

Office of the Vice Chancellor President's Report 2021-2022

Executive Summary

The mission of the [Office of the Vice Chancellor](#) (OVC), led by Vice Chancellor for Undergraduate and Graduate Education Ian A. Waitz, is to advance academic innovation and foster the growth of every MIT student, empowering them to make a positive impact at MIT and beyond.

Priorities and Progress

During AY2022, many of MIT's operations resumed in a "new normal" format, even as we continued to navigate Covid-19. This created time and space to turn our attention back to pressing issues and initiatives, reevaluate our strategic priorities, and lay the foundation for OVC's future direction. A few highlights of the year within OVC are outlined below.

Revisiting OVC Strategic Priorities

Since its inception in 2017, OVC has focused broadly on several key areas of student life and learning, working in partnership with students, departments, and colleagues across MIT. These include efforts to:

- develop and implement a roadmap for enhancing the first-year student academic experience;
- make improvements for students in areas such as advising, professional development, diversity and inclusion, and well-being;
- implement the residential education innovations called for in the [Institute-wide Task Force on the Future of MIT Education](#); and
- conduct an organizational review to support the above efforts and optimize services for our students and faculty.

Over the past five years, OVC has made [significant advances in these areas](#). During its annual spring retreat in 2022, OVC's leadership team evaluated our progress to date and — informed by the Institute's priorities — mapped out [three themes](#) to guide OVC's strategic efforts in its next chapter:

- Students: Enhancing Academic & Student Life
- Culture: Fostering Community & Civility
- How We Work: Managing Systems, Places, Spaces

We will continue to shape, refine, and implement these themes throughout AY2023 and beyond.

Graduate Student Advising

Improving MIT graduate student advising and mentoring has long been a priority at MIT, and over the past five years OVC has played a significant role in initiatives to address the issue, such as guaranteed transitional funding and the creation of a Graduate Advising Playbook of best practices. This priority gained renewed urgency as one of the recommendations of [Task Force 2021 and Beyond](#). In summer 2021, then-Chancellor Cynthia Barnhart launched the [Ad Hoc Committee on Graduate Advising and Mentoring](#), charged with delivering a strategic plan to guide policies and programs to be implemented at MIT.

With input from stakeholders from across MIT, including several staff from OVC, the committee released a draft report in spring 2022 and has been soliciting feedback to inform its final report. In the months and years ahead, OVC will play an integral role in implementing the committee's recommendations, which include creating a Center for Excellence in Graduate Advising and Mentoring, forming an Advising and Mentoring Grievance Response Team; and developing ways to incentivize and reinforce excellence in advising and mentoring among faculty.

Graduate Student Unionization

In September 2021, a group of MIT graduate students known as the [MIT Graduate Student Union \(GSU\)](#), affiliated with the [United Electrical, Radio & Machine Workers of America \(UE\)](#), announced a campaign to unionize MIT's graduate student population. In response, throughout the winter and spring, senior leadership and the communications teams within the Chancellor's Office worked to educate graduate students about the implications of forming a union, emphasizing that *it was their choice*. They also conveyed the position that MIT's leaders did not believe unionization represented the most constructive path forward for our graduate students; much of the progress made in recent years to enhance the graduate student experience has been achieved through working together with graduate student leaders.

Ultimately, 75% of the 3,823 eligible graduate students (slightly more than half of all MIT graduate students) cast ballots and the [unionization measure passed](#) with a 66% majority. Shortly afterward, MIT's leaders pledged to meet with the union leaders to begin good-faith negotiations with the GSU and UE over the terms and conditions of employment for students in the bargaining unit. They also reaffirmed MIT's commitment all graduate students, including those not represented by the union. Negotiations are slated to begin in September 2022.

Diversity, Equity, and Inclusion

OVC leaders have played a key role in helping to shape the Institute's new [MIT Strategic Action Plan for Belonging, Achievement and Composition](#), "a critical step in the Institute's longstanding efforts to cultivate a community in which all of us can do our best work and thrive." Building on existing efforts that OVC has undertaken over the past several years, advancing three areas will be integral for success: improving graduate student advising and mentoring; providing comprehensive undergraduate advising support (beyond the first year); and addressing deferred maintenance for Student Information Systems (SIS). In addition, focused work is needed in other areas, such as expanding bridge and pipeline/pathway programs; identifying gaps within graduate programs in achievement and belonging; and providing support for

specific student cohorts, such as first generation, low income, veterans, and underrepresented minorities.

Managing Covid-19 and Organizational Change

The vice chancellor continued to play a key role in the Institute's management of the Covid-19 pandemic during AY2022, including chairing the testing team and leading periodic 8 AM Covid-19 Response Calls (attended by 150 – 500 staff, faculty, and students across the Institute) to discuss testing, guidance for instructional staff, student support, and other issues.

As MIT resumed somewhat normal operations this year, OVC offices that functioned remotely since 2020 sought to find the right balance in terms of hybrid work — a mix that accommodates, where possible, flex-work, yet maintains (or enhances) the offices' operations. For some offices, serving students remotely has brought about positive changes; for example, some students seeking career advice find virtual appointments more convenient than going to CAPD for an in-person meeting.

As a corollary, flex-work also has implications for how OVC uses campus office spaces. Throughout AY2022, and continuing into AY2023, we are evaluating how to best manage flex-work and analyzing the implications of decreased staff density on campus to inform any decisions about future OVC space allocations.

Enhanced Communications and Student Engagement

In 2019, OVC contracted with Zayd Media, a website developer, to create a web framework that could be used for multiple OVC offices that were seeking to redesign their websites. This approach has several advantages compared to the typical, siloed approach in which each office engages independently with a developer. For example, it is more cost-effective and enables the designer to create a family of websites that have a distinct graphic identity along with common visual elements that signal they fall under the OVC umbrella.

Three years later, Zayd has redesigned websites for seven OVC offices: International Students Office, Office of Minority Education, Office of Graduate Education, PKG Public Service Center, Teaching & Learning Lab, Desktop Support, and the Office of the Vice Chancellor. In addition, the Career Advising & Professional Development Office contracted with a website developer that specializes in higher ed career websites to redesign its website. The result of all of these redevelopment efforts is a suite of well-designed and user-friendly websites that serve our students and other audiences better.

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OVC Headquarters (OVC HQ)

OVC HQ provides foundational support to all staff, enabling them to fulfill the organization's mission. The OVC HQ delivers administrative and operational support across the organization in the following areas:

- Finance
- Human Resources
- Communications
- Desktop Support (shared with DSL)
- Project Management
- Cross-Functional Team Oversight

During AY2022, Associate Dean and Chief of Staff Mary Markel Murphy accepted a position in the Provost's Office. Kate Trimble, associate dean and director of the Office of Experiential Learning, transitioned into OVC HQ as chief of staff, in addition to overseeing OEL. Colleen O'Brien joined the OVC staff as a financial assistant in finance and administration.

Key Accomplishments

In addition to helping advance the vice chancellor's key priorities (discussed in the Executive Summary), the OVC HQ team:

- Ran and refined Zoom leadership team meetings, all-staff meetings, and an in-person leadership team retreat.
- Continued to enhance internal communications.
- Launched a new OVC website.
- Held community-building events, including Welcome Back Lunches for OVC staff, a Giving Thanks Event, and others to build community connections across OVC offices.
- The Director of HR received certification to teach Search Inside Yourself: Mindfulness-based Emotional Intelligence for Leaders and will be rolling it out to OVC in AY2023.

Affirmative Action Goals and Successes

The OVC staff, which is 66.4% women and 37.9% minority, is one of the most diverse organizational units at MIT, with an ongoing commitment to developing a workforce that reflects the rich diversity of the communities we serve. The OVC Leadership Team is expected to show leadership in the area of diversity, equity and inclusion. Every OVC employee shares responsibility for fostering an inclusive work environment in which all employees may do their best work.

As a result of the efforts of the leadership team and hiring managers throughout the organization, OVC succeeded this year in attracting and hiring underrepresented minorities and

women to fill open positions across the division. This year, OVC met all of its placement goals for women and minorities across every job category. MIT does not presently have a good way to accurately capture the representation of individuals with disabilities or qualified veterans in our population, making it difficult to measure whether we are meeting or making adequate progress towards our affirmative action goals in these areas.

For the period July 1, 2021 – June 30, 2022, 59.4% of all new OVC hires are women and 43.7% are minorities. During the same period, OVC promoted 15 staff members: 73.3% are women and 46.7% are minorities.

Awards / Recognitions

- [Infinite Mile Awards 2022](#)

Looking Ahead

- Focus on implementing new priorities outlined in the 2022 leadership team retreat
- Integrating OVC's work with efforts outlined by the MIT Task Force 2021 and Institute-wide DEI initiatives.
- Evaluating OVC-wide flex-work and space allocation (see Executive Summary).
- Developing new ways of working with graduate students in light of the new union.

Office of Admissions

The mission of the Office of Admissions is to enroll a diverse and talented undergraduate student body composed of some of the world's most intelligent and creative individuals interested in an education centered on science and technology. We uphold a commitment to meritocracy and fair access to the admissions process for students from all backgrounds.

Current Events

The AY2022 admissions cycle was a challenge with the ongoing Covid-19 pandemic. Although we became more familiar with our virtual recruitment, application, and yield strategies, constant changes due to the virus posed challenges to many of our goals and planned events.

We moved into our new space in E38, began the academic year with a hybrid-work model for all staff, and developed an anchor day on Tuesdays, with the entire team in office. However, we maintained our virtual visit program throughout the fall and winter due to continued virus variants and returned to fully-remote work in early 2022. We opened in-person visit programming in the spring and are ramping up our programming to pre-pandemic visitor numbers.

We were pleased to be able to host Campus Preview Weekend, our admitted student yield program, on campus this year, welcoming almost 1,000 students in April. In order to minimize health risks, we developed a week of virtual programming for parents, which included Chinese and Spanish language sessions.

After much thought, conversation, and analysis, and with the unanimous recommendation of the Committee on Undergraduate Admissions and Financial Aid (CUAFA, the standing committee of the faculty that sets policy recommendations for undergraduate admissions and financial aid), we became the first of our peers to reinstate the SAT/ACT requirement for future admission cycles. We believe that a requirement is more equitable and transparent than a test-optional policy. Our research shows standardized tests help us better assess the academic preparedness of applicants and help us identify socioeconomically disadvantaged students who lack access to advanced coursework or other enrichment opportunities that would otherwise demonstrate their readiness for MIT. We announced the decision via a [blog post](#) from the dean on March 28 and a concurrent [interview](#) with the dean on the news office website.

Key Accomplishments

- We received 33,767 applications for the first-year class entering in fall 2022, up 2% compared to last year, and up 68% compared to 2020. We believe the continued suspension of our usual SAT/ACT requirement again contributed to the high number of applications.

- We admitted 1,337 students, representing 4% of the applicant pool.
- There are 1,136 students in the enrolling Class of 2026; 25 of those deferred from previous years.
- A total of 1,646 students applied for transfer admission. Of these applicants, 24 were admitted. Of the admitted, three enrolled in spring 2022, 20 are expected to enroll in fall 2022, and one student, who was admitted through our Wellesley 3:2 program, will enroll in fall 2023. There is also an additional Wellesley 3:2 student from the prior year's admitted class who will enter this fall.

