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ABSTRACT

This report describes what has been learned from three surveys about undergraduate academic dishonesty at Massachusetts Institute of Technology (MIT). The surveys involved 891 undergraduates, approximately 490 faculty, and 481 graduate teaching assistants. Cheating was examined as a literal reality rather than as an abstract concept. Undergraduates were asked about their own behavior and the behavior of other students and for their assessment of whether particular acts constitute cheating. They were also asked about reasons for cheating and ways that it might be mitigated. In separate surveys, faculty and graduate teaching assistants were asked similar questions about their attitudes toward and experiences with undergraduate cheating. Based on the study's results, the report presents observations and conclusions concerning collaboration efforts between undergraduates and faculty; communication between lecturers and recitation instructors; student workload; support for students in difficulty and at critical times; the reuse of exams, problem sets, or other assignments; the publicizing of punishment and keeping records on repeat offenders; and the issue of ethical values. Appendices provide composition sketches of survey respondents and a sample questionnaire. (GLR)

Undergraduate Academic Dishonesty at MIT

Results of a Study of Attitudes and Behavior of Undergraduates, Faculty, and Graduate Teaching Assistants

A REPORT TO THE MIT COMMUNITY

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PART I: INTRODUCTION

This report describes what has been learned from three surveys about undergraduate academic dishonesty at MIT: surveys of undergraduates, faculty, and graduate teaching assistants. Cheating was examined as a literal reality, rather than as an abstract concept. Undergraduates were asked about their own behavior and the behavior of other students, and for their assessment of whether particular acts constitute cheating. They were also asked about reasons for cheating and ways that it might be mitigated. In separate surveys, faculty and graduate teaching assistants were asked similar questions about their attitudes toward and experiences with undergraduate cheating. The three perspectives reveal a complex of thoughts and actions usually unseen and unspoken. The results have pedagogical implications and contain important messages about values held within the MIT culture.

Background

In spring 1990, 78 of the 250 undergraduates taking subject 1.00, Introduction to Computers and Engineering Problem Solving, were found to have cheated on homework problem sets. The students were sanctioned by the Committee on Discipline (COD) after hearings were held during the fall 1990 semester. Many of the comments students made at the hearings were unsettling to the Committee. Cheating in the form of unauthorized collaboration and homework copying was rampant in the class, a number of students said. They claimed that cheating was commonplace at MIT. Further, many of the students did not think what they had done was wrong. The number of students involved made this an unusually public case within MIT, where one normally hears little about incidents of academic dishonesty.

Following on this incident, the COD sent a letter to all students emphasizing the importance of academic integrity and advocating discussion of these issues within the MIT community. Dean for Undergraduate Education and Student Affairs Arthur Smith wrote to faculty in all undergraduate subjects requesting information about their guidelines for appropriate academic behavior and the manner in which these guidelines are communicated. The Undergraduate Association (UA) academic subcommittee held a series of meetings about ways to reduce academic dishonesty. Among the possible remedies discussed were implementation of an honor system and the use of student recitation representatives to give faculty feedback about workload issues. A national conference on academic integrity at Rutgers University scheduled during this time provided an opportunity for the several MIT undergraduates and administrators who attended to compare MIT's experiences with those of many other colleges and universities.

For many in the MIT community, the subject 1.00 incident was evidence of a lack of clarity about academic honesty. The time seemed ripe for a community-wide discussion. In early spring of 1992, with encouragement from the President and the Provost, a committee of faculty, students, and administrators, co-chaired by COD chair Nelson Kiang and Undergraduate Academic Affairs head Travis Merritt, convened to develop plans for an MIT Colloquium on academic dishonesty. The Colloquium Committee, recognizing the value of having solid data on the actual extent and nature of cheating, asked a research subcommittee to undertake a study. The Committee suggested that the study examine the perspectives of faculty and graduate teaching assistants as well as those of students. The survey was mailed to undergraduates in mid-April. Faculty and graduate teaching assistants received their questionnaires during the summer and the following fall. Preliminary results were published in a special insert in *The Tech* and furnished to Colloquium participants and the audience on the day of the Colloquium's "kick-off" event in the fall.

The opening Colloquium session, entitled "Success and/or Honesty: In Here, Out There," was held in Kresge Auditorium on October 21, 1992. A panel of professionals, alumni, students, and faculty discussed their experiences and beliefs about the dishonest behavior that takes place within MIT and in the workplace. After the Kresge event, students, faculty, and staff went to "breakout sessions" in their departments to discuss issues of special relevance to their MIT

experience; small group sessions were also set up for freshmen. One of the key topics in Kresge and in the "breakout sessions" was the prevalence of cheating on homework and the often ambiguous boundary that separates legitimate from illegitimate collaboration on homework. Although discussions did not focus on the survey, the preliminary survey results provided participants with data about behavior and attitudes and thus permitted discussion of what students actually think and do, not merely what people imagine students think and do. The survey results were also discussed with a small group during the 1993 Independent Activities Period. The present paper, however, is the first full report of the study to be presented to the MIT community.

