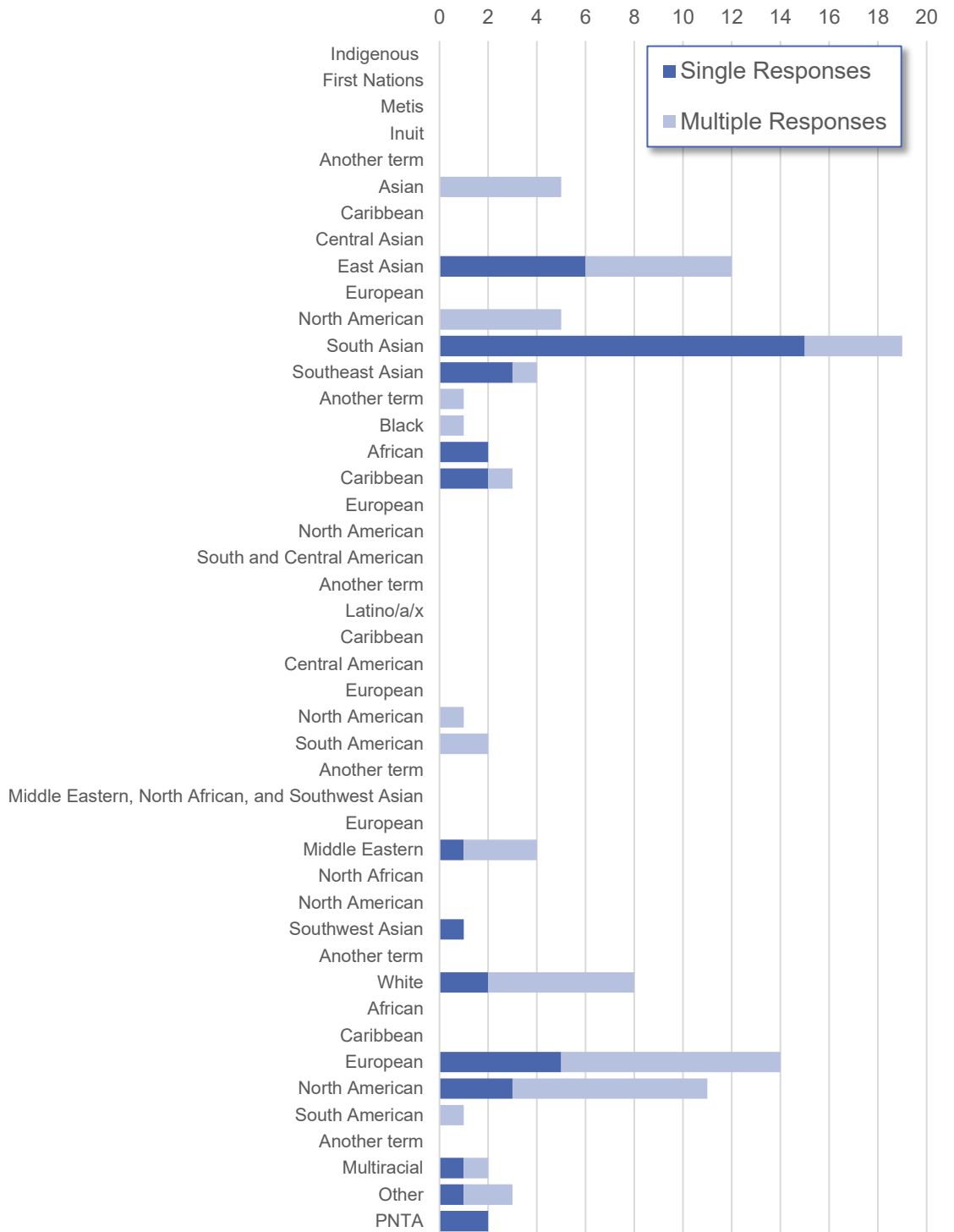


### Racial/ethnocultural identity

Participants were asked their racial/ethnocultural identity. We provided the following additional information: “This self-identification of racial/ethnocultural identity is not intended as an indication of one's place of origin, citizenship, language or culture and recognizes that there are differences both between and among subgroups of racial identities.” Participants were provided a list of 44 terms from which they could select as many as they wished. This list was broken down into 7 racial/ethnocultural categories including: Indigenous, Asian, Black, Latino/a/x, Middle Eastern/North African/Southwest Asian, White, Multiracial (A person who may not identify with a singular racial or ethnocultural identity), and space to write in another category if required. Each category also included 4 – 8 subcategories and that could provide greater detail regarding their identity, should a participant choose to use this. All subcategories are listed in the chart below.

Out of 70 eligible participants, 68 provided their racial/ethnocultural identity (97.1%). Of these 68, 42 selected only 1 option from the list provided (61.8%), while 26 selected more than one option (38.2%). From those participants that provided only a single response, Asian was the category with the highest portion of responses (57.1%), followed by White (23.8%), Black (9.5%), Middle Eastern/North African/Southwest Asian (4.8%) and Multiracial (2.4%). No participant provided a single response from the Indigenous or Latino/a/x categories. The subcategory with the greatest portion of single responses was South Asian (35.7%), followed by East Asian (14.3%), and (White) European (11.9%).

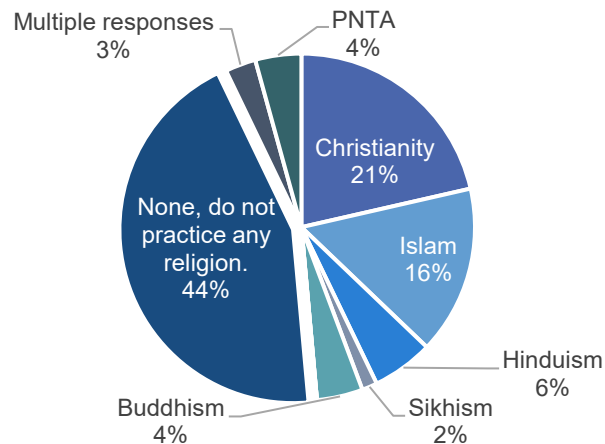
From the 26 participants that provided multiple responses, a total of 57 terms were selected from the list provided. From these 57, White was the category with the highest portion of responses



(42.1%), followed by Asian (38.6%), Latino/a/x and Middle Eastern/North African/Southwest Asian (5.3% each), Black (3.5%) and Multiracial (1.8%). No participant provided a response from the Indigenous category. The subcategory with the greatest portion of selections as part of a multiple response was (White) European (15.8%), followed by (White) North American (14.0%), East Asian (10.5%) and (Asian) North American (8.8%).

