

A photograph of a university campus. In the foreground, there are large, fluted classical columns on the right and a black lamppost with three white lanterns on the left. A large, vibrant green tree stands in the center. In the background, a classical building with columns and a pediment is visible under a clear blue sky.

Diversity, Equity, and Inclusion Annual Report 2022-23



School of Science

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Letter from the Dean's Office

Dear School of Science Community,

As we approach the end of another busy and eventful academic year, we are delighted to share with you our first **DEI Annual Report 2023** from the School of Science Dean's Office. In this report, we outline a wide range of DEI activities across the School, both at the departmental and school level.

At the outset I would like to emphasize that DEI work is not simply about race/ethnicity or gender or sexual identity – those are pieces of a larger whole that includes quality of life, work environment, mentorship, inclusion, equity, and belonging. It is also important to remind ourselves that talented people come from all backgrounds, but there is often a gap in access and opportunity for some groups. Often what we refer to as merit is really the outcome of having access to opportunities and resources that enable the realization of one's potential.

Ultimately, DEI work is about our most valuable asset – our people – and about promoting scientific excellence. As an institution of higher learning, we owe it to ourselves to enable access to traditionally underrepresented groups. Because, as the research abundantly shows, that enriches our science and our community. This is not the work of a moment or a semester. It requires a multi-pronged approach, which must be nurtured and sustained over several years.

Our [School of Science DEI Action Framework](#) outlines several action items that one can take to promote DEI. Collectively, they form a blueprint for the School, and reflect the direction in which we would like to go. These also aim to align with the [MIT Strategic Action Plan for Belonging, Achievement, and Composition](#).

Thank you for all the DEI work that so many of you have done and continue to do – work that benefits our School at large. And a very special thank you to our amazing departmental DEI Officers who have played a crucial role not just in their own departments, but also with respect to coordination and communication with the Dean's Office. Together, with everyone's engagement, we look forward to continuing this important work across our School.

With best wishes and gratitude,



Dr. Kuheli Dutt (she/her)
Assistant Dean for Diversity, Equity, and Inclusion

Diversity, Equity, and Inclusion (DEI) Annual Report 2023

The School of Science has undertaken a wide range of DEI activities this past year. Some of these have been spearheaded by the Dean's Office, others have been aimed at supporting department-led and/or MIT-wide initiatives and activities. This document outlines DEI activities within the School of Science and its departments.

Within the Dean's Office, DEI activities are broadly grouped into four categories: i) Academic and Faculty Affairs; ii) Awards and Fellowships; iii) Outreach and Community Engagement; and iv) Special Events and Communications.

I. Academic and Faculty Affairs

Faculty Workshops

The Dean's Office holds regular faculty lunches and workshops in order to build community and engage with faculty (especially junior faculty) on key issues pertaining to their advancement. Read about our [tenure-track lunch program](#) and our [faculty leadership training program](#).

Faculty Search Handbook

In order to promote an inclusive faculty search process, we have created a [Faculty Search Handbook](#), which integrates DEI considerations into the process. This handbook offers guidelines along with DEI considerations and research.

Annual Review Process for Faculty

Research has documented that faculty from underrepresented groups tend to disproportionately shoulder the burden of activities to promote inclusion, including informal mentoring. In order to ensure an inclusive review process and acknowledge these activities, we have created guidelines for the [Annual Review Process for Faculty](#).

Professional Development Support

Following a joint effort between various MIT schools and the ICEO, the School of Science Dean's Office will offer our faculty, postdocs, graduate students, staff, and administrators membership to [National Center for Faculty Development and Diversity](#). We expect this membership to be active by 1 July 2023.

Mentorship Evaluation

We are in the process of launching a pilot program for mentorship evaluation for faculty across the school. Led by Associate Dean Rebecca Saxe, this is in its incipient stage and is aimed at normalizing a culture of outstanding mentorship within the School of Science. This also includes ensuring transparency to faculty about the promotion process in general, not just the mentoring portion of the process. The Dean's Office would provide assorted resources to support this pilot program.

Gender Equity Committee Recommendations

Some of the actions taken by the Dean's Office pertaining to gender equity have been a result of the recommendations by the [School of Science Faculty Gender Equity Committee](#), led by Gigliola Staffilani and Michael Laub. These recommendations include: establishing mechanisms for faculty to voice issues regarding equity and inclusion; establishing more robust faculty mentoring plans; annual review with emphasis on transparency on the junior faculty promotion process; developing mechanisms to recognize and reward contributions to mentoring and service; develop mechanisms to support women faculty for leadership positions; and providing an annual report from the Dean's Office on progress towards equity and inclusion.

II. Awards and Fellowships

Awards are a way of recognizing the valuable work done by members of our community. Some awards given out by the School are described below.

DEI Service Fellowships

This is a new initiative from the Dean's Office, aimed at recognizing the extraordinary service contributions of graduate students in support of their community. These fellowships provide graduate students financial support (tuition, stipend, and health insurance) for one semester.

Postdoctoral Support

The Dean's Office can provide partial support towards the recruitment of postdoctoral associates and fellows who would contribute toward DEI for the department.

Departmental DEI Grants

Under this new initiative from the Dean's Office, departments can request grants (up to \$100,000 per year for three years) to support and enable departmental level DEI programming.

Dean of Science Fellowships

In collaboration with the Office of the Vice Chancellor and the Office of Graduate Education, the School of Science offers the [Dean of Science Fellowship Program](#). These three-year fellowships honor and recognize academic excellence among newly entering graduate students.

Quality of Life Grants

The [Science Quality of Life \(SQoL\)](#) grants support activities that promote inclusion, build community, foster a sense of belonging, and support the well-being of our community members. Awards are capped at \$3,000, and activities have included seminar series, departmental gatherings, student activities, staff activities, and others.

Staff Awards

The School of Science gives out [Infinite Mile Awards and Infinite Expansion Awards](#) to recognize staff, postdoctoral researchers and research scientists. These awards recognize individuals who go the extra mile to make MIT a better place.

Spot Awards

The School of Science gives out [Spot Awards](#), which appreciate and recognize exceptional contributions to the School of Science community. Individuals can be nominated at any time by any SoS member, and award winners will receive a token of appreciation shortly after.

III. Outreach and Community Engagement

STEM data show that pipeline and engagement issues begin well before graduate school. Accordingly, the Dean's Office has engaged in some outreach and community engagement activities this past year, aimed at enabling access and building capacity. These include:

Navajo Nation Math Circles (NNMC) Collaboration

We are pleased to enter into a collaboration with the [Navajo Nation Math Circles \(NNMC\) Project](#). Members of our Math department have held Teacher Workshops via Zoom for the NNMC instructors. These workshops are held once a semester, sponsored by the School.

SACNAS Conference

In 2022, the School of Science was part of a larger coordinated MIT-wide presence at the [SACNAS National Diversity in STEM Conference](#), with the aim of attracting diverse student talent to MIT. In addition to disseminating information about our scientific programs at the conference, we also offer application fee waivers to prospective students through a partnership with the Office of Graduate Education (OGE).

Outreach by Cohort/ Age Group

In addition to the newer activities mentioned above, departments, labs, centers, and institutes within the School of Science provide a wide range of [outreach programs](#) and offer community building opportunities for targeted age groups. These include K-12, undergraduate, postbaccalaureate, graduate, and postdoctoral opportunities.

IV. Special Events and Communications

There have been assorted events and communications from the Dean's Office around the theme of DEI. These have included:

Women in Science: The Exceptions

To honor International Women's Day, the Dean's Office hosted Pulitzer Prize-winning journalist Kate Zernike for a discussion of her new book, [The Exceptions](#), the story of the sixteen female scientists whose work on fighting gender bias at MIT sparked a nationwide conversation on pervasive sexism in science. Zernike was in conversation with [Nancy Hopkins](#), Amgen Professor of Biology Emerita, who led the efforts at MIT at that time towards promoting gender equity.

Special Screening and Panel Discussion: Can We Talk?

The Dean's Office hosted a special screening of the film "[Can We Talk? Difficult Conversations with Underrepresented People of Color](#)" which addressed topics around a sense of belonging and obstacles in STEM fields. This was followed by a panel discussion led by the film's award-winning maker and Professor of Journalism & Film/Media Kendall Moore

School of Science DEI Framework for Action

Based on feedback and input from individuals and groups across the school, the Dean's Office created a [DEI Framework for Action](#), which serves as a blueprint for the school's DEI action in the coming years. This document was distributed to the entire school, including students, staff, postdocs, and faculty.

