



MIT UNDERGRADUATE ASSOCIATION COMMITTEE ON SUSTAINABILITY 2016 SPRING SURVEY REPORT

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VISION

MIT Undergraduate Association Committee on Sustainability aims to:

*Be a leading force in **sustainability**, spread environmental **awareness**, and inspire community **action**.*

INTRODUCTION

This is the first report conducted by the UA Sustainability committee to understand MIT undergraduates' approach to sustainability through a data-driven approach. The survey was conducted with the following goals:

- 1) Understand MIT undergraduates' behaviors with regard to sustainability
- 2) Identify areas where UA Sustainability can improve sustainability campus-wide

The survey was open to all undergraduates from March 10, 2016 to March 21, 2016 for 12 days and received a total of 428 responses.



OVERALL STATISTICS

Survey sampled ~10% of the undergraduate population

The 2016 spring survey received 428 responses, which is 9.48% of the entire MIT undergraduate student population of 4,527 students. The Class of 2019 had the highest number of submissions, and participation decreased with each older class year (Figure 1). Participation by living groups varied, ranging from 5–13% of the living group total population, with an average response rate of 10% (Figure 2).

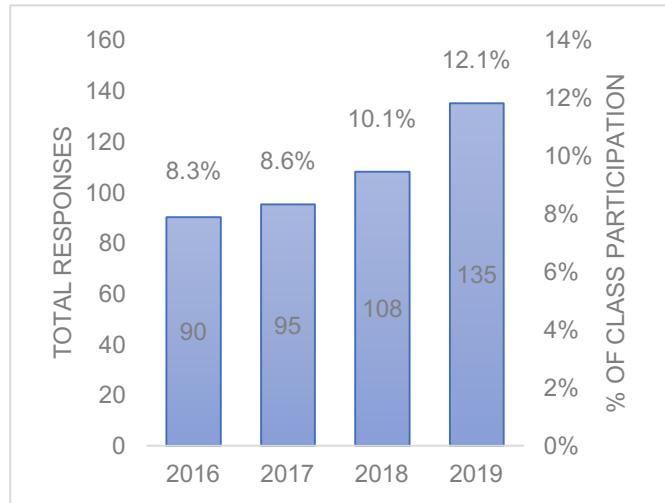


Figure 1. Survey response rate by class, from 2016–2019. 8–12% students from each class participated in the survey.

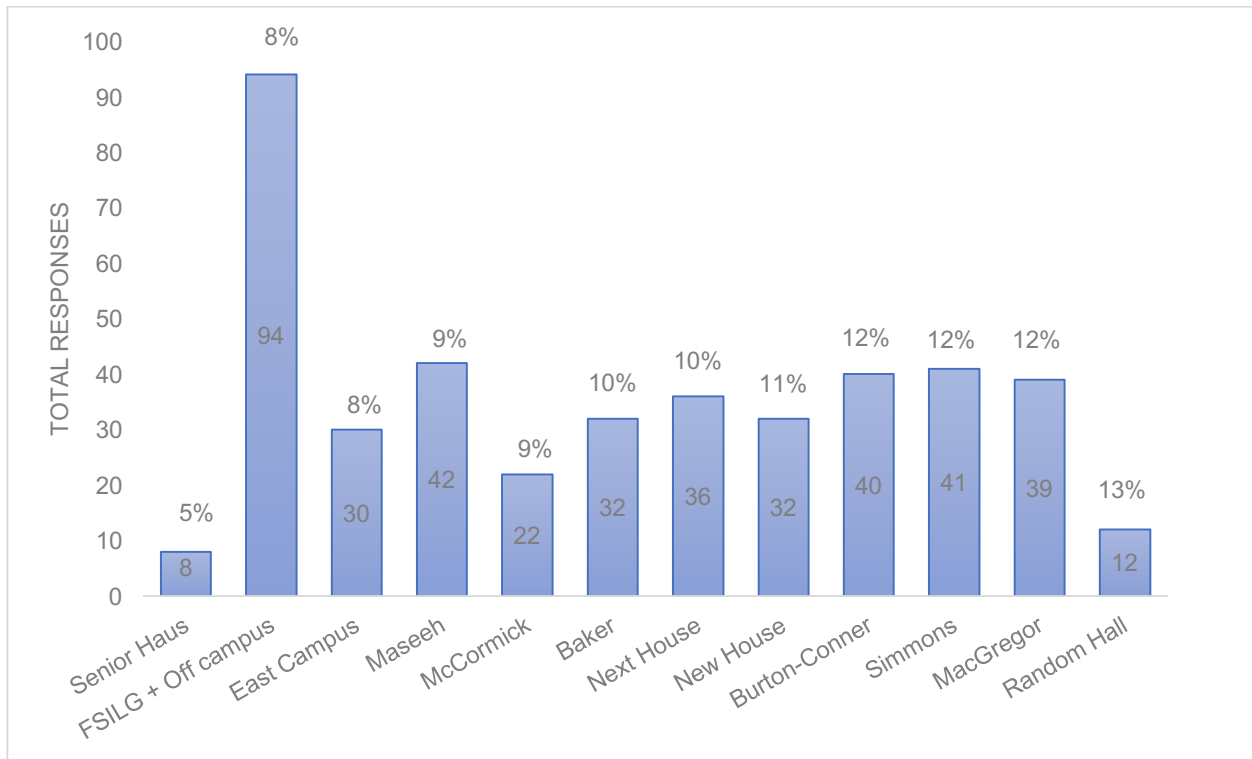


Figure 2. Survey response rate by living group. 5–13% of the residents from each living group participated in the survey.



RECYCLING: “HOW OFTEN DO YOU RECYCLE?”

A strong culture for recycling exists at MIT.

The survey asked the respondents: “How often do you recycle?”. Respondents were asked to rank their commitment to recycling on a scale of 1 – 5. Additional clarifications were provided for the scale: 1 – Never, 2 – Off & On, 3 – Only when convenient, 4 – I try to when I can, 5 – Always. More than 50% of students try to recycle when they can and almost 27% of students always recycle. A noticeable 14% of students only recycle when convenient (Figure 3).