Class Profile and Commitment to Diversity

- The Class of 2026 reflects MIT's ongoing commitment to the diversity and excellence of our student body. The Class of 2026 is 49% women, 18% first generation to college, and 11% international.
- Students come from all 50 U.S. states and 63 countries. Ninety-one percent are leaders of an organization (president, captain, etc.) and 44% founded an organization or business.
- The mean SAT score for first-year students is 755 for evidence-based reading and writing and 791 for math.
- Eighteen percent of the class are Pell Grant recipients, consistent with 2021.
- MIT continues to partner with QuestBridge, a nonprofit organization that recruits high-achieving students from low-income backgrounds. Fifty-five QuestBridge finalists will attend in the fall, down from 77 in 2021.
- Enrolling students who are U.S. citizens or permanent residents are asked to self-identify race/ethnicity within categories established by the U.S. Department of Education. The Class of 2026 is composed of the following: American Indian/Alaskan Native 1%; Asian American 40%; Black/African American 13%; Hispanic/Latinx 14%; Native Hawaiian/Pacific Islander 1%; White/Caucasian 38%. Twenty-six percent self-reported as an underrepresented minority student. *Note: Students may identify with more than one racial or ethnic group. International students do not report race or ethnicity but are included when calculating percentages of the class as a whole.*

Recruitment and Yield Outreach

- A total of 103 prospective low income, and URM students participated in our Weekend Immersion in Science and Engineering program, which included application workshops and hands-on programming designed to share more about MIT.
- We successfully hosted Sin LiMiTE and Ebony Affair, targeted spring yield programs for admitted students, on campus this year. Thirty admits participated in Sin LiMiTE, with 96.6% choosing to enroll at MIT. Fifty-three admits participated in Ebony Affair, with 90.5% choosing to enroll.

- We developed a new virtual tour of campus for prospective students. Leveraging Google maps, we incorporated images, text, and student-made videos to highlight MIT life and culture. It is now featured on the main MIT visit page as well as our website.
- As mentioned above, we returned to on-campus programming for students at Campus Preview Weekend, our annual admitted student weekend. Virtual programming was offered for parents in order to keep the density of the campus low, due to the ongoing pandemic.

Visit Programs

- We offered a hybrid of virtual and on-campus programs, with on-campus information sessions and tours beginning in February 2022.
- Provided 129 virtual sessions, attended by 12,018 visitors. We scaled back virtual programming once on-campus sessions started, moving from seven virtual programs per week in July and August 2021 to one virtual program per week in the spring.
- Provided 201 in-person information sessions and campus tours, attended by 4,161 visitors. Started with a 50-person capacity limit per session, then scaled up to full capacity (200 people per session) in June 2022.
- We developed a new walking tour map, featuring student art, for visitors to the Welcome Center.

Educational Council

- The Educational Counselors team recruited 978 new Educational Counselors (ECs).
- ECs conducted 22,643 interviews, up from 22,046 interviews in AY21.
- Over 3,057 ECs submitted interview reports.

Awards, Recognition, and Staffing

- For AY2022, the admissions office was composed of 29 administrative staff positions, including several shared positions with Student Financial Services, and 11 support staff positions. Of these, 65 % are women, 35% are men, and 48% are underrepresented minorities (Hispanic, Asian, and Black/African American).
- Christine Muir won an individual Infinite Mile Award for Serving the Client; the Customer Service Team (Leila Ali, Stephanie Mac, Leah McDermott, Erin Murray, Bailey Olmstead, Shawn Rogers, Bryan Smith, and Shara Zimmerman) won an Infinite Mile Award for Serving the Client; and Kris Guay as part of the HEERF Project Team won an Infinite Mile Award for Collaboration & Communication.

Looking Ahead

- We are preparing to conduct in-person interviews for the Class of 2027. However, virtual interviews may be offered as needed.
- The 2022–2023 transfer application provides college/university students who have experienced severe educational disruption (e.g., students affected by the war in Ukraine) with the option to apply through either spring or fall entry transfer. This change offers them the opportunity to enter MIT at the earliest term possible if admitted. The application also provides a dedicated place for students to share details about their educational disruption.
- In-person fall outreach will resume this September with a focus on visiting high schools and Community Based Organizations. We will also attend several NACAC college fairs across the country.
- We will continue to hold online information sessions for those unable to visit campus.
- We continue to evaluate our hybrid work-model to best support our staff and the work of the office.
- We will conduct searches for several open positions across the office, including admissions counselor positions and assistant director roles.

Career Advising & Professional Development

[Career Advising & Professional Development](#)'s mission is to empower students, postdocs, and alums to explore life and career goals by helping them develop core competencies and build professional networks. We engage students and alums in self-discovery to craft lives that are intellectually challenging, personally enriching, and of service to the world.

Key Accomplishments

- **Career Exploration:** Provided greater access to diverse opportunities by collaborating with offices and departments through programming and employer diversification efforts.
- **Graduate Student Professional Development:** Launched function area to coordinate, integrate, and structure graduate student professional development programming.
- **Enhance career support of graduate students and postdocs:** Created a unified, comprehensive program to support the faculty job search. Launched a hybrid Master's, PhD, and Postdoc Career Fair. Led the second Institute-wide "Research Slam."
- **Medical Interpreting Course:** Partnered with UMass Medical School to offer a fully-subscribed medical interpreting course. The class will continue with external grant funding.
- **CAPD Website:** Launched a new site in 2021 and created content that consistently increased site visitors by up to 23% more than 2021 and by up to 87% more than 2020.

Notable Statistics

- Conducted 12,063 non-unique student, alumni, and postdoctoral engagements through:
 - 6,129 career, distinguished fellowships, and prehealth advising sessions;
 - 4,462 attendees at 169 career, graduate professional development, distinguished fellowships, and prehealth advising events;
 - 1,472 attendees at 71 employer events and information sessions.
- Submitted 57 prehealth committee letters and 52 distinguished fellowship endorsement letters.
- First-year student engagement in appointments increased to 579 (up 38% from AY2021), and newsletter audience increased to 1,178 subscribers (up 9% from AY2021).
- For 2021 graduates, 95.3% of bachelor's degrees, 97.5% of master's, and 98.3% of PhD graduates seeking immediate employment reported obtaining a job within three months of graduation.
 - Reported median salaries:
 - \$90,000 (SB)
 - \$100,000 (MS)
 - \$130,000 (MEng)
 - \$151,000 (MBA)
 - \$60,000 (doctoral, postdoctoral positions)

- \$125,000 (doctoral, other positions)

Prehealth Advising

- Ninety-four students and alumni applied to medical school in the 2021 cycle (34 undergraduates, four graduate students, and 56 alumni), with a 74% acceptance rate.
- Taught Careers in Medicine class to 13 participants featuring medical professionals from diverse specialties.

Career Services

- Expanded Career Exploration Week to a fall and IAP series. Collaborated with 17 Institute departments and 12 external partners for 63 events attended by 1,206 students.
- Sourced 100 IAP micro-internships for 116 students (up 40% from AY2021).
- Piloted Career Exploration Fellowships and supported 10 undergraduates in domestic underfunded summer experiences within niche industries.
- Of the 20,922 employers in the MIT Handshake system, 6,830 were new employers for MIT. The 47% growth provides greater access for constituents, but requires increased efforts to curate a right-fit employer database.
- 1,472 students, postdocs, and alumni attended employer events (down 30% from AY2021). Reasons for the decline include zoom fatigue, lessened virtual employer events, and prioritizing in-person employment engagements.
- Hosted four career fairs including the hybrid Master's, PhD, and Postdoc Career Fair. Collaborated with peer schools to host the Engineering Career Fair Collaborative and the Ivy+ Just in Time Career Fair.
- The Employer Connection Program featured 18 employers.
- Promoted pay equity through programming, resources, and research coordinated by the Pay Equity Working Group.

Distinguished Fellowships

Supported 386 non-unique applications and 41 winners from MIT, including:

Rhodes (1): Carina Hong (China)

Marshall (1): David Li

Mitchell (1): Adedolapo Adedokun

Churchill (2): Tara Venkatadri and David Darrow

Schwarzman (6): Sihao Huang, William Kuhl, Tingyu Li, Giramnah Peña-Alcántara, Sreya Vangara, and Kelly Wu

Knight Hennessy (6): Desmond Edwards, Tomas Guarna, Jessica Karaguesian, Pranav Lalgudi, Michelle Lee, and Symantak Payra.

Fulbright (13): Jenny Chan, Gretchen Eggers, Miki Hansen, Olivia Wynne Houck, Laura Huang, Caleb Amanfu, Julia Caravias, Prosser Cathey, Kylie Yui Dan, An Jimenez, Kevin Lujan Lee, Delanie J. Linden, Ana McIntosh, Karna Morey, Aashini Shah, Nailah Smith, Natasha Stamler, and Daniel Zhang.

Truman (2): Liberty Ladd and Bhav Jain

Soros (3): Fernanda De La Torre, Trang Luu, and Symantak Payra

Graduate Student Professional Development

- Enhanced operations and programming by hiring staff. Created webpages including resources and information for the seven professional development competencies.
- Partnered with campus groups, alumni, and offices on 32 events.
- Initiated MIT Grad Professional Development Partners group to share knowledge, coordinate programming, and foster community. Hosted keynote address on professional development trends.
- Collaborated with the Office of Graduate Education to launch the Graduate Student of Color Mentoring Circles. Thirty-two graduate students and 11 alumni mentors participated. Surveys indicated that respondents were 80% more able to explore the role of race/ethnicity in their career development.

Awards / Recognition

- Five staff served in leadership roles for professional associations and/or presented in regional or national conferences.
- Eight staff participated in OVC/Institute-Wide Committees.
- Tianna Ransom was selected for the DAAD German Higher Education Exchange.
- Six staff received an Infinite Mile Award: Francis Borrego, Julia Mongo, Tianna Ransom, Simona Rosu, Tavi Sookhoo, and Deborah Liverman.

Looking Ahead

- **Central Hub for Career Development:** Increase data-sharing with campus collaborators and departments to help inform their programs and career paths/opportunities for their constituents.
- **Diversity Initiatives:** Continue efforts to promote affinity/identity pages, increase awareness of tailored opportunities, connect with campus groups, and present diverse alumni in programming.
- **Employer Engagement:** Work with employers to determine on-campus and virtual engagement. Develop a comprehensive plan to bring employers back on-campus for events.
- **Graduate Student Professional Development and Career Exploration:** Add program offerings and work with the Institute-wide Committee for Graduate Professional Development to establish a structure and implementation format for the professional development requirement. Launch resources for graduate student career exploration.

Office of Experiential Learning

The [Office of Experiential Learning](#) (OEL) works to organize, amplify, and accelerate the practice and impact of experiential learning for MIT students. OEL is home to four experiential learning centers and programs — [D-Lab](#), the [Edgerton Center](#), [PKG Center](#), and [UROP](#) —but collaborates and coordinates with experiential learning programs across the Institute, including MISTI, Project Manus, CAPD, GEL, Terrascope, ESI, and many more.

Social Impact Experiential Learning Opportunities (ELOs)

RIC2 of the [Task Force 2021](#) report recommended that MIT alleviate the under-supply of social impact ELOs with a fundraising campaign. OEL has worked closely with Resource Development to create a plan to raise \$15M to support 2,500 new opportunities over the next five years with a long-term goal of supporting 750 ELOs a year at an annual cost of \$4.5M, allowing us to reach about a third of all undergraduates.

Data for DEI Initiative

In March 2021, the MIT ICEO released a draft DEI strategic plan including the following objective: “Determine if there are differences in participation rates and outcomes in experiential learning programs and develop strategies for addressing any areas of concern.” In response, OEL convened an ad hoc working group in spring 2022 to formulate a data collection and assessment strategy to improve DEI practices and outcomes in experiential learning programs across MIT. The group will present its recommendations in fall 2022.

UTOP

In partnership with Professor Eric Klopfer and with generous support from the President’s Office, OEL explored the development of an Undergraduate Teaching Opportunities Program, or UTOP. Developed through focus groups with undergraduate students and program leaders, pilot offerings will be launched in fall 2022/IAP 2023.

EL+ Community

OEL also continued to convene an experiential learning community of practice, through monthly meetings focused on learning outcomes, evaluation, travel, social impact and sustainability topics, and other strategies and ideas for making experiential learning at MIT more effective. This group will continue to meet in AY2023.

