MIT Undergraduate Advising

Meta-analysis of Survey Data related to advising 2012-2017

Executive Summary

By identifying trends across student satisfaction, engagement, and climate surveys administered to MIT undergraduates during the past five years, we found several clear themes. First, positive experiences with academic advising are positively related to having meaningful relationships with faculty, in a variety of settings. Second, having a positive view of MIT administrative and academic support is positively related with advising experiences. Third, higher levels of stress (specifically stress related to balancing family obligations) as well as higher levels of extra-curricular engagement are negatively associated with perceptions of academic advising. Fourth, there is a small, positive association between GPA and advising. For each one point change in GPA (e.g., moving from 4.0 to 5.0), we see nearly a 3/10ths of a standard deviation increase in the advising score. Fifth, looking across all surveys and years, with controls only for demographics, we find four significant findings related to student characteristics: Male students at MIT report slightly higher perceptions of advising than female students; Underclassmen, particularly freshmen, have higher ratings than upperclassmen; Among MIT students with a declared major, School of Science majors have higher perceptions of advising than School of Engineering majors; and living in a residence hall is associated with higher advising ratings, compared to other living arrangements. Finally, from an analysis of open-text responses to a 2012 question about what MIT could do to improve advising, the two most common suggestions were to have more knowledgeable or better-trained advisors and to have more frequent meetings and/or mandatory meetings between advisor and advisee.

Purpose

At the request of Vice Chancellor Waitz, in summer 2017 Institutional Research in the Office of the Provost performed a meta-analysis of undergraduate student surveys from the past five years in an attempt to uncover overarching themes related to student perceptions of advising and to identify factors that are associated with advising, as measured by student engagement, satisfaction, and climate surveys.

Sources of Data

We limited our analysis to only recent surveys—those conducted within the past five years. Within that group of surveys, we then focused on surveys that addressed advising directly in at least one question. The surveys included were:

- MIT Senior Survey
  - A biennial survey administered to all graduating undergraduates in conjunction with our COFHE peers. The survey focuses on satisfaction with undergraduate experience, perception of skills gained while at MIT, and goals for life after MIT. We included the 2012, 2014, and 2016 administrations of this survey.
- MIT Enrolled Student Survey
  - A survey of all undergraduates conducted every four years in conjunction with COFHE peers. This survey is a broad academic engagement survey, and asks about satisfaction with various aspects of undergraduate life, stressors, well-being, and participation in various academic and extracurricular activities. The 2015 administration was included in this analysis.
- MIT Student Quality of Life Survey
  - A survey of all undergraduates and graduate students conducted every four years. This survey is a climate survey with a broad range of topics covered including healthy practices, stress, student life, and student perceptions of campus climate for women and ethnic or sexual minorities. We included the 2013 and 2017 administrations in this analysis.

Response rates for the included surveys can be found in Table 5 in Appendix A.

Methodology

Our approach to the meta-analysis was composed of the following stages:

1. Creating a composite variable to measure quality of advising
2. Pairwise analysis of this advising quality measure with various demographics
3. Linear regression analysis to determine other survey questions that are associated with perceptions of advising quality
4. Analysis of open-text questions as they relate to advising

1. Creating an outcome variable

In order to learn more about what factors are related to students' experiences with undergraduate advising, we first needed to develop a consistent way to measure how students represent their advising experiences on our surveys.

We started by identifying variables that, on their face, appear to be associated with advising, such as satisfaction with quality of advising in major. We also identified variables that addressed attitudes toward faculty that possibly could be seen as proxies for perceptions of advising, such as satisfaction with helpfulness of faculty outside the classroom, the number of faculty who know you well enough to write a letter of recommendation, and faculty members treat me fairly. Some of the faculty-related measures that, on their face, seemed as if they were more classroom-oriented than advising related, were not considered as candidates for the advising scale.

