

Office of the Vice Chancellor President's Report 2018-2019

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.

Formed in 2017, the OVC was created through the integration of the former offices of the Dean for Undergraduate Education and Dean for Graduate Education.

Review of Major Organizational Changes

- The Office of Undergraduate Advising and Academic Programming (UAAP) evolved to the Office of the First Year (OFY). The Assistive Technology Information Center (ATIC) moved to the Division of Student Life.
- A new Office of Experiential Learning (OEL) was created comprised of: UROP, Edgerton Center, D-Lab, Global Education, and the PKG Public Service Center. Kate Trimble, the former associate dean for the Priscilla King Gray (PKG) Public Service Center, was appointed as the new senior associate dean and director of the OEL. She succeeds Kim Vandiver, who remains the director of the Edgerton Center.
- Global Education and Career Development (GECD) transitioned into Career Advising and Professional Development (CAPD) with a broader mission, focusing on mentoring, career services, and professional development (new function). An interim leader was appointed: Deborah Liverman, director of career development, following Melanie Parker's retirement in January 2019.
- The Office of Graduate Education (OGE) remained as a dedicated unit.
- International Students Office (ISO), formerly reporting into OGE, became a separate unit under OVC.

Priorities and Progress

As outlined to the Undergraduate and Graduate Education Visiting Committee in May of 2018, the vice chancellor is making progress towards meeting his top three priorities. (Note: [A full list of goals is available online.](#))

1. Transform the first-year undergraduate experience.

The focus on transforming the first-year undergraduate experience has been on community engagement and building consensus around a core set of needs, and pursuing pilots and experiments to assess options for addressing these needs. Based in part on student input from the [Designing the First-Year Experience class](#), run in the Fall of 2017, four overarching needs have been identified: more support for exploring and choosing a major; better advising; more inspiring experiences that cultivate a love of learning; and greater flexibility and/or fewer requirements to enable the other things to

happen. The most prominent efforts in response to these needs are two phases of an educational experiment.

[Phase One](#), for students who entered in fall 2018, allows them to take up to three science core GIRs as pass/no record (P/NR) after the first semester. This has enabled many students to reframe their approach to the first semester, namely to spend more time exploring interests and adjusting to college life. Phase One data indicated that students are, in fact, [exploring more](#). They also reported reduced stress associated with selecting a major. Overall class grades were unchanged with small increases in HASS GIR grades and small decreases in science core GIR grades.

The [Phase Two](#) experiment, also approved by the CUP, for students entering in fall 2019, aims to address the needs of this third group of students through a category of [First-Year Discovery Subjects](#). These are 1-3 units and offer students a brief taste of departments across the Institute. They will be counted under a separate 9-unit limit, outside the normal first-year credit limit.

Another key aspect of Phase Two is that students entering in fall 2019 will not be offered Early Sophomore Standing (ESS). Removing ESS will help address the notion that any student should declare their major after only one semester at MIT; give every student access to advice in departments of interest; and shift the responsibility for determining how many units a student should take to the student and their advisor.

In addition to these two experiments, smaller efforts are also underway. In fall 2019, there will be a pilot to test a “network advising” approach, where students are assigned a staff advisor in the Office of the First Year (OFY), a faculty mentor, and a student Associate Advisor. Finally, the First-Year Learning Communities are being used to test methods for embedding more inspiring learning experiences within the first year.

2. **Become a leader in research-based advising and professional development of graduate students.**

To best support MIT’s graduate students, a major effort was undertaken over the past year to take a holistic look at their experience. To that end a [Graduate Student Roadmap](#) was developed that lays the foundation for change.

Financial security has been a particular priority. The Graduate Student Council (GSC) recommended addressing this issue, to help enable progress in everything from advising to culture to housing. With their insights, and informed by the [2018 Academic Climate Survey](#) and other data, a [commitment from each school](#) was secured to implement policies and practices to help reduce financial insecurity among specific populations of graduate students, namely those on 9-month appointments or with non-resident status.

In addition, the [Graduate Family Support Working Group](#) was created to understand the specific challenges of graduate students with families. The goal is to provide an interim

report for community feedback in the late summer of 2018.

With regards to enhancing graduate advising, Institutional Research did a meta-analysis revealing that the graduate student/advisor relationship is the biggest single factor that correlates with student satisfaction. Senior leadership, deans, department heads, and others have been and are now even more engaged with addressing graduate advising issues. At the same time, OVC HQ, the Office of Graduate Education, the Teaching and Learning Laboratory, and MindHandHeart are working with chemical engineering department head Paula Hammond, who was recently charged by School of Engineering Dean Anantha Chandrakasan to develop and run a pilot series of workshops intended to help faculty understand best practices in managing and mentoring in an academic lab.

In parallel to the above, OVC staff have collaborated with MindHandHeart, which has continued with its Department Support Project (DSP) pilot, an effort in several academic departments to share best practices and coordinate enhancements to strengthen the welcoming and inclusive nature of our academic climates.

Progress has also been made on graduate student professional development. The [Graduate Student Professional Development Working Group](#) recently created professional development competencies, which graduate programs adopted into their learning goals, and is currently assessing programs and gaps to be addressed. A full report and action plan is due in the summer of 2019.

Finally, other efforts to improve the graduate experience include new and improved orientation programming as well as expanding orientation programming into the fall semester to engage a larger group of students.

Lead and manage the Office of the Vice Chancellor to provide enhanced services and programs for our students.

With the creation and re-organization of the OVC entering a new phase, focus has shifted to office-based (including HQ) work prioritization evaluation to eliminate efforts that do not advance strategic goals and to create capacity for new programs. The most visible activities to support office-wide/Institute-wide endeavors have been through the creation of cross-functional teams, discussed in the section on OVC HQ.

Other accomplishments this year led by the vice chancellor include updating the academic calendar and timing of the Commencement and Hooding ceremonies; aligning key messages for the annual Campus Preview Weekend event for prospective students; and finding solutions for students impacted by work authorization delays when filing for Optional Practical Training (OPT).

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OVC Headquarters (OVC HQ)

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

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

Staffing in HQ was bolstered by the addition of Kate Weishaar '18, first-year experience program coordinator. With the retirement of Steve Burke, Donyatta Small was promoted to director of administrative computing for OVC and DSL.

Cross-functional Teams

There are several cross-functional teams and working groups that are advancing the chancellor's charge. Their progress is monitored by OVC HQ and they include:

- Graduate Family Support Working Group
- Wellness Committee
- Designing the First Year at MIT
- Office of Vice Chancellor – Council on Diversity and Inclusion (CDI)
- Graduate Housing (with DSL, GSC)
- Career Explorations
- Graduate Student Professional Development Working Group
- Interphase EDGE online (Office of Minority Education-led)
- Future learning management systems (Registrar's Office-led)
- Grad student orientation and onboarding (staff-led, includes students)
- International/Domestic Undergraduate Student Orientation and Onboarding Team

Key Accomplishments

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

- Ran and refined leadership team meetings, all-staff meetings, retreats, and other programmatic events to build staff community
- Produced internal communications, from e-letters to announcements, to keep staff informed and engaged and managed crisis and external communications
- Managed the renovation of OVC's headquarters renovation in 7-133.
- OPT/CPT response to delays

- Diversity, Equity, and Inclusion (DEI) module launch
- Completed a successful FY20 budget cycle resulting in additional headcount for Admissions, CAPD and the Office of Graduate Education
- Office prioritization exercises

Affirmative Action Goals and Successes

The OVC staff, which is 66.3% women and 30.8% 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 minorities. OVC has one unmet placement goal for women in the Secretarial/Administrative/Clerical job category. The availability for females in this category is 90% and OVC's current utilization is 79.4%.

For the period July 1, 2018 – June 30, 2019, 60% of all new OVC hires were women and 48.6 % were minorities. During the same period, OVC promoted 21 staff members; nineteen (90.5%) were women and eight (38.1%) were minorities.

Awards / Recognitions

- Infinite Mile Awards

Looking Ahead

- Focus on implementation of the key priorities
- Impact and action tracking
- Efficiency / alignment with revised goals
- Continue to respond to and make office-level/organizational adjustments as needed due to Covid-19 pandemic

Office of Admissions

The Massachusetts Institute of Technology upholds a commitment to meritocracy and fair access to the admissions process for students from all backgrounds. With that in mind, the [Office of Admissions](#) enrolls 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.

Current Events

Several very high-profile events took place in US college admissions in AY2019. In the fall, the Students for Fair Admissions vs. Harvard case that challenged Harvard's use of race in their admissions process went on trial, a three-day public airing/critique of the Harvard admissions process. As of the end of June 2019, the judge had not yet offered her ruling. In March, just before MIT released its decisions on Pi Day (March 14), the Varsity Blues scandal broke, where a number of wealthy parents were indicted for, via an agent, offering bribes to athletic coaches to have their children placed on their recruiting lists, despite their not having any talent (or in some cases, any experience) in the sport. Some parents also cheated by having someone else take the SAT for their children. MIT was not implicated in any of the scandals: our meritocratic and thorough process, which does not offer special treatment for legacies, donors, or athletes, was a source of pride for all of us in the MIT community.

Key Accomplishments

- Early Action applications rose 4.4%, specifically the number of underrepresented minorities applying early rose 19.9%.
- We received 21,312 applications for the first-year class entering in the fall of 2019, down 1.8% compared to last year.
- Admitted students totaled 1,427 representing 6.7% of the applicant pool.
- The yield on admitted students increased to 77.6%.
- Women make up 47% of the first-year class, and the yield on women was 73%, versus 83% for men.
- 17 students were admitted off of the wait list, and 16 of them enrolled.
- 686 students applied for transfer admission. Twenty-three were admitted including three U.S. veterans. Of the 23 admitted, 21 are expected to enroll, and one Wellesley 3:2 student will enroll in fall 2020.
- The Admissions website was redesigned in concert with the new Student Financial Services site—aligning the two more closely to better serve our prospective students and families.
- As part of our ongoing commitment to enrolling a diverse student body, we became a member of the American Talent Initiative (ATI), a nonprofit organization that brings top colleges and universities together to expand access and opportunity for talented low- and moderate-income students.

Class Profile and Commitment to Diversity

- The composition of the Class of 2023 reflects MIT’s ongoing commitment to the diversity and excellence of our student body. Of the first-year students entering in 2019, 47% are women, 19% are the first generation in their families to graduate from college, and 11% are international citizens.
- Students come from 49 U.S. states and 63 countries. Eighty-nine percent of incoming class members have been leaders of an organization (president, captain, etc.) and more than a third (35%) have founded an organization or business.
- The mean SAT score for first-year students is 745 verbal and 789 math—the highest math mean ever.
- Nineteen percent of the class are Pell Grant recipients, the same as the previous year.
- MIT continues to partner with QuestBridge, a nonprofit organization that recruits high-achieving students from low-income backgrounds. Ninety-six QuestBridge finalists will attend in the fall, up from 85 for the previous class.
- 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 2023 is composed of the following groups: American Indian/Alaskan Native 3%; Asian American 41%; Black/African American 10%; Hispanic/Latinx 14%; Native Hawaiian/Pacific Islander 2%; White/Caucasian 42%. 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; however, they are included when calculating percentages of the class as a whole.)

Recruitment Travel and Outreach

- Domestic recruitment travel consisted of visits to 31 states plus Washington, D.C., and Puerto Rico.
- We conducted 65 information sessions on the road, of which 49 were MIT-only and 15 were group meetings in collaboration with Pomona College, California Institute of Technology, and Yale University.
- International recruitment travel included trips to Argentina, Brazil, Chile, Colombia, Ecuador, India, Peru, Saudi Arabia, Ukraine, and the United Kingdom.

Visit Programs

- We welcomed over 45,000 visitors to campus for information sessions.
- We provided 1,368 tours to prospective students, parents, and other visitors to the Institute.

- Campus Preview Weekend, our largest yield event, was on Boston Marathon weekend and drew 1,113 admitted students and over 1,100 parents.

Educational Council

- The Educational Council Office increased the number of alumni interviewers to 5,942.
- 15,010 interviews were conducted.
- We made two changes to the alumni interviewing process.
 - The interview process was adapted so that our Educational Counselors reached out to students to set up interviews. Previously, students were responsible for reaching out to their assigned EC directly.
 - Students were required to submit both parts of the application in order to be eligible for an interview. Previously, students could schedule an interview at any time in the fall.
- Our Educational Counselors include members from the classes of 1941 to 2019, with 30% of the volunteers hailing from the last 10 graduating classes.

Awards, Recognitions, and Staffing

- Michael Ming Yang was named new director of admissions, replacing Matthew McGann.
- Jessica Ch'ng was awarded the Infinite Mile Award for her dedication and excellent work with the Multicultural Recruitment Team.
- In AY2019, the Admissions Office was composed of 26 administrative staff positions, including several shared positions with Student Financial Services, and nine support staff positions. Eighty percent of the staff were women, 20% were men, and 37% percent were underrepresented minorities (Hispanic, Asian, and Black/African American).