MIT D-Lab

Founded in 2002 by Mechanical Engineering Senior Lecturer Amy Smith, [MIT D-Lab](#) works with people around the world to develop and advance collaborative approaches and practical solutions to global poverty challenges.

D-Lab collaborates with organizations in communities in two-dozen countries. International collaborators—such as local nongovernmental organizations and social enterprises—define student projects, participate in research, collaborate on the design of technologies, host design summits and trainings, and more.

Over 20 years, D-Lab has developed 25 MIT classes, enrolled more than 4,000 students, trained thousands of people worldwide in design or business skills, and reached more than 2.25 million people with goods and services.

Academics

Led by Professor Maria Yang, D-Lab faculty director for academics, and D-Lab Associate Director for Academics Libby Hsu, D-Lab offered 14 in AY2022 (up from 12 in the prior year). This year 171 students enrolled, an increase from the prior year, when fewer students registered for what would normally have had significant hands-on components and travel.

Subjects Offered

The 14 subjects offered in AY2022 include:

- EC.746J/2.00C / 1.016J Terrascope: Design for Complex Environmental Issues
- EC.729/2.729/EC.797 - G/2.78 - G Design for Scale
- MAS.665/15.375/EC.731J Global Ventures
- 2.722J/EC.720 D-Lab: Design
- EC.725 D-Lab: Leadership in Design
- 11.025/11.472 - G /EC.701/EC.781- G D-Lab: Development
- EC.718/EC.798 - G/WGS.277 Gender and Development
- 2.651/EC.711/EC.791 - G Introduction to Energy in Global Development
- 2.652 / EC.712 / EC.782 - G Applications of Energy in Global Development
- 4.411/EC.713J D-Lab: Schools
- 11.474 - G/EC.715 Water, Sanitation, and Hygiene
- EC.719/EC.789 - G Water, Climate Change, & Health
- EC.750/EC.785 - G Humanitarian Innovation
- EC.S02 D-Lab: Build Your Own Bicycle

Students and Projects

D-Lab students worked in more than 53 teams with international community partners in countries including Cameroon, Colombia, Democratic Republic of Congo, Ghana, India, Kenya, Liberia, Madagascar, Mexico, Nepal, Nigeria, Pakistan, Peru, Sierra Leone, South Africa, Tajikistan, Uganda, UK, US. Post-semester travel was again limited due to Covid-19 restrictions.

Research

D-Lab's lean, collaborative, interdisciplinary research team is led by faculty Director for Research Kim Vandiver and Associate Director for Research Kendra Leith. An overview of research groups and programs includes:

- **Biomass Fuels & Cookstoves:** This group works closely with community partners around the world to develop and test biomass fuels and cookstoves. The group operates the "Burn Lab," a testing facility and oversees the work of undergraduate and graduate students. This year, the group brought the founder of Roshan Renewables in Nigeria to spend a month in residence at MIT D-Lab.
- **MIT D-Lab | CITE:** This USAID-funded program, launched in 2012, currently supports several independent research studies led by interdisciplinary teams of researchers and practitioners working at the nexus of evaluation methodology, sociotechnical systems, and global development challenges.
- **Evaporative Cooling for Vegetable Preservation:** Current projects include a highly successful clay pot cooler training program in Mali, dissemination of brick evaporative cooling chambers in Uganda and India, and significant advances on using a shipping container as the foundation for a forced-air evaporative cooling chamber.
- **Local Innovation:** This group conducts interdisciplinary social science research on processes of local innovation and local systems change in communities facing development challenges and implements a portfolio of projects across five continents.
- **ASPIRE:** This year, D-Lab been a key partner in a multi-year USAID-funded ASPIRE program that aims to develop a regionally relevant, replicable model for how Latin American universities can address local development priorities through their research, teaching, innovation, and entrepreneurial activities.

MIT D-Lab researchers this year published technical guides, white papers, and program reports in addition to articles in peer reviewed journals.

Practice

The third pillar of D-Lab, Practice, led by Lecturer and Inclusive Economies Lead Libby McDonald, focuses on community-based training and applies participatory innovation as a methodology for tackling poverty challenges. The group is home to two primary programs:

- **The Humanitarian Innovation Program:** This program continued its multiyear collaboration with NGO Faros in Athens, Greece, providing design trainings to refugee youth and women, and continued its multiyear work with in Rhino Refugee Settlement in Northern Uganda collaborating on design and entrepreneurship trainings there and with communities in South Sudan.
- **The Inclusive Economies Program:** The program continued work in Colombia delivering design trainings, movement building, and workshops addressing gender-based violence in artisanal and small-scale miners. This year, through the D-Lab: Gender and Development class, the group expanded its work to Kenya with a Creative Capacity Building model for sexual and reproductive health workshops.

Awards

D-Lab Associate Director of Academics Libby Hsu won the John S.W. Kellett '47 Award for “exceptional and/or sustained commitment to creating a more welcoming environment at MIT, including, but not limited to, improving the experience of lesbian, bisexual, gay, transgender (LBGT), and questioning individuals.”

D-Lab Associate Director for Research Kendra Leith, who has worked at D-Lab since 2006, was the recipient of the 2022 Office of the Vice Chancellor Infinite Mile Award for Everyday Leadership.

Looking Ahead

In fall 2022, D-Lab will celebrate its 20th anniversary with its international community of thousands of alumni from MIT and its design education and training programs around the world, as well as with its partners from dozens of low-income and resource-constrained countries.

Edgerton Center

The [Edgerton Center](#) was founded in 1992 in honor of the late Professor Harold “Doc” Edgerton, to provide resources for students pursuing hands-on projects and inventions.

The center offers subjects in high-speed photography and engineering, supports hands-on student clubs and teams, manages four student machine shops and makerspaces, offers a year-round K-12 outreach program, and serves as a resource for the MIT research community in high-speed and scientific imaging. Our student shops are open to all MIT students.

Current Goals, Objectives, and Priorities

Isolation during the pandemic highlighted how important community is to our teaching model. This year, we are prioritizing re-building community within the groups and teams at the Edgerton Center, as well as around MIT.

Key Accomplishments

- We hosted the first annual [Edgerton Center Teams Showcase](#) on April 13, 2022, in Lobby 13.
- [The Solar Electric Vehicle Team Won First Place](#) at the 2021 American Solar Challenge.
- The new robot boat team, [Arcturus](#), placed 3rd in Design and 4th in Autonomy in their inaugural competition.
- We were recognized for the [high number of women leaders on our student teams](#).
- We received and executed the Alumni Funds grant, “Light, Sound, and Electronics: Enhancing Self-Efficacy Through Hands-on, Project-Based Residential Education.”
- We collaborated with the Alumni Association to publish a popular profile of [James Worden ’89](#), founder of the Solar Electric Vehicle Team.
- We established a program with the Sealaska Heritage Institute to prepare middle school teachers to create culturally relevant STEAM/Maker activities.
- The Prime Minister of Education in Italy invited Technical Instructor Edward Moriarty to create a report outlining his experiential teaching methods.
- We launched our new website ([edgerton.mit.edu](#)) and joined Instagram and Tik Tok.

Administrative Initiatives

New Equipment

New equipment for our student shops was purchased with the support of the Lemelson Fund.

- BART Abrasive Removal Tool for the Area 51 shop.
- Glowforge laser cutter in the Edgerton Student Project Lab.

- Two new CNC milling machines to replace our oldest two machines in the Edgerton Student Shop.

Notable Data/Statistics

This year we served approximately 3,053 students, which includes 559 MIT students, 2,244 K-12 students, and 250 Teacher Professional Development students.

Fundraising

- Alumni created an endowed fund to support the MIT Motorsports team.
- In its sixth year participating in the 24-Hour Challenge, the Edgerton Center continues to meet and surpass its goals for this event.

Personnel

- The Edgerton Center's inaugural Communications Officer, Camilla Brinkman, retired after 10 years. Sonny Oram became our new Communications Officer, bringing experience in social media, branding, and design from his work at the Department of Urban Studies and Planning and the Alumni Association.
- Justin Schmidt joined us as a Maker Educator, with experience leading a successful Makerspace at a middle school, where he collaborated with teachers to create meaningful Maker activities.
- MIT Edgerton Center Technical instructor [Edward Moriarty](#) was honored with the MIT Gordon Y. Billard and the Excellence in Mentoring Awards.

Teaching and Curriculum

Under our Alumni Class Funds grant, three sections of the subject 6.070/EC.120 were taught in dorms during the spring '22 term. We found we can effectively teach this six-unit project-based subject in dorm common rooms with an undergrad Teaching Assistant present. The Heads of House for the three trial dorms are interested in continuing the project this Fall.

We continue to develop and distribute our instructional models for biology. These kits enable students to understand how our cells make proteins from DNA instructions. With colleagues we published a [study](#) in which the kits were used to teach nursing students how frequent exposure to environmental toxicants affects low-income communities who more frequently live near sources of polluted air, soil, and water. Test results reported substantial knowledge gains and a greater understanding of genetic susceptibility. As reported in the [National Institute of Environmental Health Sciences](#), these results point to wide applicability of The Edgerton Center's hands-on curriculum in health care.

Subjects offered

The Edgerton Center offers many subjects under EC course numbers. They include hands-on introductory classes as well as all subjects offered by the D-Lab program.

Looking Ahead

Our goals for next year are:

- Connect with more departments, labs, and centers around MIT and work with Project Manus to create a stronger network of maker spaces throughout MIT.
- Continue to re-establish relationships with schools we worked with before Covid-19 and expand our outreach to area schools.
- Foster stronger connections between student teams. We will pilot a Communications Working Group for student teams to stay better connected and exchange ideas.
- Open a new electronics lab in 6C.
- Transform 6.2020 (formerly 6.070) into a flipped classroom.

Priscilla King Gray Public Service Center

The [PKG Public Service Center](#) taps and expands MIT students' unique skills and interests to prepare them to explore and address complex social and environmental challenges. This year's confluence of tragedies, systemic failures, and rhetoric heightened existing inequities, leaving community, government, and other partners straining to meet increased need and address pressing issues. Student interest in our offerings also increased in response to current events. MIT has a vital role to play in equipping students to be civically prepared, navigate this tough terrain of complex social and environmental challenges, break down barriers, and create solutions to build a better world, and the PKG Center does just that.

Key Accomplishments

The PKG Center continued expanding and adapting our programs in response to growing community needs and increased student demand. We offered rigorous, academically-aligned experiential learning experiences focused on climate, health equity, and technology for social good. Achievements include:

- 1,070 students participated in our programs. We engaged another ~1,600 students through outreach events and workshops.
- Awarded \$800K+ in direct student funding for stipends and project support.
- Connected students with 160 organizations locally, nationally, and globally.
- Through MIT's [ALL IN Democracy Challenge](#) (led by the PKG Center) and student group MITvote (advised by the PKG Center), 2020 student voter turnout reached 72%, up from 13% in 2016. (Data released in 2021).
- Further expanded our [Social Impact Internship program](#), which pairs undergrads with nonprofits, government, social enterprises and, increasingly, corporations to build capacity and bolster technical capabilities while engaging students in challenging social impact issues in real-world settings.
 - 117 students completed internships during IAP and summer.
 - Student demand remained high; we were only able to fund:
 - 1 in 5 summer applications
 - 1 in 8 IAP applications
 - 99% of Social Impact Interns indicated that they gained professional knowledge and skills that will be beneficial in their future careers.
- Offered our third year of [academic courses](#):
 - SP.256: Informed Philanthropy in Theory and Action, with funding from the Learning by Giving Foundation.
 - SP.250: Transforming Good Intentions into Good Outcomes
- 21st annual IDEAS Social Innovation Challenge awarded over \$50K in funding to 16 finalist teams during a hybrid [Awards Ceremony](#).
- PKG Fellowships supported 46 students working with partners nationally and globally during [IAP 2021](#) and [summer 2022](#).