After an initial list of pertinent advising/faculty questions were identified on each survey, we then used Principal Components Analysis (PCA) in order to test how students' patterns of responses to the different items correlate, and thereby test their suitability to be combined into a single scale. In general, the PCA separated the items into two different factors: the questions that were directly related to advising, and questions that seemed more about relationships with faculty outside the classroom, not directly related to advising. The two groups of questions are indeed positively correlated, but the underlying structure suggests the responses do not justify combining all the questions into a single "advising" scale.

The variables that were selected using PCA were then subjected to a reliability analysis to determine if there were any individual scale items that weakened the scales. The resulting variables for each survey were then combined using PCA, resulting in a standardized scale with a mean of 0 and a standard deviation of 1. Descriptive statistics and the components of the three scales, one for each survey, can be found in Table 1 in Appendix A.

2. Pairwise analysis of advising scale with demographics – MIT and Peers

Our first pass of analysis involved doing simple comparisons of means (*t*-tests) for the scales for each survey by various demographic groupings. The demographics we used were student year, gender, URM status, international student yes/no, School of major, Department of major, and residence hall yes/no. For the two COFHE surveys, where we have peer data, we also made these comparisons using peer data to see how MIT compares to peers and if any demographic differences observed in the MIT data were also seen at peer institutions. The two COFHE peer groups we used are Ivy League schools and other research universities. The results of these analyses are described further in the Results section below.

3. Regression analysis with advising scale as outcome

For the regressions, we aimed to maximize the statistical power of our models. Since survey data is not very precise, and there is commonly little variation in the data due to the categorical nature of the questions and such phenomena as agreement bias, the higher our statistical power the less likely we were to miss differences that exist or to over-emphasize differences that appear due to chance.

To that end, for the surveys that had more than one administration we pooled the responses from the multiple administrations (3 for Senior and 2 for Student Quality of Life) together in order to have more observations for the model.

Another strategy to maximize observations was to exclude any variables that were seen only by some respondents due to survey logic (e.g. questions only asked of freshmen) or randomization. For surveys that had more than one administration, we only included variables that were asked on all years and in essentially the same format every year.

For questions that did not have scales that could be treated as ordinal or continuous, we recoded them into 0/1 indicator variables. For example, the scale 1 = "Done," 2 = "Plan to do," 3 = "Do not plan to do," 4 = "Have not decided" became 1 = "Done" else 0).

Then, to create our model, we used an approach called stepwise regression, whereby all the candidate variables are dumped into the model, and one by one they are removed if they are not significantly associated with the outcome after controlling for the other predictors and the demographic controls: year of survey (where applicable), year of student (where applicable), gender, ethnicity (URM yes/no), citizenship (international yes/no), school of major, and whether or not the student lives in a residence hall. These controls were not subject to the stepwise inclusion/exclusion algorithm and remained in all models. For our three regressions, the process converged after 14 to 22 iterations.

The results of the regression analysis are discussed fully in the Results section.

4. Analysis of open-text questions

For the surveys in our analysis, we took two approaches. First, on the 2012 Senior Survey there was one open-text question that specifically asked about advising: "Please tell us, in a few words, what MIT could do to improve the quality of academic advising." For that question, the responses were read individually, tagged by topic, and then a summary of those findings was written up in a report that is included in this report as Appendix B.

The second approach was to use natural language processing and machine learning, technologies that are relatively new to our office. In the course of working on this project, we

have developed tools for more computational approaches to analyzing open-text responses to surveys. To facilitate this process, we identified 10 open-ended questions across these surveys (including the aforementioned question from Senior 2012) that could reasonably be expected to elicit responses about advising. However, except for that one question on Senior 2012, none of them explicitly mention advising. A full list of the questions used for analysis can be found in Appendix A, Table 6.

The first step was to take the responses and identify key terms related to the topic of interest (advising) and their synonyms and how the frequency of those terms may differ by question and by demographics of the respondents. Second, we wanted to see if the way that students feel about advising (from the outcome variables identified in part 1 of the Methodology section) have a relationship with the way that they talk about advising, such as whether their comments about advising are positive or negative, or the frequency of advising-related terms varies between those with a positive perception of advising and those with a negative perception of advising.