## Religion

Participants were asked if they practiced any religion(s). Participants could choose multiple options from a list that included: Christianity, Islam, Hinduism, Sikhism, Buddhism, Judaism, Indigenous spirituality, another religion not listed or none, do not practice any religion. Out of 70 respondents, the majority did not practice a religion (44.3%), while Christianity was the religion with the highest portion of respondents (21.4%). This was followed by Islam (15.7%), Hinduism (5.7%), Buddhism (4.3%) and Sikhism (1.4%). Additionally, 2.9% of participants provided multiple responses, while 4.3% of respondents did not provide a response.



## Climate questions

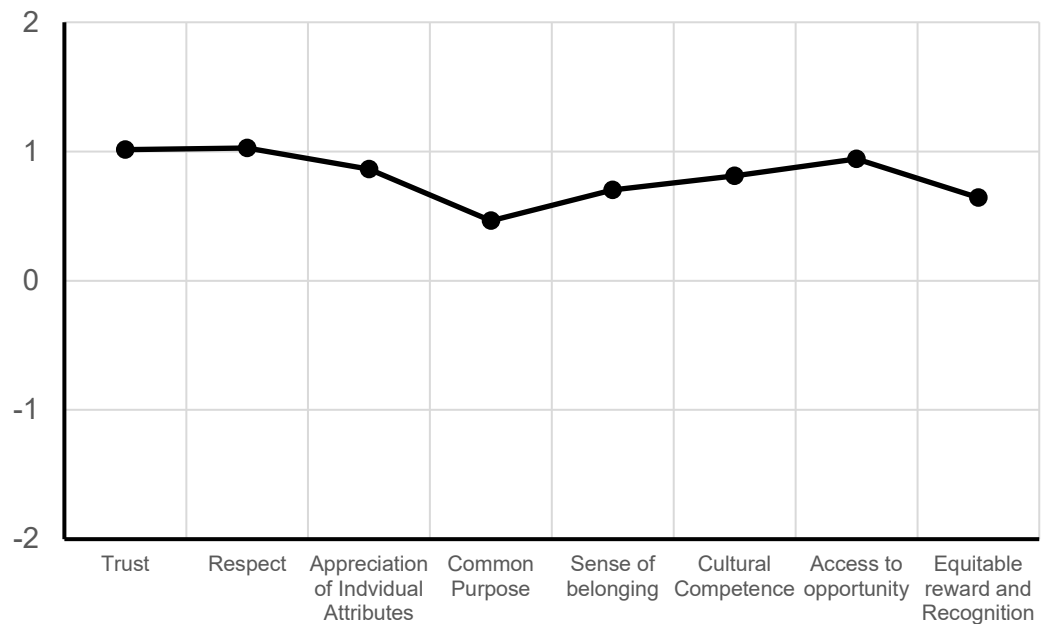
In the section of this survey participants were asked to respond to 18 statements about the department (CPS). Participants could respond with either 'Strongly Agree', 'Agree', 'Don't Know', 'Disagree', and 'Strongly Disagree'. The questions were adapted from the [Diversity Engagement Survey](#) presented in Person et al. (2015).



Results show participants broadly agree with all 18 questions. Both 'Strongly Agree' and 'Agree' had the highest number of responses for 7 questions, while 'Don't know' was the highest for 3 questions, and 'Strongly Agree' and 'Agree' shared the highest number of responses for 1 question. 'Strongly Disagree' and 'Disagree' were not the most selected response for any question.

## Behaviors

The 18 statements can be correlated to range of behaviors that would exemplify an inclusive environment including trust, respect, appreciation of individual attributes, common purpose, sense of belonging, cultural competence, access to opportunity, and equitable reward and recognition. We calculate a mean score for each behavior by assigning a numeric value to the five possible responses to each statement (i.e., Strongly Agree = 2; Agree = 1; Don't Know = 0; Disagree = -1; Strongly Disagree = -2), then average responses to statements related to a single behavior. A score of >0 can indicate a positive climate for the given behavior and can illuminate areas of relatively greater or lesser success across the different behaviors, but the true value of these metrics is to compare them to responses from different demographics (e.g., gender, racial/ethnocultural identity, religion) and from future climate surveys.