- Adapted our collaboration model with our Navajo Nation partners in response to their changing priorities.
- Offered a hybrid PKG Spring Break for students to engage with community organizations in Boston and Cambridge.
- Developed learning objectives and assessment tools (in partnership with TLL) and began tracking uniform Center data to inform our programming and reach.
- Continued purposeful integration of social and racial justice into our student programming and staff learning sessions, aligned with ICEO.

Awards and Recognitions

We recognized two students for excellence in public service with the Priscilla King Gray Award for Public Service: David Spicer '23 and Martin Nisser (G). The Center awarded the Paul Gray Faculty Award for Public Service to Lawrence Susskind (DUSP).

PKG Social Impact Intern, Bhav Jain '22 was named a [Truman Scholar](#).

We received a number of major gifts from alumni and supporters. The PKG Center was also featured during Family Weekend, the [Alumni Association's Forum Series](#), and the [Alumni Leadership Conference](#).

The PKG Center's Program Coordinator, Danny Becker, received the Staff Award for Excellence in Diversity & Inclusion during MIT's RISE (Recognizing Individuals Supporting Equity) Awards.

Looking Ahead

PKG Center AY23 goals include:

1. Assess and refresh cohort programming for maximum community equity, current pedagogy, and student experience.
2. Strategize and prep for likely expansion of Social Impact ELOs at MIT, especially:
 - a. how the PKG Center can provide technical assistance and capacity-building for social impact efforts beyond our Center
 - b. how the PKG Center can smartly scale our offerings, with initial focus on internships
 - c. MIT partnerships.
3. Collect and use our data for better storytelling and program refinement.

We look forward to:

- Using staff transitions as opportunities to assess our programs and strategies.
 - Assistant Dean for Community-Based Programs (to be hired) will assess and refresh cohort programming and prep for MIT technical assistance/capacity support.

- Program Coordinator for Student Engagement and Outreach (to be hired) will develop and implement strategic, data-driven recruitment, workshops, and program support.
- Strategically expanding internships and associated resources, working towards our goal of providing 25% of undergrads with an immersive public service experiential learning opportunity.
- Integrating our work with recommendations from Task Force 2021 and the Social Impact ELO Initiative by serving as an internal consultant for social impact efforts across the Institute.
- Improving our data collection and analysis to make evidence-based assessments to ensure we are serving a diverse student population, creating student pathways, and meeting our learning objectives.
- Continuing to position the PKG Center as the rigorous, academically-aligned epicenter of public service at MIT by strengthening our partnerships with DLCs and faculty.

Undergraduate Research Opportunities Program

Established in 1969, [UROP](#) remains MIT's premier experiential learning program, promoting faculty-undergraduate collaboration at the forefront of research in all disciplines.

The UROP Office directs all program operations, resources and policy. Staff oversee final approval of ~6,000 projects yearly, funds allocation (~\$7M annually), and manage statistical reporting via a comprehensive system of record. Throughout the year, the UROP Office offers expansive programming, advocacy, and support for students, faculty and DLCs. Staff also partner with MIT development officers on fundraising efforts.

Notable Data/Statistics

- Ninety-two percent of 2022 first-undergraduate degree recipients took part in UROP at least once.
- Sixty-four percent of first-year students (Class of 2025) participated during AY2022 and summer 2022.
- Fifty-six percent of MIT undergraduates engaged in UROP from summer 2021 through AY2022, with 62% of undergraduate women and 51% of undergraduate men participating. 58% of MIT faculty mentored at least one UROP during this period.
- The Institute committed \$13,292,322 to undergraduates engaged in UROP, with \$7,840,250 (59%) allocated directly from the UROP Office.
- Eighty-two percent of UROP projects were paid, 15% were undertaken for academic credit, and 3% were volunteer.

Key Accomplishments

- UROP launched a new website with rebranded content and streamlined access to deadlines, position listings, and more, including curated advice and resources for students and mentors on finding UROPs and maintaining effective research advising relationships.
- Extended mentorship skills-development programming for graduate students through virtual workshops on key mentoring topics. A guide for research mentors was also published and is easily accessible through the UROP site.
- Expanded funding and programming options for students interested in research. This included offering a special IAP UROP funding application cycle specifically for first-year UROPs and hosting a variety of workshops and networking events. Programs were offered in collaboration with OFY, OME, CAPD, Comm Labs and DLCs, and were very well attended.

Awards / Recognitions

2022 Outstanding UROP Mentor Awards Recipients

- [Prof. Ariel L. Furst](#) – Chemical Engineering
- [Crystal Owens](#) – PhD student, Mechanical Engineering

2022 Outstanding UROP Student Award Recipients

- Oreoluwa O. Alao '25, UROP in Physics
- Sara V. Fernandez '23, UROP in the Media Lab
- Naksha Roy '22, UROP in Chemical Engineering
- Aria C. Kydd '23, UROP in Music + Theater Arts
- Skylar S. Larsen '23, UROP in Music + Theater Arts
- Desmond L. Edwards '22, UROP in Biology

Looking Ahead

- Collaborate with partner offices and programs on an initiative to better engage students in social impact work via established experiential learning platforms (including UROP).
- Continue our comprehensive analysis of UROP participation trends and learning outcomes among specific student populations, including first-generation, underrepresented minority, and low-income students. Outcomes will inform efforts to better ensure diversity, equity, and inclusion in the recruitment and mentorship of undergraduate researchers.

Office of First Year

The mission of the [Office of the First Year](#) (OFY) is to provide excellent services and programs that catalyze student exploration and promote the academic success and personal development of undergraduates. These programs enrich and support undergraduate education at the Institute, including:

- First Year Programming (e.g. Orientation, FPOPs)
- First Year Advising
- Committee on Academic Performance (CAP)

In addition to first-year programming and CAP, OFY includes three of the four first-year learning communities: **Concourse**, **Experimental Study Group**, and **Terrascope**.

Notable Data/Statistics

- Eighty-five% of the Class of 2025 was advised or mentored by faculty during their first year at MIT.
- In the fall 2021 semester, 6.5% of the Class of 2025 was flagged; 72.7% of flagged students recovered and passed their flagged subjects. In the spring 2022 semester, 7% of the Class of 2025 was flagged; 59% of flagged students recovered and passed their flagged subjects.

Key Accomplishments

- OFY launched a fully redesigned website to provide easy access to important dates, Orientation information, advising and academic details, registration forms, and more.
- The First Generation /Low Income (FLI) program created a new executive board of students to develop new programs and connections with alumni and departments, as suggested by the working group that was completed the prior year.
- Orientation was challenging due to the many Covid-19 restrictions, but all programs were offered. The class was slightly larger as ~90 students had deferred from the year prior due to Covid-19.
- Programming focused on developing relationships between departments and new students.

Awards / Recognitions

2022 First Year Student Award Recipients

- **Athletics:** Kate Augustyn, Roderick Huang, Jessica “Jay” Lu, Ottavia Personeni
- **Fine Arts:** Ananada Santos
- **Service:** Abigail Chou

2022 Outstanding Associate Advisor Recipients

- **Seminar Advising:** Cami Mejia, Class of 2023
- **Traditional Advising:** Sherry Nyeo, Class of 2023

2022 Outstanding Advisor Recipients

- **Alan J. Lazarus (1953) Excellence in Advising:** Dr. Barry S. Johnston, Department of Chemical Engineering
- **Student Champion:** Professor Krishna Rajagopal, Department of Physics
- **Creativity in Advising:** Professor Justin Steil, Department of Urban Studies and Planning
- **Excellence in Mentoring:** Ed Moriarty, Edgerton Center
- **Innovative Seminar:** Professor Jesus Del Alamo, Jorg Scholvin
- **Outstanding Veteran Advisor:** Ari W. Epstein, Terrascope

Concourse

[Concourse](#) is a first-year learning community of students and instructors dedicated to exploring foundational questions at the heart of humanistic inquiry, and interrogating the relationship of these questions to the larger MIT curriculum. We offer subjects from the science core (mathematics, physics, and chemistry), a foundational humanities course, and an interdisciplinary weekly first-year advising seminar.

Key Accomplishments

- Restructured our program activities and fall Friday seminar to align with the special circumstances of 2021, when the first-year class was on campus but with numerous space restrictions.
- Continued to use our spring seminar, CC.011: Thinking Across the Disciplines, to expose our first-year students to a diverse range of faculty at MIT.
- Continued to work with OVC on improving the first-year experience, in particular developing new programming to meet the remote learning needs of our students.
- Supported the work of Dr. Elizabeth Vogel Taylor's project "Increasing the Exposure of Organic Chemistry Students to the Work of Female and Minority Researchers," for which she was also recognized with an MIT Infinite Mile Award for Diversity and Inclusion.

Notable Statistics/Data

- Fall first-year enrollment at fifth week: 44
- Spring first-year enrollment at fifth week: 34
- We employed 31 upper-level Concourse students as UROPs, tutors, TAs, office workers, and graders.

Experimental Study Group

The [Experimental Study Group](#) (ESG) creates a learning community through small-group, discussion-based, experiential instruction in biology, chemistry, math, physics, and humanities; weekly lunches; group study sessions; outings; and other opportunities to build community.

AY2022 Initiatives

OVC First-Year Experimentation Pilot Project

ESG completed its final year of the pilot, moving project-based learning into all GIR curricula. Hands-on projects replaced final exams, allowing students to apply theoretical learning to projects of their own design. ESG will continue this mode of teaching for the majority of the GIR courses taught.

Pilot Project with MIT Stephen A. Schwarzman College of Computing, Electrical Engineering and Computer Science, and OVC

Two sections of ES.801 Physics I (equivalent to 8.01) were paired with two sections of ES.S601 Special Topics in Computer Science (equivalent to 6.0001), enabling students to enrich their physics understanding by means of a computational component, learn Python over the course of an entire semester, and reinforce computational knowledge by putting it to practice on real-world problems. From the final survey, ES.S601 problem sets and in-class problems contributed to somewhat to significantly increased physics and computational understanding.

Micro-Electric Grid in 8.02 Pilot Project

In fall 2022, ESG piloted an ES.802 Physics II (equivalent to 8.02) class with the intent to scale the class to the larger TEAL classroom. Hands-on activities provided students the skills they needed to develop a final project in which they designed a micro-electric grid that could provide affordable electricity. As only five students participated in the class, no formal project study was conducted. A discussion with the class identified the following: Besides learning the concepts in the 8.02 curriculum, students appreciated the hand-on activities and showed increased engagement through exposure to a real-world problem with relevance in society. However, they noted that the 8.02 curriculum was difficult on its own, and the hands-on components added more work to the week. Thanks to these factors, ESG decided not to teach the class in TEAL; instead, part of the material and ideas developed were used in 8.S02 Hands-on Approach to Electromagnetism, a special seminar offered in spring 2022.

ESG Seminars

ESG continued offering 3-6 unit seminars. Ten seminars were offered by staff, alumni, and guest lecturers, two of them new: ES.100 Maker Seminar (Dave Custer) and ES.S20 The Kalman Filter: Spacecraft Tracker, Heart Restarter, Moneymaker, and more! (Joe Griffin '16, Jerry Orloff).

Strengthening ESG Alumni Ties

- Working with the ESG Alumni Steering Committee, ESG conducted a survey of alumni to determine how they would like to be involved. Based on survey responses, we will begin an ESG Alumni Career Talks series in fall 2022.
- ESG's first "live" alumni reunion in three years was held in May 2022, with over 70 alumni and guests attending.