Career Advising & Professional Development

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

Key Accomplishments

- CAPD integrated Distinguished Fellowships into our office as a result of our recent organizational changes; strengthened internal coordination; utilized technology to improve workflows and communications; and enhanced collaborations with key offices.
- Professional Development was a top priority as CAPD wrote a graduate professional development report including a review of institutional data; collaborated in the development of core competencies that promote MIT students' lifelong success; conducted an internal and external scan of professional development practices; and created a model for program delivery. In addition, we organized four pilots including MIT's inaugural Graduate Student Professional Development Week, where 15 offices coordinated programming.
- To address the recommendations of the Career Exploration Committee Report and increase the diversity of opportunities available to MIT students, CAPD gained greater oversight of the Fall Career Fair and transitioned to a new career management platform. This career fair transition resulted in CAPD's direct oversight of 12 student career fair directors, and involved collaborating with their new faculty advisor.
- CAPD launched new and coordinated communication efforts for first-year students, graduate students, pre-health students, administrators, and employers to increase awareness of resources and communicate ongoing efforts.

Notable Statistics / Data

- Overall, CAPD saw 11,894 MIT (non-unique) student, alumni, and postdoctoral scholar engagements through 4,988 career, distinguished fellowship, and prehealth advising and online sessions; 4,559 attendees at 200 workshops, presentations, speaker panels, employer events, and information sessions; and 2,291 recruitment interviews and 56 student attendees to various company site visits. Additionally, CAPD submitted 56 Prehealth Committee Letters and 42 Distinguished Fellowship Endorsement Letters.
- First-Year Programming: To engage a larger cohort of first-year students, CAPD expanded first-year programming and F/ASIP was placed on hiatus. CAPD saw 297 unique first-year students in one-on-one advising with a total number of 457, a 50% increase from AY2018. Five hundred and fifty-two out of 1,143 (48.3%) students of the first-year class engaged with CAPD through at least one event or program.
- 20 first-year students participated in the Prehealth Pre-Orientation Program.
- First-Year Prehealth Peer Mentor Program consisted of four events with 36 attendees.

- For the Class of 2018, 91% of bachelor’s graduates, 84% of master’s graduates, and 73% of PhD graduates seeking employment reported obtaining a job within three months of graduation (among those seeking immediate employment). Reported mean salaries were \$89,710 for SB; \$105,238 for MS; \$119,473 for MEng, and \$145,598 for MBA. Reported doctoral mean salaries were \$64,258 for postdoctoral positions and \$122,755 for other positions.

Prehealth Advising

- Eighty-eight (+12%) students and alumni applied to medical school in the 2018 cycle (28 undergraduates, four graduate students, and 56 alumni), with an 80% acceptance rate.
- Two new programs were created to assist students in exploring medicine: the Peer Mentor Program and the MIT Harvard Medical School (HMS) MD-PhD Mentoring Program. The HMS Program supports students' interest in MD-PHD programs and had 24 participants.
- Ninety undergraduates participated in physician shadow experiences at local hospitals including MGH, Boston Children’s, Tufts, and Beth Israel Deaconess Medical Center. Twelve of the 90 were part of the Beth Israel Physician Surgical Shadowing program.

Career Services

- Career Services implemented a Quick Queries pilot, which reimaged our former “Drop-in” services. The pilot successfully met high student demand in the early fall; in the first two weeks, there was an 87% efficiency usage of the 657 appointments offered.
- Career Exploration Pilots continued for the second year:
 - Three [Designing Your Life](#) (DYL) workshops were offered and 16 students attended. We also presented DYL to the first-year seminar, 16.A01.
 - Infinite Careers highlights the nonlinearity of career decision-making through intimate networking events between students and alumni. We facilitated 11 events with speakers representing careers from choreography to corporate law. There were 98 attendees with 99% satisfied with the content.
 - **MIT Future (Me in the Future)** events offered by CAPD and the Fall Career Fair Committee to kick-start career exploration for first-year undergraduates by educating students on career resources, the Fall Career Fair, and career paths — both expected and unexpected. These events included opportunities such as employer site visits, Career Fair prep workshops, and undergraduate panel discussions. There were 1,096 (non-unique) attendees at various events.
- We hosted 129 employers conducting 2,291 on-campus interviews (-12%) and posted 2,042 internships and jobs (-12%). We plan to increase employers on campus and diversify opportunities through our new career platform, office hours, and tech talks.
- The Employer Connection Program had 12 employers.

Distinguished Fellowships

- In 2018-2019, Distinguished Fellowships supported 242 non-unique applications for Churchill, Fulbright, Gates, Knight-Hennessy, Marshall, Mitchell, Rhodes, and Schwarzman Fellowships. Of the MIT applicants, there were 23 winners.
- Co-created a credit-bearing class with the Media Studies Department called Artificial Intelligence and Equality in the fall of 2018.

Awards / Recognitions

- Ten staff served in leadership roles for professional associations and/or presented in regional and national conferences.
- Nine CAPD staff participated in OVC/Institute-Wide Committees.
- Josh Nagle and Tavi Sookhoo were recipients of OVC Infinite Mile Awards. Amanda Pickett was awarded the 2019 Change Makers Award for the faculty/staff division.

Office of Experiential Learning

The [Office of Experiential Learning](#) (OEL) was reconfigured in the spring of 2018 as part of the vice chancellor's office overall reorganization. Comprised of five programs—**D-Lab, Edgerton Center, the Experimental Study Group, Global Education, and Undergraduate Research Opportunities Program**—OEL leverages hands-on educational experiences, inside and outside the classroom, to expose students to different ways of thinking and solving problems, broaden their communications skills, and help them develop a better sense of self.

Kate Trimble, who had previously served as associate dean of the PKG Public Service Center, took the helm of OEL in December 2018 as senior associate dean and director. (Former OEL director J. Kim Vandiver stepped down to take on a new role, focusing his primary efforts on the Edgerton Center and student clubs and teams.)

The five OEL programs' submissions to the President's Report are included below.

D-Lab

Founded in 2002 by Senior Lecturer in Mechanical Engineering Amy Smith, [MIT D-Lab](#) works with people around the world to develop and advance collaborative approaches and practical solutions to global poverty challenges. The mission is pursued through an academic program of more than 20 MIT courses and student research and fieldwork opportunities; six research groups spanning a variety of sectors and approaches; and a group of participatory innovation programs called innovation practice.

Key Accomplishments

Education

Led by D-Lab Faculty Director for Academics, Professor Maria Yang and D-Lab Academic Program Manager Libby Hsu, D-Lab offered 16 MIT subjects, eight each semester during AY2019. Ten classes carry alternate graduate course numbers. All D-Lab courses carry an EC (Edgerton Center) course number with some cross-listed with departments such as Department of Urban Studies and Planning (two D-Lab classes), Media Arts and Sciences (one D-Lab class), Mechanical Engineering (four D-Lab classes), Sloan School of Management (two D-Lab classes), and Architecture (one D-Lab class).

Students and projects

Over 230 students enrolled in D-Lab classes this past year. In AY2019, 32 percent of students enrolled in D-Lab classes were graduate students while 68 percent were undergraduates. D-Lab classes remain popular with cross-registering students from Harvard and Wellesley with these students representing 28 percent of enrollment. D-Lab also continues to enroll a high number of women with 74 percent of enrolled students identifying as female.

D-Lab students worked in teams on 58 unique projects with community partners in 25 countries. Fifty-eight D-Lab students traveled to 14 countries to perform fieldwork related to their class.

and research projects. Thirty-five students engaged in UROPs supervised by D-Lab instructors and research staff.

Research

D-Lab's lean, collaborative, and interdisciplinary research team is led by Faculty Director for Research Dan Frey and Associate Director for Research Kendra Leith. The team creates, shares, and uses collaborative research practices, actionable findings, and practical solutions to address global poverty challenges.

Highlights from the Year

ASCHES: In October 2018, with private foundation support, D-Lab worked with The Charcoal Project to host a five-day convening for a group of 26 charcoal briquette producers from nine countries. The Advancing Sustainable Charcoal Enterprises at Scale (ASCHES) convening, held in Naivasha, Kenya, developed capacity of the participants to implement their businesses effectively and launched an international community of practice to support briquette businesses.

NEXTi2i: With support from USAID, D-Lab's Lean Research team has been collaborating with a new social impact incubator – NEXTi2i – at Ashesi University in Ghana. The D-Lab team has trained over 400 student, faculty, fellows, and practitioners in the approach. This is the first year of a three-year collaboration.

CITE: In the fall of 2018, the USAID-funded Comprehensive Initiative on Technology (CITE), a highly successful program launched by D-Lab and consortium partners, and for five years, administered by the Department of Urban Studies and Planning, moved to D-Lab. This past year, D-Lab received USAID funding to take on six additional projects under the auspices of CITE.

In the fall of 2018, MIT D-Lab received a grant from the National Science Foundation to create and evaluate a co-creation toolkit for graduate students working in humanitarian settings.

Innovation Practice

The third pillar of D-Lab, Innovation Practice, was formed in spring 2017 to develop, advance, and apply participatory innovation as a methodology for tackling poverty. To achieve this, the Innovation Practice team conducts design trainings, fosters global communities of practice, and partners with other development actors to implement local innovation programs in complex settings. This year, the Innovation Practice team began to tackle a new question across all of its programs: how can we support local innovators by strengthening the innovation ecosystems they inhabit?

Highlights from the year:

- *The D-Lab Scale-Ups Fellowship* supports social entrepreneurs to bring poverty-alleviating products and services to emerging markets at scale. This past year, six new fellows were selected – all founders of homegrown, high-impact ventures in

underserved markets in Kenya, Tanzania, and Uganda. To date, the fellowship has supported 39 fellows who have reached 1.5 million people with goods and services.

- *Humanitarian Innovation*, is spearheaded by D-Lab Founding Director Amy Smith and humanitarian relief expert Martha Thompson. The team engages refugees and displaced persons in the design process so that they can create the things they need to improve their lives and ultimately improve the way humanitarian work is delivered. This year, the Humanitarian Innovation team delivered design workshops and established innovation centers in Greece and El Salvador.
- *Inclusive Markets* engages with regional and community leaders to develop inclusive businesses, markets, and economies that promote equity, resourcefulness, and resilience for people living in poverty. This year, this program has leveraged D-Lab's Creative Capacity Building and Co-Design methodologies to engage with wastepickers in Ghana and artisanal miners in Colombia, facilitating opportunities for these workers co-create new market systems alongside government and industry leaders.
- *Innovation Ecosystem Building* at D-Lab seeks to support grassroots informal sector entrepreneurs addressing local and global challenges by bringing together diverse regional actors to support innovation and entrepreneurship. This year, D-Lab held catalytic innovation ecosystem convenings through the NEXTi2i program in Accra, Ghana; the OC3 program in Oaxaca, Mexico; and at the PIA Co-Design Summit in Laayoune, Western Sahara/Southern Morocco.
- *Practical Impact Alliance (PIA)*, a membership organization of leaders from diverse organizations with aligned missions who learn, collaborate, and develop best practices together. 2019 members included Danone, Johnson & Johnson, OCP Phosboucraa Foundation, PACT, SC Johnson, Siemens Stiftung, USAID, and World Vision. Members participated in working groups, resulting in two publications:
 - *The Demand Engine: Growth Hacking Strategies for Scaling Demand at the BoP*, Amanda Epting, Emile Schmitz, Valéria Varga – May 2019
 - *Understanding Innovation Ecosystems: A Framework for Joint Analysis and Action*, Elizabeth Hoffecker, Molly Wenig Rubenstein – June 2019

Comings and Goings

D-Lab instructor Martha Thompson joined the staff full-time to co-lead with Amy Smith D-Lab's growing Humanitarian Innovation program. D-Lab also welcomed two new development staff members in spring of 2019. Thais Bessa joined as program development officer (full-time) and Ellen Peck as development officer (half-time). In August 2018 D-Lab said goodbye to its first website, which had been in service some 10 years, and launched a clean, light, content-rich, mobile-friendly website.

Edgerton Center

The [Edgerton Center](#) upholds the legacy of Harold “Doc” Edgerton – inventor, entrepreneur, explorer, and MIT professor – by promoting hands-on and project-based learning; offering subjects in engineering and imaging; supporting student clubs and teams; managing student machine shops; upholding MIT’s expertise in high-speed and scientific imaging; and offering a year-round K-12 program.

Key Accomplishments

Clubs and Teams

The Edgerton Center provides the infrastructure that MIT students — 338 participants — rely on when undertaking engineering projects of significant scope. While success can be measured by a first-place performance in a competition, it can also be measured by how well a team manages a challenge and this past year some notable examples come to mind.

- Ten days before the [Formula SAE Lincoln](#) competition, the MIT Motorsports team completely rebuilt their battery pack for their single-seat electric Formula-style race car, placing second in Acceleration and third in Skidpad.
- A severe battery fire in June damaged the Hyperloop II’s pod. Within a month, the team recreated their pod to enter the [competition](#) taking place July 21 in Hawthorne, California.

Student Machine Shops (44-022, N51-1st flr, N52-3rd flr, 4-409)

In the 10K sq. ft. of staff supervised shop space facilities, MIT students have the opportunity to learn how to design, build, and manufacture.