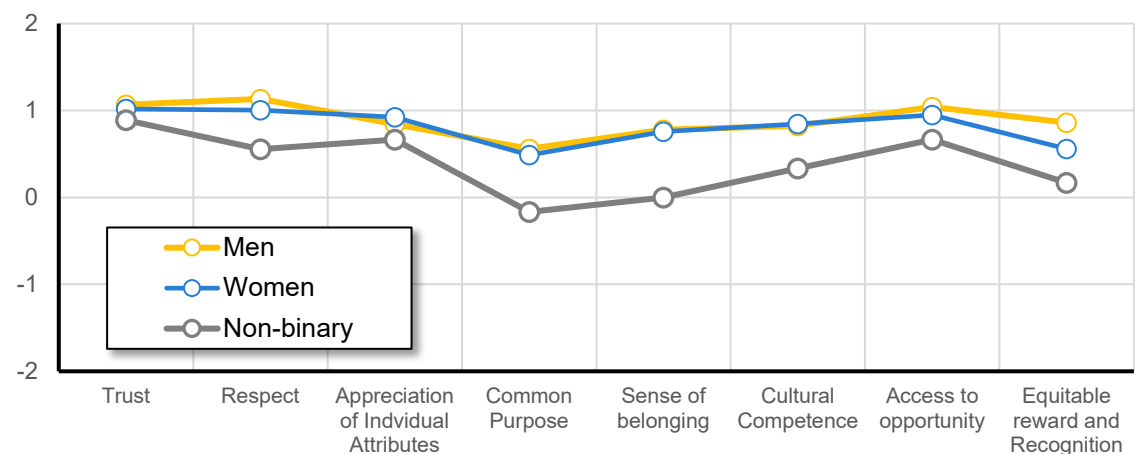




All behaviors produced scores of  $>0$  implying there are no areas in need of immediate action. 'Trust', 'Respect' and 'Access to opportunity' were the three highest scoring behaviors suggesting undergraduates trust the department to be fair, instill a climate of respect, and present limited barriers to opportunities. 'Sense of Belonging', 'Cultural Competence' and 'Equitable Reward and Recognition' all produce score between the lowest and highest score, highlighting that undergraduate students may not feel emotionally attached the department, cultural sensitivity is not a strong attribute of the department, and biases may exist when feedback is provided. The lowest scoring behavior was 'Common Purpose,' suggesting undergraduates do not feel integrated within the department.

### Gender

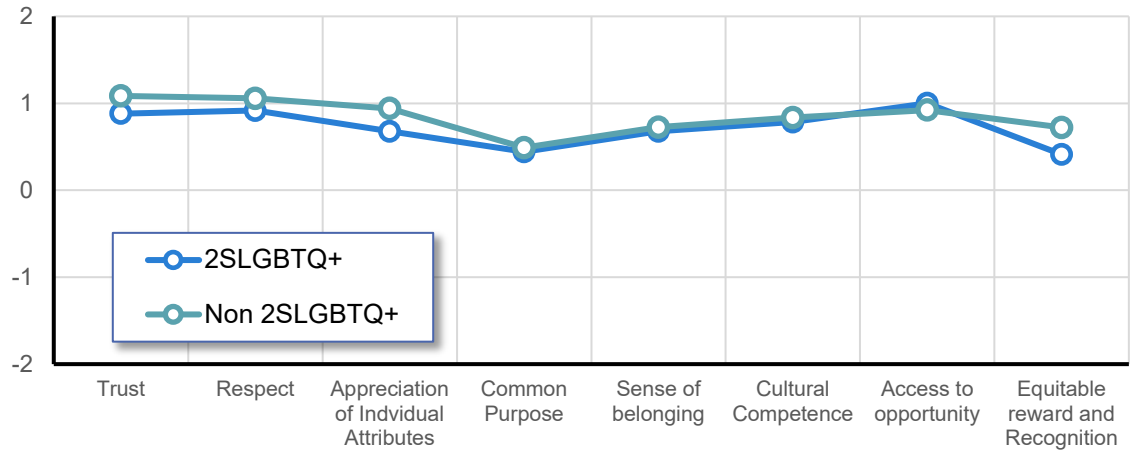
When separated by gender we see a clear difference between the responses of men, women and non-binary persons. Both men and women provide similar positive scores in all eight categories, with the only two showing a notably disparity being 'Respect' and 'Equitable Reward and Recognition'. However, scores from non-binary persons are all lower than those from men and women. 'Common Purpose' and 'Sense of Belonging' produce scores  $\leq 0$ , while the scores from 'Respect' and 'Cultural Competence' have a notable gap with responses from men and women.



### 2SLGBTQ+

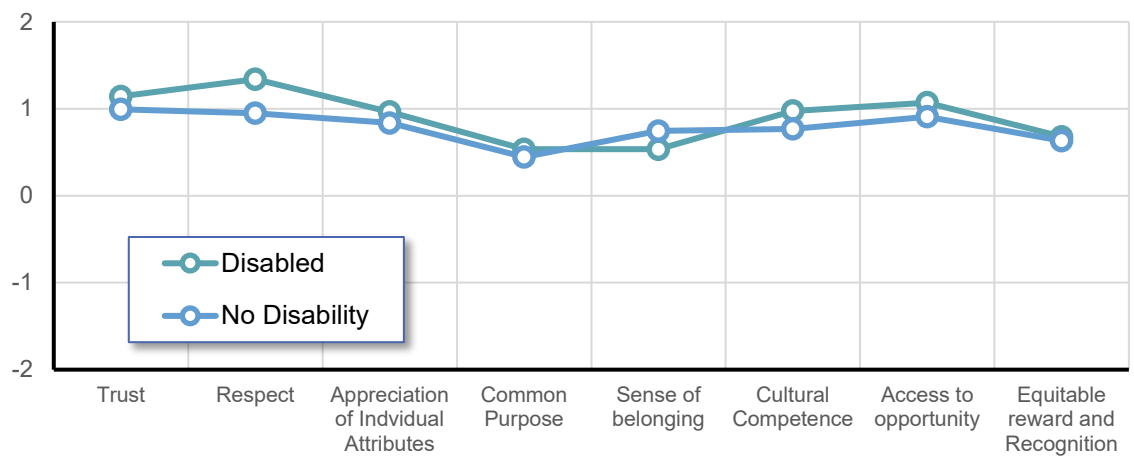
When responses are separated by 2SLGBTQ+ participants and non-2LGBTQ+ participants notable differences are evident in four of the eight categories. For 'Trust', 'Respect', 'Appreciation of Individual Attributes', and 'Equitable Reward and Recognition' scores for 2SLGBTQ+

participants were lower than non-2SLGBTQ+ participants. The remaining four categories produce similar scores when compared.