The Educational Justice Institute

- In response to Covid-19, TEJI developed the remote synchronous classroom, which is revolutionizing education for the incarcerated population by enabling mixed-gender and mixed-classification (pre- and post-adjudication) classes in facilities across New England.
- Added 119 new members to The Massachusetts Prison Education Consortium (MPEC), a 65% growth rate since 2020. As a result of TEJI expanding education to facilities throughout New England, MPEC will expand to a regional focus as the New England Prison Education Consortium.
- Began a partnership with the New England Board of Higher Education to develop a commission on the status of correctional education, which will bring together policy experts, public officials, incarcerated and formerly incarcerated people, and corrections officials to study the state of prison education and make recommendations for its expansion. TEJI believes that this commission will build the political momentum necessary for systemic change in prison education.
- Received a grant from Community Consulting Team of Boston, which performed an in-depth analysis of TEJI and provided technical assistance with strategic planning.
- Welcomed Claudia Forero-Sloan as TEJI's financial administrator and program coordinator as of December 2022.

Awards

- **Peter and Sharon Fiekowsky (PSF) Community Service Awards:** Alayah Hines '25 and Dana Rosenfarb '22
- **PSF Excellence in Teaching Award:** Talia Spitz '22
- **PSF Distinguished Teaching Awards:** Juan Aleman '22, Sabrina Cheng '22, Sarah Lincoln '22, Desmond Edwards '22, Jamie Geng '22, Abigail Scott '22, Tara Venkatadri '22, Sulli Yost '22

Students

- Class of 2025: 56
- Underrepresented minorities: 3
- Eight international students (India, Ireland, Japan, Kenya, Latvia, Pakistan, and South Africa)

- Eighty-six undergraduate Teaching Assistants in the fall and 48 in the spring provided academic support, while learning teaching and leadership skills.

Looking Forward

- **Pilot project with Schwarzman College of Computing, EECS, and OVC:** In fall 2022, ESG will include computational thinking components for all sections of ES.801 Physics I, while offering ES.S601 Special Topics in Computer Science for a more in-depth computational learning experience. In spring 2023, ESG will pilot the pairing of ES.802 Physics II (equivalent to 8.02) and ES.S602 Special Topics in Computer Science (equivalent to 18.0002).

Terrascope

[Terrascope](#) is founded on the proposition that first-year MIT students are ready to take control of their own education to tackle important, sustainability-related problems. In project-based classes, Terrascopers draw on diverse perspectives, interdisciplinary research, and a supportive community. They bond in common space and over meals, advising, and a field experience.

Key Accomplishments

- Community-building activities took a high priority this year. Terrascope conducted regular summer virtual lunches and activities, and students engaged via an active Discord server. Incoming students were welcomed into the community early, giving them a head start on building comfort and community. During the year, Terrascope offered lunches outdoors and non-food-related activities indoors.
- This year saw the return of the Terrascope Spring Break Field Experience. With assistance from MIT Medical, Terrascope staff developed a set of screening, testing, and safety protocols that balanced security and students' experiences. The group stayed in an isolated section of a nature-oriented retreat center and made day trips to local facilities and organizations that are important to long-range transportation of goods, this year's Terrascope theme.
- 12.000 Solving Complex Problems was conducted in person, with hybrid elements to enable alumni mentors to participate. (Enhanced alumni participation in this class has been a silver lining of the adjustment to pandemic conditions.) Panelists for the final presentation were: Anne Aylward (director, U.S. Department of Transportation Volpe Center), Dr. Chris Caplice (executive director, MIT Center for Transportation and Logistics), Dr. Greg Downing (director of sustainability, Cargill), Pauline Muratore (campaign manager, Clean Transportation Program, Union of Concerned Scientists), and Sean O'Brien (president-elect, International Brotherhood of Teamsters).
- SP.361 Majors and Careers through a Terrascope Lens was taught virtually. Each session focused on the experiences and reflections of two alumni, leading to a wide diversity of topics and illuminating dialogue.
- In this year's SP.360 Terrascope Radio, students developed particularly strong team spirit; one result was strong remote engagement during the field experience even from students who were not on the trip. The final story, "[Things Moving, People Doing](#)," was distributed by the Pacifica Network and broadcast by more than 100 college, community and public radio stations across the U.S.
- Students' experiences in 2.00C/1.016/EC.746 Design for Complex Environmental Issues, were enriched by strong communication with an engaged client organization. The class was integrated into the field experience when students brought their prototype to the client for testing and evaluation. The partnership among Terrascope, D-Lab, and Beaver Works through which the class is taught continues to bear new fruit.
- Terrascope continued its emphasis on strengthening its alumni community through enhancing the Alumni Mentor program, through developing tools (such as a "Terra-

Alum” Discord server) to help alumni communicate with one another, and through events. Response to virtual galas has been excellent, and Terrascope plans to continue them in parallel with in-person events.

- Terrascope continued to disseminate nationally the unique model for community engagement developed in collaboration with community partners and the PKG Public Service Center.

Notable Statistics/Data

- Terrascope completed its 20th year, and the 22nd year of its cornerstone fall class.
- Seventy-one first-year students participated, with 227 upper-level students continuing to be full members. Forty-one alumni served as alumni mentors, 12 alumni engaged with the IAP class, and more than 40 participants attended the virtual gala. Fifteen students served as undergraduate teaching fellows, and 21 as associate advisors.

Awards and Recognition

- Director David McGee was honored as a MacVicar Fellow.
- Associate Director and Lecturer Ari Epstein was named “Outstanding Veteran First-Year Advisor.”

Looking Ahead

- As part of its long-term commitment to community-based collaboration within the Navajo Nation, Terrascope has broadened and deepened relevant partnerships; next year the program will focus on water issues there. This fall, Terrascope plans to welcome a number of Diné guests to the MIT campus to interact directly with students, faculty, and staff. Terrascope continues to develop collaborative activities with tribal colleges, NGOs, and other key stakeholders.
- Terrascope continues to build strong partnerships on campus, in particular with the Environmental Solutions Initiative, the PKG Public Service Center, the Office of Minority Education, the Department of Mechanical Engineering, D-Lab, Beaverworks, MISTI, and the Office of Sustainability. Terrascope remains involved in broader efforts to improve the first-year experience.
- Terrascope will continue to develop a robust fundraising and alumni engagement strategy.

Office of Graduate Education

Supporting Educational Innovation and Excellence

The [Committed to Caring](#) program held its biennial selection round, announcing [15 faculty honorees](#), with individual news articles for a subset of recipients. MIT News articles will feature remaining honorees in the coming year.

The fall 2022 [Path of Professorship](#) workshop had strong participation by 41 PhD students and 29 postdoctoral scholars identifying as women, nonbinary, and gender diverse across 20 departments. Thirty-two faculty members from MIT and other institutions shared a wealth of knowledge on diverse topics.

Graduate Funding

The Graduate Student Short-Term Emergency Fund assisted over 100 students with approximately \$128,000 in funding.

Fellowships

For FY22, the OGE administered fellowships (internal and external) for ~1,200 graduate students. OGE's Graduate Fellowships Newsletter readership stands at ~400.

MIT continues as one of the three largest National Science Foundation's Graduate Research Fellowship (NSF-GRFP) cohorts (628, 5% increase from last year), breaking records for total fellows and new recipients (152, 10% increase, 6% market share).

The OGE, OVC, VPF, VPR, and Provost are completing a 2.5-year audit of the NSF-GRFP program by the NSF's Office of the Inspector General, with the goal of positive student outcomes. Program compliance will necessitate changes in fellowship administration.

MIT has the largest university cohort of National Defense Science and Engineering Graduate Fellows (NDSEG, FY2022=44), Department of Energy Computation Graduate Fellowships (DOE-CSGF, FY2022=24), and Hertz Foundation Fellowships (FY2022=11).

The OGE provided over 50 Vice Chancellor's Inclusive Excellence Awards totaling over \$3.8M to students across five Schools, as well as 25 general and special case fellowship awards totaling over \$1M.

Financial Literacy

The OGE offered 19 workshops and sessions on topics such as fellowships and investing. Additional workshops and outreach efforts on applying to graduate fellowships reached over 800 students. With VPR, the OGE piloted Pivot-RP, a well-received new funding database. [iGrad](#) has 2,645 active users.

Administration and Policy

Patrick Brown received an Infinite Mile award.

Following Sara Lazo in an interim role, Heather Lefebvre was hired as Graduate Admissions Coordinator.

Graduate Admissions

Offers of admission were made to 3,690 prospective students from a pool of 33,850 applications (~11%). Of those, 2,331 admitted students matriculated (63% yield). While the total volume of applications decreased slightly this year, there is continued long-term growth in applications and admissions yield.

With the partnership of OVC and OGE, the mechanical engineering department migrated graduate application processes from GradApply to Slate. This change begins to align graduate admissions practices with undergraduate admissions and the Sloan School. Slate offers a more flexible interface and robust recruitment capabilities.

OGE, OVC, IS&T, and Sloan collaborated to migrate nine additional graduate programs to Slate for the upcoming admissions cycle: The Departments of Architecture, Civil and Environmental Engineering, Chemistry, Urban Studies and Planning, and Media Arts and Sciences, and the Center for Real Estate, the Supply Chain Management Program, and the MIT-WHOI Joint Program in Oceanography/Applied Ocean Science and Engineering.

Special Student Program

The MIT Undergraduate Special Student program reopened (after suspension in AY2020 due to Covid-19). In September, 19 undergraduates will attend MIT as participants.

Website Redesign

With the addition of RSS feeds from MIT News and stylistic changes, three main bodies of content were incorporated from previously separate sites in a website redesign:

- All central graduate admissions content, giving prospective students context around offerings and optimizing existing traffic patterns. A keyword search feature was added.
- The Grad Blog.
- The former Guide for Graduate Student Families content, streamlined and reorganized.

Conflict of Interest

Due to the greater frequency of research conflict of interest (COI) cases involving students, OGE partnered with MIT COI Officer Rupinder Grewal to develop user-friendly guidance for graduate students. New web content clarifies existing policies, outlines needed conversations, and points to available resources.

Collaborations

OGE collaborated with the MIT Libraries on digital thesis submission procedures; with the Registrar's office on process improvements for registration petitions; and with several offices on support for student veterans.

Building and Sustaining Diversity

Leo Savala was hired as director of GradDiversity. Noelle Wakefield received the Laya Wiesner Community Award.

MIT GradCatalyst hosted sessions for 281 participants (11% increase over prior year). The number of surveyed attendees who indicated a strong interest in pursuing graduate education increased from 68% to 89% after attending a session.

GradDiversity partnered with the Departments of Civil and Environmental Engineering, Biological Engineering, Brain and Cognitive Sciences, Architecture, Technology and Public Policy, and the MIT Leaders and Laureates to provide specific, in-depth preparatory advice through the Graduate Application Assistance Program.

GradDiversity engaged in seven national and regional recruitment events supporting diverse identities in STEM. Travel to the 2022 National Society of Black Engineers Annual Convention marked the return to traditional in-person recruitment. OGE sponsored, and engaged in, the 2022 Spelman Research Day.

OGE connected with ~375 prospective students via conference participation and leveraged membership with three national partners — the National Consortium of Graduate Engineering Minorities, Ronald E. McNair Postbaccalaureate Achievement Program, and National Name Exchange — to digitally engage over 12,000 diverse prospective students.

Graduate Admissions staff reviewed 1,284 Graduate Application Fee Waiver requests and granted 901 across 37 different departments. Reasons given were 50% financial hardship; 19% MIT-sponsored diversity programs, events, or conferences; 18% other diversity programs; and 13% service in the U.S. Armed Forces.

OGE partnered with Educational Testing Service to provide a webinar for 66 registered participants toward a more holistic approach in departmental admissions processes.

MIT Summer Research Program - General ([MSRP](#))

OGE hosted an in-person program with virtual programmatic elements. Throughout nine weeks, 78 interns studying in 23 departments across five MIT schools engaged in research with 70 MIT faculty, culminating in the MSRP Virtual Research Forum.