- The Edgerton Student Shop will move to the ground floor of building 6C to make room for the [Stephen A. Schwarzman College of Computing](#). [By mid-September 2019](#) the Edgerton Student Shop in Building 44 will move to the basement of Building 6C.
- Parker Andrew Goud SM '14, PD '19, PhD '19 who worked at the Edgerton Student Shop since 2014 remarked, “Without the equipment available at the Edgerton Student Shop and the boundless advice of Mark Belanger, my research at MIT simply would not have been possible.”

Subjects

The Edgerton Center is the administrative home for subjects offered by the Edgerton Center and D-Lab. In AY2019, 416 students participated in 39 for-credit subjects, ranging from Edgerton’s iconic Strobe Project Lab, through D-Lab offerings, to student-initiated UROPs and independent projects.

K-12 Programs

With the benefit of little or no fee to participate, the Edgerton Center’s K-12 programs execute the Institute’s larger goals of creating educational opportunities for students from *all* backgrounds and removing barriers to participation.

- Now in its 22nd year, the Edgerton Center’s daily, no cost, three-hour, project-based lessons in science and engineering for 4th through 8th-grade students drew over 2,500 students from public, private, and home schools in the Greater-Boston area and nearby New England states.
- The Greater Lawrence Technical School (GLTS) and Advanced Functional Fabrics of America (AFFOA) collaborated with the Edgerton Center on the creation of an engineering curriculum program in which students develop and prototype an idea using advanced functional fabrics. The GLTS Innovation program entered its third year with a second cohort of STEAM students.
- Edgerton staff worked with the teachers and students of TechBoston Academy in the STEAM Studio collaboration. We supported four cycles of hands-on projects, engaging over 100 students.
- The five-week summer Engineering Design Workshop for high-school students (27), intended for local students, is in its 13th year, with admission split almost equally between genders.
- In collaboration with General Electric and its Lynn, MA, plant, the *GE Girls* summer program — in its ninth year — hosted 25 rising 7th grade girls from the Lynn Public Schools. Our program for rising ninth grade girls YouGo Girl is now in its 17th year.
- Close to 200 K-12 educators took part in 27 professional development workshops integrating maker activities into K-12 curricula. We also offered an online course on Maker spaces and Making, attended by 24 educators. A collaboration with Autodesk and UROP students resulted in 12 published online tutorials, [Instructables](#).
- International visitors to the Center included middle and high school students from Bayan Gardens School, Alkhobar, Saudi Arabia; US China SciTech, Beijing, China; Wahaha Bilingual International School, Hangzhou, China. Instructors traveled to the Mustakis Foundation in Recoleta, Chile for workshops, and Edgerton Center instructor Ed Moriarty traveled to Ferrara, Italy, and Barcelona, Spain in conjunction with MIT’s Global Teaching Lab.
- Our DNA, Proteins, and tRNA curriculum sets were provided to the Boston Public Schools for all 31 high schools. We began a project to put the supporting teacher training online.

Fundraising

Engagement of parents and students doubled the number of donors (153 in 2018 to 241 in 2019) on the annual Pi Day appeal.

Awards/Recognitions

Cheyenne Hua ’19, former team captain of MIT Motorsports, received the Sontheimer: Creativity and Innovation in Design Award from the Mechanical Engineering Department.

Global Education Office

The [Global Education Office](#) (GEO) contributes to MIT's mission to help students develop the ability and passion to work wisely, creatively, and effectively for the betterment of humankind. GEO accomplishes this work through two programmatic areas: Global Education and Study Abroad. For Global Education, the office provides student advising and manages programming and services in support of all global education opportunities across the Institute, such as Go Global Fair and Institute-level data collection and reporting for global education participation across programs. For Study Abroad, GEO prepares students for and sends them on IAP, semester and summer study abroad programs. This includes advising, recruitment, pre-departure, health and safety preparation, in-country support, and welcome back services.

Since July 1, 2018, the Global Education Office reports to the Office of Experiential Learning, part of the Office of the Vice Chancellor.

Notable Statistics / Data

Overall Global Education Participation: In AY2019, 1,172 undergraduates (+7.9%) participated in global opportunities within 57 countries, with 739 in internships, 169 in study abroad, 127 in research, 53 in public service/service learning, and 84 in short educational trips. Based on the results of the 2018 Graduating Student Survey, 54.4% of graduating seniors reported completing at least one global experience while at MIT (+1.1%).

Study Abroad Participation: In AY2019, 169 MIT undergraduates participated in study abroad opportunities (+2.4%). Participation in academic exchanges increased by 53.8% because a new exchange pilot with Imperial College London was added to the portfolio and participation in the University of Tokyo exchange increased. IAP Spanish III in Madrid was not offered but Humanistic Co-Design in India, a new faculty-led course, was added. Ongoing faculty-led courses and semester study abroad programs maintained or slightly increased participation.

Study Abroad Scholarships: We provided \$186,308 in study abroad scholarships to 76 eligible students (-0.1% in funding amount and -27% in recipients).

Student engagement: During AY2019, 782 students attended 28 GEO-sponsored group sessions and events. In addition, GEO served students through 146 advising and drop-in appointments and engaged with students through 3,833 email advising communications.

Key Accomplishments

Imperial-MIT Academic Exchange Pilot: In collaboration with MIT academic departments and Imperial counterparts, GEO started a two-year pilot for the multi-departmental undergraduate academic exchange with Imperial College London in AY2019. Eight academic departments and seven MIT undergraduates participated in the pilot this past year. The multi-departmental exchange grew out of two existing exchanges with Imperial College London: Imperial-MIT

Summer Research Exchange involving ten academic departments, and Imperial-MIT departmental academic exchange in two departments.

Successful Transitions in GEO: GEO went through significant staff transitions in AY2019. Two new staff members joined GEO: Ellen Reid as the new assistant dean for global education, and Ariel Ackermann as the new program assistant, while Ashlee Andrews was promoted to the position of global education coordinator. During the same time period, GEO has transitioned organizationally to the new Office of Experiential Learning. Throughout the transitions, the team maintained a high level of service and continued growing programs.

Priscilla King Gray Public Service Center

The [Priscilla King Gray Public Service Center](#) (PKG Center) taps and expands MIT students' unique skills and interests to prepare them to explore and address complex social and environmental challenges. We educate students to collaborate ethically and effectively with community partners to engage in meaningful public service, today and in their lives beyond MIT. 2018-19 marked the PKG Center's 30th academic year connecting MIT students with public service opportunities locally, nationally, and globally. Though the Center works with MIT students from all majors and academic levels, we have recognized that our greatest opportunity to grow social impact within the MIT community lies with undergraduate students who have not yet developed projects of their own or who are newly exploring the public service and community landscape. In AY2019, the PKG Center focused on three primary goals:

1. Increasing and diversifying undergraduate student demand for and participation in PKG programs (by major, demographics);
2. Increasing experiential and co-curricular opportunities for undergraduate student engagement; and
3. Implementing new Center-wide systems and tools to streamline and standardize our work and enhance student/partner access and data collection.

Over 2,300 MIT undergraduate and graduate students engaged with the PKG Center through programs and events this year (up from 946 in AY2018) due largely to more fervent and strategic student outreach, a greater emphasis on entry points for our programs, and new partnerships across the Institute that have raised the PKG Center's visibility.

PKG also added three new staff members. Danny Becker, program coordinator, is spearheading student engagement with groups and clubs on campus, serving as staff advisor for the MITvote and MIT Civic Organizers student groups, and coordinating the Get Good Stuff Done series. Bianca deLeigh, program assistant, joined the PKG team in December and oversees finance and reporting in addition to supporting logistics for programs like PKG Spring Break and other Center events. Rebecca Obounou joined PKG in April and oversees the IDEAS program as PKG's assistant dean for social innovation.

Key Accomplishments

Using the PKG Center's new [strategic plan](#) as a guide, the Center added and expanded several initiatives during AY2019 specifically designed to increase undergraduate involvement in public service and civic engagement while maintaining a robust set of opportunities and support for graduate students. These programs included:

- **Social Impact Internships:** Building on the PKG's established Federal Work-Study model, Social Impact Internships place students with nonprofits, government agencies, and social enterprises. These mutually beneficial relationships allow MIT students to build their resumes and apply what they've learned in the classroom, while community partners gain access to skilled MIT talent they may otherwise have been unable to

access. We expect to build and expand this program significantly in the coming year.

- **PKG and Terrascope Collaboration:** PKG and Terrascope have created an exciting new model for the integration of public service and academic engagement. Terrascope engages dozens of first-year students in complex, public-spirited problem-solving every year and is well-positioned to build knowledge and interest among these students. PKG and Terrascope are working together to shape the focus of the topics that Terrascope students will tackle in order to best engage them with issues, locations, and populations where PKG has created or plans to create long-term partnerships.
- **PKG Summer Immersion:** Building on the relationships of the PKG-Terrascope partnership, PKG launched two new summer programs in Navajo Nation in 2019. PKG Connect sent a group of undergraduate students to the Reservation for a week to meet community members and stakeholders and to learn about important social and technical issues on the Reservation. Students spent two days collaborating with DIGDEEP's Navajo Water Project and helped assemble one of DIGDEEP's home water systems.

The more immersive Team Internship Program placed students in 8-10 week internships in partnership with Community Outreach & Patient Empowerment (COPE). Teams of MIT students were placed in full-time internships to support COPE's mission to eliminate health disparities and improve the well-being of American Indians and Alaska Natives. Projects addressed themes such as food access and insecurity, nutrition, and training & outreach.

- **Community Conversations:** This spring, the PKG Center hosted two Community Conversations events, one focused on Climate Change and a new iteration focused on Health and Healthcare. Nearly 200 MIT students, staff, and community partners signed up to attend the health-focused event and 122 guests registered to attend the Community Conversations: Climate event.
- **PKG Spring Break:** The PKG Center added a new spring break track focused on criminal justice in Greater Boston. In partnership with The Educational Justice Institute (TEJI), participating undergraduates explored Boston's criminal justice system from multiple perspectives from formerly incarcerated individuals to professionals in the field. Students also visited community and government organizations in the justice system.
- **Civic engagement:** The PKG Center has become a touchstone for civic engagement at MIT. PKG Program Coordinator Danny Becker now serves as staff advisor to MITvote. Through their collective outreach efforts and multiple voter registration drives, MIT ranked 9th out of 134 campuses nationwide for percentage of new voters registered in 2018. Additionally, PKG Center funded and facilitated eight civic dialogue dinners focused on identity politics, housing policy, technology and privacy policy, and other issues.

Awards and Recognitions

The PKG Center was awarded a number of significant grants including continued support from the Bose Corporation and a new partnership with Acumen and the Rockefeller Foundation supporting the IDEAS program. The Center also received a number of individual gifts from alumni and supporters of public service.

Additionally, the Center recognized two students for excellence in public service at the annual MIT Awards Convocation this spring: Sarah Tress '19, and graduate student Lisa Volpatti. PKG also recognized Ceasar McDowell as the winner of its second Paul Gray Faculty Award for Public Service.

Undergraduate Research Opportunities Program

The [Undergraduate Research Opportunities Program](#) (UROP) remains the standard-bearer in experiential learning at MIT, and in its 50th year continues to offer undergraduates pivotal, transformative experiences in research. It is MIT's most popular avenue for practical learning, with the vast majority of students participating at least once, and more than half our faculty active as mentors. Participation at such high levels is expected; through UROP, students partner with MIT faculty at the forefront of research, and faculty leverage the enthusiasm and initiative undergraduates bring to the research enterprise.

The UROP Office (a sub-unit of the Office of Experiential Learning) is MIT's central administrative unit for UROP, providing advocacy, programming and funding for undergraduate researchers, and support for the faculty and DLCs that regularly host UROP students. UROP Office staff issue final approval of all UROP projects (~4,600 annually), oversee an endowment and gifts portfolio generating close to \$3M annually for student researchers, and are active in UROP fundraising and stewardship of donors. Additionally, the Office maintains UROP student records dating back several decades and provides participation statistics to all areas of the Institute.

Notable Data/Statistics

- 64% of first year (Class of 2023) students participated in UROPs during AY2019 and summer 2019, compared to 61% of Class of 2022 students in AY2018 and summer 2018.

The OVC's efforts to create greater flexibility for first-year students for academic exploration has resulted in greater numbers of entering students participating in UROP:

- 19% of Class of 2022 students participated in fall 2018, compared to 12% of the Class of 2021 participating in fall 2017.
- 91 Class of 2022 students received UROP Office funding in fall 2018, compared to 48 Class of 2021 students in fall 2017.
- 90% of Class of 2019 first undergraduate degree recipients participated in UROP at least once during their undergraduate years.
- Summer 2018-Spring 2019:
 - 56% of the MIT undergraduate population participated in UROP, with 60% of UG women and 51% of UG men participating.
 - 76% of UROP projects were conducted for pay; the remainder were conducted for academic credit (21%) or as volunteer (3%).
 - The Institute committed \$10,266,718 to undergraduates engaged in UROP, with \$5,423,459 (53%) allocated directly from the UROP Office.