Survey Goals

The first goal of this study is to answer some basic questions about undergraduate cheating. Cheating behavior, attitudes, and beliefs about cheating have never been surveyed at MIT. Although there has been much speculation and any number of hypotheses, no one knew for certain if perceptions jibed with reality. While surveys cannot provide the "truth," they can provide a broad perspective and identify patterns that were heretofore invisible. Questions that needed answers included the following: Was the subject 1.00 incident an anomaly, or is cheating rampant at MIT? Is it growing worse? Does the academic environment promote a common "culture" in which undergraduates, faculty, and teaching assistants hold similar views about cheating? How much cheating actually takes place among undergraduates? Can any underlying patterns be detected? How aware of cheating are faculty and graduate teaching assistants? When they suspect or discover cheating, what actions do they take? If they do not act, why not? What leads the "best and the brightest" to cheat? What type of actions do people believe can be taken to encourage honest academic behavior?

The study's second goal is to provide information to the MIT community that can serve as a catalyst for action. The subject 1.00 incident led to a number of positive actions, as mentioned above, and for a time sensitized the community. Concern is less pressing now; much of the energy of 1990 and 1991 seems to have dissipated. Yet student behavior and attitudes have probably not altered appreciably. It is hoped that this report will promote understanding, encourage change that will inhibit cheating, and improve the climate for academic integrity.

A Pre-Survey Look at the Climate for Academic Honesty

Undergraduates, faculty, and graduate teaching assistants helped shape the questions in pre-survey conversations and meetings. Students said they believed a large number of students cheat. Many readily admitted they themselves had cheated. The kind of cheating to which they referred was cheating on problem set homework: working with others when that was not permitted, collaborating on answers, outright copying, and allowing other students to copy. Cheating on exams or plagiarism, they insisted, was not an issue. They viewed cheating in the context of academic workload, time pressure, and their strongly stated reluctance to ask faculty or teaching assistants for help. All of this tended to confirm the consensus opinion voiced at the MIT Colloquium.

Faculty in pre-survey interviews wondered how much cheating takes place and whether it is on the rise. They questioned whether most faculty set down reasonable expectations in their subjects, or unwittingly create a climate that pressures students to cheat. They were interested in having the survey elicit faculty opinion about such questions as: Should there be uniformity in the reporting and punishing of dishonest behavior? Should there be a central repository of information about misconduct? Should adjudication be turned over to students? Is MIT ready to adopt an honor code?

Graduate teaching assistants spoke about their frustration when they found students cheating. At times, they said, they felt guilty when they caught a student cheating and reported it to the instructor because they were aware that other students who cheated slipped by unnoticed. They believed there was more cheating in the large enrollment core subjects where the material, although required, is not necessarily intellectually engaging for all students.

The Institute's published material about academic expectations suggests that areas where cheating is likely to occur are well recognized. The official policy statement concerning undergraduate academic honesty which appears in MIT's *Policies and Procedures* contains a section about communicating faculty expectations in the classroom. It refers to "gray areas...in which the standards can vary from subject to subject and from department to department." It goes on to say that "a particularly troublesome area for some students is the question of working together on problem sets and other homework assignments," and mentions that the use of old solution sets or lab reports (compilations of which are called "bibles") "presents a similar problem."[1]

PART II: SURVEY METHODS

An assumption of the study is that cheating is not just a student problem but one that concerns all who are involved in the learning process at MIT. To fully understand cheating, one needs to understand the perspectives and experiences of undergraduates, faculty, and graduate student teaching assistants. Therefore, questionnaires were distributed to all three groups during the spring and fall of 1992. A random sample of 20% of the undergraduate students (N=891) was surveyed, yielding a 44% response rate. The faculty survey was mailed to 1,378 regular members of the faculty and to 106 people in "other" categories (i.e., instructors, lecturers, research associates, and senior research scientists) who taught undergraduate subjects in 1991-92.[2] It yielded a 33% response. All graduate teaching assistants who had appointments during the 1991-92 academic year and were still enrolled in fall 1992 (N=481) were included in the study. Their response rate was 42%. The undergraduate respondents are representative of the MIT undergraduate population. Faculty respondents who were professors, associate professors, and assistant professors are representative of the faculty population. Information is unavailable about the representative nature of the "other" respondents in the faculty group and the graduate teaching assistants.

Separate questionnaires were developed for each group. They included both structured and open-ended questions that covered the same basic topics, although the wording was tailored to each particular group. All were asked the following: (1) whether cheating is perceived to be a

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[1] The entire section, Section 3.52.1, reads as follows: "At the beginning of ea ' term, faculty members are encouraged to make clear to the students in their classes their expectations regarding permissible academic conduct. It is important that this be done in the context of their specific subjects. Some expectations are obvious: students should realize they are expected not to copy other students' responses during quizzes, or to represent term papers written by others as their own work. There are gray areas, however, in which the standards can vary from subject to subject and from department to department. A particularly troublesome area for some students is the question of working together on problem sets and other homework assignments. The use of old solution sets or lab reports presents a similar problem. Because homework assignments have two roles -- helping students learn the materials and helping instructors evaluate student performance -- it is not always obvious how much collaboration or assistance from old materials, if any, the instructor expects. Sometimes this can be inferred from the amount of weight given to homework in the grading process, but students often do not make this inference correctly. It is therefore important for faculty members to explain as precisely as possible their expectations about the nature and extent of any collaboration or assistance from old materials they permit or encourage. Where assistance from old materials is expected, the instructor should be certain that the materials are equally available to all students."