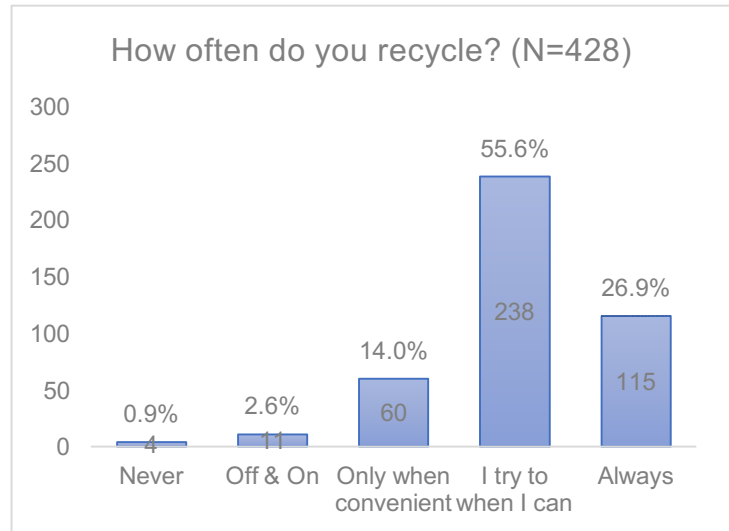


Figure 3. Survey responses to the question “How often do you recycle?”.

No major differences were observed between different classes (Figure 4). Between living groups, McCormick, FSILGs, and Baker had the lowest percentages of students who always recycle. Senior Haus, off campus, Maseeh, and Burton-Conner had the highest percentage of students who always recycle (Figure 5). Overall, MIT has a strong culture of recycling. Improved signage and continued education in dorms with low participation can help build awareness and encourage recycling.

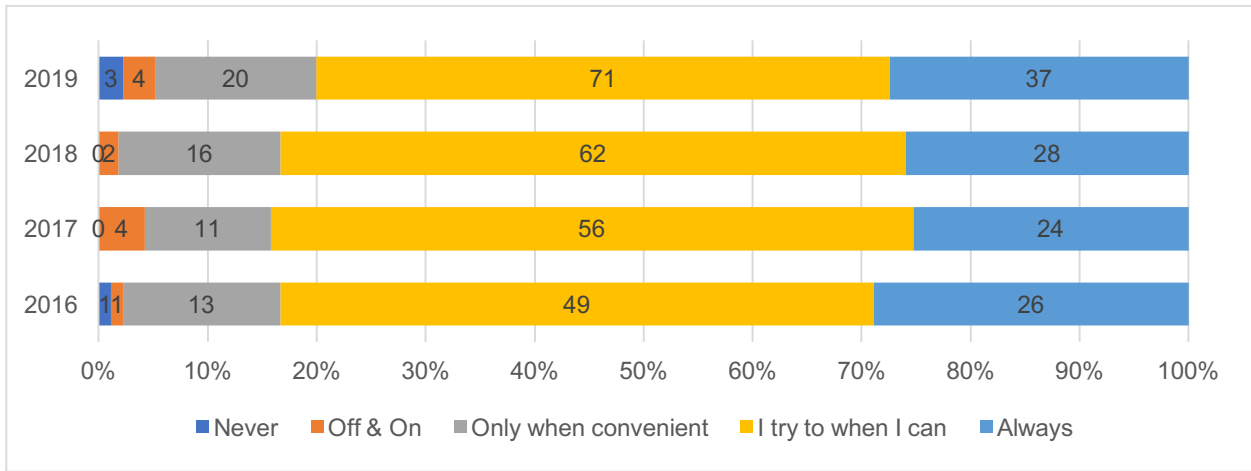


Figure 4. Survey responses to "How often do you recycle?" by class, from 2016–2019.