Key Accomplishments

- Teamed with CAPD on professional development on presentations/workshops for UROP students.
- Customized workshops and presentations for specific student populations, including first-year and first-generation students. Delivered programming for increased engagement of underrepresented minority students (Chocolate City residence, OME's Laureates and Leaders and Project Interphase programs).
- Collaborated with academic departments on discipline-specific UROP programming (Aero/Astro, MAS, Koch Center, others).
- Launched Instagram social media presence in fall 2018, cultivating 628 followers since launch.
- IAP UROP Expo, part of DEX - Departmental Exploration programming. Similar in structure to a career fair, the event connected students with faculty, students, and staff from MIT majors and interdisciplinary labs/centers to discuss UROP opportunities. Nearly 150 students attended.
- Partnered with the Graduate Student Council on events for mentoring-skills enhancement. Hosted at the Sidney-Pacific dorm.

Awards / Recognitions

2019 Outstanding UROP Mentor Awards Recipients

- **Prof. Iain Cheeseman** - Professor of Biology; Member, Whitehead Institute
- **Angela Q. Zhang** - Graduate Student, Health Sciences & Technology, Koch Institute for Integrative Cancer Research – Darrell Irvine Lab

2019 Office of the Vice Chancellor Infinite Mile Award

- **J. Alex Hoyt** – Award for Innovation and Creativity

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 first-year learning communities: **Concourse**, **Experimental Study Group**, and **Terrascope**. Each community's submission to the President's Report is included below.

Notable Data/Statistics

- 99% of the Class of 2022 was advised or mentored by faculty during their first year at MIT.
- In the fall 2018 semester, 8.8% of the Class of 2022 was flagged; 79% of flagged students recovered and passed their flagged subjects. In the spring 2019 semester, 13% of the class was flagged; 58% of flagged students recovered and passed their flagged subjects.
- 630 first-year students participated in an FPOP

Key Accomplishments

- Changed the process around training first-year advisors. An effort was made to meet in small cohorts over three months to facilitate specific conversations around the experiment and concerns. The program was well-received; in all, 177 out of 184 advisors participated.
- New programming specific to choice of major was created.

Awards / Recognitions

2019 First Year Student Award Recipients

- Sophia Fang, Performing Arts
- William Luo, Academics
- Ritaank Tiwari, Leadership
- Yu Jing Chen, Leadership
- Amanda Vanegas, Research
- Christian Rios, Service
- Stacy Godfreyy-Igwe, Diversity & Culture
- Eva Then, Athletics

- Robert Law, Athletics

2019 First Year Advisor Award Recipients

- Creative Advising Activity Award: Professor Alan Oppenheim, Department of Electrical Engineering and Computer Science
- Outstanding Rookie Advisor Award: Professor Andrew Babbin, Department of Earth, Atmospheric, and Planetary Sciences
- Alan J. Lazarus Award (1953) Excellence in Advising Award: Professor Lorna Gibson, Department of Material Science and Engineering
- Excellence in Mentoring Award: Professor/Provost Martin Schmidt, Department of Electrical Engineering and Computer Science
- Student Champion Award: Dr. Elizabeth Vogel Taylor, Concourse Program
- Innovative Seminar Award: Professor Yufei Zhao, Department of Mathematics

2019 Outstanding Associate Advisor Award Recipient

- Katie O'Neil, Class of 2019, Brain and Cognitive Sciences

Concourse

[Concourse](#) is a first-year learning community of students and instructors dedicated to exploring foundational questions at the heart of humanistic inquiry and the relationship of these questions to the remainder of their MIT education. Our curriculum covers the science core (mathematics, physics, and chemistry), offers a foundational humanities course, and integrates both the sciences and humanities into a larger context in the program's weekly first-year advising seminar.

Key Accomplishments

- Received renewal for our annual T.W. Smith award, which helps fund upper-level seminars and educational experiences outside of the classroom, such as our joint venture with the history department to send students to Ancient Rome/Greece, as well as our annual curriculum-planning retreat.
- Completed an update of our online educational tools for the Concourse physics courses.
- Led second annual student/faculty spring break trip to New York City for an immersive cultural and historical experience.
- 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 our alumni outreach initiative with a second alumni dinner in NYC and our first in San Francisco, California.
- Continued sailing as a Concourse physical education offering.
- Hosted a weekly breakfast seminar for discussion of current events.
- Continued to work with OVC on improving the first-year experience; developed an exploration-themed pilot to run in fall 2019.

Awards/Recognitions

- Elizabeth Vogel Taylor received the Student Champion award for advising from the Office of the First Year.

Notable Statistics/Data

- Fall first-year enrollment at fifth week: 46
- Spring first-year enrollment at fifth week: 41
- We employed 26 upper-level Concourse alumni as tutors, TAs, and grader

Experimental Study Group

The Experimental Study Group (ESG) offers instruction in the core first-year subjects of biology, chemistry, math, physics, and humanities through small, discussion-based classes designed for students who are interested in taking an active role in their education. Academics are supplemented by a variety of community activities, including weekly luncheons, evening study sessions, and weekend trips.

Key Accomplishments and Initiatives

- **OVC First-Year Experimentation Pilot Project:** ESG staff have developed a teaching pilot combining GIR teaching with team- and project-based experiences. Although GIR subject material will be largely unchanged, the pilot represents a pedagogical shift. The pilot allows students to engage in more “real world” learning, echoing the experience that many achieve in UROP activities, where goals and the tools needed to reach them are not defined a priori. In addition, the pilot will weave multi-disciplinary topics through the curricula of all the GIR material taught in ESG, both in formal classwork and in project-based activities.
- **Math with Python:** Throughout the past year, Jeremy Orloff has continued his work to develop a 15-unit course that integrates basic programming and differential equations, which will be offered as a seminar in fall 2019.
- **Chemistry GIR Problems with a Climate Science Focus:** With additional funds from the MIT Environmental Science Initiative, ESG biology and chemistry staff members Patti Christie and Nicholas Boekelheide continue their work on developing biology and chemistry GIR problems with a climate science focus. They are joined by ESG staff members Paola Rebusco and Analia Barrantes (physics) and Jeremy Orloff (math) in this pilot developing climate and environmental science modules that can be incorporated in GIR across the disciplines.
- **ESG undergraduate seminars:** In fall 2018, ESG offered two freshman advising seminars: ES.A72 Where Is Everybody? (Paola Rebusco and Wade Roush) and ES.S10 Many Interesting Things (Christian Cardozo). Additional fall seminars included ES.200 ESG Teaching Seminar (Patti Christie), and ES.S70 Already Starting Everything (Cardozo). In spring 2019, ESG offered ES.010 Chemistry of Sports (Christie, Steve Lyons); ES.200 ESG Teaching Seminar (Gabrielle Stoy); ES.S10 Many Interesting Things (Cardozo); ES.S40: Why Can't We All Get Along? (Henry Lieberman, Christopher Fry); ES.S70 Already Starting Everything (Cardozo); and ES.S71 How to Get off the Struggle Bus (Carter Jernigan). Three of our seminars were taught by ESG alumni (Henry Lieberman '75, Carter Jernigan '07, and Christian Cardozo '17).
- **Experimental, the ESG Documentary:** ESG Associate Director Graham Ramsay has filmed over 100 ESG students, alumni, staff, and other notable people for *Experimental*. Now in post-production, the documentary will premiere at the 50th Anniversary ESG Day of Learning on April 3, 2020.
- **The Educational Justice Initiative (TEJI):** TEJI has organized the Massachusetts Prison Education Consortium, a statewide consortium that supports a postsecondary education continuum for currently and formerly incarcerated people and now numbers over 200 members, including academic institutions, criminal justice agencies, government agencies, and community-based organizations. TEJI continues to provide MIT students with the

opportunity to take courses with incarcerated individuals in prisons and jails, in addition to supporting MIT students who teach coding and brain science courses to and tutor incarcerated individuals. During IAP 2019, ten MIT students created an augmented reality mural alongside incarcerated women inside a women's jail in Boston. Over the summer TEJ joined with the Edgerton Center to present a week-long “taste of college” for 25 Boston-area, system-involved youth, which included an interactive ethics workshop at ESG and hands-on activities at the Edgerton Center.

Awards

- Winners of the annual Peter and Sharon Fiekowsky Community Service Award (for outstanding contributions to the ESG community) included Marisa Gaetz '20 and C. Rios '22.
- The winner of the annual Peter and Sharon Fiekowsky Excellence in Teaching Award (given to graduating seniors who have demonstrated excellence in teaching at ESG over a sustained period of time) was Rianna Jitosh '19. Winners of the Peter and Sharon Fiekowsky Distinguished Teaching Awards included Dylan Hendrickson '19, Elizabeth Chang-Davidson '19, and Tamar Grey '19.
- In spring 2019, Lee Perlman and Carole Cafferty won the Irwin Sizer Award for Most Significant Improvement to MIT Education.

Notable Statistics

- 60 first-year students were enrolled in the ESG this year. Of those, 67% were female, 28% were underrepresented minorities, and 10% were international students from countries including Israel, Jamaica, Kazakhstan, Rwanda, St. Vincent, and Taiwan. Approximately 21 non-ESG students enrolled in the three humanities classes (all CI-H or CI-HW) offered at ESG, and an additional 28 students (most of whom were never in ESG) enrolled in five pass/fail undergraduate seminars sponsored by ESG in the fall and spring terms.
- In addition, 49 undergraduate teaching assistants in the fall and 40 in the spring provided excellent support for our first-year students, while learning valuable teaching and leadership skills.

Terrascope

At the core of the [Terrascope](#) program is one basic but important idea: MIT students, even in their first year, are ready to take control of their own education and to tackle big, important problems. Every year, Terrascope explores a different sustainability-related issue, and in our hands-on, project-based classes the students take charge to develop solutions, drawing on diverse perspectives, interdisciplinary research, and a supportive Terrascope community. Terrascopers also bond as a community in a shared common space on campus and over meals, outings, advising, and a Spring Break Field Experience.

Key Accomplishments

- In the fall semester (Subject 12.000 Solving Complex Problems), this year's Terrascope students completed an especially challenging task: proposing water security plans for the Navajo Nation that integrate western science and technology with traditional Navajo practice and belief. The Navajo review panel praised the students for their innovative ideas, and in particular for their endeavor to understand and incorporate cultural knowledge into complex environmental problem-solving.
- As part of the Office of the Vice Chancellor's increased emphasis on discovery-based experiences for first-year students, during IAP the Terrascope program created a new Discovery subject, SP.361 Majors and Careers through a Terrascope Lens. Instructors brought in/video-conferenced in 7 MIT alumni over the course of eight two-hour class sessions.
- In the spring semester, students in the Terrascope design class (Subject 2.00C/1.016/EC.746 Design for Complex Environmental Issues) developed and prototyped engineering solutions for a variety of water contamination and scarcity issues and presented the prototypes to the public and to a panel of experts. Students in Terrascope Radio (Subject SP.360) created a radio program on water security and contamination on the Navajo Nation that focused on complex questions about tradition, change, language, and spirituality. The program premiered on WMBR and then was released for national distribution via the Public Radio Exchange. Within less than a week of its initial broadcast, the program was picked up by the Pacifica Radio Network and aired on dozens of public, college, and community radio stations.
- In this year's Terrascope Field Experience, students, faculty and staff visited sites within the Navajo Nation, including uranium-affected sites, experimental farming plots, a Diné family farm that uses traditional farming techniques, and culturally significant sites such as Canyon de Chelly, as well as meeting with Navajo Nation government officials (including the President of Navajo Nation) and local environmental activists, and participating in field work activities with DigDeep, a nonprofit working to expand water access. This year's field experience had an extraordinary degree of engagement with local individuals, in part due to Terrascope's emerging partnership with the Priscilla King Gray (PKG) Public Service Center (see below).

- The Terrascope community continued to strengthen, with increased participation in co-curricular events, intramural sports, and Terrascope sections of physical education classes.
- As part of a building focus on alumni engagement and resource development, Terrascope participated for the second time in the MIT 24-Hour Challenge and concurrently solicited donations to match a \$20K challenge gift. The results were most encouraging as we look ahead to another \$20K match next year: we were able to raise \$18.5K of the \$20K match, securing \$37K for the program.
- Terrascope staff continued meeting with the program's newly formed Advisory Board, which provided continued input on program direction and evaluation.
- This marked the first full-implementation year of what is expected to be a long-term partnership between Terrascope and the PKG Public Service Center. Under this partnership, Terrascope and PKG jointly conduct research on possible Terrascope core problems, ultimately constructing problems in such a way that PKG can develop and sustain long-term partnerships with organizations directly involved in the regions and topics chosen. Terrascope thus serves as an "on-ramp" and recruiting tool for the PKG Center's public-service activities, and the PKG Center provides next steps for Terrascopers who have developed an interest in the topic that they wish to extend beyond their first-year Terrascope experience. This year, joint research by Terrascope and PKG staff led to the development of highly relevant partnerships, a challenging and important Terrascope problem, and experiences during the spring Terrascope field trip led to another important partnership

Notable Statistics/Data

- Terrascope had 61 students this fall and added five new students in the spring. Fall enrollment saw an increase of 20 students over last year and the highest enrollment since transitioning to a new director. The program continues to increase student participation in the spring semester, with total spring enrollment 40% of fall enrollment this year, as compared to only 29% five years ago.