Ideintifying the sentiment (positive comments as opposed to negative comments) involved training a classifier (a form of machine learning) using movie reviews, twitter messages, and other bodies of publicly available text.

Results

Pair-wise comparisons by demographics

As described in the Methodology section, for each of our surveys we performed comparisons of means (*t*-tests) for our advising scale variable across a variety of demographics, including student year, gender, URM status, international status, school of major, department of major, and residence category.

As this is a meta-analysis, we then looked at which differences were consistent across the three surveys. One consistent finding was that students who lived in residence halls had significantly higher perceptions of their academic advising than did students who lived in other types of living communities. This held true across all three MIT surveys. Another consistent finding was that freshmen had a more positive perception of advising than did upperclassmen, which was demonstrated on both of the surveys (ESS and SQL) where freshmen were included. Less consistent, but still occurring in two out of the three surveys were that men had a higher perception of advising than women (ESS and SQL), and that the School of Engineering had a lower perception of advising than did other students (SOE lower than SHASS for Senior; and SOE lower than SOS for ESS). The latter finding could be the result of EECS and Mechanical Engineering, which both have a high student-to-faculty ratio and a low average perception of advising, being the largest part of the School of Engineering. In only one of our analyses was there a

difference by citizenship (Senior), with international students rating advising higher than domestic students. In one analysis (ESS), URM was higher than Non-URM.

In order to see how these findings compare to data from COFHE university peers, we performed similar comparisons with the peer data for the two surveys for which we have peer data (ESS and Senior). In both of those surveys, MIT had a significantly lower perception of advising than did our two COFHE peer groups. Among COFHE peers, Ivy-league schools were lower than non-Ivy Universities on both surveys. There were no gender or URM differences in the COFHE peer data, but students majoring in fields broadly defined as Engineering and Applied Sciences had lower perceptions of advising than did other students, consistent with the finding at MIT in 2 out of 3 surveys. At our peer schools, international students rated advising higher than domestic students, similar to our Senior Survey findings.

At this stage in the analysis, we thought one big takeaway would be that living in a residence hall was associated with a better perception of advising. However, as will be seen in the discussion of the regression results, this finding does not persist when we control for multiple demographics at once, and appears to be related to the fact that all freshmen live in residence halls and freshmen have a better perception of advising than do upperclassmen. Furthermore, we did not have much statistical power to detect differences in smaller living units such as floor or wing.

Another trend that we saw from this more descriptive portion of the analysis was that, in surveys where multiple class years of students were invited (ESS and SQL) that the perception of advising followed a pattern that we have seen when looking at stress across class years. Freshmen are the least stressed, and stress peaks in Junior year, with a slight rebound in Senior year. The perception of advising scale had a similar pattern, with satisfaction with advising decreasing until Junior year, with a slight rebound in Senior year. The regression results will further elucidate the relationship between stress and advising, although we do not know whether the relationship is causal or, if causal, in what direction the arrow of causality points.

Regression Analysis

Our regression models (which are detailed in Tables 2, 3, and 4 in Appendix A), had two sets of predictors: demographics that we actively kept in each model and other survey variables that were included or excluded algorithmically based upon statistical significance. These regression models are unique to survey, given different questions were asked on different surveys.

We had an opportunity, however, to examine all surveys, all years combined, using a demographics only model. In this model, we had several significant findings related to student characteristics: Male students at MIT reported slightly higher perceptions of advising than female students; Underclassmen, particularly freshmen, had higher ratings than upperclassmen; Among MIT students with a declared major, School of Science majors had higher perceptions of advising than School of Engineering majors; and living in a residence hall was associated with higher advising ratings, compared to other living

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arrangements. Finally, we found a small, positive association between GPA and advising. For each one point change in GPA (e.g., moving from 4.0 to 5.0), we see nearly a 3/10ths of a standard deviation increase in the advising score.

In contrast, the demographic controls were not significant, with a few exceptions, when the other significant survey variables were included in the model; none of the demographics were consistently significant predictors of the advising outcome on more than one survey.