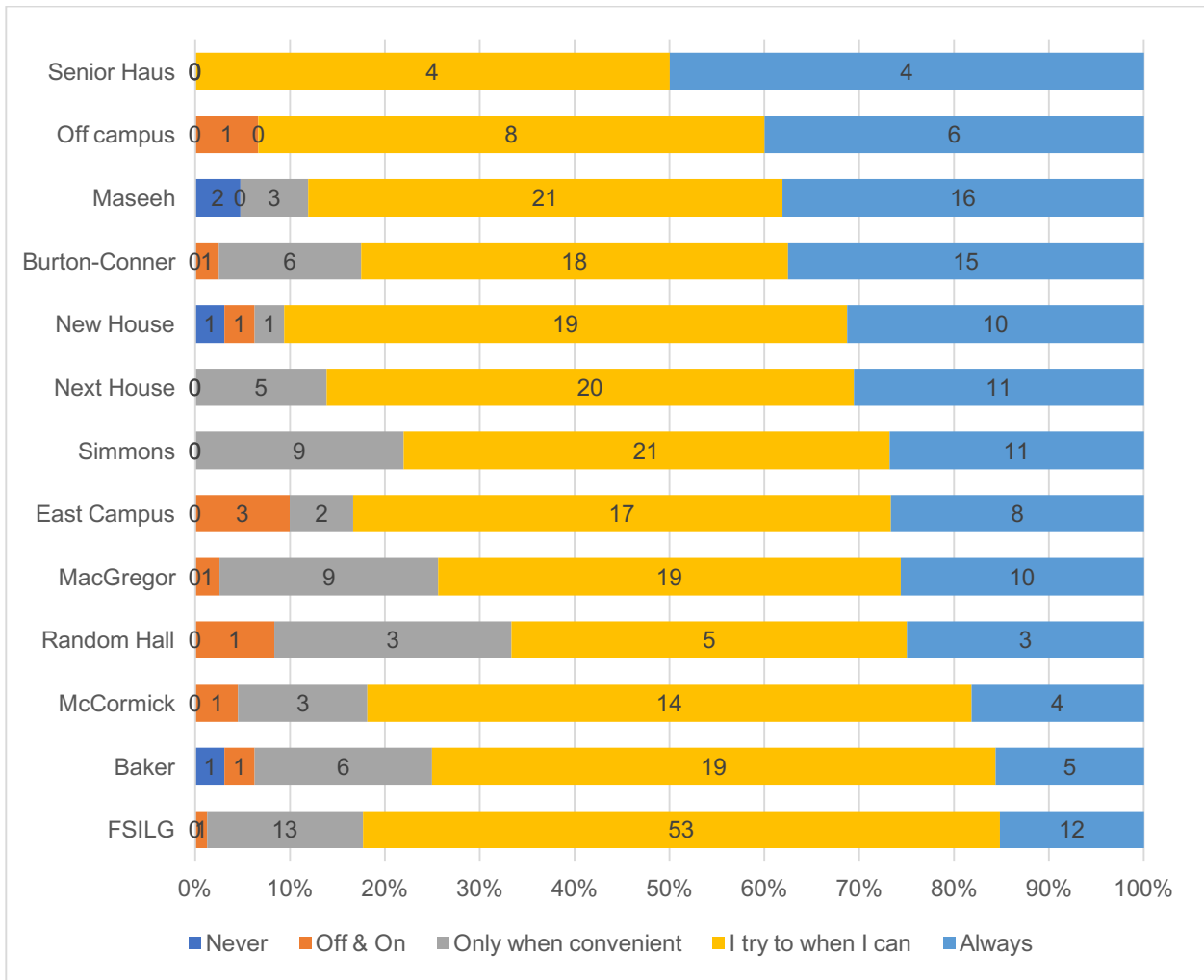


Figure 5. Survey responses to "How often do you recycle" by living group, sorted by highest percentage of response in "Always".



COMPOSTING: “HOW OFTEN DO YOU COMPOST?”

The composting culture is lacking, and highly influenced by convenience.

The survey asked the respondents: “How often do you compost?”. Respondents were asked to rank their commitment to recycling on a scale of 1 – 5. The scale was described as: 1 – Never, 2 – Off & On, 3 – Only when convenient, 4 – I try to when I can, 5 – Always. At the time the survey was conducted, composting facilities that serve MIT still collected compostable dishware in addition to food waste. In the summer of 2016, the composting facilities changed policies to only accept food waste. Almost 20% of the

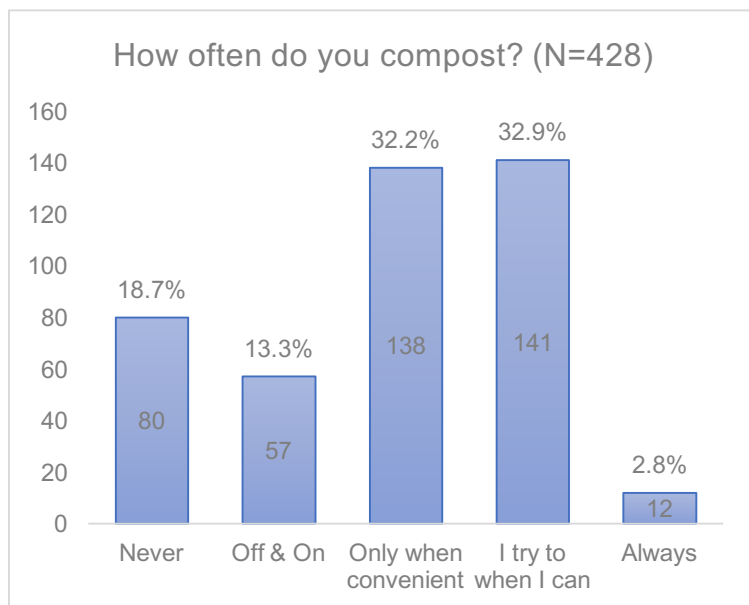


Figure 6. Survey responses to the question “How often do you compost?”

student population never compost and less than 3% of the student population commit to always composting (Figure 6). There is no significant difference between classes, though the class of 2018 seems to have a small lead in the number of students who try to compost when they can (Figure 7). Among the dining dorms, Simmons and Next House have the strongest composting culture, followed by Maseeh, McCormick, and Baker (Figure 8). Dorm culture through either dorm-based sustainability student groups, as found at Next House, or spreading information with signage or emails, could have significantly effected these results.

Convenience is an important factor in whether or not students compost. With the 2016 policy change that simplified composting rules, it will be interesting to evaluate how composting behavior changes.

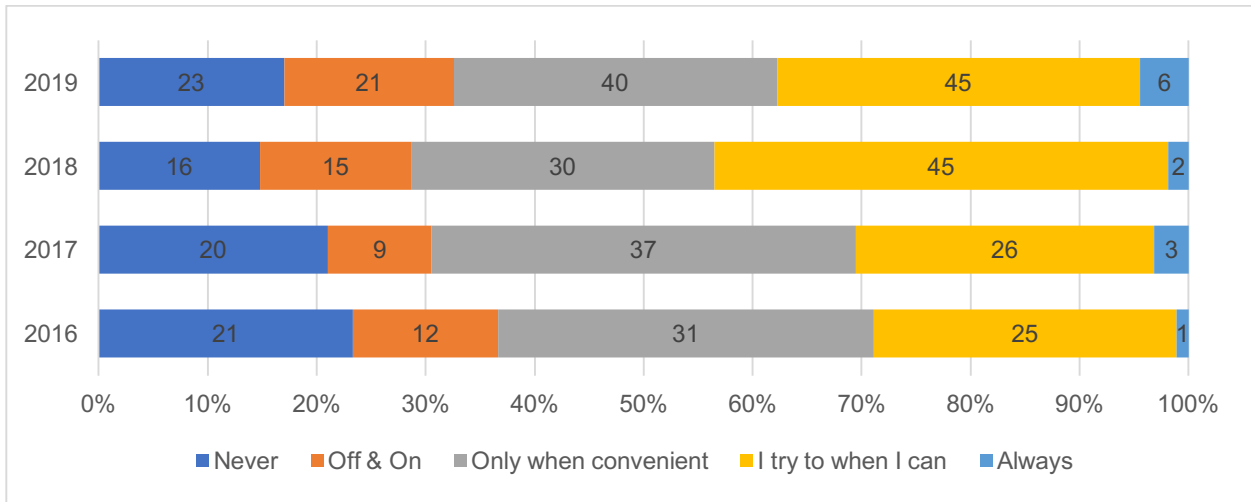


Figure 7. Survey responses to "How often do you compost?" by class, from 2016–2019.