This cohort doubled the program's size from the prior summer, enabled by the support of the School of Engineering. The 2021 program also marked the success of strategic partnerships with historically black colleges Spelman and Morehouse, as well as the University of Maryland, Baltimore County; partnerships with Howard University and North Carolina Central University were added.

According to the 2021 MSRP General Intern Exit Survey, 80% of interns expressed a strong interest in pursuing a doctoral degree (26% increase from before participation) and 95% indicated an interest in applying to MIT (28% increase).

OGE and the School of Engineering piloted the MSRP Fall Extension Program, which allowed 17 interns to build upon summer work into the fall semester at the intern's home institution.

University Center for Exemplary Mentoring (UCEM)

The UCEM program completed its final year of extended Sloan grant funding. Of the 82 scholars in seven cohorts, 23 have earned a PhD, attrition was low at five students (6%), and 54 continue progress toward degree. This year, MIT UCEM was institutionalized and expanded to seven departments in the School of Engineering and will continue as the MIT School of Engineering program of exemplary mentoring.

Climate and Community

The [Graduate Student Experience Grants](#) program conducted three application cycles (up from four in 2020-21) to maximize student rhythms and reviewer workload. A total of 48 grants were awarded.

The [Graduate Community Fellows](#) program added three new positions to support the work of colleagues in CAPD Graduate Professional Development, OME (in collaboration with GradDiversity), and the Writing & Communications Center.

Aimed to support black, indigenous people of color (BIPOC), and other marginalized identities, GradDiversity hosted events for current graduate students, including the annual September Graduate Student of Color Welcome; cultural/identity-based programs celebrating Hispanic Heritage Month, Black History Month, and Women's History Month; and celebration and wellness programming.

34 graduate students across five schools served as [Graduate Diversity Ambassadors](#), and a Slack channel was created for newly admitted students to connect with those more senior.

Holistic Student Support

Assistant Deans for GradSupport Elizabeth Guttenberg and Beth Marois were hired. Sara Lazo was hired in the new position of program coordinator. The team grieved the death of Cathleen Collins, assistant dean for GradSupport.

The GradSupport team sat on the Institute-wide Ad Hoc Committee on Graduate Advising and Mentoring, the Phase II Transitional Support Working Group, and the Institute-wide Health Promotion Working Group, co-leading the subcommittee focused on academics and well-being.

GradSupport responded to 154 graduate student hardship requests, providing over \$100,000 to graduate students. The team provided programming, grief support, and financial and personal support to students. Fifty new REFS (Resources for Easing Friction and Stress) were trained, bringing the total to ~100 active REFS.

Grad Families

The first full year with the new Graduate Families Program Administrator role saw a marked increase in both family participation in outreach efforts and the visibility of MIT's graduate families community. Over 400 graduate student parents and 535 children were identified; the majority also have a spouse or partner, bringing the supported families population to ~1,530. OGE implemented a new speaker series enabling student parents to talk with one another.

The Grant for Graduate Students with Children was awarded to 107 students (eight more than the previous inaugural year), totaling \$290,000. Grant awards for a single child increased from \$2,000 to \$5,000 for the year. The funds ameliorated acute difficulties such as food, housing, and childcare, and allowed students more time to focus on academics. Through the backup childcare program, the OGE subsidized over 450 days of childcare for 75 student parents, totaling over \$140,000. A total of \$51,343 was awarded for childbirth and parental accommodation.

International Students Office

The [International Students Office](#) (ISO) serves all incoming and currently enrolled international students (graduate, undergraduate, non-degree, and alumni) at the Institute and assists in maintaining their legal status in the United States, provides support for their dependents, and promotes interaction with, and integration into, the MIT community. ISO Staff serves to educate the Institute community on immigration-related regulatory and legislative actions that impact international students' ability to pursue their program of study and training opportunities during and after completion of their degree (up to three years after completion of degree). ISO services and programs are aimed to support students both inside and outside of the classroom, as well as before, during, and after a student's program of study.

Key Accomplishments

ISO Operations Return to Hybrid Model

On August 9, 2021, the ISO returned to in-person office hours five days a week after being fully remote for 15 months. As the ISO had expanded online service capacity before and during the pandemic, students had grown comfortable with continuing to access ISO services online as they have become more convenient, but also appreciate that in-person services are available as needed for urgent situations. The return to in-person office hours has allowed for in-person orientation sessions and programming opportunities throughout the year while we continue our "ISO Virtual Forums" and other events/programs accessible at the student's convenience. A list of ISO sponsored/co-sponsored programs offered during the past year is available on the [ISO "Past Events" webpage](#).

MIT Policy Development/Communication on U.S. Federal Government Regulations

The ISO continues to work closely with many Institute partners on the publication of MIT guidance on federal government policies/regulations impacting international student enrollment, travel policies, and related immigration matters. During the AY2022, while many pandemic-related travel bans and restrictions were adapted or removed, ISO continued supporting students facing the following challenges:

- U.S. Embassy/Consulate closures due to Covid-19 outbreaks in many countries;
- Entry or Visa denials/revocations due to Department of State "China Initiative" and Presidential Proclamation 10043 on China "military-civil fusion" programs;
- Visa processing delays/administrative processing security reviews.

Expansion of Experiential Learning Academic Subjects

ISO continued work with academic departments to create additional curriculum-based experiential learning/internship opportunities for elective academic credit or required components for all students in the program to complete their degree. In recent years, "Professional Practice" requirements have been developed (e.g. Course 6 – EECS) that serve as

models for other programs to develop experiential learning components (including in linguistics and mechanical engineering).

Canvas e-Course for F-1 Curricular Practical Training Employment

ISO transitioned our in-person/Zoom-facilitated CPT information session to a Canvas e-course, creating a module-based presentation that is more easily edited as federal regulation or MIT policy develops; is available 24/7 (rather than attending an information session offered on particular dates); includes quiz functionality to enhance information retention; and provides verification of student completion of course.

Creation of Visiting Student Portal

ISO, along with staff from the OVC, the Office of the Vice President for Research, and Information Systems and Technology, undertook the development of essential operation policy updates and functionality for the resumption of the Visiting Student Program in January 2022, including: creation of new data management portal (Visiting Student Portal); participant quota limitations per School/program; mentoring/training plans; set appointment start/end dates; required enrollment in MIT Student Health Insurance Policy; and post-participation evaluation.

Staffing Update

After more than 37 years of service at MIT, and 30 years in the ISO, Maria Brennan completed in March 2022 her tenure providing valued and compassionate service to thousands of international students.

Notable Statistics

International Student Enrollment (snapshot fall 2021)

- International student community: from 132 countries, including U.S.
- Undergraduate = 472 (10.19% of total MIT undergraduate enrollment)
- Graduate = 2,945 (41.13% of total MIT graduate enrollment)
- Non-Degree
 - Special (undergraduate and graduate) = 83
 - Exchange/Visiting Students = 218 (Exchange programs resumed fall 2021, Visiting Student Program resumed January 2022)

Post-Degree Employment

- F-1 Optional Practical Training/STEM OPT = 1,049
 - F-1 Optional Practical Training = 407
 - F-1 STEM Optional Practical Training = 642
- J-1 Academic Training = 41

Awards and Recognition

- ISO staff promotions:

- Janka Moss – promoted to Associate Director
- Sylvia Hiestand – promoted to Associate Director, Advising Outreach
- Aurora Brulé – promoted to Senior International Student Advisor
- David Elwell, ISO Associate Dean/Director, awarded (as part of an MIT team) the 2022 OVC Infinite Mile Award (Collaboration & Communication) for dispersing HEERF grants to students.

Looking Ahead

- Continued engagement/collaboration with institute administrators regarding complexity of regulatory compliance issues; develop coordinated advocacy plans for more timely visa and benefit processing.
- Implementation of Sunapsis Mobile Application.
- Continued enhancement of ISO online resources to improve communications to our community, including new Canvas e-courses for new student orientation and employment information sessions, through our international student portal (iMIT) and the [ISO website](#).

Office of Minority Education

The [Office of Minority Education](#) (OME) promotes academic excellence, builds strong communities, and develops professional mindsets among students of underrepresented minority (URM) groups, with the ultimate goal of developing leaders in the academy, industry, and society. The OME supports MIT's academic mission, while also serving the nation's need to increase the number of URM students pursuing careers in STEM disciplines. Over the last year, the OME has been working to transition back to in-person programming, while also providing remote options to accommodate for the needs of all of our students. We have focused our efforts on not only running programming, but also taking extra steps to support students as they navigated relearning the expectations of in-person academic spaces.

Key Accomplishments

- 39 protégés (first-year students) and 39 mentors (MIT faculty, staff, post docs, and graduate students) participated in the OME's Mentor Advocate Partnership (MAP) program. These connections were enhanced, and made easier to build, by the option to meet either virtually or in person.
- The Standard, the OME program focused on enhancing the overall success of undergraduate men of color, had a total of 62 participants (across all 4 years). The 20 members of the program's second cohort graduated in June 2022.
- The Talented Scholars Resource Room (TSR²) offer both virtual and in person support. This hybrid format catered to the comfort levels of all students who were interested in using the service. Our academic support resources (p-set nights, exam reviews, and one-on-one assistance) were used 1,460 times in AY2022.
- The BAMIT Community Advancement Program Fund (BCAP), which provides financial support for students pursuing public service projects over IAP or summer, launched during IAP 2020. BCAP funded 15 student projects as of summer 2022.
- The OME was able to admit 21 scholars into the Interphase EDGEx (IPx) 2022 cohort. IPx is the pilot extension to the Interphase EDGE (IP) program (~70 scholars). Scholars in IPx22 are individuals from all around the country who were able to participate in the summer portion of the program remotely for the first six weeks, and then come to campus for the last two weeks. They participated in a hands-on, project-based curriculum that is designed to help prepare them for the academic rigors of the Institute. Our goal is to foster community, introduce key concepts, and introduce scholars to the various resources and opportunities at MIT. Due to Covid-19, we were not able to bring IPx scholars to campus for the last two weeks of summer programming in 2021, so this year was the first time the OME was able to start integrating the IP cohort with the IPx cohort before the academic year began.

Notable Statistics / Data

- During AY2022, the Interphase EDGE/x program was able to advise and provide programming for 171 students. This is the most students the program has ever been able to serve.
- From the Interphase EDGEx (IPx) 2022 end-of-summer survey (n=21, 100% response rate), we learned that 100% of IPx scholar felt that the summer programming helped them better prepare for the rigors of MIT, 100% of them agreed the program created an environment where they could create strong and meaningful relationships, and 100% of them would recommend the program to the next incoming class.
- Laureates and Leaders served 76 students this year. Thirty students graduated from the program in June 2022. Of those, 70% planned to enter STEM graduate programs directly following graduation (57% will pursue doctoral studies and 13% will pursue a master's/MEng degree.) Of the 13%, all students plan to pursue a doctoral degree after graduating with their master's/MEng degree. One-hundred percent of graduating students reported the program met their needs in assisting with the graduate school application process.
- From The Standard's end-of-year survey, we learned that, out of the students who completed the survey, 100% felt a strong sense of community within the program. Additionally, 100% reported that they would recommend The Standard to other students.

Awards / Recognitions

- Students profiled by MIT News:
 - Laureates & Leaders:
 - [Ryan Conti '23](#)
 - [Adedolapo Adedokun '22](#)
 - [Desmond Edwards '22](#)
 - [Giramnah Peña-Alcántara '22](#)
 - [Stacy Godfreey-Igwe '22](#)
 - The Standard:
 - [David Spicer '23](#)
 - [Adedolapo Adedokun '22](#)
 - [Brian Williams '22](#)
- Students receiving fellowships/awards (MIT News):
 - [Amelia Dogan '23- Burchard Scholar](#)
 - [David Spicer '23- Burchard Scholar](#)
 - [Adedolapo Adedokun '22- Mitchell Scholar](#)
 - [Desmond Edwards '22- Knight Hennessy Scholar](#)
 - [Giramnah Peña-Alcántara '22- Schwarzman Scholar](#)
 - [Miles George '22- Burchard Scholar](#)

Registrar's Office

The mission of the [Registrar's Office](#) is to foster curricular innovation and educational community-building; ensure the integrity of academic information; and develop and maintain a robust infrastructure that is responsive to the evolving needs of students, faculty, staff, and alumni.