One consistent finding from the regression analysis was that survey questions that ask about personal relationships with faculty (e.g. "Faculty members care about me as a person (Agree-Disagree)," "How many faculty know you well enough to write you a letter of recommendation," "Faculty members treat me fairly (Agree-Disagree)," and "Out-of-class availability of faculty (Satisfaction)" are positively associated with ratings of academic advising. Many of these variables were considered as candidates for our scale outcome, but were eliminated by PCA as not being related strongly enough to the core advising questions. Despite that, the correlation among the variables mean that students who say that they have a positive perception of advising are also more likely to report that they are treated well by faculty and that they have meaningful relationships with faculty. This finding is not surprising, as a positive experience with an advisor would probably translate into a positive experience with a faculty member in general. Beyond that simple connection, the positive association between the number of faculty who can write the student a letter of recommendation indicates that advising might be distributed across more than one faculty member, as students who report more "letter-writers" have a higher rating of their academic advising experiences.

Another consistent area of correspondence between advising and other survey topics is on perceptions of academic and administrative support. Some example questions are "Help with academic work is available to me (Agree-Disagree)," "Availability of academic support and assistance (Satisfaction)", and "MIT provides the support I need to help me succeed outside of my academic life (Agree-Disagree)." These questions appear to capture the more administrative component of advising, whereas the previous group of questions captured the faculty component. Similarly, students who have a positive perception of advising are more likely to have a positive perception of MIT administrative services in general. They are more likely to say that they are satisfied with the MIT administration's responsiveness to student concerns, agree that MIT does a good job informing students about available sources of support, agree that they can generally find the information they need about MIT policies and procedures, and even be more satisfied with library facilities.

Students who have many demands on their time, specifically demands outside of what they see as "academic," are less likely to report a positive perception of advising. On the Student Quality of Life survey, this theme was demonstrated through a positive relationship between advising and the statements "MIT provides the support I need to help me succeed outside of my academic life," and "My major/program is a place where students may comfortably bring up personal and/or family responsibilities." This correlation between advising and a need to balance personal or family responsibilities also shows up in a negative relationship between advising and "Family obligations" as a source of stress – the more extensive the stress of family obligations, the lower the advising outcome.

On the Enrolled Student Survey, which focuses less on stress but more on participation in various extra-curricular activities, students who participated in some extracurricular activities were more likely to have lower scores on the advising outcome. Examples of these activities include study abroad, being politically active beyond voting, and being involved in community-based service. Some of the questions on the ESS asked students about their preferred level of participation in various aspects of college life. Those who worked for pay more than they would have liked had lower ratings of advising, further filling in the picture of a student who may be stressed by multiple demands on their time—perhaps from family or concerns over money—and does not feel like they are getting the advising that they need.

The last theme that arose from these regressions is that students who may be interested in certain educational, career, or life paths may have different perceptions of advising. From the Senior Survey, students were asked to rate the importance of various long-term goals to them. Those who placed more importance on living or working abroad, being a leader, and raising a family had lower values for the advising scale. Students who reported higher levels of skill development in writing and appreciation of art and literature also reported higher ratings on advising. On the other hand, from the ESS, developing critical thinking skills was negatively associated with advising.

In summary, it is important to note that these analyses do not provide any indication of cause and effect. The themes that we discuss above are more likely to be different facets of a student's experience than they are to be reasons that advising is good or poor. Stress could cause a student to have a less positive outlook on their relationship with MIT, which makes them less likely to say that they have received adequate advising. On the other hand, perhaps poor advising causes the student to be stressed because they don't have someone to help them balance their academic and extra-curricular activities. Unfortunately, hypotheses of this nature aren't provable with survey data.

Open-text analysis

The most substantial findings in our open-text analysis came from analyzing responses from a question on the 2012 Senior Survey that explicitly asked students what MIT could do to improve advising. The top takeaways from this analysis was that students want advisors, specifically freshman advisors, to have better training and knowledge about curricular requirements. The two most-frequently-cited issues after advisor familiarity with requirements was to have more frequent mandated meetings between advisor and advisee and to have better matching between the interests of students and the research interests of their faculty advisors. More analysis and example comments are included in Appendix B.