[2] For the purposes of this study, the term "faculty" refers to people who hold the rank of professor, associate professor, assistant professor, instructor, or lecturer; it also includes other staff, as mentioned above, who taught undergraduates during the 1991-92 academic year.

major problem on campus; (2) the degree to which various acts are considered to be "serious" cheating, "trivial" cheating, or "not cheating;" (3) the frequency of various types of cheating behavior; (4) what happens when cheating is suspected; (5) reasons students cheat; and (6) ways to encourage more honest academic behavior. Since the questionnaires were fairly long, ranging in length from six to eight pages, it was surprising and indicative of the community's lively interest in the topic that many respondents answered open-ended questions with lengthy and deeply felt comments. Analysis of the data included review of this qualitative material that often gave force and meaning to the quantitative results. The quotations that appear throughout this report are representative of feelings expressed in this qualitative material. See the "Methodology" section in Part C of Appendix II for more details about the study groups, response rates, and data collection and analysis.[3]

Information from pre-survey discussions was used to frame questions and determine which ones to ask. Not all suggestions became questions. For example, whether or not MIT should adopt an "honor code" or "honor system" was not asked because the terms themselves are open to a variety of interpretations too wide to permit including a simple operational definition in the questionnaire.

PART III: FINDINGS

Is There a Lot of Cheating at MIT?

A Faculty Member
I think you should bear in mind that many students -- I hope and believe most -- would never dream of cheating, no matter what the pressures, opportunities or incentives.

A Student
I've talked to students here who do not even flinch at the idea of copying problem sets. They take five to six courses and copy problem sets from friends, then use the previous year's exams to study for tests, and they do well. People form a circle of friends where one person's problem set is distributed to the others to copy. It really hurts to hear or know about this, especially when you work hard (long hours, little sleep) by yourself to do the problem sets. I used to cry about it, but now I'm desensitized; I don't care any more.

A Faculty Member
Students at MIT are no different from students anywhere. They are not more prone to corruption, more amoral, more ruthless, or opportunistic. If anything, they are so intelligent that they are probably more aware of the moral, psychological, personal, and professional consequences of cheating and dishonesty. If cheating is a crisis problem, then the cause is mostly to be found in the pressures and ethos of the Institute.

A Graduate Teaching Assistant
Copying is so common at MIT. I think students even forget that it is cheating.

[3] Appendix II is available on request from the UAA office (7-104). In addition to the methodology it contains all three questionnaires and all percentage distributions.

Is There a Problem?

In recent years people have expressed concern about an increase in cheating on campus. Survey results do not support this claim, however. None of the groups responding to the survey suggests there is evidence of a cheating crisis at MIT or that cheating patterns have in any way changed over the years. The majority (80%) of the faculty believe the level of cheating has remained more or less the same. Nor is it felt by a majority of any group that there is more cheating at MIT than elsewhere. Most believe that academic dishonesty is either less of a problem at MIT or about the same as elsewhere. Only one-fifth of the faculty, two-fifths of the teaching assistants, and one-third of the students believe academic dishonesty is *more* of a problem at MIT.

Yet this by no means indicates satisfaction with things as they are. Half of all respondents describe themselves as "bothered by the degree of academic dishonesty that goes on among undergraduates." Half the students describe themselves as "confused about what constitutes academic dishonesty," and a similar proportion of faculty and teaching assistants indicate their awareness of this confusion. Indeed, many faculty and teaching assistants say that the guidelines for MIT students about what constitutes academic dishonesty are unclear.

Sixty-five percent of the faculty and 43% of the teaching assistants say that they are well acquainted with MIT's policies on academic dishonesty as expressed in departmental guidelines and *Policies and Procedures* (both sets of guidelines being virtually identical). A smaller number, only half the faculty and 39% of the teaching assistants, consider these guidelines effective (see Table 1).

Table 1. General Attitudes About Academic Dishonesty

(Percentage Indicating "Strongly Agree" or "Agree")

	Faculty	TAs	Students
I am bothered by the degree of academic dishonesty that goes on among MIT undergraduates	48%	56%	56%
I feel confused about what constitutes academic dishonesty	*	*	56%
MIT undergraduates seem confused about what constitutes academic dishonesty	57%	57%	*
Guidelines for MIT students about what constitutes academic dishonesty are unclear	51%	57%	*
I am well acquainted with MIT's current policies on academic dishonesty expressed in departmental guidelines and *Policies and Procedures*	65%	43%	*
MIT's current policies on academic dishonesty, as expressed in departmental guidelines and *Policies and Procedures*, are effective	51%	39%	*

* Not Asked

Cheating? Or Not?

