

MIT OFFICE OF EXPERIENTIAL LEARNING

Experiential Learning for Everyone

Understanding the
Landscape &
Lowering Barriers to
Participation

Introduction

Experiential learning (EL) is often described as the “secret sauce” of an MIT education. From working shoulder-to-shoulder with faculty studying the spread of misinformation to interning with a startup in Denmark using CRISPR to develop cures for genetic diseases to building and racing a solar electric vehicle across the US, singular opportunities abound.

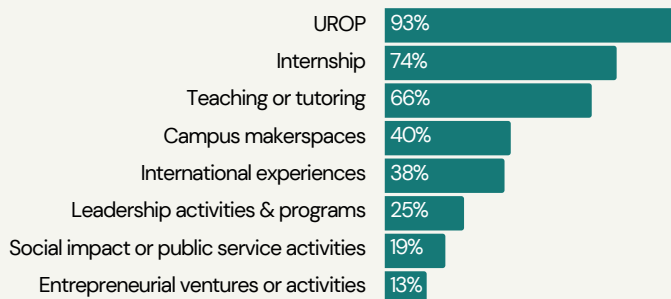
More broadly, EL at MIT takes varied forms, including credit-bearing courses, research, internships, global experiences, and social impact work, that connect students’ academic learning to real-world contexts. These Experiential Learning Opportunities (ELOs) include essential elements such as hands-on work; academic rigor; meaningful intensity and duration; and structured and supportive guidance, reflection, and assessment.

Students report that ELOs can be defining experiences in their MIT education and help them realize and integrate their ambitions beyond their major or discipline. Experiential learning can also play a key role in the classroom of tomorrow: As the educational community grapples with new challenges like teaching in the age of ChatGPT and re-engaging students after pandemic shutdowns, experiential learning is frequently recommended as a compelling alternative to traditional pedagogy.

As integral as EL is to the MIT student experience, it is also quite complex and incredibly diverse, challenging in unexpected ways, and sometimes frustratingly elusive.

- Experiential learning at MIT is **ubiquitous and diverse**, playing a unique role in nearly every undergraduate student’s experience (see chart); yet the field is **highly decentralized**, with opportunities offered, administered, and tracked by dozens of individual offices across the Institute.
- MIT spends more than \$20 million a year on EL opportunities, which are **universally prized** by faculty, students (both prospective and current), and alumni alike as quintessential parts of the MIT experience, yet individual programs remain **unevenly supported** in terms of funding and staff capacity.
- Experiential learning is **transformative** for many MIT students, fostering higher-order problem-solving, communication, and interpersonal skills along with subject-specific learning outcomes and professional exploration; yet that **learning is not always effectively measured, recognized, or credentialed**.

While at MIT, have you participated in...



Data from MIT Graduating Student Survey 2022 (UGs only)

The diverse landscape and decentralized nature of experiential learning at MIT mean there is a lot that we do not understand about how students engage in experiential learning.

A question at the heart of this uncertainty is the one asked in MIT's Strategic Action Plan for Belonging, Achievement, and Composition: Are there differences in participation rates and outcomes in experiential learning programs for different types of students and if so, how might MIT address any areas of concern?

Put another way, how can MIT ensure that every student has access to high-quality, transformative experiential learning opportunities?

Data & Analysis

To address this and other questions, MIT's Office of Experiential Learning (OEL) has gathered and analyzed data on program characteristics and student participation in experiential learning during the 2021–2022 academic year. The resulting report presents an initial phase of data collection focused on understanding student participation in experiential learning, with future work planned to assess student outcomes.

The full report describes how programs achieve the essential elements of Experiential Learning. The report also describes program characteristics such as student costs and compensation and describes variations in student participation in experiential learning across demographic groups and types of experiences. This document summarizes the most noteworthy findings from the report, identifies key questions for continued research, and recommends actions to address some of the challenges identified.

The limitations of the assessment include reliance on program self-reporting [1], which did not yield a perfect response rate, and low turnout in student focus groups. The low student turnout reflects a growing trend of survey and focus group fatigue across MIT. The current data also does not capture experiential classes offered by faculty outside of ELO programs or opportunities pursued by MIT students independently of MIT programs, including many or possibly most internships [2]. Going forward, OEL plans to collect data annually to track participation and other trends and understand student perspectives more thoroughly.

1 All MIT departments, labs, and centers (DLCs) known to offer EL programs were asked to complete a profile form describing key characteristics of their programs. With few exceptions, this did not include traditional academic departments, though they may be asked to participate in future years. Given the decentralized nature of EL-focused DLCs at MIT, there is no MIT-wide consensus on what programs qualify as EL, making it impossible to quantify what fraction of programs are captured by these data. In total, 16 DLCs responded and collectively shared 34 unique program profiles. While some DLCs (e.g., UPOP), profiled a single program, others (e.g., PKG Center) shared as many as 9 programs they support. Respondents were given minimal constraints about what qualifies as an EL "program" and varied in how they defined programs (different formats, times of year, preparatory or enrichment experiences, etc.).