As described in more detail in the Methodology section, we have been working on machine-learning tools for analysis of open-text comments. This is a new and exciting area for Institutional Research and it has a lot of promise to help us utilize formerly-untapped sources of information in the open-text responses of our surveys. While we had hoped that the tools would be mature enough for us to include some nuanced analyses from them in this report, we are still working to train them to be sophisticated

enough to extract meaningful insights. To date, we have not generated any useful results from this analysis and are still spending a significant amount of time validating the machine-learning algorithm as it tries to understand the comments from the surveys. If we reach a point where this ongoing analysis of the open-ended questions on the surveys we have examined yields insights about advising at MIT, we will issue a supplement to this report.

Appendix A: Tables

Table 1. Advising Scale and component variables

Survey	# of Items	Items	Mean	Median	SD	Range	Min	Max	N
ESS (2015)	4	1. Satisfaction - Academic Advising 2. Occurrence & Helpfulness - During the current academic year, have you sought advice from your academic advisor(s)? 3. Agreement - Faculty members are willing to talk with me individually 4. Agreement - I can talk with my academic advisor(s) when I need to	0.000	0.096	1.000	5.151	-3.24	1.908	2,656
Senior (2012, 2014, 2016)	3	1. Satisfaction - Quality of advising 2. Satisfaction - Helpfulness of faculty outside the classroom 3. Satisfaction - Academic advising before declaring a major	0.000	0.155	1.000	5.027	-3.19	1.830	1,602
SQL (2013, 2017)	3	1. Agreement - My advisor(s) seems to care about me as a person 2. Source of stress - Relationship with advisor(s) 3. Campus climate - Hindering of student/faculty interaction (1) Facilitating of student/faculty interaction (6)	0.000	0.274	1.000	5.590	-4.10	1.490	3,388

Table 2. Senior Survey Regression Results

Variable	Unstandardized Coefficient	Standard Error	*p*-value
Intercept	-4.405	0.188	0.000
Year = 2012 *(reference = 2016)*	-0.072	0.053	0.172
Year = 2014 *(reference = 2016)*	-0.045	0.053	0.398
Female	0.026	0.045	0.571
URM	-0.008	0.054	0.888
International	-0.020	0.078	0.796
SAP *(reference = SOE)*	-0.114	0.150	0.448
SHASS *(reference = SOE)*	0.116	0.106	0.273
SOS *(reference = SOE)*	-0.009	0.049	0.857
Sloan *(reference = SOE)*	0.141	0.139	0.310
Residence hall	0.036	0.045	0.427
Satisfaction - Out-of-class availability of faculty	0.450	0.038	0.000
Overall satisfaction with major	0.238	0.026	0.000
Satisfaction - Availability of academic support and assistance	0.206	0.034	0.000
Satisfaction - Overall quality of instruction	0.191	0.038	0.000
How many faculty members know you well enough to provide recommendation	0.061	0.016	0.000
Satisfaction - Availability of courses you wanted to take outside your major	0.093	0.031	0.003
Skill development - Critical appreciation of art, music, literature, and drama	0.049	0.023	0.031
Importance - Living or working abroad	-0.088	0.026	0.001
Satisfaction - Opportunities to participate in research with a faculty member	0.097	0.036	0.006
Skill development - Writing clearly and effectively	0.062	0.026	0.018
Importance - Being a leader in my field	-0.056	0.024	0.019
Importance - Learning about other cultures and nations	0.060	0.028	0.030
Importance - Raising a family	-0.043	0.021	0.040
R2 statistic (adjusted)	0.41		
Observations	1,376		

Parameter estimates, approximate p-values, and goodness-of-fit statistics for a fitted ordinary least-squares regression model describing the relationship between 2012-2016 Senior Survey variables and a standardized measure of undergraduate academic advising.