Learn @ Lunch: DEI Sessions

The Dean's Office hosts [Learn @ Lunch](#), a learning series for School of Science administrative and administrative support staff members. Meeting agenda typically include informational topics, such as administrative policy, technology, training, and research highlights. We have also offered some DEI sessions as part of this series.

Dean's Faculty Lunch: DEI Session

A special session in the Dean's Faculty Lunch series was dedicated to DEI. This widely attended session included a presentation on the school's DEI vision and goals, specific action items, demographic data, and next steps. It is expected that we will hold such a session annually.

DEI Community of Practice Retreat

A day-long DEI retreat was jointly organized by the Assistant Deans for DEI across all MIT schools/college this past Fall. This was aimed at sharing best practices and offering guidance to DEI practitioners across MIT.

Guidance on Writing a DEI Statement for Job Applications

As part of the [Career Advising and Professional Development \(CAPD\)](#) series on the Faculty Job Search Deep Dive, the school's Assistant Dean for DEI, Kuheli Dutt, led a session on [How to Write Effective and Authentic Diversity Statements](#). This session was attended by graduate students and postdocs from the MIT community.

DEI Website

The Communications team in the Dean's Office has created a [School of Science DEI website](#) that reflects DEI activities at the school level.

V. Departmental DEI Activities

Department of Biology:

The Department of Biology promotes DEI as among its core values. In line with this, the department carried out a wide range of DEI programming and activity, described below.

Outreach and Recruiting Activities

These include the following updates to previously identified goals:

- Forging additional relationships with faculty members at Historically Black Colleges and Universities (HBCUs) such as: Spelman College, Howard University, North Carolina A&T State University, North Carolina Central University, and Albany State University.
- Increasing the number of Black students in MSRP-Bio: Of the 38 MSRP-Bio students this year, 8 were Black; 4 were placed in Biology and 4 in BCS. This is an increase over 2020.
- Structuring Open Houses to highlight DEI activities and introduce students to various departmental and campus resources for graduate students, including Underrepresented Minority (URM) students. This includes socials specifically for URM students and a specific DEI session for all students.
- The DEI Officer for Biology, Hallie Dowling-Huppert, has been included in meeting with all faculty candidates for Biology searches in the 2022 and 2023 search cycles and has conducted bias trainings for the faculty search committees.

Dr. Mandana Sassanfar continues to lead the department's outreach activities, including the highly successful [Bernard S. and Sophie G. Gould MIT Summer Research Program \(BSG-MSRP-Bio\)](#). As of June 2021, approximately 98% of the participating students have graduated from college and around 74% have enrolled in graduate school or in a MD/PhD program, including around 31% who have enrolled at MIT¹. The success of this program is inspirational, earning it an [INSIGHT Into Diversity 2022 Inspiring Programs in STEM Award](#).

Dr. Sassanfar and biograd Sheena Vasquez launched the [Community College Partnership](#), which provides informational activities about research and training opportunities to students at Bunker Hill Community College and Roxbury Community College. In the spring of 2021, graduate students and postdocs from Biology led a successful 3-day scientific workshop (virtual) at Bunker Hill Community College.

[Leah Knox Scholars Program](#): This program ran virtually over the summers of 2020 and 2021. This program provides a two-summer introduction to research to high-school students, most of whom are from underrepresented groups in STEM.

¹ Data from MSRP-Bio program

Admissions and Student Outcomes

Various progress updates were made to previously identified goals. These include:

- Graduate officers provided instruction to all faculty readers involved in the recruiting and admissions process an in-person/remote orientation with instruction on what to look for, various criteria, and the role of implicit bias. This pool of faculty readers was also expanded.
- A DEI session for all prospective students was added to the recruiting program. This highlighted DEI activities in the department and allowed for prospective students to talk with current URM students and students who are active in Biology DEI initiatives. Current URM students also led socials for prospective URM students including LGBTQ, BIPOC, and International Student mixers. Besides this, many students, including URM students, were involved in the recruitment process.
- Current and historical information on [admissions statistics and student outcomes](#) have been made available on the department's webpage and will be updated annually.
- [Biology Application Assistance Program](#): In this student-run program, members of the graduate committee meet with student groups to explain the graduate school application process and offer advice. Students also mentor applicants on their applications.
- Of the almost 900 applications received, around 11% were from URM candidates. Biology faculty member and Associate Dean Jackie Lees provided guidance and training to various faculty members on reading and evaluating applications from URM students.
- According to [MIT](#) and [Biology departmental data](#), the graduation rate, time to PhD, and career outcomes for Biology URM and non-URM students are very similar.

Climate and Inclusion

Improving departmental, graduate program, and lab climate remains a critical aspect of an educational and work experience that is inclusive and equitable. Progress on previously identified goals include:

- The completion of a strategic action plan in alignment with the MIT Strategic Action Plan for Belonging, Achievement and Inclusion. During the 21-22 year, The Biology department undertook a strategic planning process that outlined three main strategic areas that include Training, Community Building and Support and Transparency. This strategic planning process was led by Biology DEI Officer, Hallie Dowling-Huppert and supported by Biology DEI Outreach and Recruitment Director Dr. Mandana Sassanfar, the Biology DEI Council, Biology DEI Faculty Committee, Graduate Committee and additional stakeholders in the Biology Department.
- The department is currently convening a Mentorship Committee to assess how to improve mentorship for trainees. The committee is led by Associate Department Head

Iain Cheeseman and Associate Dean Jackie Lees and is made up of graduate students, post docs and faculty.

- All incoming PhD students complete 6 sessions with Hallie Dowling-Huppert, which include DEI and resource information and also include an introduction to Grad Support and IDHR (including information on resources, policies, and reporting options). In addition, first year students are made aware of various resources such as core-course tutors and the possibility of requesting extra time on exams in addition to other accommodations related information.
- The graduate committee compiled data from recent surveys about student experiences and stressors, and shared this, and information on best mentoring practices and how to support students, with all faculty in the Fall of 2020. More than 40 research-active faculty who mentor graduate students attended a mentor training offered by [CIMER](#) in 2021.
- In collaboration with Darcy Gordon, Instructor of online and blended learning in Biology, the department has launched the first Micro-credential which is focused on Inclusive Teaching Practices. They have run two sessions with a total of 25 participants with plans to run the session again in the fall.
- In collaboration with Hallie Dowling-Huppert and post docs on the Biology DEI council and the Building 68 Post Doc Association, two programs to support welcoming and inclusion for Post Docs have been launched. The first is post doc buddy program that pairs new post docs with established post docs to welcome them to the department and foster connections for newly arrived community members. They have also established an application review program for post docs applying to fellowships and grants where post docs who have been awarded grants of the same type look over applications to help the success of the applications.

In alignment with the Biology strategic plan, Departmental DEI Officer Hallie Dowling-Huppert, with support from the Biology DEI council and Faculty DEI committee has launched a variety of initiatives focused on increasing equity and inclusion. Through conversations with the department and in alignment with the departmental and institutional strategic plans Hallie creates a lab level training aimed at fostering welcoming and inclusive environments within labs in the department. These lab level trainings are tailored to the lab's needs and focus on increasing equity and inclusion within the lab space. This includes conversations on conflict resolution, power dynamics, self-advocacy and other topics as needed. They also go through a variety of scenarios that allow participants to troubleshoot issues that typically come up in labs. Hallie also leads numerous departmental trainings and workshops around inclusion, climate, and DEI for trainees, faculty and staff.

Coordination with Other Efforts

In June of 2021, Biology DEI Officer, Hallie Dowling-Huppert was hired to support and direct strategic DEI initiatives in the department. In her second year at the Institute she has directed

many of the initiatives that directing support the expansion of Diversity, Equity and inclusion programs in the department.

The Biology DEI Council was created to facilitate the coordination of many DEI efforts in the department. This council was started in January of 2021 and continues today to bring together ideas and opinions from the department to direct and coordinate DEI priorities of the department. This council is made up of undergraduate and graduate students, post-docs, staff and faculty representatives.

The Biology Department, Whitehead Institute, Broad Institute, and Ragon Institute jointly sponsored the Intersections Science Fellows Symposium. This was a postdoc-led initiative carried out in partnership with other research institutions in the Northeast. It showcased the work of a diverse group of 25 late-stage postdocs and provided them with additional networking opportunities and mentorship.

In 2022, the department, with leadership from the Faculty DEI Committee and DEI Officer, launched the [MIT Biology Catalyst Symposium](#). This symposium is part of a new effort to bring outstanding postdocs from traditionally underrepresented backgrounds in science to engage with members of our community. Aimed specifically at postdocs pursuing academic careers, the three-day symposium provides a venue for participants to share their research, discuss exciting new directions, and make new professional connections. The department welcomed eight Catalyst Fellows to campus for the first symposium in May of 2023.