Awards and Recognition

- This year's Terrascope Radio production was picked up and distributed by the Pacifica Radio Network within one week of airing on WMBR and broadcast by dozens of public, community, and college radio stations.
- Terrascope is increasingly recognized across campus for the important roles it plays in offering student-centered learning experiences and in offering a foundation of sustainability education to first-year students. This includes the Terrascope director's role co-chairing MIT's Pathway to Sustainability Leadership Group Steering Committee.

Office of Graduate Education

The [Office of Graduate Education](#) (OGE) supports, consults, and collaborates with graduate students, faculty, and other community members on the stewardship of policies and procedures; the promotion of student financial well-being; the enhancement of the graduate personal support network; and the cultivation of an inclusive and diverse community.

Supporting Educational Innovation and Excellence

OGE staff members played a leadership role in drafting subsections of MIT's extensive self-study document as part of the [Institute's accreditation process](#). The 100-page self-study speaks to each of the nine standards of accreditation established by the New England Commission on Higher Education (NECHE) and was published in August 2019, in preparation for the Commission's site visit in September 2019.

The Committed to Caring program continued to celebrate excellent faculty mentors through a broad publicity campaign, and began weaving the recently defined Mentoring Guideposts through these materials. In addition, planning was conducted for a pilot Faculty Peer Mentorship Program to support new faculty in their role as mentors for graduate students, which will be launched in fall 2019.

The fall 2018 Path of Professorship workshop saw strong participation by 46 graduate student women across 22 departments in the Schools of Engineering, Science, Sloan, and Architecture and Planning. Twenty-seven faculty members shared knowledge on diverse topics within the categories of Finding Your Place in the Academy, Getting the Position You Want, and Surviving Your First Year as Junior Faculty.

In spring 2019, the OGE solicited nominations for the biannual celebration of Graduate Women of Excellence. Fifty honorees were selected based on their leadership and service contributions, dedication to mentoring, and drive to improve the student experience.

Graduate Funding

For FY2019, the OGE administered approximately 1,000 fellowships valued at roughly \$48 million, including an internal competitive fellowship process, fellowships in support of diversity, and special case fellowships. Highlights this year included co-administration of the Martin Fellowships for Sustainability with the MIT Energy Initiative and the Lemann Fund Fellowships with the MISTI Brazil Program. In addition, the Director of Graduate Fellowships worked with the Egyptian Ministry of Finance to loosen the restrictions on the award process for the Endowed Fellowships of the Arab Republic of Egypt; his process adjustment will allow 15 awards rather than 10 for AY2020 and will be funded completely by surplus from prior years. MIT has the second highest number of NSF Graduate Research Fellowship recipients in the

country (551), and makes up the largest university cohort of National Defense Science and Engineering Graduate Fellows (NDSEG, 40).

The OGE offered a series of eight workshops on topics such as budgeting, investing, retirement, and American banking for international students. The online financial literacy platform, iGrad (co-sponsored by OGE and the MIT Federal Credit Union), saw an increase in active users from 1,223 to 1,738. A financial concerns section was added to the OGE website, and the financial literacy section was expanded. The director of graduate fellowships conducted workshops on applying to graduate fellowships for both a general student audience and specifically for international students, in addition to outreach and presentations to individual departments.

The OGE provided financial support for a wide range of student-run activities through the annual [Graduate Student Life Grants](#), as well as an ongoing request-for-funds process used by student groups and partner offices to subsidize activities that benefit graduate students, their spouses/partners, and their children. The OGE funded the Science Policy Initiative's annual trip to Congressional Visit Days (CVD) and an IAP boot camp to prepare them. During CVD, 29 graduate students from the [Science Policy Initiative](#) met in groups with 69 congressional offices over two days in Washington, DC, to advocate for science research, education, and funding. This year's CVD was particularly important because not only did it take place at the peak budget consideration period for FY2020, but also while two other important issues were being considered: H.R. 36 (Combating Sexual Harassment in Science Act of 2019) and the potential revival of the Office of Technology Assessment.

The OGE continued to provide emergency financial assistance during the past year to individual graduate students who had acute needs, particularly international families who live off of one stipend because the spouse cannot work in the US. In addition, the increased visibility of the Accessing Resources at MIT (ARM) Coalition directed students to the OGE for assistance with unexpected financial difficulties and budgeting challenges.

Administration and Policy

In September 2018, MIT began to offer Parental Leave to graduate students. The policy and implementation was coordinated with updates to the existing Childbirth Accommodation (CBA), with a view toward consistency and ease of use for students and administrators. The first year saw 17 approved applications for the Parental Leave, 10 of which were birth parents and seven non-birth parents. The use of the CBA fluctuates, but saw solid use this year by 14 birth parents.

This year, an online process was launched for late add and drop petitions for classes, and roughly 90% of these petitions were handled in the new manner. The process went smoothly, with the overall numbers of drops/adds/changes continuing to rise, but less precipitously than in the prior two years.

In 2019, of the 29,114 applications for graduate study, 3,670 (13%) offers of admission were made. 2,317 (63%) students matriculated into advanced degree programs. The steady climb in

applications likely relates to the continued strength of MIT's graduate programs across varied fields and disciplines.

For matriculating students, the information and functionality in the Atlas for New Grads interface (launched by OVC in summer 2018) was expanded and updated.

In June 2019, changes were made to the structure of the MIT Undergraduate Special Student Program as it is currently run through the Office of Graduate Education. The program has been limited to undergraduate institutions with which MIT has current standing agreements.

Building and Sustaining Diversity

Increasing Diversity through Outreach and Recruitment

The GradCatalyst, a grad-prep workshop, hosted six sessions this year (four online and two in person) for approximately 50 prospective graduate students currently enrolled in MIT, Tufts University, Harvard University, University of Miami, Florida International University, Brown University, and Morehouse College. The Graduate Application Assistance Program matched 10 current MIT graduate students (mentors) with 15 MIT Summer Research Program - General (MSRP) alumni to review the statement of objectives essays and resumes in preparation to submit for MIT graduate programs.

Recruitment travel consisted of 10 national and regional diversity STEM conferences and two meetings in collaboration with our partnerships with the Ivy+ Graduate Deans and the Massachusetts Consortium of STEM program. In total, OGE collected 781 prospective graduate students' contact information, which in turn was shared with MIT graduate administrators for departmental-level recruitment. Digital recruitment outreach consisted of curating a list of 6,253 underrepresented minority and underserved prospective graduate students (n=13,512) from the Education Testing Service (ETS) GRE Search and four national partners - National Graduate Engineering Minorities (GEM), Ronald E. McNair Postbaccalaureate Achievement Program (McNair), and National Name Exchange (NNE). The OGE then sent this extensive list a target recruitment email message that pointed to our graduate programs and our MIT Summer Research Program.

Graduate Admissions staff processed 769 Graduate Application Fee Waiver requests from 650 prospective applicants applying to 33 different departments across the Institute. The prospective applicant pool requesting waivers represented 300 undergraduate institutions from across the country; 95% are US Citizens and Permanent Residents and 5% were International. The reasons for the application fee waiver requests were 47% (n=304) financial hardship, 35% (n=228) other diversity programs, 11% (n=72) MIT-sponsored diversity programs, events or conferences, and 7% (n=46) US Armed Forces Member.

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

This year the OGE prepared a detailed request for funding from the deans of the Schools of Engineering, Science, Architecture and Planning, and Humanities, Arts, and Social Sciences. The request represents a 61% increase (\$184k in 2012 to \$297k in 2019) in funding requested from the Schools to alleviate some of the financial burden of the program on OGE. The MSRP Application Review Committee involved 90 members of the MIT community including 17 MIT faculty, 15 MIT alumni, 33 current MIT graduate students, and 33 program alumni, reviewing a total of 418 eligible applications using OGE-designed holistic admissions guidelines. The final admitted intern pool totaled 39 (8.5% of the applicant pool) who were placed in 17 departments in four Schools across the Institute.

The composition of the 2019 MSRP cohort includes 87% who self-identify as US underrepresented minorities, 54% women, 49% Pell-grant recipients, and 5% are the first generation in their families to graduate from college. One-hundred percent earned a cumulative 3.5 GPA or higher, 82% conducted research prior to MSRP, 79% are advanced undergraduates (rising seniors), and 33% attend minority-serving institutions.

According to the 2019 exit survey, the interns expressed a considerable 37% increase (from 50% to 87%) in strong interest in pursuing a doctoral degree after participating in MSRP. With regard to an MIT degree specifically, strong interest rose by 42% (from 34% of interns to 76%).

Cultivating a Vibrant and Empowering Community

The Ignite Community series promotes the academic, professional, and personal development of graduate students, and frames each discussion topic in terms of the graduate students' racial and intersectional identities. Over the course of the year, OGE hosted five events for graduate students exclusively and two events in collaboration with the Office of Multicultural Programs (OMP), Office of Minority Education (OME), and Institute Community and Equity Office (ICEO). These included: Graduate Students of Color Welcome; Ignite Your Comeback from Racial Blowback with Dr. Ebony McGee, Vanderbilt University and Dr. Lasana Kazembe, Purdue University; Ignite Your Wellness: What to Do When You Don't Know What to Do with Dr. Cecil Webster, MIT Mental Health and Counseling; the MIT Multicultural Awards Banquet; Ignite Your Leadership: Accelerate Your Grad Org with Nina DeAgrela and Joseph Granado, Division of Student Life; and MIT Outstanding Scholars. Achieve. Inspire. Change. (MOSIAC, formerly known as the Graduating Minorities Luncheon).

The [Graduate Diversity Ambassadors](#) partner with OGE Diversity Initiatives to co-create a more diverse, equitable and inclusive community at MIT. In AY2019, 27 current graduate students from across all five Schools served in various capacities in multiple outreach and recruitment programs including the GAAP, GradCatalyst, GSOC-AC, MSRP Pod Leaders, MSRP Application Review Committee, and recruitment conferences. The ambassadors receive training to enhance their professional development in areas outside of the classroom and research group on topics such as coaching prospective applicants on writing a statement of objectives; describing the MIT graduate application process; the landscape of MIT, its policies, and how it functions as an organization; team leadership; and holistic graduate admissions.

In fall 2018, OGE convened underrepresented graduate students of color to provide a space for more honest, open, and direct action centering diversity, equity, inclusion, access, and social justice. Throughout the year, the [Graduate Students of Color Advisory Council](#) (GSOC-AC) met nine times and engaged in discussions with several MIT senior leaders including the provost, vice chancellor, interim Institute community equity officer, and MHH Department Support Project executive administrator to discuss and advise on current and future MIT policies.

Per the recommendation of the vice chancellor and GSOC-AC, OGE piloted set of graduate diversity yield activities targeting 156 new admits who self-identify as underrepresented minorities or took part in MSRP/Converge. A series of short videos were produced congratulating newly admitted students, welcoming first-year graduate students, and highlighting graduate affinity groups. New web content was added to showcase the expanding portfolio of programs, activities, and collaborative efforts with organizations at MIT and beyond MIT. Email outreach to this target group garnered open rates of 86% on the message from OGE, and 83% on the note from graduate diversity ambassadors. Additional efforts included a third email featuring a congratulatory video from graduate diversity ambassadors (77% open rate + 316 video views), and the creation of an opt-in Facebook group for these newly admitted students shepherded by a subset of the graduate diversity ambassadors and monitored by OGE staff. Fifteen percent of the target group opted in.

University Center of Exemplary Mentoring ([UCEM](#))

This year's community of UCEM Sloan Scholars included 44 current underrepresented minority graduate students within four cohorts (cohort 1 = 11, cohort 2 = 11, cohort 3 = 13, cohort 4 = 9 students). In 2019 three PhD candidates graduated, bringing the total program alumni to 10. Of the respondents to a UCEM program alumni survey, most indicated that the Sloan financial support (n = 6; 75%) and personal support from faculty (n = 4; 50%) was very impactful to their graduate career. UCEM alumni indicated that the academic support from faculty (n = 5; 62.5%) and UCEM programming (n = 5; 62.5%) moderately impacted their graduate career. After graduating from MIT, 62.5% of our UCEM alumni work in business or industry, 25% are postdoctoral fellows (n = 2; Stanford University), and 12.5% of our alumni have faculty positions (n = 1; Northeastern University).

A focus of UCEM staff this year centered on cultivating community among the scholars. Several students contended that the monthly Sloan Scholar Circles were critical in their personal development and positively impacted their academic year. Other scholars noted that these Circle luncheons were often the only opportunities to congregate with their peers. We hired a full-time program coordinator for Diversity Initiatives and University Center for Exemplary Mentoring (UCEM), who started in June 2019, which represents an important increase of bandwidth for the program.

[Climate and Community](#)

During the reporting period, 22 new Graduate Student Life Grant (GSLG) proposals were funded, as well as two renewal proposals for successful projects entering their second or third year. Projects were as varied as our students and included a weekly coffee hour for women in political science; and a festival celebrating Latin American culture and talent at MIT. Established in 2002, the GSLG program enables creative ideas for community-building activities among graduate students.

The Graduate Community Fellows (GCF) program completed its 12th year and has grown to 30 fellows working in OVC and offices across the Institute. New [web profiles](#) showcase the fellows and their work, whose projects impact graduate students and the larger MIT community. Two new positions were created: Community Wellness now has a Fellow focused on stress management and healthy sleep habits, and OVC and the Teaching and Learning Lab work with a Fellow on a graduate advising project.