Table 3. Enrolled Student Survey Regression Results

Variable	Unstandardized Coefficient	Standard Error	*p*-value
Intercept	-4.265	0.202	0.000
Student year	-0.035	0.026	0.175
Female	-0.051	0.036	0.154
URM	-0.053	0.042	0.210
International	-0.018	0.062	0.775
SAP *(reference = SOE)*	-0.008	0.194	0.966
SHASS *(reference = SOE)*	0.004	0.109	0.972
SOS *(reference = SOE)*	0.011	0.047	0.816
Sloan *(reference = SOE)*	0.416	0.174	0.017
Undeclared/Unknown *(reference = SOE)*	0.027	0.064	0.667
Residence hall	0.070	0.041	0.090
Agreement - Faculty members care about me as a person	0.177	0.031	0.000
Frequency - Discussed your post-college plans with a faculty member	0.225	0.022	0.000
Agreement - Help with academic work is available to me	0.281	0.033	0.000
Is there at least one faculty member at MIT who has taken a personal interest in your success?	0.337	0.039	0.000
Agreement - Faculty members treat me fairly	0.292	0.041	0.000
Satisfaction - Administration's responsiveness to student concerns	0.091	0.021	0.000
How many faculty members know you well enough to provide a letter of recommendation?	0.074	0.017	0.000
Satisfaction - Library facilities	0.104	0.031	0.001
Have done - Have an internship	-0.108	0.041	0.008
Have done - Participate in a service or community-based learning course or program	-0.100	0.045	0.026
Frequency - Participated in hands-on activities (lab work, experiments, project-based experiences, etc.)	-0.058	0.020	0.003
Satisfaction - Opportunities for class discussion	0.090	0.031	0.004
Source of stress - Managing the workload for your courses	0.061	0.021	0.004
Agreement - I have someone in my living community with whom I can talk if something is bothering me	0.067	0.019	0.001
Agreement - Eating meals together is important to members of my living group	-0.036	0.015	0.017
Skill development - Thinking critically	-0.081	0.025	0.001
Skill development - Functioning independently, without supervision	0.058	0.022	0.008
Have done - Participate in politics beyond voting	-0.181	0.069	0.009
Have done - Study abroad	-0.116	0.050	0.020
Participate in athletics/exercise - Less than I would have liked	0.080	0.034	0.020
Work for pay - More than I would have liked	-0.154	0.072	0.032
R2 statistic (adjusted)	0.41		
Observations	2,109		

Parameter estimates, approximate p-values, and goodness-of-fit statistics for a fitted ordinary least-squares regression model describing the relationship between 2015 Enrolled Student Survey variables and a standardized measure of undergraduate academic advising.

Table 4. *Student Quality of Life Survey Regression Results*

Variable	Unstandardized Coefficient	Standard Error	*p*-value
Intercept	-1.878	0.254	0.000
Year = 2017 *(reference = 2013)*	0.043	0.059	0.459
Student year	-0.049	0.032	0.123
Female	0.069	0.054	0.203
URM	0.183	0.062	0.003
International	0.061	0.096	0.521
SAP *(reference = SOE)*	0.576	0.282	0.041
SHASS *(reference = SOE)*	-0.041	0.160	0.797
SOS *(reference = SOE)*	0.046	0.062	0.462
Sloan *(reference = SOE)*	-0.072	0.189	0.703
Undeclared/Unknown *(reference = SOE)*	0.128	0.126	0.309
Residence hall	-0.015	0.059	0.807
Agreement - Faculty members treat me fairly	0.224	0.034	0.000
Agreement - MIT provides the support I need to help me succeed outside of my academic life	0.126	0.029	0.000
Source of stress - Bias/discrimination/unfairness	-0.142	0.037	0.000
Agreement - MIT does a good job informing students about available sources of support	0.117	0.032	0.000
Agreement - My major/program is a place where students may comfortably bring up personal and/or family responsibilities	0.084	0.024	0.001
Days per week - Feel exhausted (not as a result of physical activity)	-0.061	0.015	0.000
Agreement - I can generally find the information I need about MIT policies and procedures when needed	0.107	0.031	0.001
Source of stress - Academic relationship with peers (e.g., classmates, labmates)	-0.083	0.029	0.004
Campus climate - Non-collaborative (1) Collaborative (6)	0.068	0.027	0.013
Source of stress - Family obligations	-0.080	0.030	0.008
Days per week - Get enough sleep so that you felt rested when you woke up	-0.038	0.016	0.014
Campus climate - Impersonal (1) Caring (6)	0.037	0.018	0.039
R2 statistic (adjusted)	0.33		
Observations	1,134		