The [Biology DEI website](#) provides information on the department's DEI work and activities.

Department of Brain and Cognitive Sciences (BCS):

Over the past year, the Department of Brain and Cognitive Sciences (BCS) has initiated several DEIJ initiatives, including listening sessions, affinity-based programming, and community-building events to support its diverse community. It has also implemented and/or promoted policies and practices to support equitable teaching practices, handle concerns about faculty, and recognize faculty contributions to Diversity, Equity, Inclusion and Justice (DEIJ) efforts. Furthermore, the department has created several actionable groups to advance the work of DEIJ, including a community of practice, faculty-led working groups, and inclusive committees that include faculty, staff, students, and postdoc representatives.

Recognizing their role within the broader Building 46 community as a whole, the department also collaborates closely with both the McGovern Institute for Brain Research and the Picower Institute for Learning and Memory to advance DEIJ accountability. Together, they comprise a community of more than 800 undergraduates, graduate students, postdocs, faculty, and scientific and administrative staff.

Following the stated goals and vision outlined in the [BCS Strategic Plan](#), and in alignment with the [MIT Strategic Action Plan for Belonging, Achievement, and Composition](#), the department worked on the following activities listed below.

Promoting a Culture of Belonging:

The department strives to cultivate a community in which people feel connected to each other, share a sense of purpose, and support each individual's freedom to be themselves and respectfully express their views. By encouraging empathy, civil discourse, inclusion, and engagement, they aim to build on their historic strengths and contribute to society's collective well-being.

- DEIJ Program Officer Farrah Belizaire and Associate Department Head for DEIJ Laura Schulz conducted several listening sessions with staff, students, and faculty in the BCS community to address ongoing concerns.
- A [departmental DEI website](#) was created, with information and resources for the community. Additionally, the department has a bi-monthly newsletter.
- The department hosts DEIJ-related events multiple times a month, including the [Amplify Building 46 Event Series](#), as well as training and networking opportunities. The Seminar Committee also works to incorporate [DEI-focused content](#) into the schedule of weekly colloquia and related talks.
- The department also sponsors affinity-based initiatives, including programming to support the unique needs of international scholars and groups historically underrepresented in the field. The Dean's Office has given the department a \$100,000 grant designated for DEIJ activities and programs.
- Beginning in the Spring of 2023, Farrah Belizaire has been working with the Office of the Provost's Institutional Research to analyze and report on data and metrics collected through the [Quality of Life Survey](#), administered to students, postdocs, faculty and staff throughout BCS, McGovern and Picower every two years to collect valuable insights on departmental and institutional culture and climate, among several other dimensions.
- Creation of the [Community of Practice](#): This is a way for representatives from each lab and staff unit to come together every month to share best practices and learn from each other. The Community of Practice is open to anyone – multiple members of a lab can attend. A new format, IDEA, was adopted. This is for Inform (sharing updates), Discuss (raising concerns, questions, or points of discussion), Engage (a brief training workshop focused on a specific issue), and Act (take away measures to bring back to labs or staff units). Some issues engaged on included inclusive meeting practices, impostor syndrome, managing across differences, and brave spaces.

Achieving Equity Through Standards of Excellence

The department will make equity central to how opportunities are presented, and assessments are conducted for all members of the community while ensuring the highest standards of excellence. This includes minimizing barriers to achievement and charting equitable pathways to success for everyone.

- A 360-review process for all faculty was completed in 2021, which reviewed faculty both individually and collectively. The results were used to develop a list of core competencies among the BCS faculty.
- Beginning in the Fall of 2022, the department participated in the MIT Teaching & Learning Lab's pilot program to promote Equitable Teaching Practices. This was followed up with a January 2023 faculty meeting focused on [inclusive teaching practices](#).
- The department has worked to implement the School of Science's revised Faculty Annual Review Process, which as of 2022 reports on faculty contributions to DEI efforts as a measure of service.
- Policies for [handling concerns about faculty](#), especially concerns that don't rise to the level of violations, are now posted on the departmental website, along with a list of people to contact for support in different roles. This information was also presented at the BCS seminar on support resources.
- A micro-credential program in DEI was launched in partnership with the University of Rhode Island. This program is fully subsidized by the department and open to all PhD students and postdocs on a first come, first served basis.
- All labs have been asked to post a statement on DEI on their lab websites, and faculty were asked to discuss their values around mentoring and DEI with their labs.
- The faculty search committee includes staff, student, and postdoc representatives.
- In an effort to recognize members of the community for their contributions to DEI, the department gives out [DEI Impact Awards](#) as part of the annual Teuber Lecture.

Expanding the Composition of our Community

The department aims to serve as a magnet for a wide range of talented people, and for the composition of the community, and of the leadership to reflect a commitment to diversity. Establishing objectives, defining steps for achieving them, and improving processes for collecting more detailed identity data will allow for meaningful progress.

- Starting in the 2021-22 academic year, the 2-year postbaccalaureate [Research Scholars Program](#) was expanded to 5 scholars per year (up from 2 scholars annually). Thanks to a generous gift through the McGovern Institute, two K. Lisa Yang Postbaccalaureate Research Scholars have been permanently endowed.

- There is now expanded support for collaboration with the Biology Department and CBMM for the BSG-MSRP-Bio. As part of this, BCS will now be able to fund up to 15 scholars, a significant increase from the 6 scholars BCS funded previously.
- The department participated in various outreach conferences in the Fall 2022 semester, including the [Annual Biomedical Research Conference for Minority Students](#) (ABRCMS) and the [Society for the Advancement of Chicanos and Native Americans National Diversity in STEM Conference](#) (SACNAS).
- The department has facilitated and/or promoted several trainings and workshops to support the recruitment of diverse groups into our community:
 - o Equity in Graduate Education (Fall 2021)
 - o Strategies for Equity-based Holistic Review (Fall 2022)
 - o Interrupting Bias in Faculty Search (Fall 2022)
 - o Best Practices in Lab Hiring (Fall 2022)
 - o Aligning Recruitment and Admissions (Spring 2023)
- The department has also implemented 3 faculty-led working groups, in addition to an HR advisory, to help support tactical goals around the following areas:
 - o Community Building: Led by faculty member Nancy Kanwisher (BCS/McGovern) and staff member Elise Malvicini (McGovern)
 - o PK-12 through College Outreach: Led by Ed Boyden (BCS/Picower) and Ted Gibson (BCS)
 - o Postdoc and Faculty Pipeline: Led by Steve Flavell (BCS/Picower) and Ila Fiete (McGovern)
 - o Staff Hiring: Led by Kimberli De Mayo (BCS), Lauren Anderson (Picower) and Meaghan Jalbert (McGovern)

The [BCS DEI website](#) provides information on the department's DEI work and activities.

Department of Chemistry:

Following the recommendations of the [Chemistry Quality of Life Committee Report](#) some years ago, the action areas identified were: Build Community; Education and Professional Development; and Research and Mentoring. The department has worked to address each of these, outlined below.

Build Community

- Formation of the Diversity, Equity, and Inclusion Committee (DEIC)
- Establishing a [graduate student peer mentoring program](#), which matches new graduate students to current graduate students
- Student groups receive funding from the department to meet their goals and missions

Education and Professional Development

- Orientation has been expanded to include many workshops, informational sessions, and time to meet and have lunch with current students, faculty, and staff. This includes inclusive TA training, a workshop on DEI and their roles, safety, and other topics. The second year orientation includes “Advanced Topics in Graduate School” with topics on departmental requirements for a PhD; work-life balance; career planning; and others.
- “Plan to Finish” thesis committee meetings have been instituted
- Graduate student exit interviews have been conducted
- Annual student self-examinations have been instituted
- Faculty 360 reviews have been piloted
- The Cumulative Exam System was reviewed and revised to meet the needs of the students and improve departmental pedagogy and mission statement

Research and Mentoring

- Formation of the Mentoring Committee, which researched best practices for mentoring and needs specific to Chemistry.
- In 2016-17 the department had created a biannual training on preventing sexual harassment, required for all labs and PIs. This training became a model for MIT. This work led the then department head to win an institute changemaker award in 2018.

Quality of Life Committee

The Quality of Life (QoL) Committee is composed of students, postdocs, faculty and staff, including the departmental DEI Officer EmmaLee Pallai. Now in its fifth year, this committee is focusing on Disability, Team, Bias Training, establishing DEI leads in each research group, evaluating the efficacy of faculty mentorship, and establishing biannual Safety Awards. The QoL Committee works with the department to implement policies aimed at supporting a diverse population of students, postdocs, staff and faculty, with Women+ in Chemistry (WIC+), Chemistry Resources for Easing Friction and Stress (ChemREFS), Chemistry Postdoctoral Association (ChemPDA), and Chemistry Graduate Student Council (CGSC).