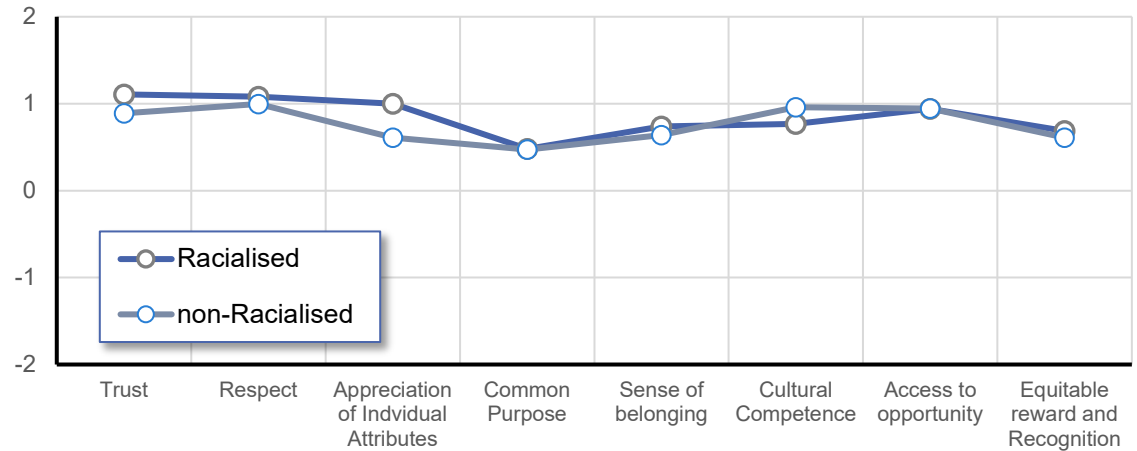
### Disability

When responses are separated by disabled participants and non-disabled participants, we see that disabled participants produced broadly high scores than non-disabled participants. Of the eight categories, only 'Sense of Belonging' produces a score lower for disabled participants than non-disabled participants.



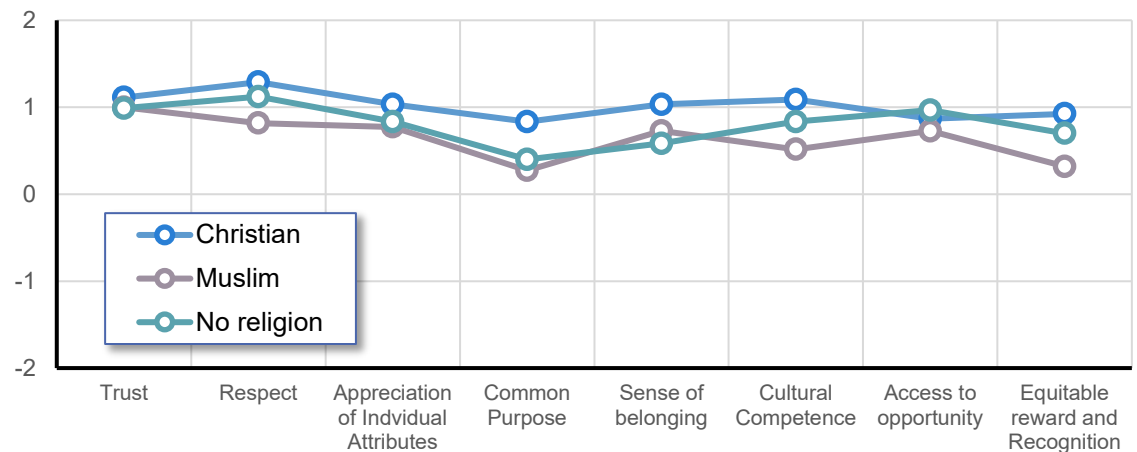
### Racialized

When responses are separated by racialized and non-racialized participants, scores for racialized participants produced broadly high scores when compared to non-racialized participants. Score were higher for racialized participants for all behaviors except for 'Cultural Competence' and 'Access to Opportunity.'



### Religion

When responses are separated by religion (n>5), we see that Christian participants produced broadly high scores compared to Muslim participants, while scores for nonreligious participants were consistently between the two, except for 'Sense of Belonging' and 'Access to Opportunity'.



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## Personal Experience

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### Introduction

The third section of the survey asked participants to answer three questions regarding their personal experience in CPS. The three questions were:

1. During the past 12 months have you experienced any unwelcome comments, jokes, offensive remarks, or images directed at you while in a departmental setting (e.g., class/laboratory/event) or from any department-affiliated individual (based on their race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of their identity)?
2. During the past 12 months, have you been excluded from full participation or marginalized while in a departmental setting (e.g., class/laboratory/event) or by a department-affiliated individual due to your race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of your identity?
3. During the past 12 months, have you heard or observed exclusionary behavior, unwelcome comments, jokes, offensive remarks, or images directed at another person or people while in a departmental setting (e.g., class/laboratory/event) or by a department-affiliated individual (based on their race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of their identity)?

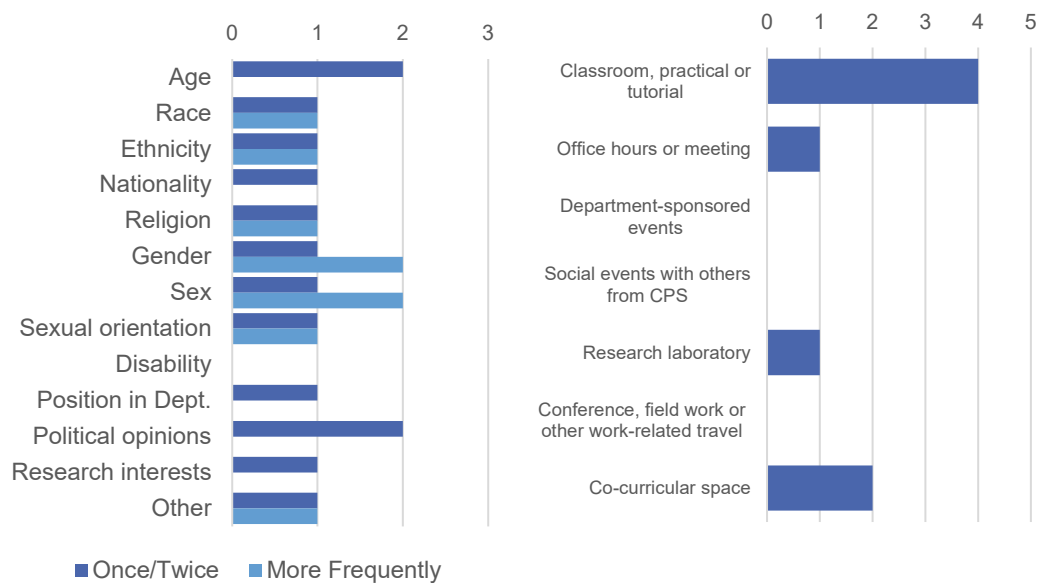
Each participant could answer either 'yes' or 'no' to each question. Answering 'yes' would lead to additional questions to provide further details, while 'no' would lead to the next question. The information in the following section is only derived from those participants that answered 'yes' to each of the three questions.