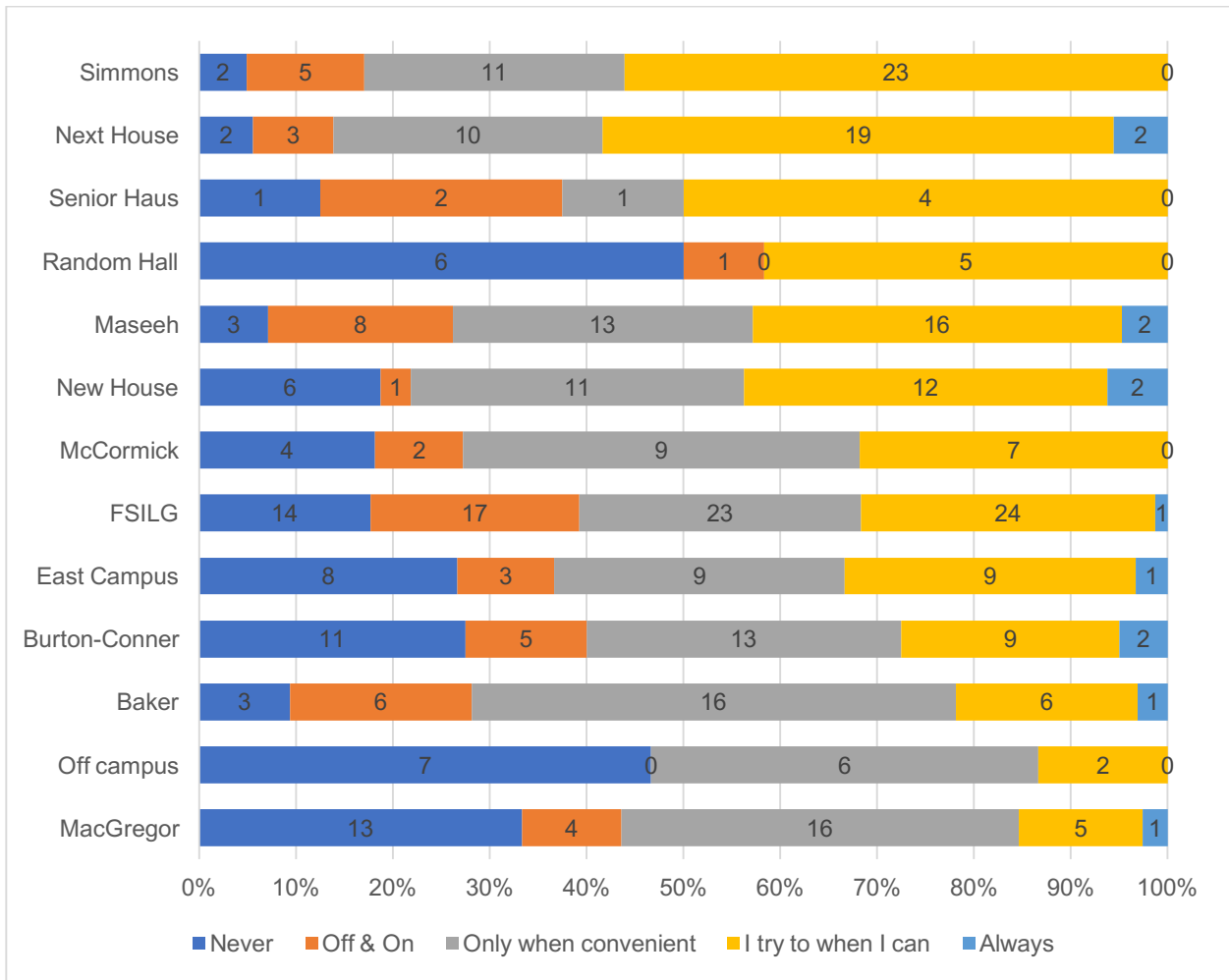


Figure 8. Survey responses to "How often do you compost" by living group, sorted by highest percentage in "I try to when I can".



RECYCLING VS. COMPOSTING

Students are more aware of and participate more in recycling than composting.