Community Values

The [Chemistry Statement of Values \(SoV\)](#) was unveiled in 2021, following input from groups across the department. With the unveiling were a number of [Value Based Initiatives](#).

Diversity, Equity, and Inclusion Committee (DEIC)

The Diversity, Equity, and Inclusion Committee (DEIC) is a standing committee composed of faculty, postdocs, students, and staff, including the departmental DEI Officer EmmaLee Pallai. The purpose of this committee is to lead the department’s efforts to address issues identified with input from the Chemistry Alliance for Diversity and Inclusion (CADI), WIC+, and QoL, and

other department members or groups, and to implement action plans that advance the department's goal to create and sustain an inclusive and welcoming community. Examples of initiatives that the DEIC has completed include the following (many of which emerged from the #ShutDownSTEM discussions within the department):

- Working with CADI and QoL to implement the in-person, department-wide implicit bias training. These were implemented in 2022.
- Re-evaluating the graduate admissions process and the PhD program.
- Participating in the process that led to the hire of the departmental DEI Officer
- Developing a [ten-year plan](#) to increase the number of underrepresented minorities (URM) with special emphasis on Black students.

2022-2023 DEI Initiatives

Against the above background of actions and programming around DEI, some of the more recent initiatives include:

ACCESS

In conjunction with Chemical Engineering and the Department of Materials Science and Engineering, [ACCESS](#) works to increase the diversity of applicants to chemistry, chemical engineering, and materials science throughout the United States. The focus is on preparing undergraduate students for application to various programs in the country, not just MIT.

Future Faculty Symposium

The inaugural [Future Faculty Symposium](#) occurred on campus in August 2022. This event was focused on working with promising postdocs and graduate students across the country to provide mentorship as they enter their next career stage. Out of a total of 37 applicants representing 21 institutions, 5 were selected for the symposium.

Graduate Student Recruitment

The department's multi-pronged approach to student recruitment involves active outreach and engagement. The Chemistry Application Mentor Program, (CAMP) provides help with applications. In 2021 the department had virtual booths at SACNAS, ABRCMS, and NOBCCChE. In 2022 the DEIC formed a subcommittee where current graduate students worked to reach out to those accepted to MIT, which included providing newsletters of interest to prospective students and points of contact throughout the acceptance process.

NOBCCChE Collective

Spearheaded by Tim Swager, faculty and former chair of the DEIC, the NOBCCChE Collective is a group of Predominantly White Institutions (PWIs), Historically Black Colleges and Universities (HBCUs), and Minority Serving Institutions (MSIs) who are connecting under the auspices of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCCChE) to support young Black chemists, both students and faculty, in their careers, providing access to and the sharing of resources.

Disability/Ableism in Chemistry

This QoL working group is analyzing how disability is viewed in Chemistry, at MIT, and in science in the US along with resources and procedures to ensure excellence across varying abilities.

DEI Leads

This QoL working group is analyzing the possible parameters and benefits of each lab having a DEI lead. The DEI lead is a faculty, research scientist, postdoc, or other member who meets regularly with DEI Officer EmmaLee Pallai to discuss lab needs and progress, works with others to discuss best practices for integration of DEI into labs, and possibly gains training in facilitation and other DEI skills to extend the reach of the DEI Officer and provide a network of individuals within the department connecting the labs to the greater Chemistry, SoS, and MIT mission and values for DEI.

Education

The foundation of good DEI practices includes education integrated at the core of the department, school, and university. While MIT has created the IDHR and their offerings, Chemistry has worked toward their values through their educational DEI plan. Listed below is an outline of the planned curriculum, a multi-year endeavor to be finalized in the fall, and a highlight of the three current foundational aspects of that curriculum:

Orientation

The departmental orientation includes sessions on Inclusive Teaching as a TA presented by the Teaching and Learning Lab and an introduction to DEI in Chemistry workshop with DEI Officer EmmaLee Pallai. The TA training is very involved, in order to ensure that students are introduced to departmental culture, values, and expectations while the department also learns about them and their expectations and the varied histories they bring to the department.

Mental Health and Wellness Seminar Series

Pulling in specialists from across MIT and beyond, the Mental Health and Wellness Seminar series is open to all within the department. Topics from the past year have included Flipping Failure, Work-Life Balance, and Drinking Culture.

Implicit Bias Workshop Series

Based on the need identified by the QoL Committee, Raul Hernandez, Ed.D, former associate dean of DEI at Boston College Wheelock College of Education & Human Development, was hired as a consultant to create and facilitate part one of a two part series in partnership with EmmaLee Pallai. Part one was a lecture-based session completed in the Fall Semester with an over 90% departmental attendance rate. Part II was a workshop at the end of spring 2022 into the summer as a lab level workshop focused on discussion and departmental identified case studies.

Lab Values and Culture

In this lab level workshop, teams move from discussing values, what values are most important at a team level, and actions associated with those values. Labs leave with an outline of expected behaviors and actions attached to each value and list of variables that might impact the ability to

carry out those values, along with ways to begin integrating them more in daily practice and a list of questions generated in session they can use as discussion starters.

Shut Down Chem

Now in its third year, [Shut Down Chem](#) has evolved from a one-time national movement into a supported half day program focused on anti-racism in the sciences and specifically anti-Blackness in Chemistry. This has been student-led with support from the Department Head, including shutting down Chemistry for the half day so all staff, faculty and students can attend. This past year was in person with a keynote speaker, multiple workshops, pre-workshop facilitation training led by EmmaLee Pallai for presenters, and a luncheon. The keynote was also simulcast.

Recognition

The department recognizes individuals who go beyond their work to advocate for DEI and create a better working environment. The following awards recognize those individuals and groups:

- Mentorship Spotlight Award: This award recognizes those who demonstrate exceptional commitment to fostering a positive working environment for those around them, leading by example, and generally demonstrating outstanding mentorship.
- Safety Award: The safety award is set to launch in the 2022-2023 school year to focus on those who promote our safety values, including not just physical but psychological safety.
- Service Award: This award is given annually to graduate students and postdocs who have had a positive impact in the chemistry community and have demonstrated outstanding service within the department.

The [Chemistry DEI website](#) provides information on the department's DEI work and activities.

Department of Earth, Atmospheric, and Planetary Sciences (EAPS)

The past year has built on previous efforts within EAPS, including the work of the Diversity Council, data and recommendations from Taskforce 2023, and the Action Plan that emerged from the summer 2020 #ShutdownSTEM discussions. Recommendations from other groups at MIT, including the Black Students Union and Black Graduate Students Association, and conversations with other departments also shape these proposed actions. Under the guidance of DEI Officer EmmaLee Pallai (shared with Chemistry), the DEIC was reformed with a focus on teamwork and serving as a model on working together. The current DEIC is composed of a junior and senior faculty member, support and administrative staff, undergraduate and graduate student, and post-doctoral candidate. The DEI Officer EmmaLee Pallai and Associate Department Head of DEI David McGee serve as co-chairs. Together the DEIC worked with EAPS to finalize the three main initiatives for 2022-2023:

Create and pilot the EAPS Support and Response Structure

The Support Team consists of staff and faculty within the department who are available to discuss issues, provide guidance about departmental and institutional policies, and simply help people be heard. They focus on matters that don't rise to the level of the IDHR or other reporting bodies, and/or can help guide individuals to those resources as needed.

Strengthen Outreach Efforts Moving Toward Sustainability

EAPS has an active group in [LINK-12](#) and other endeavors, but not fully operationalized for sustainability. They have begun evaluating current outreach programs and interest while looking for partnerships.

Develop EAPS DEI Curriculum

The department has piloted a foundational workshop that includes a progressive curriculum that integrates DEI education into varying layers, and is researching external vendors, URGE programming, national organizations, and internal programming partners.

Besides these, the department has taken action on a range of areas, including: Composition; Achievement; Inclusion, Belonging and Well-Being; Engagement and Learning; Accountability.