### Personal Discrimination

From the 70 eligible participants, seven (10%) responded 'yes' the first question. When asked what the target of discrimination was, one provided a single response, while six provided multiple responses. Combining these responses shows that gender and sex were selected the most, with race, ethnicity, religion, sexual orientation and "the condescending and inappropriate behavior from a professor" also selected as 'more frequent' sources of discrimination. Age, race, ethnicity, nationality, religion, gender, sex, sexual orientation, position in the department, political opinions, research interests were highlighted as the source of discrimination 'once/twice'. The only target of discrimination not selected was disability.

Participants were additionally asked to highlight where events of discrimination occurred. The location with the highest number of selects was a classroom, practical or tutorial space (n=4), while co-curricular spaces were also highlighted more than once (n=2). Office hours or other meetings and research laboratories were both selected once. The only space not selected was social events with others from the department.

Finally, participants were asked, if possible, to expand further on their experiences with specific details. Only three participants provided additional commentary. One participant highlighted an incident where they felt their religious practice wasn't respected. Another student highlighted multiple incidents where professors made inconsiderate comments about ongoing political incidents in the student's home country. Finally, a Jewish student highlighted anti-Semitic actions aimed at them by strangers and acquaintances.



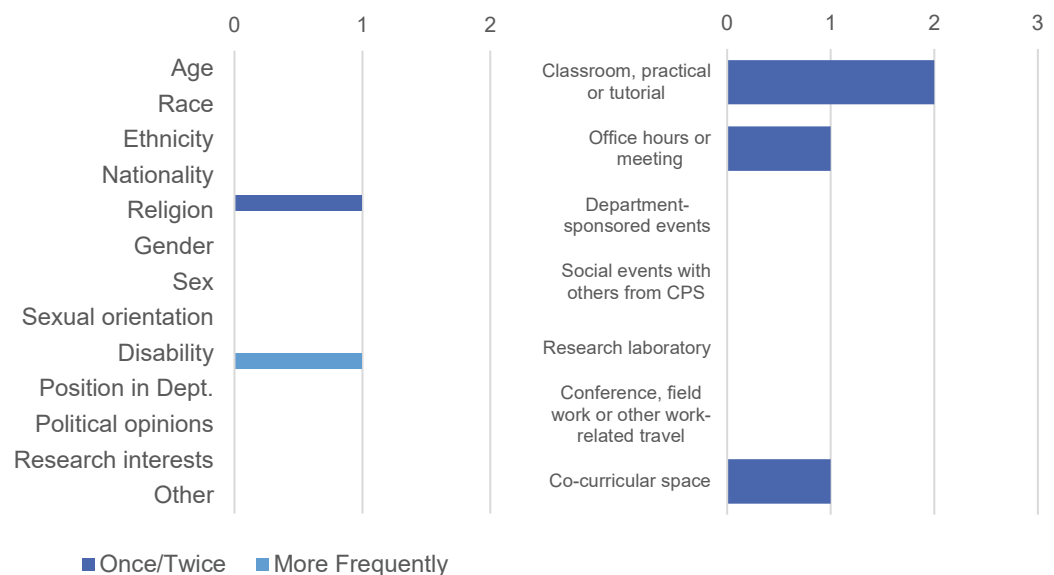
## Personal Exclusion

Of the 70 eligible participants, three (4%) responded 'yes' to the second question. When asked what the target of discrimination was, two provided a single response. A participant's disability was highlighted as a more frequent source of exclusion, while another selected that their religion was targeted 'once/twice'.

Participants were additionally asked to highlight where events of discrimination occurred. The location with the highest number of selects was a classroom, practical or tutorial space (n=2),

while both office hours or other meetings and co-curricular spaces were also highlighted (n=1 each).

Finally, participants were asked, if possible, to expand further on their experiences with specific details. Only one participant provided additional commentary highlighting that their disability is not fully supported by the department.

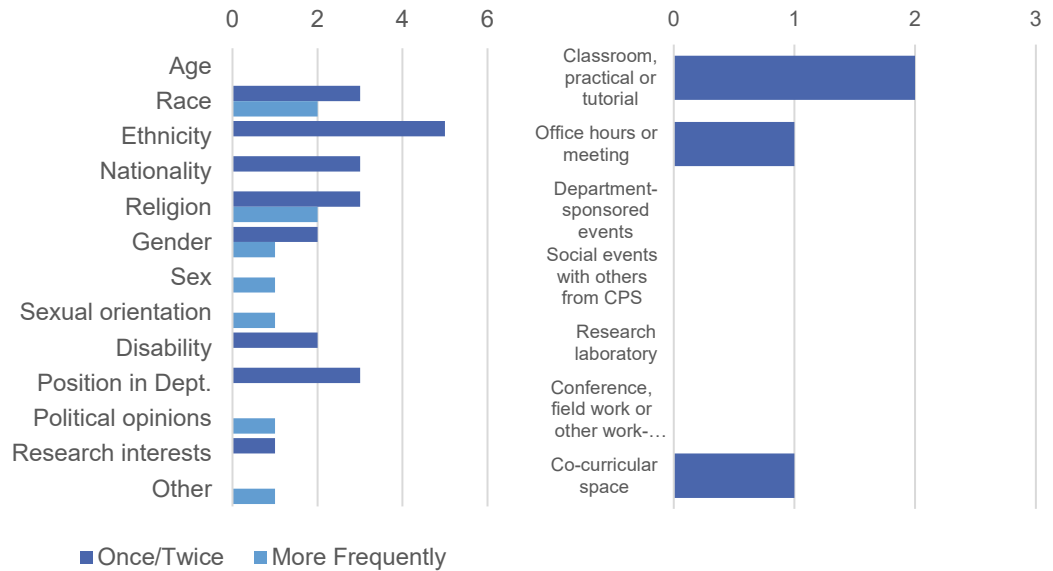


## Witnessed Discrimination

Of the 70 eligible participants, 11 (16%) responded 'yes' the first question. When asked what the target of discrimination was, one provided a single response, while 10 provided multiple responses. Combining these responses shows that race and religion were selected multiple times as a more frequent source of discrimination. Race, religion, gender, sex, sexual orientation, political opinions and "[c]ondescending behavior of a professor" were selected as more frequent sources of discrimination. Race, ethnicity, nationality, religion, gender, disability, position in the department and research interests were all highlighted as the source of discrimination 'once/twice'. The only option not selected was age.