In April 2019, the OGE led a robust celebration of Graduate Student Appreciation Week, including fun events such as [goat yoga](#) and [plant your own bamboo](#); self-care events such as guided meditation and free chair massages; and helpful workshops on topics such as growth mindset and CliftonStrengths. Every academic department participated at some level and more campus partners joined in than ever before.

Holistic Support of Graduate Students

In partnership with the Title IX office, OGE administered an online Sexual Assault Prevention for Graduate Students module, whose completion was mandatory for all incoming graduate students and for those enrolled prior to 2016 (n=3,608).

Collaborating with various offices to provide workshops and trainings became a highlight for the year. Partners included the Coordination, Assistance, Response and Education (CARE) team, Student Support Services (S3), the Office of Multicultural Programs, LGBTQ@MIT, the Division of Student Life, Violence Prevention & Response, and the Title IX/Bias Response office. Presentations were given to audiences including graduate resident advisors, Office of the Vice Chancellor (OVC) staff, Resources for Easing Friction & Stress (REFS), Advanced Studies Program (ASP) students, the Graduate Student Council, and various departmental faculty, student groups, and gatherings of teaching assistants.

OGE staff served on Institute-wide committees and teams, conducting work on the Committee on Graduate Programs (CGP), the Enrollment Management Group (EMG), the Bias Response Team, the President's Committee on Sexual Misconduct Prevention & Response (CSMPR), the CARE Team Network (CTN), the Behavioral Assessment and Response Team (BART), the Diversity Think Tank, Committee on Race and Diversity (CRD), the Academic Council Working Group on Community and Inclusion, and the Martin Luther King, Jr Celebration Planning Committee. An OGE staff member served as Title IX deputy coordinator for graduate students and OVC, and the senior associate dean was honored for 20 years of service to the Committee on Discipline (COD).

As part of the year's budget cycle, approval was given to add a new assistant dean for Graduate Support, Advising, and Programming. This important staff expansion will better allow the OGE to support a student body that is growing both in number and in need, in a reflection of national trends.

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 them in maintaining their legal status in the United States, provides support for their dependents, and promotes interaction with and integration into the MIT community at large.

- **Internship/Experiential Learning Subjects in Academic Departments – CPT eligibilities**
Student demand for additional off-campus internship opportunities has been the predominant advocacy issue communicated by students and colleagues across the Institute. Through increased outreach, the ISO and Institute partners (especially Graduate Administrators) have been able to collectively advocate for and support the academic departments as they review their curriculum to provide opportunities for their students. Significant delays in processing of F-1 Optional Practical Training applications over the spring/summer 2019 by US Citizenship and Immigration Services, delays that resulted in some students having to cancel internship opportunities due to failure to receive employment authorization, have prompted academic programs to review current curriculum and explore the development of new experiential learning opportunities for academic credit or curricular requirement for completion of degree. The ISO will partner with multiple Institute stakeholders and the academic departments/programs in the development process. An OVC Cross-Functional Team on Internships/Experiential Learning in the Curriculum is in its early stages.
- **Outreach to USCIS on Employment Benefit (OPT) Processing Delays**
International students across the US faced longer than normal processing delays for employment benefit petitions related to their student visa status (specifically, F-1 Optional Practical Training). While normal application processing times had been within 90 days, in spring/summer 2019 that processing time grew to an average of 112 days (with a number of applications taking over 150 days). These delays, beyond students' control as they applied as early as allowed by regulation, resulted in some students losing their summer internship opportunities. The ISO staff spent an immeasurable amount of time supporting students with delayed applications, including outreach to USCIS National Customer Service Center, Office of the CIS Ombudsman's Office, and staff at our Congressional delegation, to try to expedite processing times for delayed applications. There was an increased percentage of USCIS errors in processing, including wrong authorization dates, misspelling of student names of Employment Authorization Documents (EAD), and lost EADs. Staff also spent additional time speaking with student employers to provide information and guidance on the processing delays so that students could retain their position offers where feasible. In addition to continued support to our students, and providing additional guidance for planning for processing delays with future applications, the ISO will continue outreach through Congressional offices, the Office of the CIS Ombudsman, and professional associations to advocate for the establishment of set processing maximums and earlier filing windows in hopes of avoiding a repeat of summer 2019 challenges.

- **Outreach to US Department of State on Visa Processing Delays**

New and continuing international students across the US faced delays in visa processing at US Embassies/Consulates abroad during the spring/summer 2019. The delays are attributed to extended Administrative Processing through the US Department of State and other government security agencies (e.g. FBI, CIA, NSA, DHS, etc.) that must be completed before a visa may be issued. MIT worked with 6 continuing students delayed in return to the US for the spring 2019 term, and then worked with 8 new students (and 1 continuing student) who, due to Administrative Processing delays, were unable to obtain their student visas to arrive for the start of the fall 2019 term. The ISO also worked very closely with the US Department of State Visa Office in support of two undergraduate students from Syria whose visa applications took two years to finally arrive at MIT. The ISO and other Institute offices provided extensive outreach to students impacted by these delays and provided accommodations and deferred start dates, where appropriate, for future arrival to MIT. ISO has expanded online resources to provide guidance and lists of required documents for visa application processing for students who will be appearing at US Embassies/Consulates, including support letters from academic departments regarding the nature of student research and RA/TA appointments. The ISO will continue outreach through Congressional contacts and professional association advocacy to improve visa processing/Administrative Processing times for future admit terms.

- **Enhancement of ISO Website Resources in Support of the MIT Community**

 - ISO [“Major Immigration Updates” webpage](#) – continual update of resources for the Institute in response to Executive Orders and additional government regulatory and policy changes;
 - Enhancement of online resources for access of advising resources during and outside of office hours to reduce the need for on-campus visits for basic information/resources;
 - Enhancement of ISO E-newsletter, including division of news versus program offerings in alternate publication dates;
 - Creating greater transparency of regulatory and policy information;
 - Increasing consistency of advising among all advisors using same resources;
 - Providing access to MIT academic departments and administrators to same information provided to students;
 - Transitioning 95% of all ISO service requests to online submissions through iMIT/Sunapsis.

- **Contributions to Institute Committees and Their Recommendations to the MIT Administration**

ISO staff have served on OVC and Institute committees, working groups, and cross-functional teams, including: the Institute Committee on Discipline; The Engine Visas for Entrepreneurs Working Group; the Office of Vice Chancellor Leadership Team; OVC Values Working Group; OVC Council on Diversity and Inclusion; International Students of Color Orientation and Onboarding Team; MIT Tax Workshops; MIT OME Mentor

Advocate Program; and other cross-Institute collaborations in support of our community.

Notable Statistics / Data

International Student Community: from 132 countries, including US

- Undergraduate = 459 (10.06%)
- Graduate = 2,878 (42.05%)
- Non-Degree (calendar year 2018)
 - Special and Exchange = 291
 - Visiting Students = 1,023

Post-Degree Employment (on MIT student visa sponsorship – as of September 15, 2019)

- F-1 Optional Practical Training / STEM OPT = 1,223
- J-1 Academic Training = 49

ISO Walk-In/Appointment Service Usage

- AY2019 = 13,489
- AY2018 = 15,117
- AY2017 = 13,660

Awards and Recognition

- The ISO staff was awarded a 2019 MIT Excellence Award for “Bringing Out the Best”
- Emily Cheng, ISO assistant director for operations and advising, was awarded the “Freak of the Year” award for excellent service to the Sunapsis Community at the 2019 SUNAPSIS Users Conference in Indianapolis, Indiana
- Antoinette Browne, ISO operations associate, was awarded the Mentor of the Year for the Office of Minority Education’s Mentor Advocate Program (MAP)
- Sylvia Hiestand, ISO assistant director for advising outreach, was a session presenter at the NAFSA Region XI (New England) Conference

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.

Key Accomplishments

- The OME's newest signature program, The Standard, focuses on enhancing the overall success of undergraduate Men of Color. We now have 42 first- and second-year students in the program. The faculty liaisons for The Standard are Ceasar McDowell, Jaime Peraire, and Larry Sass. This year, Chevron donated \$10K to The Standard for their first 1.5-day/overnight retreat. In October 2019, 15 young men will be inducted.
- The OME and the Office of Digital Learning entered the second phase of our pilot. During AY2019, Interphase lead instructors refined the MITx online curriculum and integrated it into Interphase summer physics and mathematics courses. The Interphase EDGEx hybrid online/on-campus program will launch in summer 2020.
- In AY2019, there were 2,939 visits to the TSR²; 85% of the visits were from URMs. Over the same period, 113 students participated in Seminar XL (72% URM). These data points are key accomplishments, because we have worked diligently to ensure that minority and non-minority students use our services. We are making significant progress here.
- Momentum and General Motors collaborated this year to explore the passenger experience in autonomous vehicles. Thirty-one (first- and second-year) students enrolled in the IAP course. Companies affiliated with our Industrial Advisory Council for Minority Education (IACME) made five offers (for internships) to three students who participated in the class. Ninety-five percent (n=22; 71% response rate) of participants reported that they gained valuable teamwork skills from their Momentum experience.
- Forty-five protégés (first-year students) and 45 mentors (MIT faculty, staff, post docs, and graduate students) participated in the OME's Mentor Advocate Partnership (MAP) program. This year, in addition to qualitative data on the mentor/protégé experience, we also tracked first-year flag data for MAP students to identify academic differences. The fall 2018 data showed similar recovery rates for MAP students relative to the overall MIT class (MAP 80%; overall class 79%).
- IACME partners voted to increase their giving to the OME; at the highest tiers, they doubled their giving from \$5K to \$10K; and at the lowest tier from \$2K to \$4K. Thus, overall IACME giving grew to ~\$175K annually (from ~\$85K).

Notable Statistics / Data

- From The Standard's end-of-year survey (79% response rate), we learned that 91% of the 33 young men who responded felt a strong sense of community within this newly

established community. Ninety-four percent of the same group of young men reported that they would recommend The Standard to other students.

- Laureates and Leaders served 74 students this year. Twenty students graduated from the program in June 2019. Of those, 75% planned to enter STEM graduate programs directly following graduation (53% will pursue PhDs in STEM, 27% will pursue MD-combined program, and 20% will pursue the Meng).
- The Interphase EDGE Program (IP) officially supports 140 students each year (70 first-year and 70 second-year students) by offering advising and other academic and professional development resources. One indicator of the academic success of Interphase students is fifth-week flags. In fall 2018, 11% of the IP 2018 cohort (n=70) received a 5th week flag with a 63% recovery rate. The overall flag rate for MIT was lower at 8.8% with a 79% recovery rate. In the spring, 14% of the IP cohort received a flag; however, 90% of those students recovered. The overall MIT spring flag rate was similar at around 13%, but the spring overall MIT class recovery rate was lower at 58%. Of course, it is difficult to assign causation either way. Many MIT environmental factors influence academic outcomes. Interphase is just one of those factors.
- In AY2019, 131 students participated in Seminar XL. Ninety-five percent of students passed the course for which they took a Seminar XL class; in the spring, it was 90%. The recovery rate for students who took a Seminar XL/LE class in a flagged subject was 78% in the fall (for MIT it was 79%); no Seminar XL students received flags in the spring.
- In AY2019, 94% of students don't who participated in TSR^2's academic resource passed the class in which they sought assistance.

Awards / Recognitions

- Four Laureates and Leaders' students were featured in MIT News:
 - [Kerrie Green '19](#)
 - [Hector Vazquez Martinez '20](#)
 - [Jordan Benjamin '19](#)
 - [Amnahir Pena-Alcantara '19](#)
- Four 2019 Laureates and Leaders graduating seniors received NSF Graduate Research Fellowships (three Laureates and Leaders alumni received fellowships as well).
- OME Staff received the OVC Infinite Mile Award for Diversity and Inclusion in June 2019.

Registrar's Office

The [Registrar's Office](#) fosters curricular innovation and educational community building; ensures the integrity of academic information; and develops and maintains a robust infrastructure that is responsive to the evolving needs of students, faculty, staff, and alumni.

Key Accomplishments

- Facilitated the Experimental Grading Policy to Increase Flexibility for Exploration and Discovery in the First Year proposed by the Office of the Vice Chancellor (OVC) and licensed by the Committee on the Undergraduate Program (CUP). This included updating systems to accommodate the experiment; working closely with and providing data to the assessment team; and collaborating with the Office of the First Year to communicate changes.
- In support of the CUP Experiment, approved seven new “exploratory” subjects — designed to help students understand what different majors are like — and six new “discovery” subjects, which are intended to expose students to various fields of inquiry.
- Partnered with the vice chancellor on the faculty-approved changes to the Academic Calendar. Produced long-range, what-if scenarios to anticipate issues that might arise from the condensed timeframe of the spring semester. Engaged with the community through a variety of presentations prior to faculty vote.
- Collaborated with several offices to include diploma distribution as part of the Doctoral Ceremony for the first time.
- Through a concerted communications effort, more than doubled our digital diploma adoption rate for June graduates, from around 32% in June 2018 to 65% in June 2019.
- Facilitated the nominations and awarding of four new MacVicar Fellows. Partnered with the vice chancellor in the development of the MacVicar Day symposium: “The Educated Student: Thinking and Doing for the 21st Century.”
- Facilitated the following curricular changes:
 - Course 6-9 SB — new undergraduate degree.
 - Course 6-9P — new Master’s in Engineering degree.
 - Course 22-ENG SB — new flexible track leading to SB.
 - Course 7-A SB — termination of degree.
 - Course 1-ENG SB and minor — transition from 6-unit modular offerings to 12-unit, full-term format for several subjects.
 - Course 6 minor — addition of several advanced subjects as electives.
 - Course 7 SB — significant restructuring of laboratory/CI-M component.
 - Course 17 SB — revision to make thesis optional.
 - Course 21L — revision to minor to include a Film Studies track.
 - Course 21W — removal of SB and minor’s three pre-defined tracks (creative writing, science writing, and digital media) in favor of a more flexible structure.
- Conducted biennial review of subjects that fulfill the Restricted Electives in Science and Technology (REST) and Institute Laboratory Requirements.
- Collaborated with the Undergraduate Association Committee on Education to develop

and analyze results from its Survey on Improving Subject Evaluation.