Composition

- K-12 outreach efforts: The department is exploring partnerships with the Office of Engineering Outreach programs (OEOP) for sustainability in outreach efforts. It has continued its actions with Link-12 and partnerships with the non-profit 826, Scientist for a day, and other programming.
- Research internships for non-MIT undergraduates from underrepresented backgrounds: Departmental participation in the MSRP program (~1-3 students per year) has continued. In summer 2022, DEI funds were used to cover visiting student fees to enable summer research opportunities for 5 undergraduates from underrepresented backgrounds from other universities.
- Graduate Admissions/ Application Assistance Program: Graduate students in [ESAC](#) and [Towards Inclusion and Diversity in EAPS \(TIDE\)](#) have provided outreach efforts to potential URM applicants through the Office of Graduate Education at SACNAS and other conferences serving historically excluded groups. They also provided application mentorship.
- GRE scores were not accepted for the 2020-2021 or 2021-2022 graduate application cycles and are not required for the upcoming cycle. The department will also provide application fee waivers via MIT's Office of Graduate Education (OGE).
- Faculty searches: Equity-focused faculty search guidelines were developed in 2019 and have been implemented and revised since then. These include beginning the search early, advertising in venues that reach underrepresented groups, discussion of DEI by candidates in their application materials and interviews, graduate student involvement in

the search, bias awareness training, implementation of Zoom interviews for a “long list” of candidates, and review of candidate demographics at each step of the process. DEI Officer EmmaLee Pallai conducted bias awareness workshops with faculty search committee and graduate student advisory group members. There will be continuing improvement of faculty searches for equity and diversity through more uniform practices and integration at all stages of search process, in collaboration with School level efforts.

Achievement

- Mentoring: UROP Mentor training and guidelines are available through the [MIT UROP](#) office and advertised by the EAPS education office. EmmaLee Pallai also worked with some UROP groups in the summer of 2022, and DEI education will be integrated into groups. There continues to be a peer mentoring program for undergraduate and graduate students (ESAC). The department has also been holding group discussion sessions with faculty and students on best mentoring practices and current needs of the faculty/student academic relationship. These have been in partnership with the Teaching and Learning Lab, Office of Graduate Education, and the EAPS academic administrator.
- Guidelines and Onboarding: With the hiring of a new Academic Administrator, the department worked to identify needs for communicating expectations through undergraduate and graduate student handbooks and begun to address them. The postdoc handbook was finalized and posted on their internal website.
- Analysis of attrition rates: An analysis was completed showing no statistical difference in attrition rates between URM and non-URM EAPS graduate students.

Inclusion, Belonging and Well-Being

- Affinity Groups: Towards Inclusion and Diversity in EAPS (TIDE) has organized an affinity group for department members of color and receives departmental support for food costs. Women in Course 12 (WIXII) worked closely with TIDE for coordinated programming, and now looks to revive for the 2022-2023 season with new leadership.
- Clarify and strengthen structures for harassment reporting and accountability: A new internal structure for departmental support has been created by the DEIC and will be field tested. It includes a Support Team made up of key faculty and staff whom people can speak with, and will have a method for tracking issues to search for trends. As part of this effort, the department will incorporate education for team members and others associated with the role as first contact for those in need of support on facilitating difficult conversations, mediation and dialogue techniques. Additionally, in 2021 presentations were made by IDHR to faculty, staff, and students about reporting and support resources.

- Investigating casteism: A postdoc, along with DEI Officer EmmaLee Pallai are working with IDHR, HR, and the ICEO office to investigate casteism at MIT and the greater STEM/Boston community.
- Communications and Crisis Management: Dialogues were organized by EmmaLee Pallai in collaboration with Restorative Justice Coordinator Nina Harris in Fall 2021 to promote communication within the department after the Carlson Lecture cancellation. The DEI Officer and Associate Department Head of DEI reached out to various groups within EAPS to hold discussions and gauge needs of those affected by the incident and continued discourse around DEI in the sciences, academic freedom, and freedom of speech.
- Recognition: Established a Community Builder award for service and contributions to the department culture. This is in addition to the existing [awards offered by the department](#), and is open to all department members.

Engagement and Learning

- Inclusive research group workshops: A Lab Values and Culture Workshop has been piloted by the DEI Officer with good results and will be launched, along with the DEI curriculum, later in the year.
- Reading and discussion seminars: Graduate students and postdocs organized the second offering of the seminar on Racism, Extraction, and Colonialism in the Geosciences. Associate Department Head for DEI David McGee took part in order to help identify ways of making this seminar a regular offering in EAPS.
- External speakers: The Department Lecture Series and other seminars have been devoted to DEI topics, and speakers also regularly provide separate discussions with early-career researchers about their career and/or outreach efforts. The past year has seen Kim Cobb, Tamara Pico, Brian Arbic, Jacqui Patterson as invited speakers who brought substantial DEI experience to our colloquia.
- Participation in broader efforts within the Geoscience community: Departmental participation in the broader [Unlearning Racism in Geoscience \(URGE\)](#) program was in a reflection/planning stage the past year, but now that URGE is entering a more active phase the department plans to reconnect with that program.
- AGU Chapman Conference on Social Justice in the Geosciences: The DEI Officer and a student advocate, Julia Wilcots, were invited to attend. This conference was focused on creating the plan for moving toward social justice in the geosciences.
- DEI Library: TIDE used Community Builder funds to begin building a DEI library in the Charney library in the Green Building.

Accountability

- Communication of DEI data and DEIC work: Survey results and DEI Committee meeting minutes are shared with the EAPS community in an internal website.
- Faculty review: Faculty include their DEI-related work in their annual reviews with the Department Head.

The [EAPS DEI website](#) provides information on the department's DEI work and activities.

Department of Mathematics

The Math department is committed to increasing the percentage of underrepresented minorities (URMs) among their students, postdocs, faculty and staff, and to promoting equity and inclusion across the board. Activities have included the creation and support of several programs, from middle school onwards, designed to increase the number of underrepresented students in mathematically-based fields. This is aimed at both feeding the “pipeline” and to provide all community members opportunities for mathematical development.

Ongoing Efforts and Actions

The department has acted on various fronts. These include:

Women in Math Website

The [Women in Math website](#) was created to advocate for an inclusive atmosphere and to promote gender equity within a largely male-dominated field, provide a welcoming space for sharing projects and achievements, upcoming events, career resources, and networking opportunities amongst peers, fellow professionals, and educators.

Women in Math Lunch Seminar Series

Meeting 3-4 times per term, the [Women in Math Lunch Seminar](#) series hosts a senior woman mathematician to discuss their research and career in academia or industry. These seminars are open to women faculty, postdocs, graduate students, and undergraduates. Recently there has been an increase in participation among the undergraduate population.

Diversity and Community Building Committee

This committee meets regularly to identify and remove structural and cultural mechanisms that perpetuate systemic oppression in the department, to ensure the community's well-being, and to build support systems and resources to ensure opportunities to all. It is comprised of faculty, postdocs, instructors, students, and staff.

Diversity and Community Building Committee's Code of Conduct Poster

The departmental [Community Values](#) was established during the pandemic, but because of building closure, they were not widely visible. There are now in the Code of Conduct which has been permanently placed at key physical locations across the department.

Curriculum Initiatives

Over the last few years, the department has started a number of new subjects to ensure that undergraduate students who come to MIT with less mathematical preparation can still succeed in the major. These curriculum initiatives are taking considerable efforts to bring to fruition, and are shepherded by the Education Committee. These include:

- **18.090**: “Introduction to Mathematical Reasoning” offered in Spring 2022 and 2023. This gives an introduction to proofs, the basic ingredient in mathematics which some students are not exposed to during their high school education (especially those students coming from underserved areas).
- **18.900**: “Geometry and Topology in the Plane” started 3 years ago, and has not reached steady-state.
- **18.C06** (with various other numbers last year), “Linear Algebra and Optimization”, is a new Common Ground class for students especially interested in Computing; it provides an alternative to the classical **18.06** (Linear Algebra) so that students can find the version most appropriate to them. A significant fraction of Math majors place out of **18.06** (or **18.C06**), and so this class is especially geared at making the major accessible to everyone.
- Updates to **18.01** and **18.02** to make them more accessible to students with less mathematical preparation.
- A math major (junior year), has volunteered to teach **18.S097**, “An Introduction to Metric Spaces”, which covers the difference between the analysis fundamentals covered in **18.100B** (more advanced) and **18.100A** (less advanced). There was a need for such a bridge class, and the department is very appreciative of the student's leadership and contribution towards this.

PsetPartners App/Website

To address the fact that some students can feel isolated in classrooms, some members of the department [developed a web-based service](#) over the summer of 2020 to help students find partners to work with on problem sets (psets). This application, spawned from discussions and feedback following the murders of George Floyd and other Black Americans in 2020, matches those who sign up into groups based on scheduling and collaboration preferences. Based on an end-of-term survey in Fall 2020, the majority of users said that they found the system very or extremely helpful, with over 95% stating that they plan to use the system again in classes where it was available. Based on student feedback and interest from other departments, the project was expanded beyond the MIT Math department in 2021, broadening the experience of belonging across the entire university for those who previously felt isolated. A [fuller account of the inception, creation, and launch](#) of the project is provided. PsetPartners is now being used by 1000 students in 136 subjects at MIT.