Participants were additionally asked to highlight where they witnessed these events. The location with the highest number of selects was a classroom, practical or tutorial space (n=2), while both office hours or other meetings and co-curricular spaces were also highlighted (n=1 each).

Finally, participants were asked, if possible, to expand further on their experiences with specific details. Only one participant provided additional commentary. They highlighted an incident of a religious practice not being respected by a professor. They recounted that this had also happened to them in the past and were forced to “either...get mad in the moment while i was writing my exam and get so much time wasted for writing, or I move on for the moment.”



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## Specific Comments

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Participants were asked if there were any further comments/suggestions they wished to make. Of the 70 eligible participants, 17 provided comments though only five provided comments addressing specific EDI issues/concerns. These five comments have been grouped into four categories as highlighted below.

### Further EDI action

One participant suggested CPS “can do better” specifically regarding “inequality”.

### Faculty Diversity

Two participants suggested “more diversity in the faculty”, including research areas with “more non biophysics professors to the dept”.

### Cultural Insensitivity

A single participant suggested that instructors/professors and teaching assistants be more informed on “political challenging situation[s] worldwide” and “be empathetic of students who may be directly effected by these issues”.

### Praise for Departmental Staff

A single participant stated that staff in the department “advocate and act accordingly with the values of quality, diversity and inclusion.”



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## Suggested Improvements

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The final question of the survey asked participants to provide any suggestions to improve EDI across CPS. Of the 70 eligible participants, 21 provided responses, though only 16 provided responses regarding EDI specific issues. These 16 comments have been grouped into six categories as highlighted below.

### Further EDI action

One participant asked for transparency in sharing this survey to “get a sense of what other students in CPS feel in regards to diversity and inclusion.” Multiple students asked for a greater number of events to “promote inclusion in CPS (more socials with people of colour/diverse backgrounds).”, specifically “more events/ programs/workshops where we can all get together, have fun, engage with one another, and build community”. Another student highlighted the lack of diversity “starts with equal opportunity to admission to the university that has to be tackled first.” A final participant suggested that the department “[t]ell students that UTM has a CPS EDI committee and let them know how they can contribute”.

### Faculty Diversity

Multiple respondents asked for “hir[ing] new professors over time that come from diverse backgrounds”, “Have more diverse faculty members” and to promote “the hiring of a more diverse and qualified board of professionals without harm to students.”

### Cultural Insensitivity

One participant noted “marginalized groups need to specially request for an accommodation weeks in advance, just to get approval for religious accommodations.” One other participant simply stated; “Teach professors about other countries.”

### Improved learning environment

One participant suggested the department needs to “Encourage students to pursue what they want to do” and “[m]ake students feel acknowledged for being in this department”, while another suggested improving the structure of courses “to allow students more opportunities to grow and improve” and “taking into account they do not know where students are coming from”.

### Improved disability and mental health support

One participant requested that the department “[m]ake more accommodations/awareness for mental health issues”., while another hoped for “[help] to the accessibility students and let them feel confidence and [successful]”.

### Praise for departmental climate

A participant felt “the department has been doing is great so far”, while another stated “Keep on the good [work]”.

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## Next Steps

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We want to thank participants for their insightful and honest responses. This survey highlights a number of areas of particular concern for the Department, and we are grateful to participants for the broad range of excellent suggestions they offered on where improvements can be made. In order to focus our response, we held two community meetings – one with faculty in October 2023 and one with other members of the department in January 2024 – to collect feedback and discuss next steps. The Departmental EDI committee then used the results of the survey and feedback from these meetings to formulate a plan of action. As we continue to facilitate these surveys, this plan will be revised.

### Theme 1: Community

Undergraduate students report feeling a lower sense of belonging in the department, with non-binary respondents less satisfied with the department climate compared to men and women and Muslim respondents less satisfied than Christian participants. We plan to:

- Host additional community-building events for undergraduate students but with strong faculty participation, including student town halls organized by disciplinary Faculty Advisors and undergraduate social events (e.g., Winter Warmer) organized by the CPS Outreach Committee.
- Build undergraduate community and connections with alumni through linked Quercus and LinkedIn pages, organized by the CPS Outreach Committee.
- Support undergraduate clubs associated with CPS by assigning Faculty Liaisons to increase faculty engagement and investigate ways in which the Department may provide needed logistical or financial resources.
- Create opportunities for students to connect in lectures, labs, and tutorials through discussion, group work, and group learning activities.
- Explore and address differences in response by demographic groups within our community with support from the Equity, Diversity & Inclusion Office and Student Affairs & Services.

### Theme 2: Addressing Incidents of Harassment

There were reports of discrimination and exclusion in the survey. Amongst undergraduate respondents these incidents occurred primarily in lecture, laboratory, or tutorial sessions. Non-undergraduate respondents reported incidents primarily occurring at departmental and social

events or in research laboratories. Respondents also identified a power imbalance between graduate students and faculty that makes reporting incidents problematic.

- Continue the Departmental Topical Training series, offering additional sessions throughout the year with a focus on education, practical training, and discussion.
- Complete and implement “cultural safety modules” centered around equity, diversity, and inclusion that must be completed as part of general safety training before gaining access to CPS laboratory spaces. This work is being undertaken by the CPS EDI Committee.
- Make it easier and safer to report incidents of harassment by developing a simplified document that outlines how incidents can be reported, sharing it on the EDI tab of the CPS website and in orientation materials.
- Promote the CPS Laboratory and Field Agreement template by sharing it annually with community members, particularly entering graduate students, to provide PIs and lab members a framework for discussion and articulation of mutual responsibilities.