Key Accomplishments

- Partnered with OVC, IS&T, and VPR to test and implement a new, streamlined system for processing visiting student applications and registration forms.
- Produced data for MIT's report to the Higher Education Emergency Relief Fund (which was used to distribute financial aid to students in need) and to support graduate students' efforts to unionize.
- Helped OVC create a new office of Student Veteran Success and hired a program administrator to build community and improve the educational and residential experience of MIT's military service members, veterans, and their families.
- Worked with faculty committees on several high-profile curricular changes in Course 6 including:
 - new 6-14 MEng, 6 AB MASc, and 6-14P Master of Engineering in Computer Science, Economics, and Data Science degrees
 - a new major in Artificial Intelligence and Decision Making (6-4) and minors in Music Technology and American Studies
 - substantial revisions to the 6-2 and 6-3 undergraduate degree charts.
- Facilitated the approval of, and organized the technical process associated with, a new numbering system for Common Ground subjects, which blends computing with other disciplines in the Schwarzman College of Computing.
- Engaged in an office-wide collaboration with Institute Events, the six schools, academic departments, and other relevant offices to support changes to the Commencement ceremony by:
 - supplying attendance projections by department and degree to inform space decisions for the various events
 - creating new data pulls to produce marching orders and station and name lists for the multiple ceremonies, as well as name, degree, location, time, contact information, and gender for the NameCoach tool
 - distributing 1,890 diplomas to advanced degree recipients over a two-day period from a central distribution location
 - partnering with IS&T to amend and create software to facilitate centralized diploma distribution with reporting applications for both academic departments and Registrar staff, and a new Atlas-based application for degree recipients.
- Successfully piloted a FlexWork model of virtual and in-person service modes, providing staff with remote working options that balanced individual preferences and functional responsibilities within the office.

- Supported the nomination process and naming of four new MacVicar Faculty Fellows and partnered with the vice chancellor to produce an in-person dinner celebration for the Fellows and to mark the program's 30th anniversary.
- Collaborated with IS&T on the installation of lightweight lecture capture technology in 31 classrooms.
- Served as a leader on the project to design a 250-seat lecture hall and 60-seat active-learning classroom in the Schwarzman College of Computing; construction began in June 2021 and continues through June 2023.
- Made substantial enhancements to existing classrooms by:
 - overhauling audiovisual systems in 16 classrooms and replacing video projectors in 21
 - installing movable tables and chairs in E25-117, motorized window shades in 5-134, and a motorized projection screen in 1-132
 - adding an acoustic fabric wall system to 1-390.

Notable Statistics / Data

- In the past year, we issued 3,825 paper diplomas and 3,197 digital diplomas.
- We facilitated the approval of 81 new subjects and 433 revisions to existing subjects.
- Through the d'Arbelloff Fund for Excellence in Education and the Alumni Class Funds, we awarded grants to 26 curricular projects from across the Institute totaling more than \$940,000.

Awards / Recognitions / Staffing

- Wayne Johnson, Assistant Registrar for Classrooms and Scheduling, received a 2022 MIT Excellence Award.
- One staff member was promoted to Assistant Registrar, and we made two external hires: an Undergraduate Degree Audit Administrator and a Program Administrator for Student Veteran Success.

Looking Ahead

We will:

- Provide data and institutional knowledge that addresses the changing landscape of higher education and supports new Institute leadership, the graduate student union, and a central advising office.
- Assess and revise the technology needed to support the evolving format of the Commencement ceremonies.
- Facilitate the deployment of NameCoach, a name recording service, throughout the MIT community.

- Serve as a primary source of expertise when the Institute pursues a new Student Information System.
- Strategize and propose classroom technology upgrades to support hybrid learning models as they are approved by faculty curriculum committees.
- Give guidance on the renovation of lecture halls 54-100 and 34-101 to take place between January 2022 and December 2023, including new fixed-seating with power at each seat; new wall, ceiling, and floor finishes; improved acoustics; LED lighting; and multi-projector A/V systems with lecture capture technology.
- Provide ongoing staff training to ensure a welcoming and inclusive working environment for all members of the Registrar's teams and the students we serve.

Reserve Officer Training Corps—Air Force

[Air Force ROTC](#) Detachment 365 seeks to develop leaders of character for tomorrow's Air Force and Space Force. Our staff of five (three active duty officers, one non-commissioned officer and one MIT administrative assistant) trains a growing number of cadets from MIT as well as Harvard, Tufts, and Wellesley. Each semester, our cadets enroll in an AFROTC-focused academic course (taught by our officer cadre); participate in physical fitness training; and organize and execute a weekly Leadership Laboratory as well as several special events throughout the year. In recognition of our growing enrollment and achievements, MIT continues to provide generous funding which facilitates high-quality, formative opportunities to cadets.

Key Accomplishments

- Despite the coronavirus pandemic and all the limitations placed on campus, we maintained a cohesive unit identity, investing in multiple platforms and manners of engagement.
- Helped re-shape Headquarters Air Force's accessions decision review—MIT cadets returned to 100% continuation rate.
- We continued our integration and (virtual) presence in the MIT community. Cadre members led or assisted in leadership training for one of the Sloan IAP courses as well as the undergraduate advisors.
- We leveraged MIT relationships and resources to provide unique opportunities for cadets, to include visits from Col. (Ret.) Pam Melroy, former NASA astronaut and mission commander; Major General (Ret.) William Rapp, who teaches at Harvard Kennedy School; Lieutenant General (Ret.) Bruce Wright, president of the Air Force Association; Brigadier General (Ret.) Dana Born, professor at Harvard Kennedy School; Colonel Christopher Bennett, HQ AFROTC commander, and General John "Jay" Raymond, Chief of Space Operations.
- We conducted a Northeast Region-wide Field Training Exercise that included seven Detachments, with over 400 cadets and cadre members. The cadets learned expeditionary skills, executed a number of problem-solving challenges, and traversed an obstacle course. This event gave the cadets a glimpse into a simulated operational environment, and developed their leadership and followership skills.
- We proudly commissioned thirteen new second lieutenants this year. Two were Air Force Distinguished Graduates – an honor reserved for the top 10% of graduates in all of AFROTC.
- Our program's enrollment is consistently driven by the award of full-tuition scholarships. With a strong recruiting effort, we continue to grow and look forward to one of our largest cadet wings in fall 2022, made up of students with both full and partial scholarships.

Notable Statistics / Data

- Spring 2020 total enrollment was 90; spring 2022 was 95. We are expecting 20+ incoming first-year students this fall, bringing our total enrollment to 103!
- AFROTC scholarships now pour \$4M in undergraduate tuition into our four schools annually.
- In addition to our undergraduates, Detachment 365 also serves as the military focal point and administrative oversight/support to ~40+ active duty officers pursuing advanced academic degrees at our four schools.

Awards / Recognitions

- Cadets were recognized with multiple national-level awards, including the Sons of the American Revolution, Legion of Valor Bronze Cross, and the Military Order of the Purple Heart.

Looking Ahead

- Technical Sergeant Almira Baptiste joined our team at the beginning of the spring 2022 semester.
- Staff Sergeant Vincent Frisbee will arrive in October and split Technical Sergeant Baptiste's workload.
- We seek to foster better and more consistent contact with our alumni network.
- We advocate for our cadets to partner with academic faculty on Department of Defense-sanctioned research projects.
- We partner with the Space Force as they mature and bring officers to campus for research and degrees.

Reserve Officer Training Corps—Army

The mission of the [Army Reserve Officers Training Corps](#) (AROTC) is to select, retain, train, and commission cadets from MIT, Harvard, Tufts, Wellesley, Gordon, Endicott and Salem State to prepare them for future leadership roles in the U.S. Army, the nation, and the world. Our vision is to be the premier ROTC program in the country, leading Cadet Command in all measurable categories.

Accomplishments

Five of the 18 commissioned cadets this spring earned the honor of “Distinguished Military Graduate,” placing them in the top 20% of all cadets nationwide. Additionally, a cadet from MIT, Cadet Chloe Brown, placed #15 of 7,000 in the National Order of Merit List. The Class of 2023 is expected to commission 16 officers, which means we will exceed the Army directed commission for the fourth consecutive year. The future is bright for Army ROTC with a commissioning mission of 14, and each of the next four years expected to commission upwards of 18.

Year-End Enrollment for Army ROTC, as of May 1, 2022

	MS 22(SR)	MS 23(Jr)	MS 24(So)	MS 25(Fr)	Total
Contract Mission	17	16	15	15	N/A
Commission Mission	15	14	13	13	N/A
Contracted	19	20	16	14	69
Enrolled Not Contracted	0	0	3	5	8
Total Enrollment	19	20	20	20	79

As the Army ROTC Program emerged from the global pandemic, academic studies, training and program initiatives quickly returned to normal operations. As the year developed, the AROTC program continued to excel in all measurable categories from Cadet Summer Training to ensuring all instructor and cadre members were ready for the year. Additionally, the major Lines of Effort(LOC) our higher headquarters has charged us with pursuing never once faltered.

As the chart above shows, the ROTC program successfully produced 19 second lieutenants (LOE1) and prepared them to be officers in the ever-changing environment. As with any great organization, transitions and change happen without any retrograding as this program continue to produce world-class cadre (LOE2) thru determination and dedication to the cadets, the university and the community. Finally, working alongside the fantastic MIT staff, the greater-Boston area, and surrounding high schools and universities, the MIT Army ROTC Program continued to build the lasting relationships and community engagement (LOE3) needed for future success.

Along with the major program initiatives, many cadets were afforded opportunities to train alongside active duty units. Recently, the AROTC Hackathon Team collaborated with MIT

Lincoln Labs to jump-start the Southern Operations Command (SOCOM) Ignite program in which colleges and universities from around the country participate to solve complex issues using technical means. Another great opportunity for cadets is the ProjectGO Program, and five cadets were selected to participate. They will work with students from the U.S. and partner with other countries to further develop their critical language skills. In addition, we sent four cadets to Air Assault School over the winter break and all four graduated successfully.

Finally, and most notably, Cadet Joseph Hobbs, a rising MS2 sophomore, competed in and won an essay contest for the Military Historical Society of Massachusetts. The title of the essay, “The Changing Nature of Warfare in the Twenty-First Century” examined how today’s military fights and wins the nations wars versus how the U.S. fought wars during the Vietnam warfare era. Cadet Hobbs will attend a luncheon in September to honor him and the ROTC Program.

Challenges and Plans for the Future

The Army ROTC program plans to continue giving back to the MIT community by providing more leadership training opportunities.

Reserve Officer Training Corps—Navy

The mission of the [Navy Reserve Officer Training Corps](#) (NROTC) is to develop our midshipmen into well-rounded leaders by serving with honor, courage, and commitment. On behalf of the naval science staff, we would like to thank you for another tremendous year of support and growth for the Naval ROTC program. As we send on the six graduates from the Class of 2022, we are also preparing to welcome a class of eight incoming students.

Key Accomplishments

Despite the lingering challenges faced by the Unit as we emerged from the Covid-19 pandemic, the Naval Science Department staff and students were able to execute our mission admirably. We have reinstated long-standing events such as the Brown Shoe Ceremony (for new aviators); a SWO ceremony; and a submarine selection celebration lunch. The year ended with a Battalion barbecue and was topped off by a favorite event, “Dining In.” This is a time-honored tradition where the Battalion military staff and students gather for a formal dinner in full dress uniform, a highlight for all.