A Student
Students know the difference between fudging lab class data and fudging data in a real lab.

A Student
I consider cheating doing something that is clearly wrong, like copying a paper or a test. I don't consider using "bibles," old tests, or collaborating with other people cheating. In the real world, that's called making good use of your resources and working well with people.

A Student
I copy a lot of problem sets. But I make sure I follow along with the solutions and understand how the problem is done. I've never cheated on a test. I've only really copied another problem set directly without learning the material once, but I've copied a bunch of problem sets. They are simply too long.

A Student
My friends and I usually do our problem sets alone, but do compare final answers before we hand them in. I don't think that's academic dishonesty. Is it?

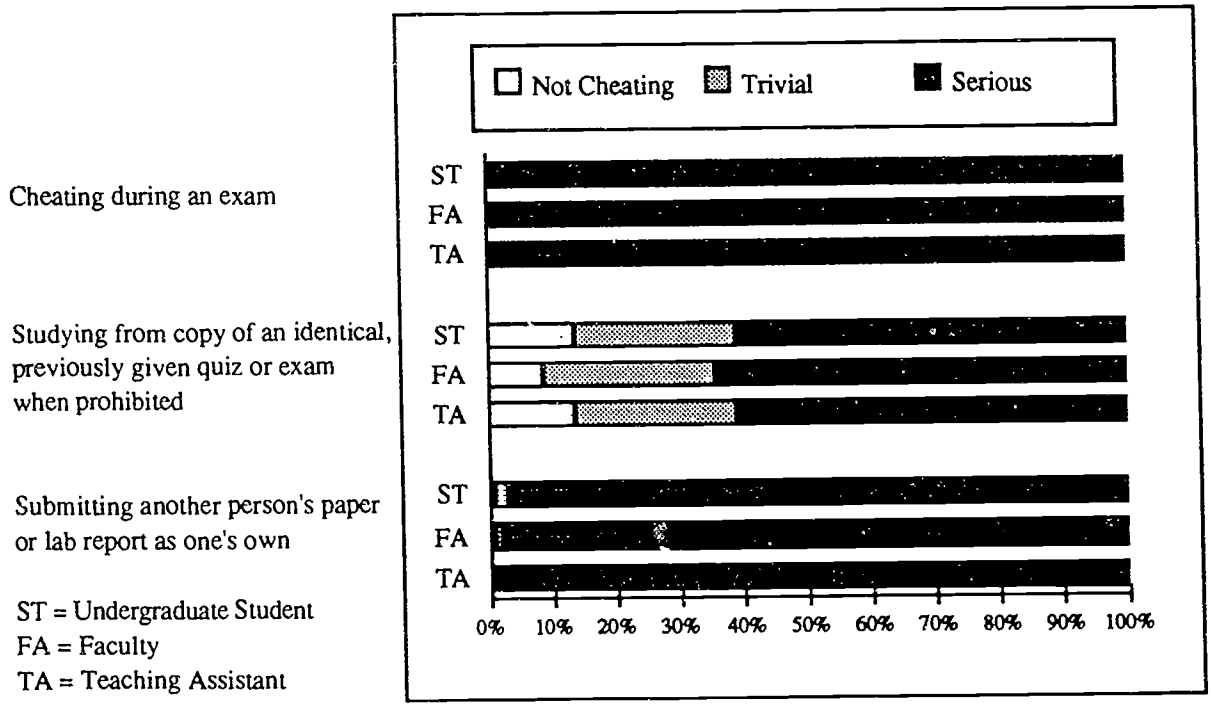
What Is Cheating?

The term "cheating" is commonly used to refer to a wide variety of behavior, some serious and some not. To understand undergraduate cheating, it is important to find out how each group defines cheating. Pre-survey discussions with undergraduates showed that students did not view a given act as either simply cheating or not cheating. There were gradations: acts were considered serious, trivial, or not cheating at all. Questionnaires sent to all three groups contained lists of acts that might be considered cheating. Respondents were asked to place each act into one of the three categories.

Figures 1 through 3 compare categorizations of cheating made by all three groups. Acts that may be considered cheating have been organized into three general types: "Serious" Cheating (exam-related behavior and paper copying), Homework Problem Set Cheating, and Misrepresention or Plagiarism (behavior other than paper copying).

As might be expected, there is consensus among all three groups that certain types of behavior are indeed "serious" forms of cheating: cheating on exams and submitting another person's paper as one's own. Interestingly, all three groups show the same distribution of responses for "studying from a copy of a previously given, identical quiz or exam when this was prohibited." The largest percentage of respondents sees this as "serious," but quite a few also call it "trivial" or "not cheating." Students who view this act as "trivial" or "not cheating" explain this pragmatically -- they are making good use of available resources. The faculty and teaching assistants who share this view object to the reuse of old tests, put the blame on instructors, and feel it is appropriate and natural for students to use "old" material as a study aid (see Figure 1).