### Theme 3: Faculty Diversity

Many respondents highlighted the lack of diverse faculty as an area of concern. CPS considers this both a pipeline and a process problem.

- Contribute to increasing the number of Black applicants for faculty positions in general through continued support of the UTM STEM Scholars Program.
- Provide greater career and professional development support for graduate students and postdoctoral fellows in the Department, including mentoring, support of student clubs, development of handbooks, and website resources.
- Address the critical postdoctoral fellowship phase of a faculty career track by offering financial support for faculty who implement best practices in PDF recruitment.
- Continue to employ best practices around advertising and attracting diverse candidates and bringing awareness of unconscious bias to the search process. Explore opportunities for hiring diverse faculty through University Programs.

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## Appendix: survey

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### Introduction and Consent

Thank you for your interest in this climate survey!

The purpose of this survey is to better understand how well the Department of Chemical & Physical Sciences (CPS) is doing to create an inclusive environment for our diverse community, and what improvements can be made to make sure everyone in our department feels safe, supported, and valued.

For example, we will use the data collected in this survey to inform decisions and programming regarding our EDI (Equity, Diversity and Inclusion) strategy, highlight areas of concern, and provide support to at-risk communities.

To achieve our EDI goals, we have designed this survey to collect basic demographic data, as well as to capture your thoughts about our department's current EDI climate and activities.

Your participation in this survey is entirely voluntary and you can withdraw your consent to participate at any time and for any reason without penalty. You also have the right to have all of your questions answered before deciding whether to take part.

The survey includes 32 questions and will take at least 5-15 minutes, depending on your responses. There is only one mandatory question, which is used to establish your eligibility. All other questions are optional, and we have designed the survey to be as non-intrusive as possible.

If you wish to continue to the survey, please provide consent for your responses to be collected by clicking the box below. If you change your mind and no longer want to participate after starting the survey, simply shut the browser tab or window and your responses will not be recorded.

There is no penalty if you choose not to participate, now or during the survey. The most important risk involved in a survey like this is the unintended disclosure of your data. The survey will follow all privacy and confidentiality laws to minimize this risk and all information collected will remain confidential. Only the CPS Chair and survey creator will have access to the full dataset. Only numerical data will be published. Results will only be shared in aggregate, with all identifying details and information removed. As no contact information will be collected, we will not be able to follow up on any specific concerns or allegations that come forward, but we would encourage

you to contact the CPS Chair at [cpschair.utm@utoronto.ca](mailto:cpschair.utm@utoronto.ca) or the survey's creator at [scott.jess@utoronto.ca](mailto:scott.jess@utoronto.ca) for assistance.

You may contact [scott.jess@utoronto.ca](mailto:scott.jess@utoronto.ca) with any questions or concerns about the survey or your participation.

Consent declaration

I agree to take part in this survey

**Eligibility question**

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Are you an undergraduate student studying or taking classes in the Department of Chemical and Physical Sciences (CPS) at the University of Toronto Mississauga (enrolled in Astronomy, Chemistry, Earth Science, or Physics classes)?

- Yes
- No



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### Demographic information

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*This section aims to collect basic demographic data about participants and all questions are optional. These questions have been adapted from surveys designed by Statistics Canada, Ontario Health, Ontario Human Rights Commission, and the University of Toronto Employment Equity Survey.*

#### What is your age?

- [text box]

#### Do you identify as an Indigenous person?

- Yes
- No

#### What is your gender?

*Gender refers to current gender which may be different from sex assigned at birth and may be different from what is indicated on legal documents.*

- Man
- Woman
- Non-binary
- Two Spirit
- Another gender not listed here, please specify:

#### Do you identify as trans or consider yourself to be a part of the trans community?

*Trans is used here as an umbrella term for those who identify as transgender, trans, gender variant, gender non-conforming, genderqueer, or an analogous term.*

- Yes
- No

#### Do you consider yourself part of the 2SLGBTQ+ community?

- Yes
- No

#### Are you a person with a disability?

*A person with a disability is a person who has a long-term or recurring impairment that could be categorized into one of 10 types (vision, hearing, mobility, flexibility, dexterity, pain, learning, developmental, memory and mental health-related) and considers themselves to be disadvantaged in employment by reason of that impairment, or believes that an employer or potential employer is likely to consider them to be disadvantaged in employment by reason of that impairment. Persons with disabilities are also those whose functional limitations owing to their impairment have been accommodated in their current job or workplace.*

- Yes
- No

**Please indicate which of the following terms best describe your racial/ethnocultural identity. Check as many terms as apply.**

*This self-identification of racial/ethnocultural identity is not intended as an indication of one's place of origin, citizenship, language or culture and recognizes that there are differences both between and among subgroups of racial identities.*

- Indigenous
  - First Nations
  - Metis
  - Inuit
  - Another term not listed here, please specify:
- Asian
  - Caribbean (e.g., Guyanese, Trinidadian)
  - Central Asian (e.g., Kazakhstani, Uzbekistani)
  - East Asian (e.g., Chinese, Japanese, Korean)
  - European (e.g., British, Spanish)
  - North American (e.g., Canadian, American)
  - South Asian (e.g., Indian, Pakistani, Sri Lankan, Bangladeshi)
  - Southeast Asian (e.g., Filipino, Vietnamese)
  - Another term not listed here, please specify:
- Black
  - African (e.g., Ghanaian, Kenyan)
  - Caribbean (e.g., Grenadian, Jamaican)
  - European (e.g., British, Spanish)
  - North American (e.g., Canadian, American)
  - South and Central American (e.g., Brazilian, Panamanian)

- Another term not listed here, please specify:
- Latino/a/x
  - Caribbean (e.g., Cuban, Haitian)
  - Central American (e.g., Honduran, Nicaraguan)
  - European (e.g., British, Spanish)
  - North American (e.g., Canadian, Mexican, American)
  - South American (e.g., Argentinian, Brazilian)
  - Another term not listed here, please specify:
- Middle Eastern, North African, and Southwest Asian
  - European (e.g., British, Spanish)
  - Middle Eastern (e.g., Israeli, Lebanese, Palestinian)
  - North African (e.g., Libyan, Moroccan)
  - North American (e.g., Canadian, American)
  - Southwest Asian (e.g., Afghan, Iranian)
  - Another term not listed here, please specify:
- Multiracial (A person who may not identify with a singular racial or ethnocultural identity)
- White
  - African (e.g., South African)
  - Caribbean (e.g., Cuban, Puerto Rican,)
  - European (e.g., British, French, Polish)
  - North American (e.g., Canadian, American)
  - South American (e.g., Argentinian, Chilean)
  - Another term not listed here, please specify:
- Another race/ethnicity not listed here (please specify) [open text box]

**Which religion do you practice, if any?**

- Christianity
- Islam
- Hinduism
- Sikhism
- Buddhism
- Judaism
- Indigenous spirituality
- Another religion not listed here, please specify:
- None, do not practice any religion.