Undergraduate Mentors and Assistants

Since the start of the pandemic, the department has considerably increased the number of undergrads employed as tutors, mentors and undergraduate assistants. This tremendously helps students struggling in subjects and improves the sense of belonging and inclusivity. The [Math Learning Center](#) used to be for just **18.01, 02, 03** and **06**, but has been expanded to cover also **18.100A/B, 18.102, 18.404, 18.600, 18.701, 18.702** and **18.901**, subjects where students with less mathematical preparation sometimes struggle. In addition to more Undergraduate Assistants (UAs) in math subjects, the department is also funding mentors organized by various undergrad groups, the Undergraduate Math Association ([UMA](#)), the Council on Math Majors ([CoMM](#)), and the Undergraduate Society of Women in Mathematics ([USWIM](#)). The [UMA mentoring program](#) started during the academic year 2021-2022, and the student overseeing the program received the department's 2022 [Community Building Award](#) (in the undergrad category) for her work in developing this peer mentoring program.

Directed Reading Program

The [Directed Reading Program](#) (DRP) is a program for Math undergraduates over the [Independent Activities Period \(IAP\)](#). Undergrads get paired with graduate students (one graduate student for two undergraduate students) and they go over a mathematical textbook of their choice. This is an excellent program for sophomores prior to starting their first research experience in math, and as such is especially useful for students who need preparation. There is always much demand for the program, and the limitations are in terms of both funding and graduate student availability. In the last 3 years (between 2019 and 2022), the program has tripled in size, going from 23 undergrads to 70 (and about 35 graduate mentors).

SPUR+, PRIMES Circle, MathRoots

These three programs are a major part of the department's continuing efforts in diversity and inclusion.

- [SPUR+](#) is an extended version of the Summer Program in Undergraduate Research (SPUR), initiated in 2017, which targets top women and members of underrepresented minority (URM) groups who are math majors at MIT. SPUR+ is proving successful in expanding the overall program to more women and URMs. There is a large pool of URMs among our math majors, and providing them research opportunities to be prepared and qualified for graduate school (even if at other institutions) will lead to an increase of the pipeline into graduate school.
- [PRIMES Circle](#) is a free spring-term enrichment section for high school students from underrepresented groups living within commuting distance from Boston. Primes Circle is now the Menezes Challenge PRIMES Circle program, thanks to a generous gift from George Menezes. The co-directors of the program are two graduate students, who received the department's [2022 award for community building](#) (in the graduate student category).
- [MathRoots](#) is a free two-week mathematical talent accelerator residential summer program hosted by MIT PRIMES for nationally selected high-potential high school students from underrepresented backgrounds or underserved communities. These

programs are costly to run, especially MathRoots, as this is a residential program at MIT.

- The PRIMES program was a [recipient of the 2021 MLK Leadership award](#). It also received the [2020 Award for an Exemplary Program or Achievement in a Mathematics Department](#) offered by the American Mathematical Society (AMS).

Grad-Undergrad Math Mentoring Initiative (GUMMI)

Started during the pandemic, the [GUMMI initiative](#) is one where a community of graduate students give advice and support to undergraduate students considering a graduate degree in math. They share their experiences, tips, and provide feedback on undergraduate students' applications to graduate school (how to choose their letter writers, how to most effectively write a statement of purpose, etc.).

Navajo Nation Math Circles (NNMC)

A number of members of the department have explored ways to collaborate with the [Navajo Nation Math Circles](#). This has included hosting teacher training workshops for the NNMC instructors, which began in the summer of 2022.

The Educational Justice Institute (TEJI)

The goals of MIT's [TEJI](#) are to create sustainable solutions to mass incarceration, social injustice, and barriers to reentry through education and emerging technologies. A Math graduate student, Marisa Gaetz, has been working with TEJI in various capacities since its inception in 2017, and her current title there is Senior Graduate Fellow. She currently leads TEJI's Computer Education Committee and co-leads the Brave Behind Bars web design program for incarcerated women. Marisa also received an [MLK Leadership Award in 2021](#) and the [Priscilla King Gray Award for Public Service](#) for her work. A junior faculty member is also an affiliated instructor at TEJI.

Volunteering at the Suffolk County Jail

Last Spring, a junior faculty member volunteered to tutor inmates weekly at the Nashua St. Suffolk county jail. He has been spearheading an effort to continue (and expand) this program this Fall.

Hire Departmental DEI Officer

The department is planning to hire a community officer to oversee and help departmental community-building efforts, educational efforts to make programs more inclusive, and diversity efforts in the math community. The position is expected to be filled by the summer of 2023.

Gender Equity Committee (School of Science)

Math faculty member Prof. Gigliola Staffilani co-chaired the Gender Equity Committee of the School of Science. The Dean's Office has acted on these recommendations as described in an earlier section of this document.

The [Math DEI website](#) provides information on the department's DEI work and activities.

Department of Physics

The Physics Department has a range of activities around inclusion and belonging, described below.

Physics Values Committee (PVC) Activities

The [Physics Values Committee \(PVC\)](#) is an advisory council that works in collaboration with Physics Department leadership in upholding departmental values at a systemic and structural level through its policies, procedures, and practices. It provides prioritized recommendations to departmental leadership. PVC members include undergraduates, graduate students, postdocs, staff, and faculty.

Graduate Advising

At the request of departmental leadership, PVC studied the issue of graduate advising within the department, starting in Fall 2021. Following extensive discussion and feedback from the community, including the [Physics Graduate Student Council](#) and faculty members, PVC produced a detailed report in Spring 2022 which included the following summary recommendations:

- That graduate students meet with their advisors at least once a year specifically to discuss academic progress as well as general expectations for the previous and upcoming year. (This is separate from short-term research progress meetings.) PVC developed a self-reflection exercise for the advisee to complete prior to the meeting and a form for the advisor and advisee to fill out together during the meeting.
- That faculty write an advising/group values statement that will be accessible to incoming first-year graduate students who are seeking to select a research advisor, as well as to current Physics graduate students.
- That the Department encourage each of its four divisions to update the language on the Department website to reflect current policies regarding first-year rotations.

PVC also compiled a list of resources to highlight for graduate students, and developed a list of “Dos and Don’ts” for faculty and students to reflect on prior to meeting. These recommendations were endorsed by the Physics Education Committee in Spring 2022.

APS-IDEA

PVC has represented MIT Physics to [American Physical Society’s Inclusion, Diversity, and Equity Alliance \(APS-IDEA\)](#), which is a network of scientists, students, faculty, and researchers implementing research-based transformational methods to drive cultural change and center people with marginalized identities in their academic departments and laboratories. APS-IDEA teams share leadership across all levels, from students to faculty. The mission of APS-IDEA is to empower and support physics departments, laboratories, and other organizations to identify and enact strategies for improving equity, diversity, and inclusion. Starting in Fall 2022, a new dedicated APS-IDEA subgroup was created within PVC to provide more focused attendance and

reporting back to PVC. The current focus of the meetings is: Assessing and Documenting Progress of EDI Efforts.

Undergraduate URM/Womxn Subgroup

In Fall 2022, PVC formed a subgroup on Undergraduate URM/Womxn. Their focus is to understand and pursue mechanisms to improve the experience of womxn and URM students in the Physics Department, and to make the Physics course of study more welcoming and inclusive for students of all identities and backgrounds.

Physics Community Officer

PVC has provided input and feedback to Department leadership in developing a job description for a new Physics Community Officer (PCO). The PCO will help manage DEI activities within the Department.

PVC Leadership and Membership Turnover

Due to major leadership and membership turnover during 2022, much of Fall 2022 was spent onboarding and rebuilding.

Mentor Program

The [Physics Department Mentor Program](#) provides academic and social support to students enrolled in first- and second-year Physics subjects, including those taken by all undergraduates (8.01, 8.02, and their variations) and those taken primarily by Physics majors (8.03, 8.033, 8.04, 8.044). The program pairs mentees (students enrolled in one of the designated Physics subjects) with mentors who are sophomores or beyond (including graduate students and postdocs) and are proficient with the course content. These mentors participate in ongoing training in mentorship skills. Mentees meet with their mentor weekly one-on-one or in small groups. Mentors commit up to 4 hours per week for a 14-week semester. Mentees receive weekly one-on-one academic assistance for a particular course as well as general support and advising.