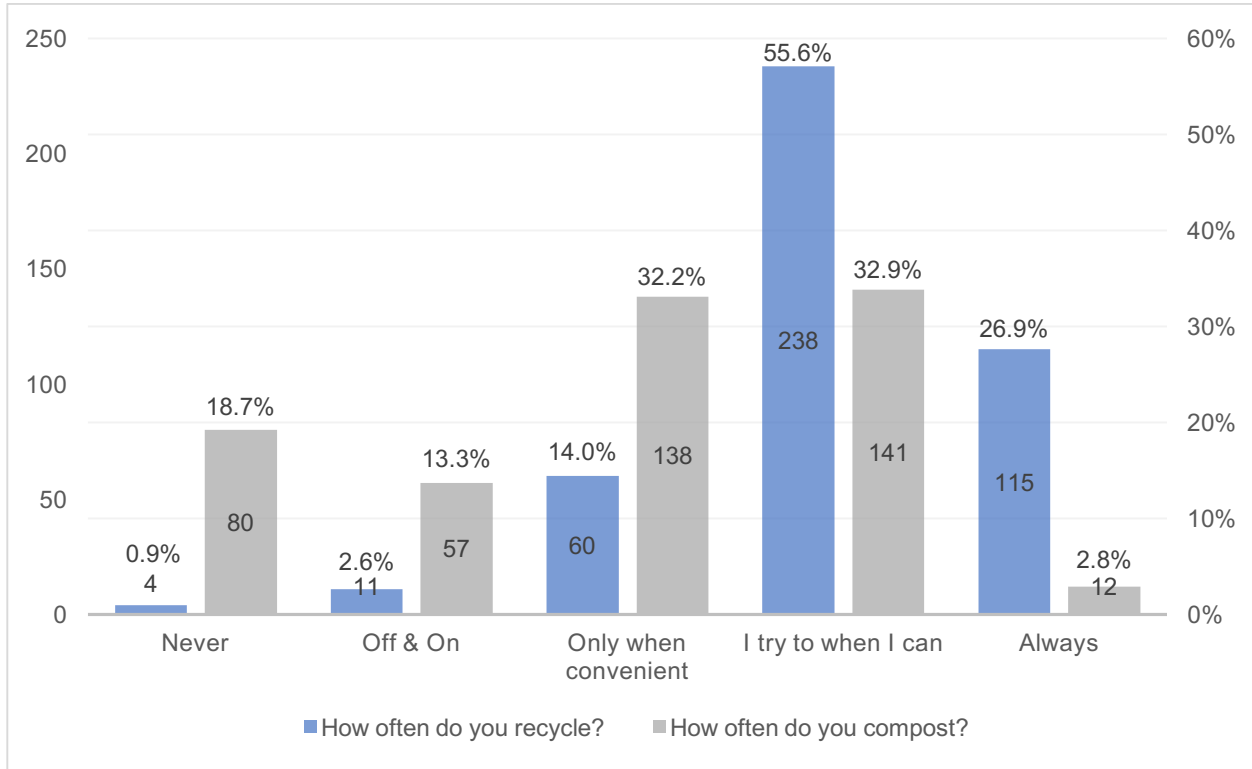


Figure 9. Comparison between student participation in recycling versus composting.

Participation in composting pales compares to recycling. The number of students who evaluated their recycling behavior as 4 or 5 doubles that for recycling (Figure 9). Improved and continued education on campus is necessary to improve awareness of composting, especially with the new composting rules allowing only food waste. Rules of composting and recycling vary between regions depending on the specific composting and recycling facilities. Thus, it is critical that students be educated to properly navigate MIT’s waste collection system. As of spring of 2016, following the completion of this survey, MIT Recycling & Materials Management has introduced new waste bins in major locations such as the Student Center and Stata. We expect that these waste bins with clear signage will improve students’ waste management behavior.



SUSTAINABLE MENTALITY

Students perceive themselves as more sustainable compared to their peers.

To gauge students' mentality about sustainability, we asked students to evaluate the following three items:

- 1) their current personal sustainability level
- 2) their personal sustainability level prior to coming to MIT
- 3) the sustainability level of their peers

Respondents were asked to complete the following sentence: "I ___ think about my actions and the impact I have on the planet, and ___ act upon them." For peer evaluation, "I" was replaced with "they".

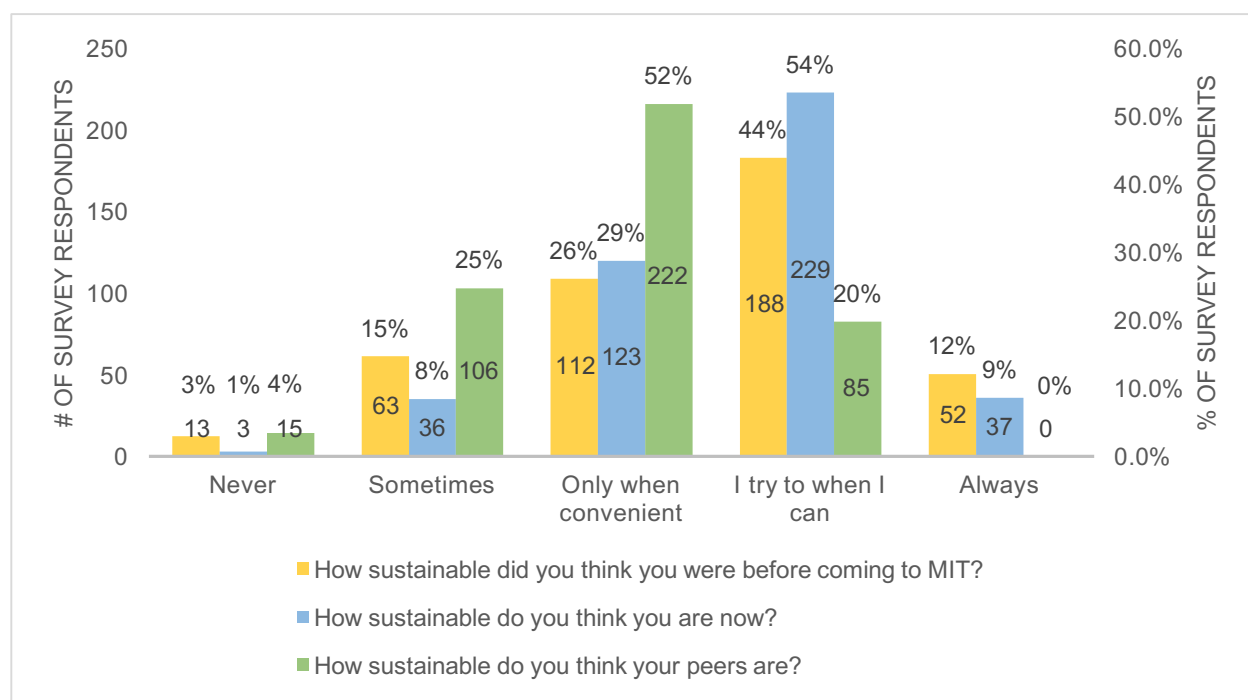


Figure 10. Evaluation of students' sustainability mentality: 1) prior to MIT 2) currently 3) evaluation of peers.

Results revealed that most students saw themselves as more sustainable than their peers. In fact, zero students selected their peers in the "Always" category. Similarly, while 54% of students gave themselves a score of "4 – I try to when I can", only 20% of people saw their peers achieving the same level of sustainability. 77% of students evaluated their peers at either level 3 – "Only when convenient" or level 2 – "Sometimes", confirming that most students think that they are more sustainable than their peers (Figure 10).



EVALUATING SELF-PERCEIVED CHANGE IN SELF-PERCEPTION

More than half of the students saw no change in their sustainability level since coming to MIT. Of the remaining students, more saw themselves as becoming sustainable.

We analyzed the change in students' self-perceived level of sustainability after coming to MIT. We determined the level of change by calculating the change for each individual, then aggregating the data for all individuals. More than 50% students did not feel that their sustainability level had changed after coming to MIT (a score of 0 in Figure 11). However, more students said they had become more sustainable (28.5%) than less sustainable (18.0%).