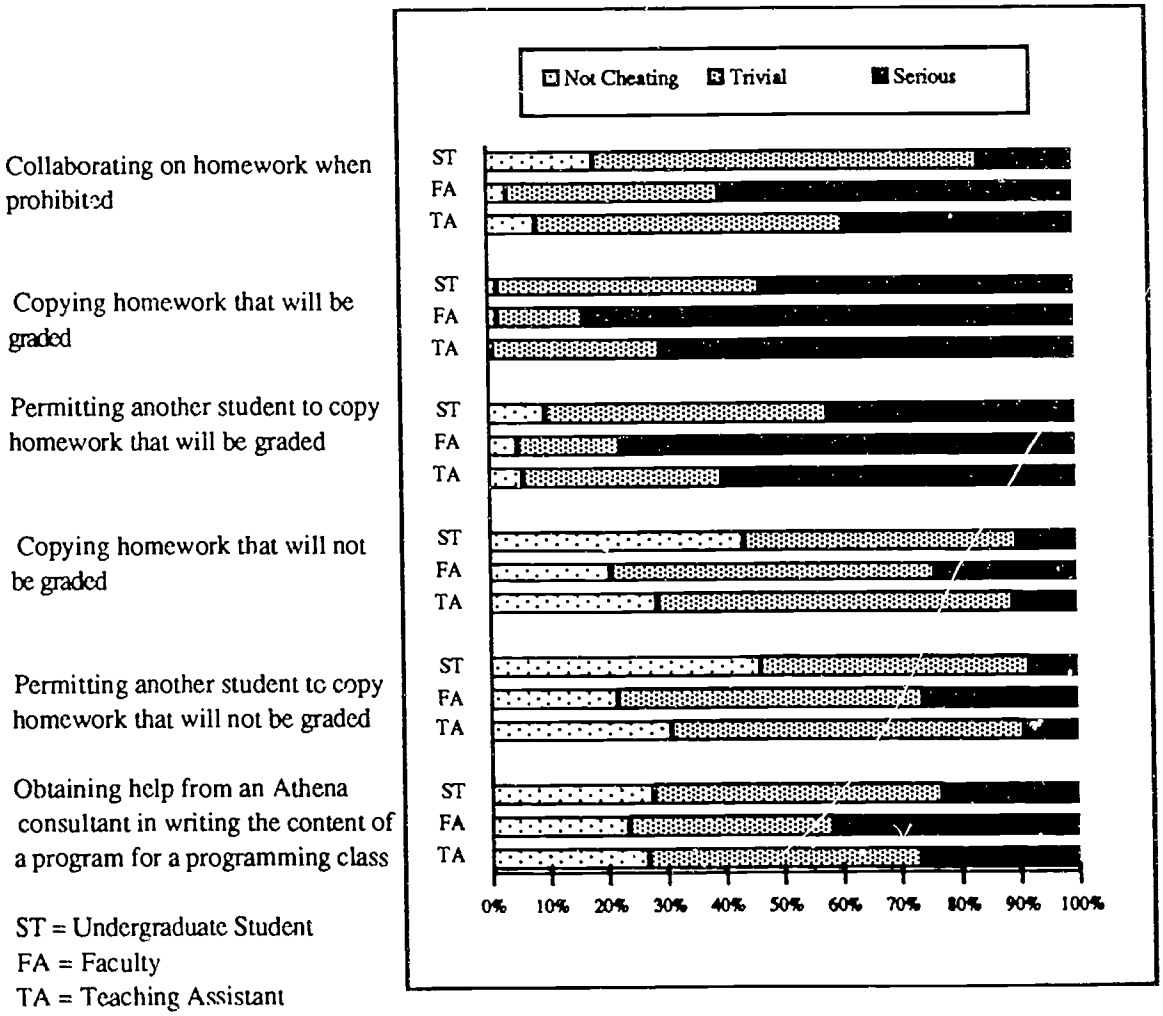
Figure 1. Undergraduate, Faculty, and TA Definitions of Cheating: "Serious" Cheating



Faculty view all types of homework problem set cheating as more serious than either students or teaching assistants do (see Figure 2). Teaching assistant views fall in between those of faculty and students. The fact that teaching assistants see some issues differently from faculty is understandable, in that teaching assistants are closer to undergraduate culture by virtue of their student status and age. Given that an important function teaching assistants have is assisting with homework grading, the fact that they define problem set cheating differently from faculty may affect their grading and handling of homework copying.

Among students there is strong consensus that collaboration on homework when this has been prohibited is a "trivial" form of cheating. On the other hand, there is disagreement about other forms of homework cheating. Student responses are divided about copying homework or allowing another student to copy homework that will be graded: half of the students think this is "trivial," while the other half think it is "serious." Opinion is also mixed about this same behavior -- copying or allowing another student to copy homework -- even when the exercise will *not* be graded. Equal proportions of students find this, too, either "trivial" or "not cheating."