In addition to helping mentees learn physics, mentors are prepared to offer help adjusting to MIT; to provide advice on majors, UROPs, internships, or graduate school; and to refer mentees to additional help as needed. The program benefits mentors, mentees, and the department overall by building an educational community that contributes to the success of mentees, develops the skills of mentors, and fosters a sense of belonging. The program was initiated when the COVID-19 pandemic disrupted on-campus education in Spring 2020. After an initial (hastily improvised) pilot for 8.02 in Spring 2020 was highly successful, the program was expanded to cover more first and second-year subjects. The program is led by Professor Edmund Bertschinger. In Spring 2022, there were approximately 140 freshmen and 40 sophomore mentees in the program. In Fall 2022, those numbers were roughly 120 and 60, respectively. There were between 70 and 80 mentors each semester.

MSRP

The long-running MIT Summer Research Program (MSRP) combines intense mentorship and community-building with a world-class research experience for undergraduates. Since this

program represents one of our best recruiting opportunities for strong URM graduate students, the department took the initiative to formalize the selection process in Spring 2022, led by Professor Daniel Harlow. In the new process, a committee of faculty and graduate students thoroughly review the applications and provide a ranked list, along with proposed faculty supervisor, to the MSRP program director (who makes the final admissions decisions). This led to a substantially better outcome for Summer 2022 relative to prior years, particularly with respect to student-faculty match. It also led to an expansion in the number of students working in Physics, and the first resumption of the program since the COVID pandemic. There were 8 MSRP students in Physics in Summer 2022.

Graduate Admissions

The department has taken several steps to broaden and diversify the pool of applicants to the PhD Physics program. Some of these have been taken with the active collaboration of the Physics Graduate Student Council (PGSC), which formed a subgroup, [Graduate students Advising Graduate Admissions \(GAGA\)](#) which has been working with Professor Matthew Evans, chair of the Graduate Admissions Committee.

- Creation of the [Physics Graduate Application Assistance Program \(PhysGAAP\)](#), where current students run webinars and provide individualized guidance and mentorship to applicants.
- Added an optional personal statement to the application (in addition to required, research-related Statement of Purpose) with the following prompt: *"We welcome you to share any aspects of your background that you feel exhibit your ability to contribute positively to our physics community, including details of your past contributions to mentoring, outreach, advocacy, or service."*
- More coordinated outreach to institutions and populations that we had not previously courted including virtual events at the Ivy Plus/Puerto Rico recruitment conference and the National Society of Black Physicists conference.
- Several graduate students were added to the Admissions Committee to serve in the initial triage stage. They were specifically charged with reviewing all applications from women and URM applicants as well as students from institutions not commonly a pipeline to MIT.

For the Spring 2022 admissions cycle, 8 out of 27 women and 4 out of 9 URM students accepted our fellowship offers. Including RA admits, our admitted class for Fall 2023 consisted of 29 men and 11 women, of whom 4 are URM students.

Leadership and Professional Strategies and Skills (LEAPS)

In Spring 2022, Professor Anna Frebel continued to offer the [Leadership and Professional Strategies and Skills \(LEAPS\)](#) training program, which is a professional development training program for graduate students and postdocs across the School of Science. The program is offered via two half-term subjects, **8.396** and **8.397**. (These are cross-listed in most of the other Science departments.). 71 postdocs and 16 students (from across MIT) participated in these trainings during Spring 2022.

Faculty Hiring

The Department requires all divisions and research areas to run a pre-search process prior to any faculty search. This process involves a rigorous attempt to identify strong candidates, particularly among women and URM students and postdocs, and encouraging them to apply. Methods include actively seeking input from colleagues and department heads at other institutions, as well as monitoring conferences and prize postdoctoral fellowship searches. Through this process, the department was able to make successful offers to two women faculty candidates, one of whom is an African-American scientist.

The [Physics DEI website](#) provides information on the department's DEI work and activities.

Next Steps for the School of Science

Against the rich backdrop of the wide range of DEI activities and programming described in this document, the next steps at the school level are to continue to develop programs and activities that promote inclusion and access. We expect to work closely with our departments and units as we take our next steps. Some of our focus areas for the upcoming year include the following:

- Developing a School of Science Postdoctoral Program
- Developing a School of Science Postbaccalaureate Program
- Supporting K-12 programs via [MITES](#), to develop courses/instruction relevant to the School of Science
- Providing partial support for mentorship coaching (for faculty) from external coaches, as part of the mentorship evaluation pilot program
- Promoting staff inclusion and wellbeing
- Creating a direct channel of communication with students, similar to the direct channel of communication we have with junior faculty.

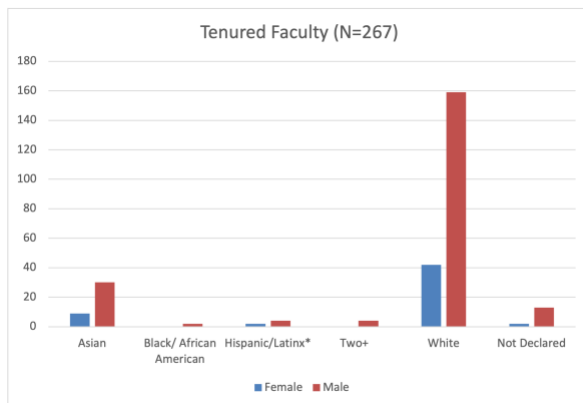
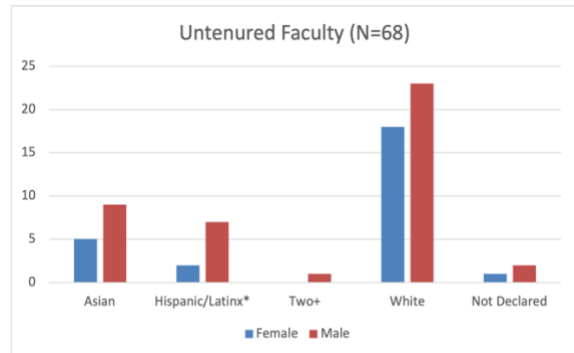
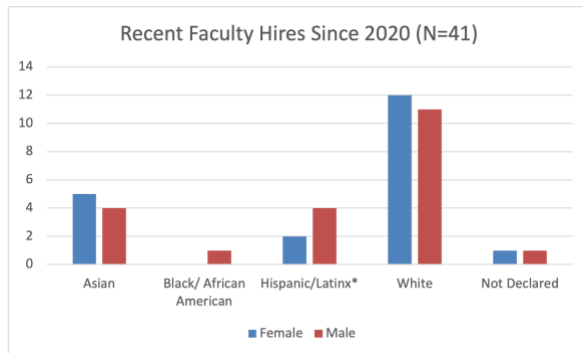
These programs and initiatives are expected to be developed after discussions with and feedback from departments and stakeholders. The goal of developing these programs and initiatives is to promote a sense of inclusion and unity, with centralized support for some activities, while also acknowledging that different departments have different needs. The Dean's Office expects to actively reach out to different groups across the School of Science as we develop programs.

Besides this, we expect to continue to send out periodic communications to the community, with information on our activities and progress. It is heartening to see the range of DEI activities already being done in departments, labs and centers across the school, and the reports and recommendations that have come out of these activities. We reaffirm our commitment to promoting DEI within the School of Science, with the larger goals of aligning these with the vision and mission outlined in the [MIT Strategic Action Plan for Belonging, Achievement and Composition](#). We look forward to engaging with all of you as we work towards these goals.

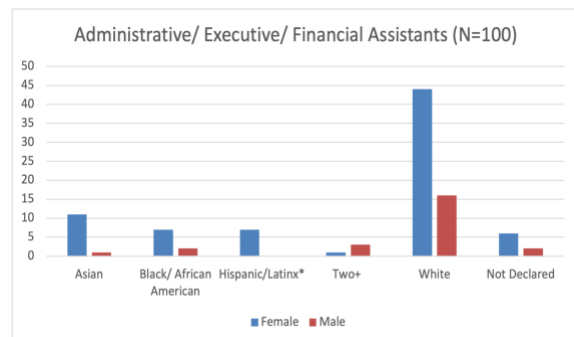
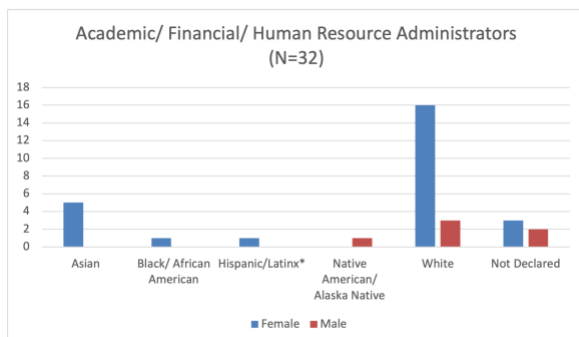
Appendix 1: School of Science Demographics 2022-2023

The following charts provide a snapshot of our school. Consistent with MIT's practice on data reporting and privacy, titles/groups with less than 15 people have not been reported. Data on faculty and staff have been provided by the Human Resources Office in the School of Science Dean's Office. Data on students (undergraduate and graduate) have been provided by MIT's Office of Institutional Research.