- Enabled the first full review of HASS concentrations, resulting in the report issued by the Subcommittee on the HASS Requirement (SHR).
- Digitized the process by which conflict examination times are identified.
- Partnered with IS&T to create a student dashboard, providing students with a personalized and coherent experience that unites a number of key student systems.
- Completed the renovation of lecture room 37-212 and lecture hall 1-190; began renovation of classrooms 24-112, 24-115, and 24-121. Enhancements — such as new carpet, shades, A/V systems, projectors, and chairs — made to 33 other classrooms.
- Classrooms 26-302 and 26-310 were reassigned from Registrar’s classroom inventory.

Notable Statistics / Data

- We have issued 2,450 digital diplomas, including 1,916 to June 2019 graduates, since the initial pilot in June 2017.
- The dynamic nature of MIT’s curriculum was illustrated by the addition of 130 subjects (70 undergraduate, 60 graduate), coupled with revisions to 925 existing subjects (476 undergraduate, 449 graduate). In addition, 87 subjects were removed from the catalog, and 17 were reinstated. MIT begins AY2020 with a regular curriculum that boasts 5,228 subjects (46% undergraduate, 54% graduate).
- The CoC, which our office supports, reviewed 280 applications for double majors, 14 REST Requirement petitions, and five Institute Laboratory petitions.
- The d’Arbeloff Fund for Excellence and the Alumni Class Funds financed 21 projects, from each of the five schools, totaling over \$629,000.
- Students completed 41,231 evaluations across eight evaluation windows in AY2019; 2,319 subjects and 4,879 instructors were evaluated; 42 departments (unique subject prefixes) participated.

Awards / Recognitions

- Deb Boldin and Alison Trachy received a 2019 Infinite Mile Award for Innovation & Creativity for their work on the Registrar’s Office website redesign project.

Reserve Officer Training Corps—Air Force

The mission of the MIT [Air Force Reserve Officer Training Corps](#) Detachment 365 (AFROTC) is to develop leaders of character for tomorrow's Air Force. Our staff of five (including an MIT administrative assistant, an AF Active Duty (AD) non-commissioned officer (NCO) and three AF AD officers) trains a growing number of cadets, from MIT as well as Harvard, Tufts, and Wellesley. Our cadets organize and execute a weekly Leadership Laboratory (LLAB) in addition to a multitude of special events throughout the academic year (i.e., Dining In, Military Ball, Field Training exercises, notable guest speakers, Commissioning, etc.). Additionally, our officer cadre members teach academic courses based on the AFROTC curriculum. Notably, a generous budget increase from MIT allowed us to continue to provide quality, formative opportunities to cadets, despite a continuing large increase in the number of cadets.

Key Accomplishments

- This year we were able to continue expanding our integration and 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. Additionally, for the second year in a row, the Cadre taught a stand-alone first-year advising seminar, Leadership for Young Professionals.
- We were also able to leverage MIT resources and relationships to provide great opportunities for the cadets, including visits from General John Hyten, current commander of US Strategic Command and Dr. Fred Kennedy, director of the Tactical Technology Office at DARPA. We also made extensive use of AF officers attending MIT for graduate school or as Fellows to bring a variety of AF experience directly to the cadets.
- We proudly commissioned three new second lieutenants this year. One of them (Course 16) was an AF Distinguished Graduate – an honor reserved for the top 15% of graduates in all of AFROTC. The other two were selected for prestigious scholarships that will allow them to stay at MIT for their first active-duty assignment while working on their graduate degrees.
- One of the most formative opportunities for the cadets is the opportunity to experience Air Force operations first-hand. This year, the cadets visited an ANG base in Massachusetts for their freshman orientation. Other cadets were able to participate in a visit to a base in NJ and see the everyday operations of positions that they one day might hold. Eight lucky cadets hopped in the back seats of T-38s in Texas to experience part of the Introduction to Fighter Fundamentals.
- Due to the unique nature of our Detachment, our program's enrollment has been consistently driven by the award of full-tuition scholarships. Unfortunately, despite consistent engagement with our HQ, we have received fewer full-tuition scholarships awarded this year to cadets admitted to MIT. However, with a strong recruiting effort, we are continuing to grow and look forward to our largest class this fall, made up of students with both full and partial scholarships.

Notable Statistics / Data

- Our cadets had the highest GPA in all of Air Force ROTC.
- They also had the fourth highest average physical fitness test scores.
- AY 2018 total enrollment was 48. AY 2019 was 52. We are expecting 30+ incoming first year students this fall!

Awards / Recognitions

- Cadets were recognized with multiple national-level awards, including the Society of Military Engineers and the Daedalian Scholarship.
- Multiple students were selected for internships at Lawrence Livermore National Labs, Boeing, Lockheed, Northrup Grumman, the state department, and others.
- A 3rd year cadet was selected as the number one 3rd year cadet in the entire Northeast Region.

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, Lesley, Wellesley, Salem State, Gordon, Gordon-Conwell, Endicott, and the New England Conservatory in a 2, 3, or 4-year program in order to prepare them for future leadership roles in the US Army, the nation, and the world. Our vision is to develop agile and adaptive leaders of character who utilize critical and creative thinking skills to solve complex, ambiguous problems.

Accomplishments

We commissioned 14 officers this year. Eight of these 14 cadets earned the honor of Distinguished Military Graduate, which placed them in the top 20% of all cadets nationwide. As of May 1, 2019, 77 students were enrolled in the Army ROTC program. Over \$2,600,000.00 was awarded in scholarships for all students in the consortium, a notable increase from last year. The graduating class of 2020 is expected to commission 15 officers, which means we will meet the Army directed commission mission for the second year in a row. The classes of 2021 and 2022, as well as the incoming class of 2023, have seen significant growth from previous years, particularly with regards to MIT students. The class of 2022 currently has six MIT students with four on full ROTC scholarship. Although 14 students have given initial indications they will attend MIT in the fall with an Army ROTC Scholarship, the class of 2023 is expecting 10 MIT students with full scholarships.

Year-End Enrollment for Army ROTC, as of May 1, 2019

	First Years	Sophomores	Juniors	Seniors	Total
MIT	6	7	8	4	25
Harvard	6	6	2	2	16
Wellesley	1	3	3	2	9
Tufts	5	1	3	1	10
Other Affiliates	6	5	1	5	17
Total	24	22	17	14	77

Our cadets continue to achieve excellence academically, physically, militarily, and morally/ethically. In April 2019, one of our cadets won the Military Historical Society of Massachusetts annual essay competition. The winner, a Harvard cadet, received a \$4,000 prize. The second and third place winners are also cadets in our program. At the annual Advanced Camp conducted at Fort Knox, Kentucky—attended by more than 5,000 rising seniors nationwide—our cadets exceeded local, regional, and national averages in nearly all measurable areas, with 75% of our cadets placing in the top half of their peer group. We have sent several cadets to West Point throughout the year to participate in the Student Council on US Affairs, The National Conference on Ethics in America, the West Point Negotiations Conference, and the West Point Mission Command Conference. One cadet was selected to participate in the Cultural Awareness & Leadership Program and Project Global Officer

programs over the summer, spending up to two months abroad. We had three cadets selected to attend air assault and airborne schools this summer. Five of our cadets will serve with an active-duty unit during the summer and shadow an officer as part of the Cadet Troop Leadership Training program.

Our instructors continue to excel at classroom leadership instruction and hands-on training of cadets and of non-ROTC students. Army ROTC continues to be a preeminent source of high-quality leadership instruction at MIT. During the fall semester, Army ROTC taught a First-Year Advising Seminar made up entirely of non-cadet MIT students. During IAP, our cadre participated in its 17th consecutive year facilitating a capstone exercise for 90 students in the Sloan School of Management's IAP course entitled Leadership Lessons Learned from the Military. We have partnered with the MIT football team to host a team leadership workshop in the fall, and with the MIT Volleyball team to provide leadership training for team leaders in the spring. We also worked with the MIT Innovation Initiative to run a panel made up of General Officers and senior Army Research Laboratory officials on Innovation in the Army that was attended by MIT undergraduate students, graduate students, and faculty.

In this past academic year, MIT Army ROTC conducted the following major events: new cadet orientation in September, field training exercises at Fort Devens in September and in Bog Brook, Maine in April in conjunction with the ROTC Program at the University of Maine; a military ball in March; an innovation panel event with cadets and flag officers in April; and commissioning ceremonies at MIT, Harvard, Tufts, Wellesley, Salem State, and Endicott.

Staffing Changes

The Army assigned two new full-time instructors during the past year, Lieutenant Colonel David Stalker (Commander), and Master Sergeant David Barrera (Senior Military Science Instructor), along with two new full-time administrative staff: Ms. Mallory Sain (Human Resources Administrator) and Mr. David Zablatsky (Supply Technician).

Challenges and Plans for the Future

MIT Army ROTC's continued challenge is to sustain our viability by increasing the number of cadets in the program, especially from MIT. Acceptance rates into MIT for ROTC Scholarship applicants have increased in the last three years, resulting in much larger incoming and outgoing freshman classes. This bodes extremely well for the continued viability of the MIT Army ROTC Program. 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 Midshipman 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 9 graduates from the Class of 2019, we are preparing for a class of 21 incoming students.

Key Accomplishments

This year, we sent nine Class of 2019 graduates on to their next journey. We are proud to recognize their outstanding accomplishments and commitment to our program. The graduates and their post-graduation plans are noted below:

- Alana Davitt (Harvard) – submarines
- Andrea De Abreu (MIT) – naval postgraduate school followed by aviation
- Matthew Luerman (MIT) – naval postgraduate school followed by aviation
- Adrian Magana (Harvard) – aviation
- Quinn Magendanz (MIT) – graduate student at MIT, followed by cyber engineer
- Shannon McCoy (MIT) – naval reactors engineering
- Edward Natkin (Tufts) – submarines
- Gabrielle Person (MIT) – submarines
- David Schachman (Harvard) – submarines

Notable Statistics/Data

Our enrollment for fall 2019 shows a strong trend toward growth:

	Class of 2023	Class of 2022	Class of 2021	Class of 2020
MIT	10	8	6	8
Harvard	10	1	2	6
Tufts	2	2	3	1

Notable Recognitions

We are excited to welcome a number of new staff members to our Naval Science Department:

- Administrative Assistant II Garrett Gangarossa
- Supply Technician George Montgomery
- Technical Instructor and Commander Jeffrey Hollenbach
- Lieutenant and Technical Instructor Catherine Philbin (MIT NROTC and Harvard Class of 2014)

Student Financial Services

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

Key Accomplishments

Financial Aid, Loans, and Affordability

- A new First Year Grant has been created to assist with the one-time costs of transitioning from home to college. This new financial aid policy was implemented for students from households with incomes of \$65,000 or less (and typical assets). The grant will be placed into effect for the AY2019.
- We changed our disbursement process for private-lender loans for the 2019–20 aid year to increase consistency in our process. The disbursement process has been automated, and loans now disburse as soon as the funds are received and the student is registered for classes. By automating, we have shortened the period of time from when we receive the loan funds to when they're applied to the student account.
- We instituted a new policy to treat U.S. military veterans as independent students for the purpose of awarding financial aid.
- The financial aid award letter was redesigned to improve the clarity of offered aid and to make it easier for families to compare awards across institutions.
- We implemented Heartland ECSI to manage loan repayment and streamline loan services for students, thus far with mixed results. Improvements include converting exit counseling from a paper process to a combination of in-person and online options, resulting in a 92% attendance rate for eight in-person exit counseling sessions, and a 96% completion rate of the online exit requirement (vs a roughly 45% completion rate in AY2018). However, management of the MIT Education Loan program has been problematic, characterized by unresponsiveness, disregard for and mishandling of MIT requests, and generally poor customer service. Consequences have included incorrect emails and letters being sent to over 600 borrowers in direct contradiction of MIT's wishes, and a handful of borrowers being inappropriately reported to credit bureaus.
- The cost of MIT's Extended Student Health insurance will be paid for by the Institute for any incoming student from a household with an income of \$65,000 or less (and typical assets) who needs to purchase health insurance. Insurance coverage will be implemented with first-year students during the 2019–20 academic year and will eventually roll out to all undergraduates.
- We have implemented a new financial aid calculator in partnership with MyinTuition. This new calculator gives prospective undergraduates, with six simple questions, an estimate of what their aid package might look like from MIT. MyinTuition is used by the majority of our peer institutions and will further help to share our affordability messaging and to allow our prospectives to compare aid across institutions.