2 Career Advising and Professional Development (CAPD) collects student reports of their summer activities, including internships, via the biannual [Summer Experience Survey](#).

EL Program Characteristics

How large, targeted, and selective are MIT's experiential learning programs?

What we know

With a few notable exceptions such as UROP and MISTI, most experiential learning programs are modest in size (<80 participants annually). Size may pose challenges in terms of student awareness (in that there is a crowded field of opportunities for students to navigate and choose from) and in ensuring consistent and sufficient support (such as competition for limited donor and alumni funding). Smaller programs may also have community-building benefits and allow for greater quality control of individual experiences.

A few EL programs target students in a specific year (most commonly sophomores and juniors), but most are open to all undergraduate students. Graduate students are eligible to participate in roughly half of the programs, and several are also open to recent graduates and/or postdocs.

Of the programs that responded, 71% require applications for participation. The programs that do not require applications are either academic classes or extracurricular activities (i.e., clubs and teams, maker training). Programs that require applications vary in selectivity, with some accepting all applicants and others receiving many more applicants than they can accommodate.

What we want to learn

1. Which programs experience the most significant mismatch between program capacity or supply and student demand?
2. Where demand exceeds supply, which factors limit programs' ability to meet student demand (finances, staffing, student interest, program leadership desire to expand, external partner capacity)?
3. How do student experiences and learning outcomes in smaller programs compare to larger programs?

What we should do now

1. Work to increase the visibility of smaller programs by featuring them in OEL messaging to both prospective and current students, informing academic advisors (including staff in the new Undergraduate Advising Center) about these programs, and publishing their application deadlines alongside those of larger programs.
2. Explore ways to introduce economies of scale among small programs so that more staff time and resources can be devoted to supporting students rather than to administrative functions and fundraising.

Compensation & Recognition

How are students compensated or recognized for their work?

What we know

For students, compensation is an important component of experiential learning and is often necessary to support students' basic living expenses, but the ways that programs reward or compensate students vary widely and make it difficult to paint a singular or clear picture of practices at MIT. Based on the information collected thus far, it is clear that further, more detailed assessment of compensation practices will be necessary.

Types of costs and compensation

associated with participating in experiential learning vary by program and often within programs based on a variety of factors.

- Most programs pay for most applicable expenses, but **programs differ in what they cover and how they cover it**. Some programs cover expenses directly, whereas others pay students a stipend or wage which they expect will cover typical living expenses (housing, food, travel, etc.).
- Half of the programs that responded offer some form of **financial compensation** (either hourly pay, stipends, or some combination of the two) to at least some of their participants.
- 41% of programs offer **academic credit** for at least part of their programs.
- Only five programs do not offer pay or credit, but these are limited to field trips and extracurricular activities. However, 41% of programs have a **volunteer/uncompensated** option, even if pay and/or credit are also available to some students.
- In some cases, students can select a compensation option. In other cases, compensation types vary by role (e.g., paid FPOP counselor vs. uncompensated FPOP participant) or for different parts of connected experiences (e.g., voluntary expenses—paid travel alongside a for-credit class).

In terms of **compensation amounts**, most programs list a range.

- Programs that rely on external funding sources (faculty funds, companies, etc.) often defer to those groups to set wages, provided that they meet or exceed the local minimum wage.
- Overall, on-campus program wages range from \$15–25 per hour and off-campus programs could range from the local minimum wage to \$40+ per hour.
- Stipends range from \$1,000 to \$5,000 for IAP and from <\$4,000 to \$9,000 for summer.
- Most variations in stipend amounts seem to be due to variations in travel costs or program duration, though more analysis is necessary to calculate and compare net income for students for comparable amounts of work.
- Some programs also mention unique compensation combinations (such as hourly wage plus a stipend based on hours worked or a stipend plus free housing), which further complicates comparisons.

For international students, the question of compensation can become particularly tricky, and students must consider additional costs like OPT application fees. Students must also be mindful of hours spent in on-campus employment, the total duration of opportunities using OPT, the processing time for OPT applications, and visa issues that may arise when traveling for an opportunity, all of which may limit the types of opportunities students pursue and accept.

What we want to learn

1. What is the average net financial impact for students participating in each experiential learning program?
2. How do students understand the financial implications of possible experiential learning options? Where are students getting this information? How accessible and accurate is the information that they're getting?
3. Is real or perceived cost keeping certain students from participating in particular programs?
4. Are there opportunities to create criteria and mechanisms to award academic credit for new experiential learning opportunities?