Parameter estimates, approximate p-values, and goodness-of-fit statistics for a fitted ordinary least-squares regression model describing the relationship between 2013-2017 Student Quality of Life Survey variables and a standardized measure of undergraduate academic advising.

Table 5. Survey response rates

SURVEY	YEAR	RESPONSE RATE
SENIOR	2012	73%
SENIOR	2014	70%
SENIOR	2016	64%
ENROLLED STUDENT	2015	63%
STUDENT QUALITY OF LIFE	2013	56% (Undergraduate)
STUDENT QUALITY OF LIFE	2017	45% (Undergraduate)

Table 6. List of open-text questions

Senior Survey

1. Please tell us, in a few words, what MIT could do to improve the quality of academic advising. [2012]
2. MIT is looking for best practices to improve student-faculty interactions. Please describe an interaction you have had with faculty during your time at MIT that you would rate as a positive, meaningful interaction. [2014]
3. What advice would you give to students just starting out at MIT? [2014]
4. What is one thing MIT could have done to better support you during your time as an undergraduate student? [2014]
5. Please use the space below to describe the most important outcomes of your time as an undergraduate. Where possible, be specific about how MIT contributed to these accomplishments, changes or other developments. [2016]

Enrolled Student Survey

What one thing could MIT reasonably do to better support your health and wellness? [2015]

Student Quality of Life Survey

1. Please use a few words to describe the one or two most positive aspects of the current MIT environment for you. [2013, 2017]
2. Please use a few words to describe the one or two most negative aspects of the current MIT environment for you. [2013, 2017]
3. If you would like to see improvement in the climate at MIT, what remedies or strategies would you suggest? [2013]
4. What one thing could MIT reasonably do to better support your health and wellness? [2013, 2017]

Appendix B: 2012 Senior Survey Advising open-text question analysis

The 2012 MIT Senior survey included the question: "Please tell us, in a few words, what MIT could do to improve the quality of academic advising." What follows is an analysis of the responses received to that question.

Advising

- 41% of students responded to this question, and their responses were read one-by-one and tagged with one or more topics. The chart below displays these topics in descending order by percent of respondents' comments mentioning each.