Figure 2. Undergraduate, Faculty, and TA Definitions of Cheating: Homework Problem Set Cheating

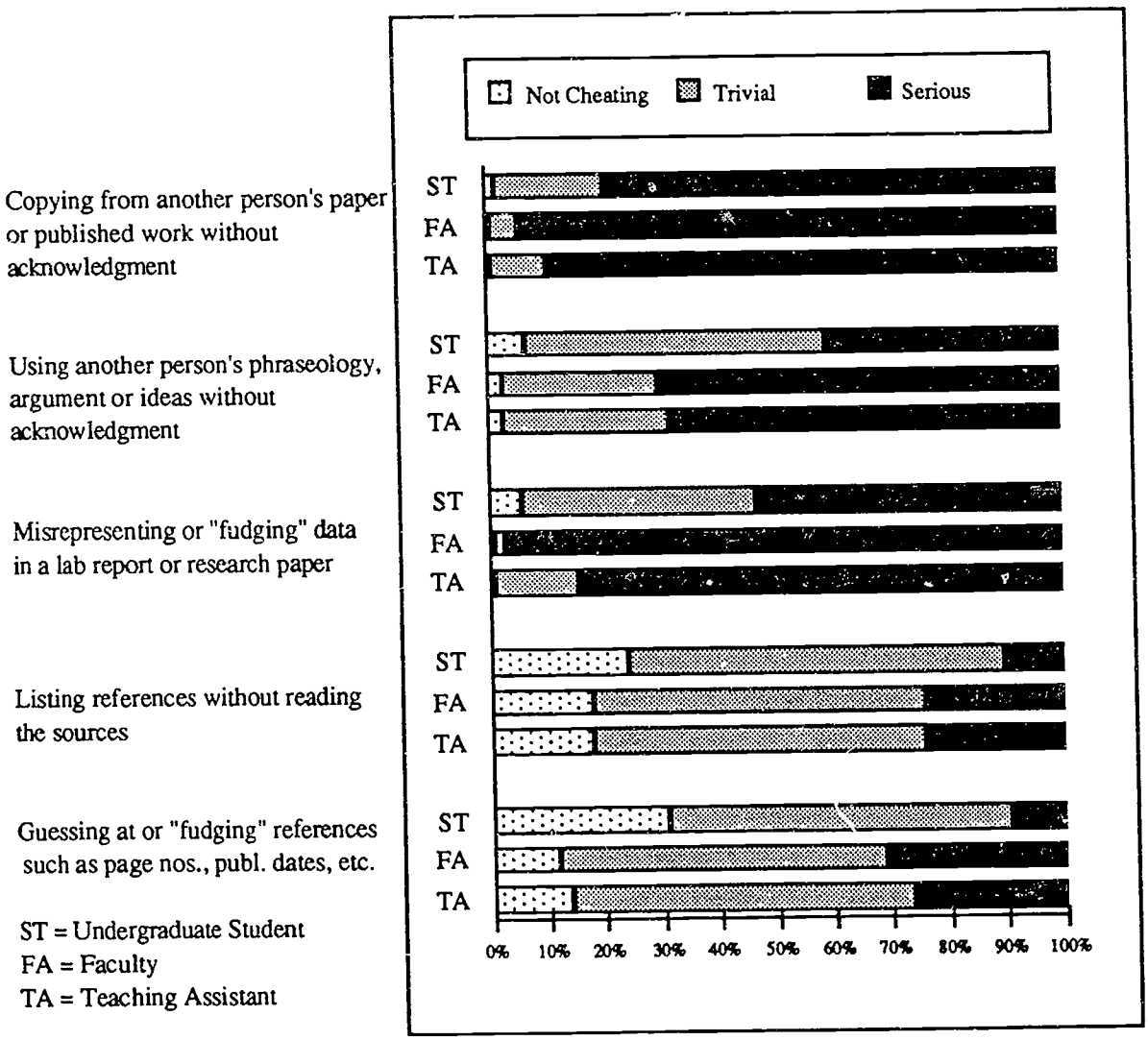


ST = Undergraduate Student
FA = Faculty
TA = Teaching Assistant

The open-ended survey responses written by students shed light on some of the rationalizations or justifications students use to explain cheating behavior as it relates to homework. As noted above, the majority regard collaboration as a "trivial" act, even when it has been prohibited. Their comments indicate a strong belief that working together helps the learning process. By working in groups, they say, they can see a variety of approaches to problems, not just one. They observe that collaboration is the norm in the "real" world of the professions, particularly in engineering where the majority are headed. Copying homework that is going to be graded is also considered "trivial" according to many, and students feel the act is justifiable if they learn the material they are copying. Homework, they say, is a learning tool; quizzes and tests are assessment tools.

Faculty and teaching assistants view all types of misrepresentation and plagiarism more seriously than students do (see Figure 3). Areas of greatest disagreement between student and faculty or student and teaching assistant responses encompass acts having to do with source material and data, i.e., "using another person's phraseology, ideas, or argument without acknowledgment," and "misrepresenting or fudging data in a lab report or research paper." A large majority of faculty and teaching assistants regard these actions as "serious," while student opinion is fairly evenly divided between "trivial" and "serious." At first glance, it may be easier to understand why some students view misusing another person's phraseology, ideas, or argument as "trivial" than to understand why so many students view fudging data in a lab report as "trivial." Students explain in their open-ended comments that they know the difference between a laboratory subject exercise and a "real" assignment done in the context of a professional research laboratory.