What we should do now

1. Encourage programs, particularly programs offering summer opportunities, to reexamine and adjust the compensation they offer annually in light of actual participation costs, noting rising costs of common expenses like food, housing, and transportation.
2. Encourage programs to share typical costs and compensation to help students make more informed choices.
3. Work with ISO to inform program leaders about work options for students on different types of visas and to communicate to students about which programs and compensation types are available to them.

Demographics

Who is/is not participating in particular types of experiential learning and why?

What we know

Overall, we found some statistically significant differences between actual participation rates [3] and the expected rates based on the demographics of the overall MIT student population across several demographics. Specifically:

Among **undergraduate** students...

- Men are underrepresented in all ELOs, especially climate, global, and social impact-focused ELOs.
- Black or African American and White students participate in EL at lower overall rates than expected, while their Asian and International peers participate at higher rates than expected.
- First-generation students are well-represented in most types of experiential learning but participate in undergraduate research (UROP) at lower-than-expected rates.
- Students from underrepresented racial/ethnic groups participate in research at lower-than-expected rates.

- Participation in experiential learning does not vary much by school, but undeclared (mainly first-year) students participate at slightly higher-than-expected rates and undergraduate Sloan students participate at slightly lower-than-expected rates. This variation might be attributable to different rates of participation in non-MIT-affiliated internships which are not included in this analysis.
- International students participate in research at higher-than-expected rates and in art/design/making and teaching opportunities at lower-than-expected rates.

Among **graduate** students...

- Graduate students participate in experiential learning programs at much lower overall rates than undergraduate students.
- Students from schools with career-focused programs (Sloan, SA&P) participate in experiential learning at higher rates than their peers in schools with a heavier research focus (SOE, SOS).
- Men participate at lower rates than expected in all types of ELOs except innovation and entrepreneurship.
- Black or African American students participate in EL at higher-than-expected rates, while White students participate at lower-than-expected rates.

³ These data include 2021–2022 participant lists from 22 programs. Across these programs, there were 3,059 unique undergraduate participants (66% of overall population) and 571 unique graduate participants (8% of overall population).

- Students from underrepresented racial/ethnic groups participate in art/design/making, global, and teaching opportunities at higher-than-expected rates.
- International students participate in social impact and innovation opportunities at higher-than-expected rates.

Relatively lower graduate student participation rates (compared to undergraduates) may reflect challenges in need of attention, such as misconceptions about eligibility. It may also be the case that the participation rates are a natural consequence of how MIT delivers graduate education. At MIT, graduate education is typically structured with experiential learning at its core: most MIT graduate students complete substantial research projects, practica, or other experiential coursework in order to earn their degrees. These graduate student experiences, which vary by academic program, are not captured in this analysis, while comparable undergraduate experiences, delivered through programs like UROP, NEET, and D-Lab, are included. Further research is necessary to understand whether the current combination of department-specific and other ELOs is meeting the needs of graduate students.

What we want to learn

1. Why do certain groups (e.g., men) participate less overall in experiential learning? Is it due to a lack of interest, real or perceived barriers to participation, competing priorities, or some other factor or combination of factors?
2. Why do certain groups participate less in certain types of experiential learning?
3. Do graduate students feel that their experiential learning needs are being met through their academic programs? How might MIT ensure that all graduate students, regardless of program, have access to high-quality experiential learning that aligns with their goals?

What we should do now

1. Gather student perspectives on the differences in participation rates and identify opportunities for intervention as appropriate.
2. Connect and collaborate with current efforts to establish a graduate student professional development requirement at MIT to explore opportunities to better serve graduate students.
3. Consider, where sample sizes allow, separating masters and doctoral students to understand any disparities in participation rates within each of these populations.
4. Consider, where sample sizes allow, examining whether disparities in participation exist at the intersection of race and gender for undergraduate students.

Conclusion

Experiential learning offers students the invaluable opportunity to translate the theory they learn in MIT's world-class curriculum to the urgent, interdisciplinary, constantly evolving problems facing humanity. The Office of Experiential Learning believes that every MIT student, regardless of income, first-generation status, race, or gender, should have high-quality experiential learning woven throughout their MIT experience, and OEL will continue to work to make that vision a reality.

MIT's diverse landscape of experiential learning programs has produced unique and transformative opportunities for generations of MIT students, but its decentralization has made it difficult to understand which students have access to particular types of opportunities and what learning outcomes are being realized. Building this understanding will be an iterative and imperfect process, and addressing any shortcomings must balance the need to preserve programs' autonomy and uniqueness while providing resources and structures that support the needs of both students and programs.

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