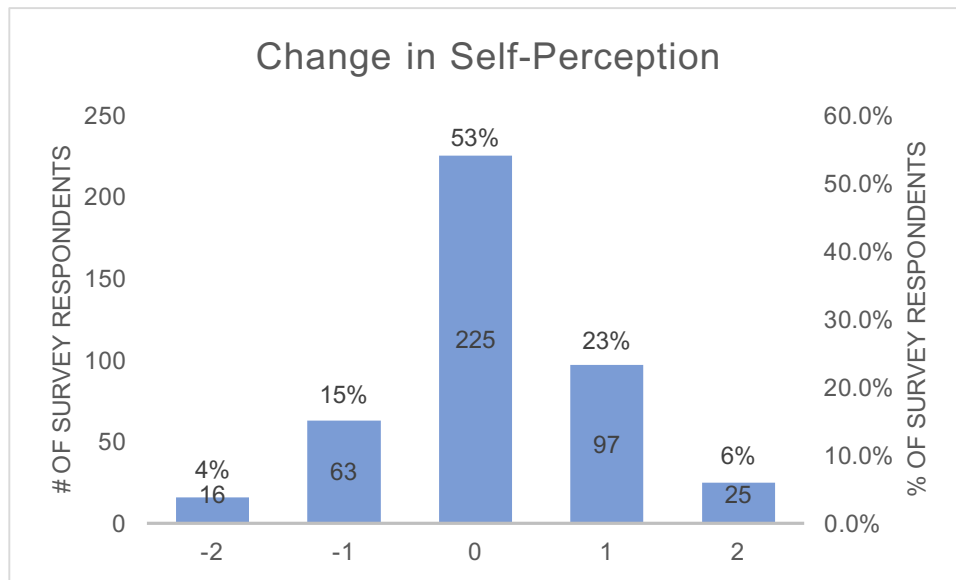


Figure 11. Comparing students' self-perception before and after coming to MIT. A positive value indicates the student sees themselves as more sustainable now than before.



EVALUATING STUDENT COMPARISON TO PEERS

Students generally see themselves as more sustainable than their peers.

We conducted an analysis comparing how each student evaluated themselves against their peers. We determined the level of change by calculating the difference between their evaluation of how sustainable they see themselves now versus how sustainable they perceive their peers.

60% of students saw themselves as more sustainable than their peers, a few finding themselves to be 3–4 times more sustainable (Figure 12). Although we have not determined why students view their peers as less sustainable than themselves, we see this a representation of MIT students' perspective on sustainability on campus. If students perceive themselves as more sustainable, this mentality may prevent students from making an effort to expand their sustainable lifestyle and adopt additional sustainable practices. This is alarming considering a significant portion of student population barely participate in recycling and composting. Of the survey responses, 17.5% and 64.2% of students ranked their participation in recycling and composting at a value of 3 or lower on a scale of 1–5 (Figure 9).

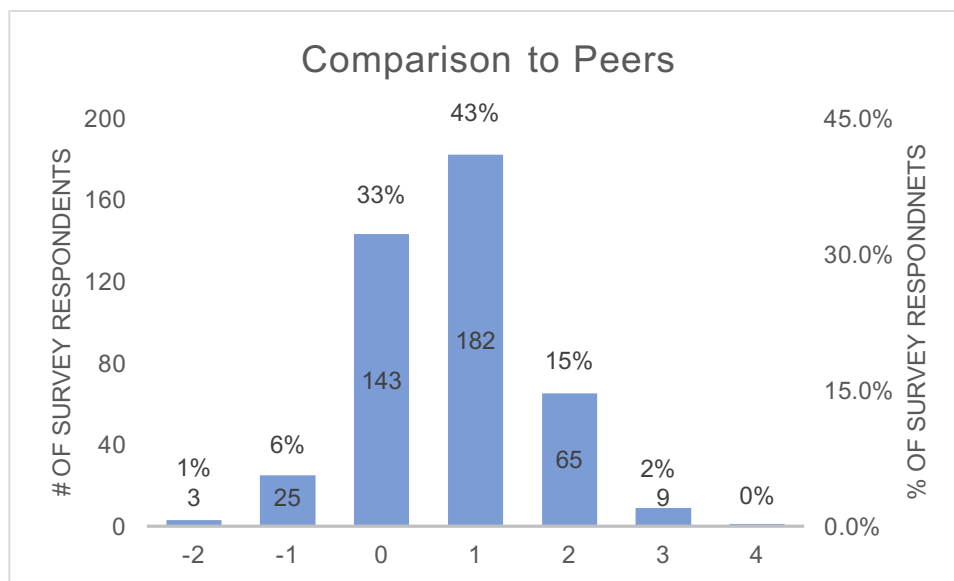


Figure 12. Comparing students' self-perception to their perception of their peers. A positive value indicates the student sees themselves as more sustainable than their peers.



CAMPUS RESOURCES

More than 80% of students are somewhat satisfied with sustainability resources on campus.

Students were asked “How satisfied are you with the sustainability resources available to you?” Less than 10% of students are very satisfied with the sustainability resources provided. There are significantly more freshmen (Class of 2019) who are satisfied with resources provided than upperclassmen (Figure 14). Off-Campus has no students who are very satisfied with the

resources provided (Figure 15). Based on the survey, the living groups that lack the most resources are New House, Off Campus, FSILGs, Senior Haus, and Random Hall (based on percentage breakdown between slightly and mostly satisfied).