Figure 3. Undergraduate, Faculty, and TA Definitions of Cheating: Misrepresentation/ Plagiarism



The Problem Is Problem Sets!

A Student
I see problem sets as learning devices, and for a lot of people, talking is a good way to learn. Tests show what you know. I feel no guilt about collaborating on a problem set, even when it is prohibited, but I would never cheat on a test.

A Student
So people do homework together. The grades don't matter for the most part. It all comes out in the wash when you take a test. That is where people get separated, and those who never learn the stuff don't make it. I've never cheated on a test, and I don't know anyone who has. I think most people feel like me. It's serious when it's a test, but problem sets are just exercises.... Once in a while some professors come up with problem sets that are timely and actually teach something. Then they are worth doing.

A Student
The problem is mostly with problem sets -- cheating is frowned on in exams or in ground-breaking or individual research. Problem sets are menial, often not helpful, and -- if copied -- no one outside of the course will care.

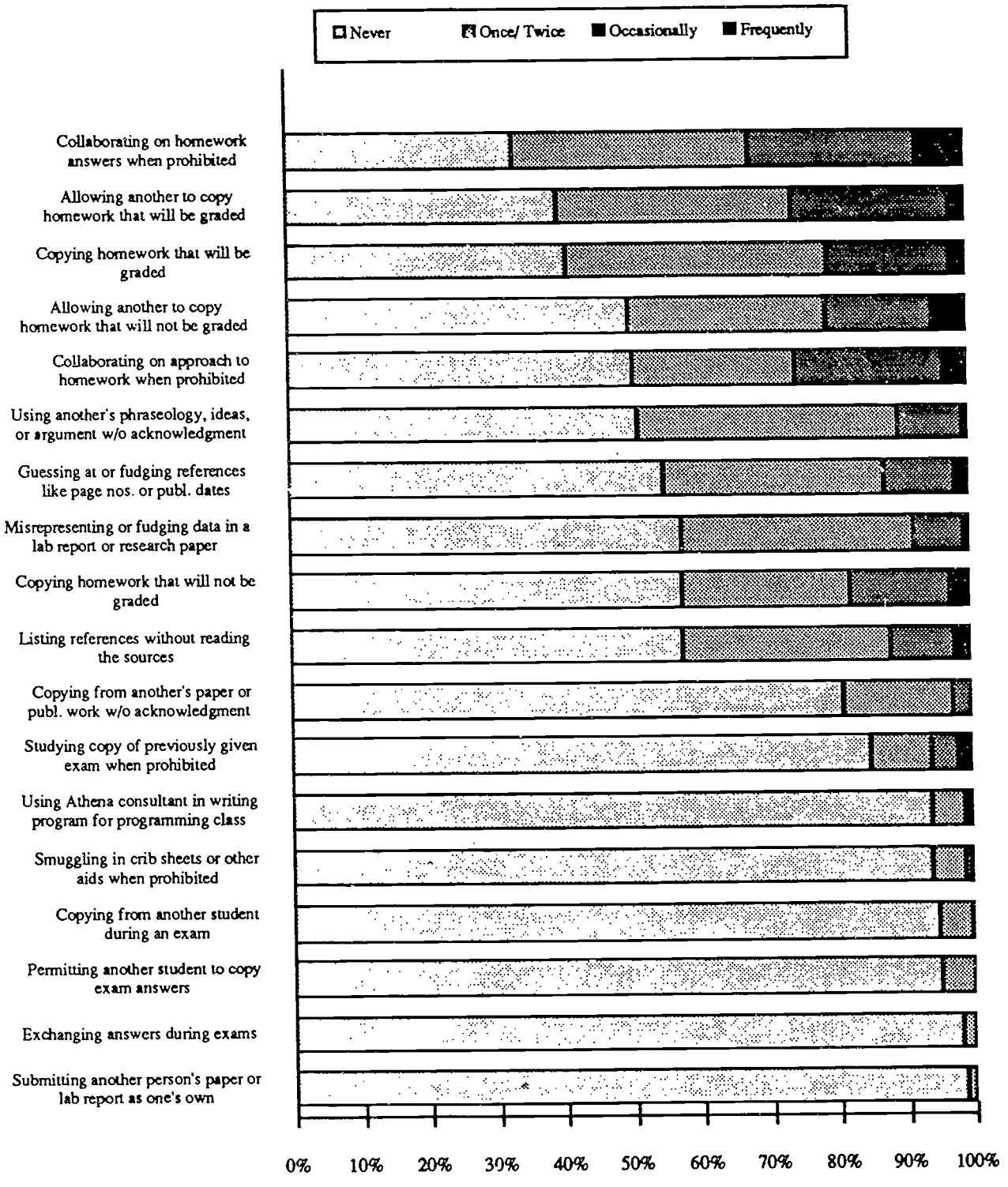
How Much Cheating Is There?