How can MIT Improve advising?
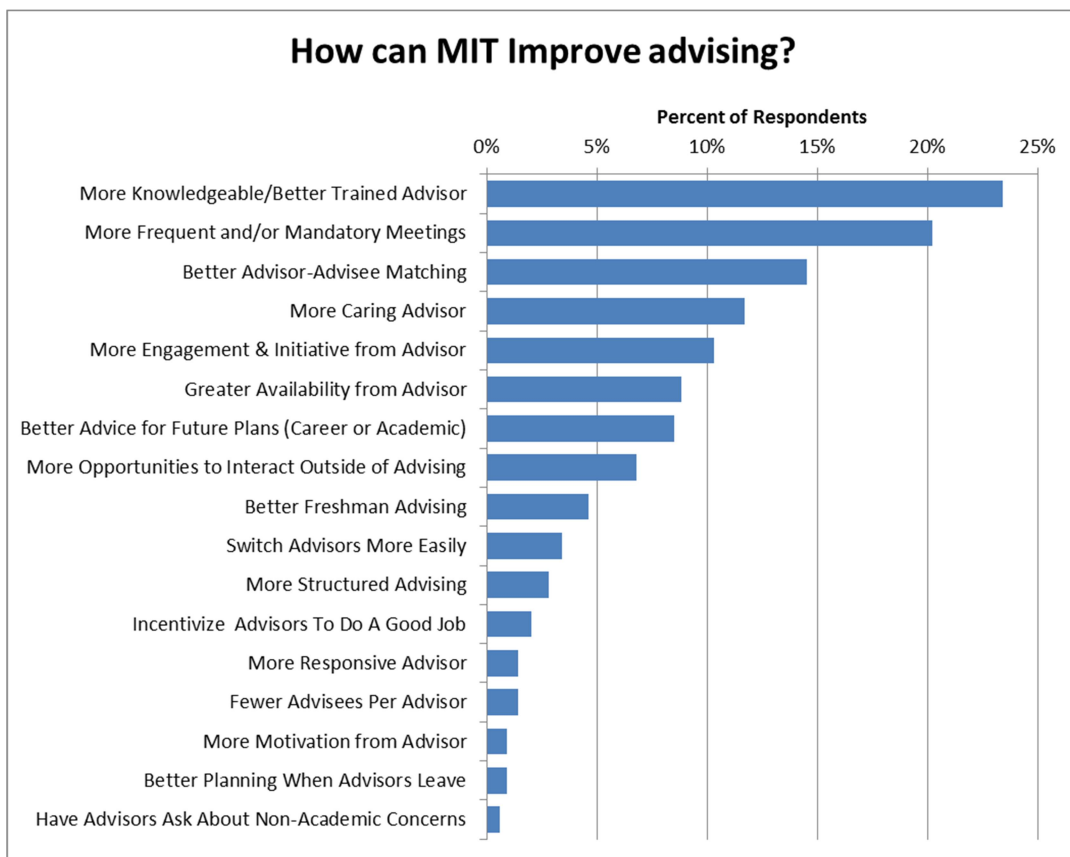
The most common suggestion was to have more knowledgeable or better-trained advisors. Some example comments on this topic:

- *More training for freshman advisors - I met mine once and he just signed the form and didn't give any advice. He was nice and meant well, but didn't know how to be an advisor. Perhaps more training on how to deal with common problems students face would be useful.*

- *Get better freshmen advisors. My advisor freshman year was not a professor and knew nothing about the classes I should be taking. There should be staff members whose sole purpose is to advise freshmen.*

- *I think many advisors are just unaware of the different requirements we have to fulfill, and some are unaware of the system for undergrads (this is something that I experienced in the first year in my department).*

The second most common suggestion was to have more frequent meetings and/or mandatory meetings. Some examples:

- *Recommend scheduled visits throughout the semester for students and their advisers so that they can discuss things outside of what classes to register for. Maybe even create a general checklist of things advisers should check in on with their advisees (such as job search/future plans/ how things are going at home/how things are going on campus/career plans/ interest/ etc).*

- *Advisors see you twice a year unless you have problems, this simply isn't enough if they are expected to do more than sign your registration.*

- *Have mandatory advisor-advisee dinner/lunch.*

- *Make more mandatory meetings between advisor and advisee, especially in earlier years, so we are essentially forced to get to know each other.*

The third most common suggestion was to have better matching of advisors and advisees. Some examples:

- *Provide easier access to professors who work in the sub-field as the student in an official capacity. Currently we get one departmental advisor - and if they have a totally different sub-specialty - they are still our advisor for three years. It would make more sense to either match advisors to the students sub-field - or to allow/demand that the student consult with such applicable professors before picking classes/summer opportunities.*

- *The first year advising experience could be significantly improved, in my opinion. By doing seminar-based advising, I was automatically assigned to an advisor in course [redacted], which was not my interest, even though I had chosen that seminar because it sounded interesting. It might be a good idea to not assign advisors solely based on choice of seminar, because I found this to be very detrimental to my first year and made my eventual choice of major much harder.*

- *Tell the students to do more research in advisors, provide student reviews similar to course evaluations*

Other suggestions included having more structured advising, to encourage more engagement and initiative on the part of the advisor, to encourage advisors to be more caring, more motivated, and more responsive. Advisor availability as well as advisors having too many advisees were mentioned as areas for improvement. Some students suggested that incentives be provided for advisors to do a good job.

The comments displayed above were edited to remove any identifying characteristics and to remove typographical errors in order to improve readability.