Notably for the first time in three years, we were able to host a joint Commissioning Ceremony for the MIT ROTC Class of 2022 live and in person, on board the deck of the *USS Constitution*. It was a fitting way to send our graduates on their journey as Naval and Marine Corps officers.

We are proud to recognize the outstanding accomplishments of our six Class of 2022 graduates, and we commend their commitment to our program. The graduates and their post-graduation plans are noted below:

- Sean Crozier (MIT) – Naval Aviation
- Alassia Lang (MIT) – Nuclear Submarines
- Juliana Silldorff (MIT) – Nuclear Submarines
- Andrew Sorenson (MIT) – Naval Reactors
- Tyler Worthley (MIT) – Naval Aviation
- David Chung (Harvard) – Surface Warfare

Additionally, this summer, an MIT midshipman (MIDN) participated in Project Global Officer (Project GO), a fully funded government program enabling selected ROTC students to gain critical language and cross-cultural experience during a period of study domestically or abroad. MIDN Rajendran recently completed two months of studies in various locations in rural and urban Kenya. His experiences range from witnessing the effects of climate change (drought) to learning about ethnic tensions, and speaking Swahili to build rapport with community members.

Notable Statistics/Data

Our enrollment for AY2022 showed a continued growth trend, although the numbers as of now are still reflective of the impact of the Covid-19 pandemic:

	Class of 2026	Class of 2025	Class of 2024	Class of 2023	Class of 2022
MIT	4	2	5	7	5
Harvard	4	1	9	5	1
Tufts	0	0	3	1	0

Notable Recognitions

We are excited to welcome the following new staff members to our Naval Science Department.

Navy Officer Staff

- CAPT Jack Houdeshell, USN, CO, Submarine Officer
- CDR Jennifer Huck, USN, XO; Aviation Officer
- LT Julie Stabile, USN, Submarine Officer
- LT John Nothacker, USN, Surface Warfare Officer (SWO)

Civilian Staff

- Michael Stern, Supply Technician

Student Financial Services

[Student Financial Services](#) (SFS) makes the dream of attending MIT a reality by providing students and families the assistance and resources to meet their financial obligations.

AY2022 Initiatives

Financial Aid, Loans, and Affordability

- Developed and began implementation of the financial education strategic plan with the mission to ensure that every MIT student benefits from a basic working knowledge of prudent financial planning and develops future financial goals. Hired a new associate director of financial education in August 2021 to spearhead this initiative.
- Continued to work to reduce financial aid barriers for undergraduates:
 - Waived Non-custodial Parent Profile requirement for returning students with \$0 Non-custodial Parental Contribution in their first year.
 - Increased availability of CSS Profile fee waivers for international students.
 - Adapted new Institutional Methodology and approved new Available Income table for use in award year 2022–23, to increase aid eligibility for students, at an estimated cost of \$3 million.
 - Created policy to preserve aid eligibility for returning students, so they would not see an increase due to changes to the Available Income table, at an estimated cost of \$800,000.
 - Increased the eligibility for free-tuition from \$90,000 income to \$140,000 for the 2022-23 academic year.
- Provided emergency relief to our Ukrainian undergraduates by replacing the spring student contribution, normally \$1,700, with MIT scholarships.
- Partnered with the community to support food security pilot programs for students.
- Automated and proactively awarded a health insurance grant for domestic students with parental income under \$65,000 and all international students.
- Allowed returning students to submit the most recent tax return so their updated tax information can be considered in the initial financial aid review.
- Increased support for veterans: undergraduates are now eligible for Yellow Ribbon Funds which are matched by MIT at \$5,400 per student, per year. Sloan increased the Yellow Ribbon matching contribution for graduate students from \$20,000 to \$25,000.

Customer Service, Operations, and Communications

- Instrumental in the communications, customer service, processing, and distribution of 9,000 checks totaling \$8.9 million in Higher Education Emergency Relief Funds (HEERF) to 7,600 students.
- Restructured accounts receivable area to provide more oversight and created a new position: Associate Director of Student Financial Operations.

- Partnered to streamline the visiting student program, and helped design the new visiting student portal, thereby reducing administrative burden for SFS. The new online system replaced a paper-based system that allows for credit card payments. SFS will continue to process refunds using the new system.
- Assembled a yearlong SFS Communications Advisory board to improve communications and understanding between SFS and our undergraduates.
- Built a new customizable budgeting tool for undergraduate students, to help them plan their finances by year or semester, with 7,872 views.
- Sent a redesigned Getting Started Guide to all first-year students prior to the first bill. The guide contains key information to help students prepare for MIT.
- Partnered with ECSI to distribute 1098-T tax forms which allows students (including alumni) to access their tax forms electronically and also reduced SFS's administrative burden.

Notable Statistics

Financial Aid

- In AY2022, MIT awarded \$143.8 million in need-based institutional grants to 2,664 undergraduates with an average family income of \$111,036. The median need-based grant was \$60,430, or 82% of the cost of tuition, fees, housing, and meals.
- Thirty-seven percent of MIT undergraduates received grants (from any source) sufficient to allow them to attend tuition-free. The average total family contribution, not including student term-time work, for those receiving an institutional grant was \$17,441.
- Fifty-eight percent of the 4,629 undergraduates received need-based financial aid from the Institute.
- Nineteen percent received Federal Pell Grants, which are typically awarded to U.S. students with family incomes below \$60,000.
- Seventy percent of undergraduates (3,239 students) earned wages totaling more than \$11.3 million from MIT employment or the Federal Work Study program.
- The percentage of undergraduates taking out loans rose slightly from 7.4% to 7.8 % in AY2022. Among seniors graduating in 2022, 85% graduated with no debt. Of those with education debt, median indebtedness at graduation was \$14,200, a decrease of 9.7% from AY2021.

Customer Service and Operations

- Answered over 10,400 calls and fielded over 32,000 email inquiries.
- Processed 172 MIT Education Loans applications, averaging \$9,791.90 per application, and disbursed over \$1.7 million in funds to MIT staff and faculty.
- In FY2022, the Sloan School of Management completed the transition to the direct management and oversight of graduate tuition and fees for their academic programs, and that financial activity is no longer reported within Student Financial Services.

- Not including tuition from Sloan graduate programs, gross tuition and fees for the Institute totaled \$657 million in AY2022. Within this category, undergraduate tuition and fees were \$253 million or 39%; graduate tuition and fees were \$362 million or 55%; and non-degree tuition and fees were \$41 million, or 6%.

Awards, Recognition, and Staffing

- For AY2022, Student Financial Services was composed of 27 administrative staff positions and one support staff position. Of these, 52% are women, 48% are men, and 33% are underrepresented minorities (Hispanic, Asian, and Black/African American).
- Amy Piantedosi and Jana Haile won the team OVC Infinite Mile Award for Everyday Leadership; Jen Lesar, Kris Guay, Amy Piantedosi, and Alex Roy won an Infinite Mile Award for Collaboration & Communication as part of the HEERF Project Team.

Teaching + Learning Lab

Our work in the [Teaching + Learning Lab](#) (TLL) during AY2022 has leveraged a range of lessons learned from remote programming, teaching, and otherwise working; and has addressed the longer-term, evolving needs of the MIT teaching and learning community. TLL currently has 49 active projects and completed 58 projects in AY2022.

Key Accomplishments

Support for MIT Educators

The TLL Speaker Series

This year's presentations focused on "teaching and learning, post-pandemic." We created [summary blog posts](#) that include resources from the presentations and made them available through the TLL website. During AY2022, we hosted five guest speakers and two panels of MIT educators.

Fresh Perspectives Video Series

Our [Fresh Perspectives](#) project is currently a collection of 14 recorded interviews with MIT educators, aimed at capturing effective teaching techniques developed during remote conditions that can translate effectively to a post-pandemic education environment.

Seminars and Workshops

- Learning Outcomes and Assessment Workshop | Experiential Learning Office
- What TLL does for Grad Students | Chemical Engineering, Course 10
- Inclusive Teaching as a TA | Architecture, Course 4
- Non-Faculty Roles in Higher Education | CAPD PhD Career Prototype Series
- Facilitation and Framing of Festival of Learning session on Inclusive Teaching | Open Learning
- Foundations of Inclusive & Equitable Pedagogy workshop | Biological Engineering, Course 20
- Growth Mindset workshops (5) | Various MIT teaching and learning community venues

Support for TAs, Grad Students, and Postdocs

- [TA Days](#): Our workshop series for new TAs was offered at the start of each semester, (August 2021 and January 2022). All resources from [the Summer 2021 workshops](#) and [the IAP 2022](#) workshops were made available to the MIT community through Canvas.
- [Grad Teaching Development Tracks](#): Our [alternative development pathway for graduate students](#) was offered during AY2022, with six tracks attended by 96 graduate students.
- [Kaufman Teaching Certificate Program](#): Four sections were offered in fall 2021, and five in the spring). A total of 157 participants completed the programs.

- [Teaching Development Fellowship Network \(TDFN\)](#): This year, 18 fellows from 17 different departments, and two at-large fellows (funded by TLL) participated in the network.
- TLL Newsletter: [TLL's monthly newsletter](#) (approximately 3,000 subscribers) was distributed monthly and included curated news, events, and resources for the MIT teaching community.

OVC-wide Initiatives

TLL implemented several projects to support the larger priorities of OVC and the Institute.

Assessment and Evaluation

- Integrated Research Examples in CC.512 (ACF funded)
- Year 2 External Evaluation of VM-Lab Grant
- FYX Class of '22 Follow-up Interview Study: P/NR Experiment and Choice of Major
- 6.033 Prerequisites survey
- VM-Lab - Evaluation of Interactive Simulations for online Photonics Fundamentals course
- Analysis of 8.02 belonging intervention data
- Evaluation for Inclusion in Makerspaces project (ACF funded)
- Academic well-being of lab-based, PhD STEM students during pandemic

Flipping Failure

In AY2022, the [Flipping Failure](#) project added five audio narratives to our collection of stories. We offered two workshop series, during Summer 2021 and January 2022, to support video and audio creation. The final [annual report](#) was submitted to the donor in March 2022.

Community of Anti-Racist Educators: Reading Group & Community of Practice

This new effort launched in IAP 2022 supported a group of eight MIT instructors as they engaged in anti-racist work. Consistent with the goals of [MIT's DEI Strategic Action Plan](#), the group worked to address “barriers to equity, opportunity, and belonging” and to “shape an environment in which all people can do their best work and thrive.”

Participation in Institute-wide Committees and Working Groups

- Task Force on Graduate Advising and Mentoring
- Subject Evaluations
- Health and Promotion Working Group - Academic Stream
- RIC 16 Ad Hoc Committee (co-chair)
- MIT Diversity Think Tank
- MIT Strategic Change Reading Group

One-on-One Teaching Consultations

TLL staff provided approximately 50 one-on-one formal consultations with members of the MIT teaching community. We also provided informal support for many graduate students, undergrads, and postdocs.

Awards, Recognition, and Staffing

We successfully ran three job searches:

- Associate Director for Teaching & Learning / DEI Initiatives
- Assistant Director for Research & Evaluation
- Communications & Events Administrator

Looking Ahead

- Expand programming and support for inclusive /anti-racist teaching.
- Develop and implement a campus-wide learning strategies self-assessment, with the goal of developing a comprehensive understanding of how students at MIT manage their time and approach self-directed learning.
- Continue development of additional programming to support the professional development of future faculty. Engage in discussions on how to best support MIT postdocs in preparing for careers post-MIT.
- Collaborate with MIT School Deans to provide a KTCP-like experience for new faculty.
- Develop and disseminate alternatives for the Evaluation of Faculty Contribution to Teaching/Education.
- Continue to offer our core-programming for the MIT community.