





Math Climate Report

2023

This report emphasizes main findings from the 2023 Math Climate Survey. The survey, developed by the Math DEI&B committee with input from the Belonging at Yale administrative leaders and the Poorvu Center, was launched via an anonymous Qualtrics link sent to department staff, faculty, postdocs, graduate students, undergraduate majors, and undergraduate non-majors. 101 people contributed their input to the findings below.

Themes of what we are aiming for...

-  A department where everyone is welcomed, respected, and supported
-  A community where people are productive in their work
-  A department where people feel connected and empowered to share their ideas
-  A place where mentorship thrives



$$V = \frac{4}{3} \pi r^3$$

Creating a culture results from higher-level policy decisions as well as the more nuanced messaging that comes from daily behavior. For example, who is CC'ed on emails and invited to events, who speaks during courses, and how meetings are conducted. We hope this summary can serve as a touchstone to encourage reflection, communication, and intentional planning from the Math community. We are grateful to those who contributed their time and effort to respond to the survey.

To bolster the success of these initiatives, it is vital for us to interpret results recognizing that no single survey or data collection effort can encompass all perspectives. These findings are one piece of information in an ongoing cultural process driven by varied personal and systemic factors. We invite the Math community to engage in this continuity of this work with us.

Yale Mathematics Statement on Diversity, Equity, and Inclusion

The Yale math department strives to create an inclusive and supportive environment for all members of its community to learn and work together. We acknowledge, welcome, and celebrate our differences, including those related to race, gender, gender identity, nationality, immigration status, sexual orientation, religion, disability status, and socioeconomic status. Motivated by the understanding that research and education benefit from the involvement of all people, we are committed to broadening participation in our department and in our profession. We are actively engaged in the recruitment, retention, and promotion of undergraduate and graduate students, faculty, and staff from varied backgrounds to achieve this goal.

AT A GLANCE

There are multiple ways people view the department, though **most** feel the department is making positive effort to create an inclusive environment. For example:

73% feel they belong in the Math department

82% agree they can be productive in their work or studies in the department

Most saw the department as mostly to completely welcoming, respectful, and supportive (61-75% across these items).

EMERGING THEMES

When asked to elaborate on experiences, notable themes shared by department members included:

Appreciation for teaching. Members expressed a desire for greater honoring of skillful instruction. Suggestions included increased consideration for teaching experience when hiring faculty, increased respect for lecturer positions, and implementing teaching awards to formally recognize efforts.

Representation in department decisions. Graduate students desired greater involvement in contributing to departmental decisions and committee meetings.

The climate “depends” on the context. When asked to elaborate, people’s sense of diversity and inclusion varied by interaction. For example, students and faculty mentioned inclusion varying from class to class, across groups of peers, or by particular faculty or staff.

Informal gatherings. The importance of and desire for opportunities to connect in less formal contexts (tea, wine and cheese events) was frequently mentioned by members in various roles.

COURSE INSTRUCTION

82% of undergraduates agreed (somewhat to completely) they felt comfortable asking instructors questions. The same percent felt comfortable working with their peers.

92% felt comfortable asking questions to their peer tutor or TF

70% of undergraduates would like more interaction with their advisor

DIGGING DEEPER

While averaging responses provides a general idea of the department's climate, it may not capture individual variation in experiences. Some members have a consistently positive or negative experience and others have a moderate experience with some highs and lows.

There were areas of consistency. For example, throughout the responses, there was a call for **increasing diversity in the department** to support innovative work and represent the variety of voices contributing to the field. About a third of respondents felt satisfied with the current level of diversity.

Respondents were split in whether they felt the department is making sufficient effort towards inclusion (57% agreed and 43% disagreed or felt neutral). A subtle dichotomy emerged in the qualitative data, suggesting much of the department is working towards an improved climate, though a subset of the department does not engage or is perceived as unsupportive towards DEI&B work.

To respect anonymity and avoid over-interpretation or misattribution of the findings, group comparisons were limited. There are people who are more and less comfortable in the department. Academic power structures, national systemic inequities, and the current diversity of the department can all affect experiences, as can personal expectations and prior experience.

SOME COMMUNITY RECOMMENDATIONS

- Increase diversity of faculty, staff, & students
- Develop a shared awareness of productive & inclusive mentorship & teaching practices
- Offer more informal gatherings encouraging colloquial conversations across roles
- Practice opportunities for students to present research informally
- Communicate clear expectations for advising relationships
- Provide increased career guidance and networking opportunities