Customer Service, Operations, and Communications

- The **payment plan enrollment fee was reduced** from \$70 per term to \$35 per term. This is below the average cost of our peer institutions. We have also made procedural changes to make enrollment easier for international families.
- The **SFS website was redesigned** in concert with the Admissions website to better serve current and prospective students and their families.
- We **upgraded our accounts receivable software to the cloud-based Banner 9**, allowing for single sign-on integration with MIT's Kerberos, among other features.
- We implemented OnPlanU, moving our outstanding student balance pre-collections process online.
- Only one degree was held for financial reasons in FY2019.

Notable Statistics

Financial Aid

- In AY19, MIT awarded \$127.9M in need-based institutional grants to 2,688 undergraduates with an average family income of \$109,422. The median grant was \$53,414, nearly 80% of the cost of tuition, fees, room and board.
- More than 31% of MIT undergraduates received an institutional grant sufficient to allow them to attend the Institute tuition-free. The average total family contribution (not including student term-time work) for those receiving an institutional grant was \$16,766.
- Fifty-nine percent of the 4,550 undergraduates received need-based financial aid from the Institute. Eighteen percent received Federal Pell Grants, which are typically awarded to U.S. students with family incomes below \$60,000.
- Seventy-one percent of undergraduates (3,230 students) earned wages totaling nearly \$11M from on-campus employment and employment under the Federal Work-Study program, including both on- and off-campus programs.
- The percentage of undergraduates taking out loans decreased slightly from 12% in AY2018 to 11% in AY2019. Among seniors graduating in 2019, 76% graduated with no debt; of those with debt to finance their education, median indebtedness at graduation was \$13,481, 9% lower than for the Class of 2018 (fifth consecutive year of decline).

Customer Service and Operations

- The customer service team received 34,136 emails and over 9,400 calls in FY2019.
- In FY2019, over 700 families used the MITPAY integrated monthly installment payment plan implemented in FY18 to pay \$28.6M in charges.
- Tuition and fees for the Institute totaled \$724,395,084 in AY19. Graduate tuition and fees were \$431M or 60% of total tuition. Undergraduate tuition and fees were \$234M or 32%; and non-degree tuition and fees were \$59M, just over 8%.

Teaching + Learning Lab

The Teaching + Learning Lab partners with MIT educators to create engaging and supportive learning environments. In 2019 we did this by:

- Proactively pursuing projects that support and enhance the foundational undergraduate experience (especially the first year);
- Collaboratively developing, supporting, and assessing academic advising (both graduate and undergraduate);
- Collaboratively developing, supporting, and assessing graduate student professional development opportunities around teaching and learning;
- Supporting diversity, inclusion, and academic well-being across educational experiences at MIT;
- Informing policy decisions that impact the educational experiences of undergraduate and graduate students at MIT.

Key Accomplishments

T+LL – wide

Strategic Prioritization

The office undertook a strategic prioritization process to better align TLL projects and workflow with the strategic priorities of the vice chancellor. This reprioritization led to new and renewed efforts to support teaching & learning and assessment & evaluation. This work is described in associated sub-sections, below. Input and support from the vice chancellor was critical in this process.

Personnel

2019 saw several exciting and positive changes to TLL staff:

1. Ryan MacDowell joined TLL as communications director and project coordinator. His skills and knowledge have had a huge impact on the success of several new projects, and in optimizing our workflow. See Office Infrastructure, TLL Speaker Series, and Data Talks sections below.
2. Dr. Benjamin Hansberry joined TLL as assistant director of graduate teaching. He has brought a wealth of knowledge about professional development for graduate students, and has spearheaded the pilot of the Teaching Development Fellows Network, described below.
3. Dr. Anne Marshall's position as associate director for assessment and evaluation was "hardened." This has provided added stability, and allowed for more effective long-term planning of assessment & evaluation projects and work-flow.

Programming

1. *TLL Speaker Series*: TLL launched a reconceived and revitalized seminar series (formerly known as DUEtalks). In support of the strategic priorities of the OVC, the theme of the 2018-2019 speaker series was "Supporting the First-Year

Undergraduate Experience.” Info on specific presentations in the series can be [found here](#).

2. *Data Talks Series*: TLL staff, as part of the OVC Cross-functional Data & Survey Team, lead a group of staff from across the Institute to develop a workshop series to help educate and inform the MIT community on topics related to data acquisition and use. The series will run through AY2020. Additional info can be found [here](#).
3. *MITeaches: Fostering Inclusion* – With support from an anonymous donor, TLL will host a keynote presentation in the early fall of 2019 and is planning a set of seminars and workshops for the AY2020, to support diversity and inclusion in the classroom and lab.

Office Infrastructure

The office embarked on a complete overhaul of our website – consistent with our new set of priorities, programs, resources and services. Ryan MacDowell, our communications director and project coordinator, is leading this work, and has been absolutely central to this process.

T+LL – Teaching and Learning

Faculty Cohorts

1. *Dean’s Action Group*. We facilitated monthly meetings, and supported collaborations among cohort members.
 - ~Four faculty/instructor cases developed & presented/month (September 2017 – April 2018)
 - Showcase/wrap-up event was held in late August. Approximately 35 faculty and lecturers attended.
 - The final report is available [here](#).
2. *Exploratory Subjects Design Cohort*. We provided support for faculty developing and offering first-year exploratory subjects.
 - Met one-on-one with cohort members during the fall of 2018.
 - Facilitated two meetings with the cohort.
 - A final meeting was held in May 2019.

Advising Initiatives

1. *First-Year Undergraduate Advising*.
 - Our work in 2019 included environmental scans of practices at peer institutions, documentation of past and current practices at MIT, and the design of a pilot study of an alternative first-year undergraduate advising model for students of the class of 2023.
 - *6.A01 Mens et Manus: Building on the Science Core* FAS. A TLL staff member continues to develop and teach the biology-based research module (~1/2 of the subject).
2. *Graduate Advising*. TLL is working with the Department of Chemical Engineering to develop a set of faculty workshops on effective graduate advising and mentoring. TLL and OVC staff worked together to identify effective practices at peer institutions,

and to document past and current practices at MIT. They continue to work with staff from across the Institute, and with national experts in graduate student mentoring. It is anticipated that the advising program will launch in AY2020 and will eventually be expanded to the entire School of Engineering.

[Flipping Failure](#)

With funding from an anonymous donor, we have launched a campus-wide, digital storytelling initiative designed to help students build resilience in the face of academic challenges. The project helps students to see that their peers and faculty have struggled at some point academically and professionally, and provides a means for students to share strategies for overcoming mistakes and failures. A [progress report](#) was submitted to the MIT Development Office in the spring of 2019. To date, seven students have recorded their stories.

Graduate Student Development

1. [Teaching Development Fellows Network \(TDFN\)](#)
 - This TLL capacity-building, professional development opportunity for graduate students interested in improving their teaching and leadership skills was piloted in 2019. TDFN fellows focus their activities on addressing the teaching needs of peers in their departments. With support from TLL's assistant director for graduate teaching, Ben Hansberry, fellows are expected to complete two departmental projects. The seven 2019 Fellows came from 6 different departments across the Institute: architecture (history, theory & criticism); biology; chemical engineering (2); linguistics; nuclear science & engineering. A report of the 2019 pilot is available [here](#).
 - Eleven fellows have been selected for 2019-2020 and will begin their TDFN work in the fall of 2019. This new group of fellows comes from 11 different departments across: four schools (SoS, SoE, SHASS and SAP), 10 departments, and one OVC office (OME).
2. [TA Days: Workshops for New Teaching Assistants](#)
 - *August 2018*. TLL developed and offered a two-day set of workshops for TAs. Workshops were facilitated by TLL staff, along with other experts from across the Institute. Topics included active learning strategies, creating an inclusive classroom, recognizing student stress; leading recitations, and growth mindset (among others).
 - *January 2019*: TLL offered one-day set of workshops for new TAs. Graduate students from the pilot TDFN cohort facilitated discipline-specific break-out sessions during this IAP offering.
3. [Kaufman Teaching Certificate Program](#). We continue to offer our flagship program for MIT graduate students and postdocs, with one, nine-workshop program offered in the spring, and one eight-workshop program in the summer. In AY2019, 215

individuals graduated from the program. The role-based distribution of program graduates is provided below:

- Grad students: spring and summer = 96
 - Post docs: spring and summer = 107
 - Other (visiting faculty, researchers, staff): spring = 12
 - TOTAL = 215
 - In addition, we developed and distributed a Kaufman Teaching Certificate Program (KTCP) Alumni Survey. The last survey was administered in 2013 to a relatively small number of program alumni (for the first four years of the program KTCP graduated 351 students, compared with over 1,450 from 2013 to 2018).
4. **Better Blending.** TLL has been designing and filming mock recitation videos in collaboration with the math department with funding from J-WEL. The videos highlight best practices for facilitating a recitation. The videos will be used in facilitated settings such as workshops for TAs and will also be available on the TLL website. The products of the Better Blending project will help TLL achieve its strategic goal of building capacity for TA development across campus.
 5. **TLL TA Resource Development Fellow.** TLL has been fortunate to offer a TA Resource Development Fellowship through the Office of Graduate Education's Graduate Community Fellowship program. The TA Resource Development Fellow has been working with TLL staff to identify video examples of evidence-based teaching from MIT classes in a range of disciplines. Leveraging the classroom footage already captured by MIT OpenCourseWare, the Fellow is identifying clips that could be used in workshops for TAs and in the Kaufman Teaching Certificate Program. In line with TLL's strategic goal of building capacity for the training of TAs across campus, the Fellow is also drafting workshop facilitator guides containing hyperlinks to the clips, suggested reflection questions to pose after watching the clips, and notes about interesting features of the clips.

Designing the First-year Experience: Fun-Sized 2.S974/2.S790, IAP 2019

TLL staff provided instructional support and pedagogical guidance for [this IAP subject](#).

Growth Mindset Workshop

Four sessions, IAP 2019. TLL staff developed and taught [this IAP subject](#).

Alternatives for the Evaluation of Faculty Contribution to Teaching

TLL has produced [an overview](#) of practices at other institutions, and compiled a range of alternative options for evaluation of faculty.

One-on-one consultations and pedagogical support for faculty, staff, and TAs

Also provided departmental workshops and trainings for TAs. TLL staff provided one-on-one consulting and support for ~ 35 faculty, students, and staff during 2019.

T+LL – Assessment and Evaluation

Lead on the Qualitative Assessment of the 2018-2019 First-Year Experiment – CUP (Phase I)
Conducted interviews of students in the Class of 2022. Performing ongoing analysis and summarization of findings.

Support and planning for the Qualitative Assessment of the 2019-2020 First-Year Experiment – CUP (Phase II)

Support and leadership for OVC's Cross-functional Team on Data Leadership
The purpose of the team is to establish a clear, straightforward, and well-coordinated process for survey administration / data collection and a data sharing policy, including communicating this information to the Institute community.

NECHE Accreditation – MIT 2019: Standard 8
TLL was the lead for the Educational Effectiveness section of the report.

Support for the “Ethical Thinking” module of the NEET program
Development of a rubric to be used across Threads to measure the students' Ethical Thinking skills.

Ongoing assessment support for the NIH IMPACT training program for graduate and post-docs
The program addresses professional development.

One-on-one consultations and assessment & evaluation support
For faculty and instructors. TLL staff provided one-on-one consulting and support for ~ 15 faculty, students and staff during 2019.

Notable Statistics / Data

- Kaufman Teaching Certificate Program (funding from VPR \$22,905; from OVC \$8,898; from OGE \$10,275, from MIT-ETT \$1,000), for a total of \$43,078.
- Funding from an anonymous donor for the Flipping Failure project, described above: \$90,000 and *MITeaches: Fostering Inclusion initiative*, also described above: \$20,000
- 6.A01 Mens et Manus: Building on the Science Core FAS (instructor funding the Biology course-based research module) \$19,313.
- IMPACT Grant (funding for assessment & evaluation) \$41,724.
- Fly-by-Wire (funding for the TLL Project Lead): \$27,081.
- Alumni Class Funds (funding for assessment & evaluation of faculty grants): \$1,616.
- d'Arbeloff Funds (funding for assessment & evaluation of faculty grants): \$496.

- ICEO's contribution of \$12,500 for MITeaches.
- OVC's contribution of \$15,000 for the FYE Exploratory Course Cohort
- Five Teaching Development Fellows (from five different departments), who were mentored by TLL's Assistant Director for Graduate Teaching, were funded by their home departments in AY19. Each received \$1000 for their work. A sixth, at-large, fellow was supported by TLL.

In addition, TLL funded three additional projects from its non-base funds:

- TLL Speaker Series: \$7,332.
- Seminars and Workshops for TAs and Grad Student Development: \$8,483.
- Teaching Development Fellows: \$3,017. Note, this includes the \$1,000 cost of the at-large fellow (described above) along with books, supplies, and materials for TD Fellows workshops and meetings.