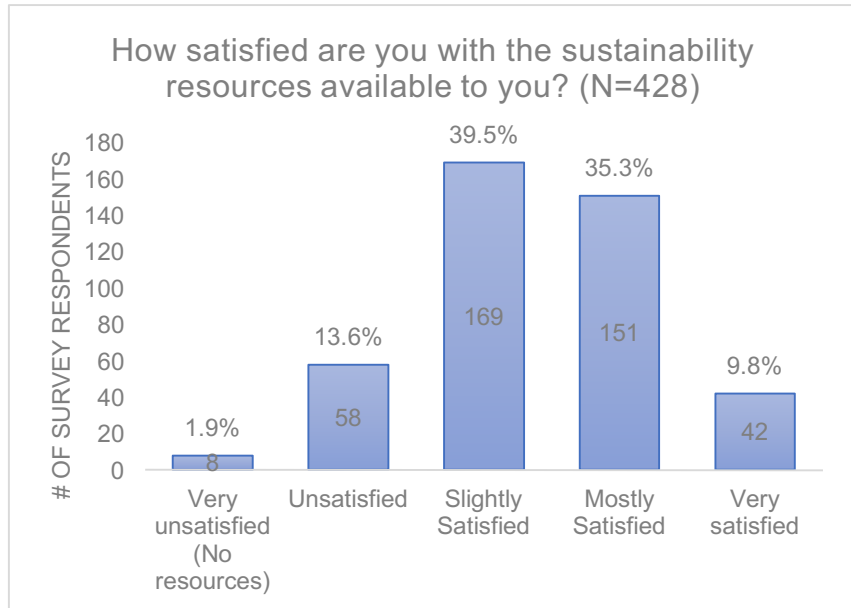


Figure 13. Survey responses on students' satisfaction with sustainability resources available to them on campus.

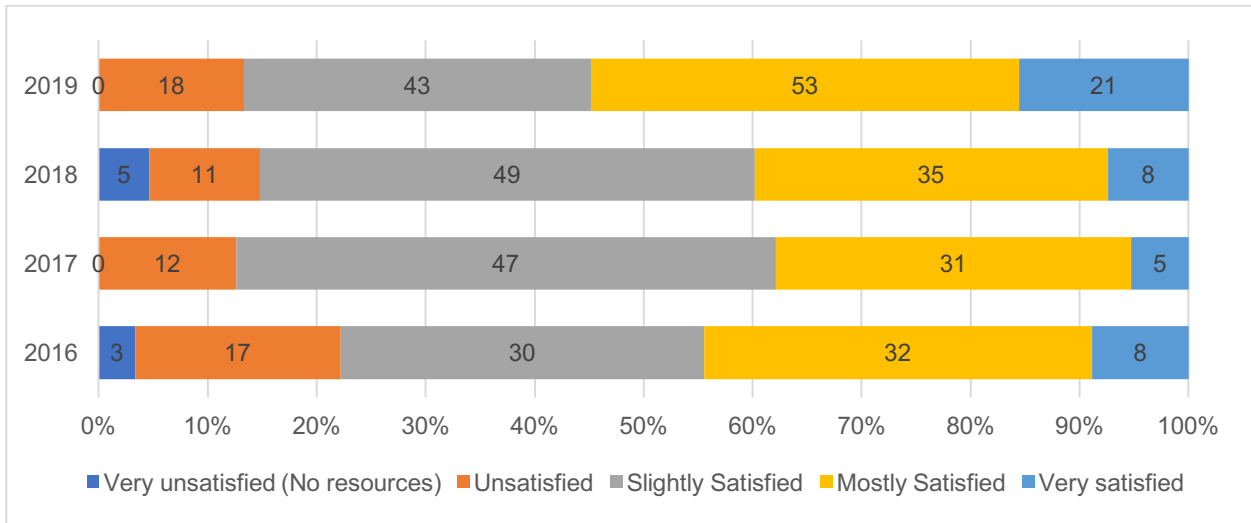


Figure 14. Survey responses on students' satisfaction with sustainability resources available to them on campus, by class.