### Climate

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*This section includes 18 statements related to the Department of Chemical and Physical Sciences (CPS). For each statement please indicate whether you strongly agree, agree, do not know, disagree, strongly disagree. This is adapted from the Diversity Engagement Survey presented in Person et al. (2015).*

I trust CPS to be fair to all students and employees.

Strongly Agree   Agree   Don't know   Disagree   Strongly Disagree

Faulty, staff and teaching assistants in CPS are committed to treating people respectfully.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

I am valued as an individual by CPS.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

I feel that my studies contribute to the mission of the department.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

CPS cares about my opinions.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

In CPS, I have opportunities to work successfully in settings with diverse peers.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

There is someone in CPS who encourages my development.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

I receive recognition and praise for my good work similar to others who do good work in this department.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

I believe CPS manages diversity effectively.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

In CPS, I experience respect among individuals and groups with various cultural differences.

Strongly Agree   Agree   Don't Know   Disagree   Strongly Disagree

If I raised a concern about discrimination, I am confident CPS would do what is right.

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I consider at least one of my fellow students to be a trusted/close friend.					
In CPS, I am confident that my accomplishments are compensated similar to others who have achieved their goals.					
I feel connected to the vision, mission and core values of CPS.					
I believe CPS reflects a culture of civility.					
I believe that harassment is not tolerated in CPS.					
In CPS, there are opportunities for me to engage in service and community outreach.					
The culture of CPS is accepting of people with different ideas.					

### Personal experience

*This section aims to collect information regarding any discriminatory behaviour you have experienced or witnessed. It is adapted from the Academic Department Climate and Inclusion Survey from Princeton University.*

**1. During the past 12 months have you experienced any unwelcome comments, jokes, offensive remarks, or images directed at you while in a departmental setting (e.g., class/laboratory/event) or from any department-affiliated individual (based on their race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of their identity)?**

Yes

No

**During the past 12 months, how frequently have you experienced any unwelcome comments, jokes, offensive remarks, or images directed at you based on:**

<i>Your age:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your race:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your ethnicity:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your nationality:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your religion:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your gender:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your sex:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your sexual orientation:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your disability:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your position in department:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your political opinions:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your research interests:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Other, please write in</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>

**In which setting(s) has this occurred?**

- A classroom, practical or tutorial offered by CPS.
- Office hours or meeting.
- Department-sponsored events (talks/social events).
- Social events with others from CPS.
- Research laboratory
- Conference, field work or other work-related travel with others from CPS.
- Co-curricular space (library, shared office space or study space operated by CPS)
- Other, please specify:

**If possible, please elaborate on any specific instances where this has occurred.**

[write in box]

2. During the past 12 months, have you been excluded from full participation or marginalized while in a departmental setting (e.g., class/laboratory/event) or by a department-affiliated individual due to your race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of your identity?

Yes

No

During the past 12 months, how frequently have you felt excluded from full participation or marginalized due to:

<i>Your age:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your race:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your ethnicity:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your nationality:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your religion:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your gender:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your sex:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your sexual orientation:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your disability:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your position in department:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your political opinions:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Your research interests:</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>
<i>Other, please write in</i>	<i>Never</i>	<i>Once/Twice</i>	<i>More Frequently</i>

In which setting(s) has this occurred?

- A classroom, practical or tutorial offered by CPS.



- Office hours.
- Department-sponsored events (talks/social events).
- Social events with others from CPS.
- Research laboratory
- Conference, field work or other work-related travel with others from CPS.
- Co-curricular space (library, shared office space or study space operated by CPS)
- Other, please specify:

**If possible, please elaborate on any specific instances where this has occurred.**

[write in box]

3. During the past 12 months, have you heard or observed exclusionary behavior, unwelcome comments, jokes, offensive remarks, or images directed at another person or people while in a departmental setting (e.g., class/laboratory/event) or by a department-affiliated individual (based on their race, ethnicity, nationality, sexuality, ability, religion, age, views, scholarly interests, or another aspect of their identity)?

Yes

No

During the past 12 months, how frequently have you heard or observed such behaviour directed at:

<i>A person's age:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's race:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's ethnicity:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's nationality:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's religion:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's gender:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's sex:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's sexual orientation:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's disability:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's position in department:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's political opinions:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>A person's research interests:</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>
<i>Other, please write in</i>	<i>Never</i>	<i>Once/ Twice</i>	<i>More Frequently</i>

**In which setting(s) has this occurred?**

- A classroom, practical or tutorial offered by CPS.
- Office hours.

- Department-sponsored events (talks/social events).
- Social events with others from CPS.
- Research laboratory
- Conference, field work or other work-related travel with others from CPS.
- Co-curricular space (library, shared office space or study space operated by CPS)
- Other, please specify:

**If possible, please elaborate on any specific instances where this has occurred.**

[write in box]

**Final questions**

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**Are there any specific opinions, comments or instances you wish to raise regarding Equity, Diversity and Inclusion within the Department of Chemical and Physical Sciences at the University of Toronto Mississauga.**

[Write in box]

**In your opinion, what should the Department of Chemical and Physical Sciences be doing to create a more diverse and inclusive environment?**

[Write in box]

**If you would be interested in participating further in departmental focus groups to help improve departmental equity, diversity and inclusion, please simply email [cps.chair@utoronto.ca](mailto:cps.chair@utoronto.ca) to let us know.**