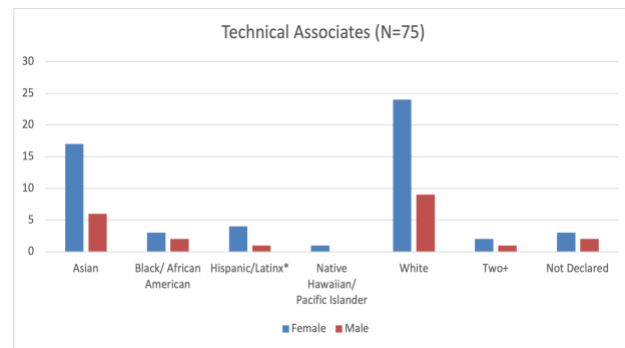
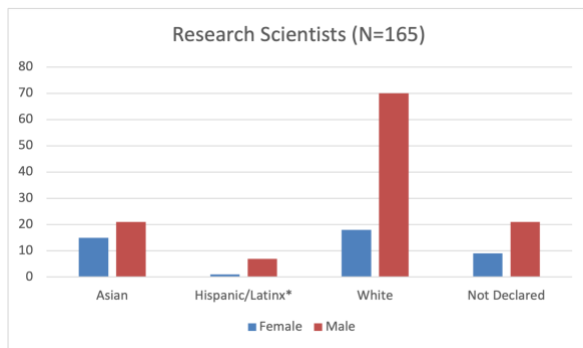
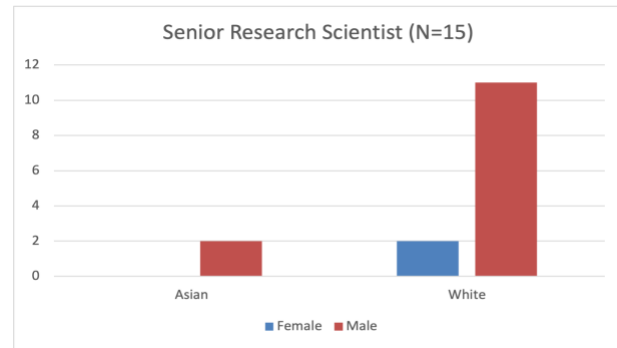
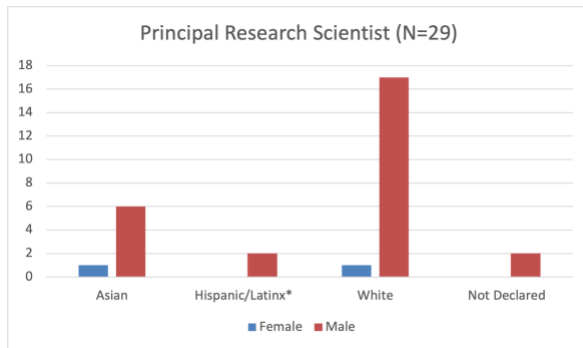
Academic/Faculty



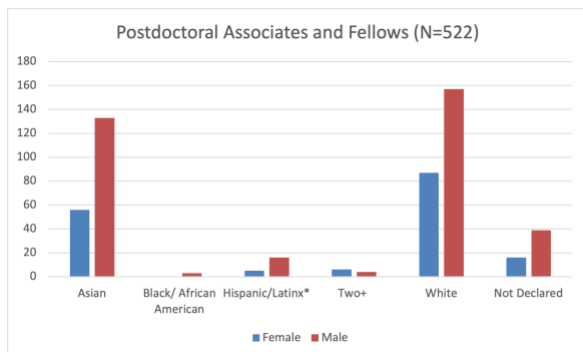
Administration/Staff



Scientific Staff



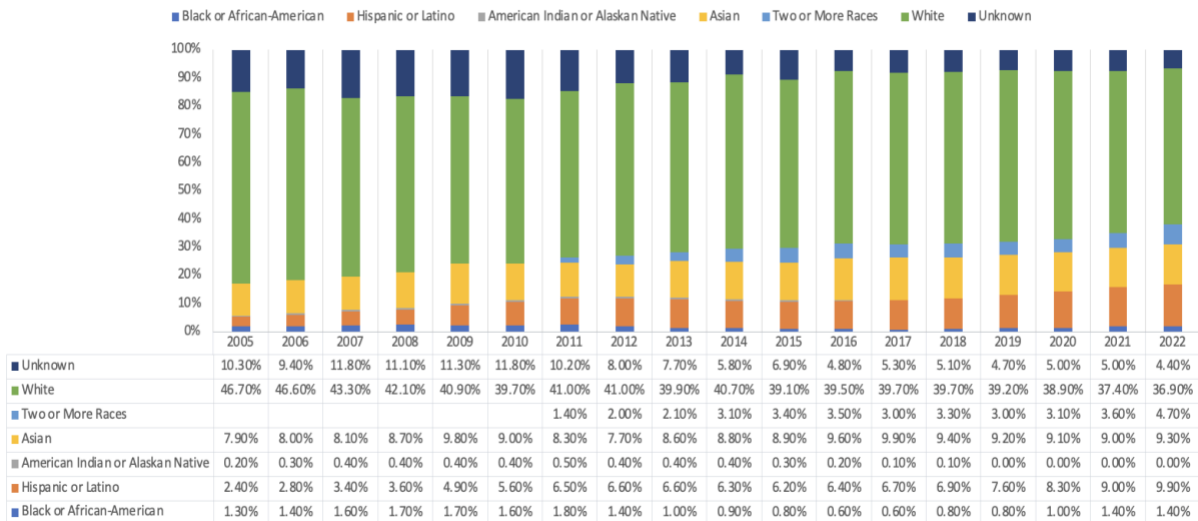
Postdoctoral Associates and Fellows



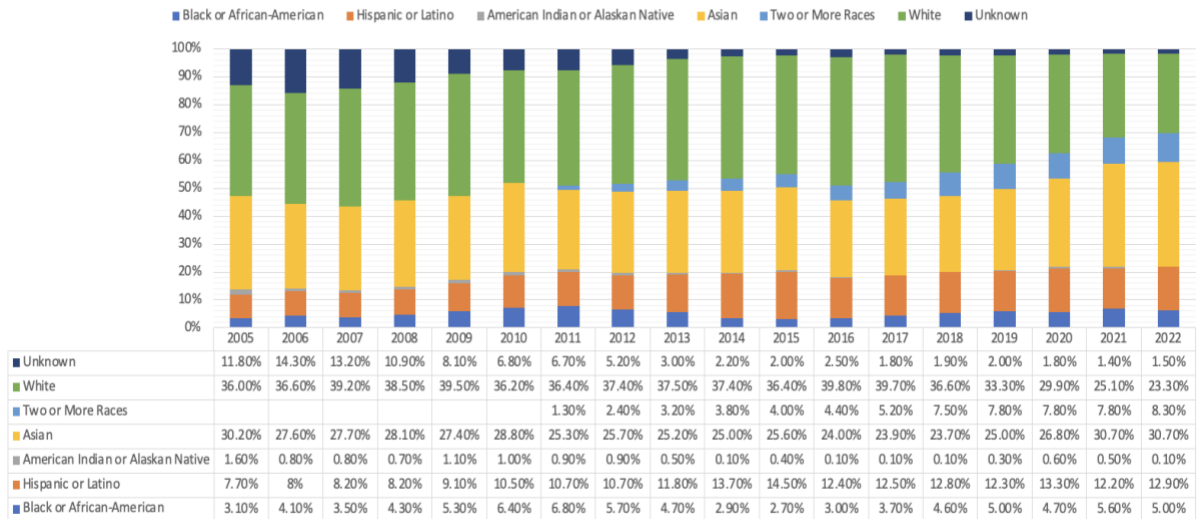
*The identifier Hispanic/Latinx is an ethnic origin and not a race. Individuals who identify as Hispanic/Latinx can be of any race(s). For the School of Science data, individuals who identify as Hispanic/Latinx are of the following races: American Indian or Alaska Native, Black or African American, Native Hawaiian or Pacific Islander, Asian, and/or White.

Students: Racial/Ethnic Diversity

SOS GRADUATE RACIAL/ETHNIC DIVERSITY (2005-2022)



SoS Undergraduate Racial/Ethnic Diversity (2005-2022)



Students: Gender Diversity