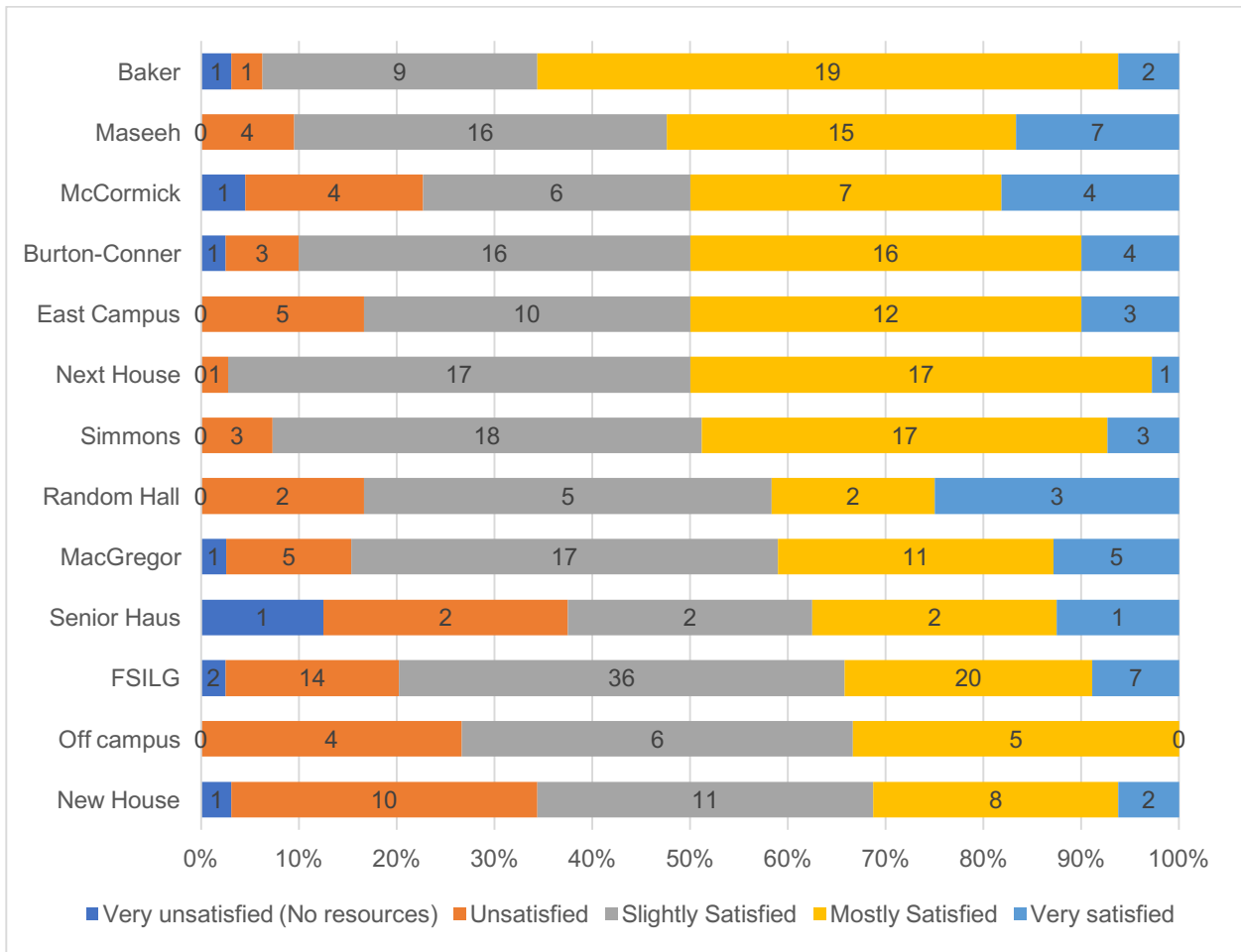


Figure 15. Survey responses on students' satisfaction with sustainability resources available to them on campus, by living group, sorted by highest percentage in "Mostly Satisfied" and "Very Satisfied" combine



STUDENT AWARENESS

Students are well-aware of UA sustainability events, but less informed of administrative offices and other programs.

To measure students' awareness of existing campus programs, participants were asked to evaluate "Which of these sustainability groups/programs/events have you heard of?" UA Sustainability events like the Trashion Show and the Dorm Electricity Competition (DEC) are well-known, while the Trash2Treasure program is less well known. However, the Trash2Treasure program is less well known. Among administrative offices and programs, students are most familiar with MITEI (67.1%). Only 37% of students are aware of the Office of Sustainability, and less than 10% of students are aware of ESI. Student groups like UA Sustainability and the administration are continually making efforts to increase awareness. Following this survey, the ESI released a survey on the future Environment and Sustainability Minor and received nearly twice as many responses compared to this study.

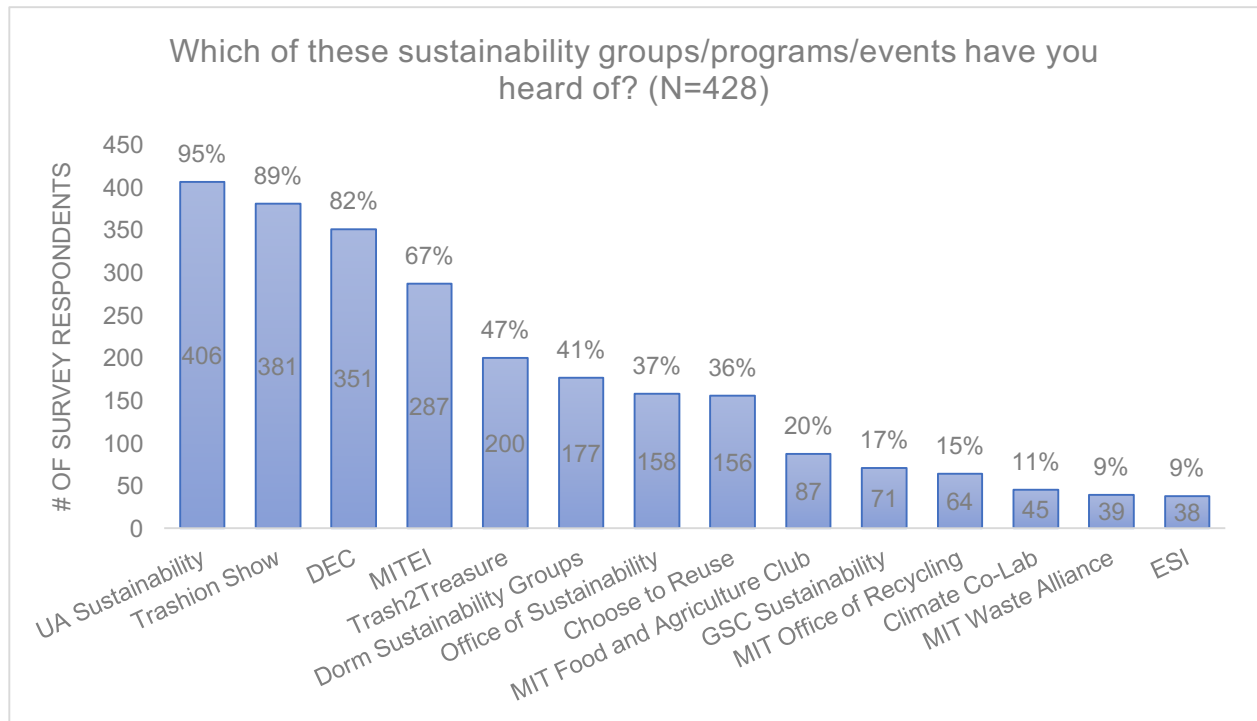


Figure 16. Survey responses on students' awareness of campus resources.



SUMMARY

This initial survey revealed several key insights:

- 1) Students participate almost twice as often in recycling compared to composting.
- 2) Half of the student population do not think MIT has had an impact on their behaviors with regard to sustainability.
- 3) Almost 20% of students think MIT has had a negative impact on their level of sustainability.
- 4) Students generally perceive themselves as more sustainable than their peers
- 5) Almost 45% of students are mostly satisfied with sustainability resources on campus.
- 6) Few students are aware of administrative offices or programs in sustainability outside of UA Sustainability. Awareness level is between 9–37%, with an exception for MITEI at 67%.

NEXT STEPS

This initial report serves as a foundation for more robust studies in the future on MIT students' awareness and engagement in sustainable behavior. Future reports should be conducted once per year at the end of the spring semester to measure improvements year to year. The term "sustainability" includes waste management, education, personal wellness, etc., and future surveys should address these areas more directly. This effort can be expanded to faculty and graduate students to develop a larger sense of understanding of the MIT community's engagement level with sustainability. Such characterization reveals the current educational gaps and sustainable initiatives' inadequacies.

MIT has great potential to be the foremost leader in sustainable efforts all levels from facilities to the undergraduate population. Increased understanding of how the MIT population acts and thinks about sustainability in all realms can lead MIT into the next generation of green-living and education.



Appendix