Student Self-Reported Behavior

Students were asked whether *during the current academic year* (1991-92) they engaged in any one of many types of behavior listed, and how often. A four-point scale was used: never, once or twice, occasionally, and frequently. Behavior engaged in by over 60% of the students at least once or twice during the year ("high participation" behavior) is confined to homework problem set cheating: collaborating when prohibited, copying homework solutions that will be graded, and allowing someone else to copy homework that will be graded. Forms of cheating that students overwhelmingly define as "serious" -- exam cheating and "submitting another person's paper or laboratory report as one's own" -- are acts in which few say they participated. Eleven percent admitted to engaging in one or more of the four types of exam cheating listed. Only 1% said they had submitted another person's paper or laboratory report as their own. Acts participated in by 40% to 50% of students at least once during the year ("medium participation" behavior) include various types of plagiarism (e.g., not acknowledging someone else's words, argument, or ideas) and misrepresentation of information.

Examination of all levels of self-reported cheating indicates that few students engage in any of these actions "frequently." The percentage reporting "frequently" reaches 5% in only two areas: collaborating on answers to homework when this has been prohibited, and allowing others to copy homework that will *not* be graded (see Figure 4).

Figure 4. Undergraduate Students' Self-Report of Cheating Behavior
(During Academic Year 1991-92)



To simplify the analysis and to clarify patterns, four indexes of cheating behavior were developed; these are: the Homework Problem Set Cheating Index, the "Serious" Cheating Index, the Misrepresentation/Plagiarism Index, and the Exam Cheating Index. The Homework Problem Set Cheating Index excludes the two ungraded homework items as well as the item concerning the use of an Athena consultant to help with programming homework since the majority of students defined these as "trivial" or "not cheating." The "Serious" Cheating Index comprises the nine actions considered "serious" cheating by over 50% of the undergraduate sample. The Misrepresentation/ Plagiarism Index contains four items. The Exam Cheating Index includes the four exam cheating items. Though not mutually exclusive, each index captures a different aspect of cheating behavior.[4]

The indexes are not counts of cheating occurrences, since one cannot quantify "occasionally" or "frequently." Nor are they counts of the number of types of cheating a student participated in. The indexes represent *the level of involvement* of students in that area of cheating. Each index was constructed by summing up the numerical answers students reported for selected items of behavior: never = 0; once/twice = 1; occasionally = 2; and frequently = 3. Thus, an index represents a composite score of students' answers. In the example of the Homework Problem Set Cheating Index, if a student *frequently* collaborated on the approach when prohibited, *occasionally* collaborated on answers when prohibited, *occasionally* allowed another student to copy her problem set that will be graded, and *once or twice* copied a problem set that will be graded, her score on the Homework Problem Set Index is 8 (see Table 2).[5] [6]

[4]The "Serious" Cheating Index overlaps the Homework Problem Set Index by one item, the Misrepresentation/ Plagiarism Index by two items, and the Exam Cheating Index by four items.

[5] Only students who answered each item within a particular index were included in the summation. For example, a student who did not circle answers to each of the four problem set items included in the Homework Problem Set Cheating Index was excluded from the analysis.

[6] The highest possible score a person could get on the Homework Problem Set Index was 12, on the "Serious" Cheating Index, 27, on the Misrepresentation/Plagiarism Index, 12, and on the Exam Cheating Index, 12.

Table 2. Four Indexes of Cheating
(Based on Self-Reported Behavior During the 1991-92 Academic Year)

Homework Problem Set Cheating Includes: collaborating on problem set answers when prohibited, collaborating on approach to problem set when prohibited, copying a problem set that will be graded, and allowing someone else to copy a problem set that will be graded.		"Serious" Cheating Index Includes: exam cheating (4 types), submitting another person's paper as one's own, copying from another person's paper or published work without acknowledgment, studying from the copy of an identical exam that was previously given when prohibited, copying homework that will be graded, and misrepresenting or fudging data in a lab report or research paper.		Misrepresentation/ Plagiarism Includes: copying from another person's paper or published work without acknowledgment, using another person's phraseology, argument or ideas without acknowledgment, misrepresenting or fudging data in a lab report or research paper, and listing references without reading the sources.		Exam Cheating Includes: smuggling in crib sheets or other aids when prohibited, copying from another student, permitting another student to copy exam answers, and exchanging answers during exams.	
Value	%	Value	%	Value	%	Value	%
0	17%	0	24%	0	29%	0	89%
1,2	23%	1,2	45%	1,2	41%	1,2	10%
3-6	43%	3-6	28%	3-6	28%	3-6	2%
7-12	17%	7-13	3%	7-8	3%		
mean value: 3.4		mean value: 2.0		mean value: 1.9		mean value: 0.2	

A large majority of students, 83%, have engaged in some form of homework problem set cheating at least once in the 1991-92 academic year. Seventy-six percent have been involved in some form of "serious" cheating (behavior considered "serious" by over 50% of students). Seventy-one percent have participated in some type of misrepresentation or plagiarism at least once. Eleven percent have engaged in one of the four types of exam cheating at least once. It is clear that homework problem set cheating is not only the form of cheating done by most of the students, it is also the form of cheating students do with the greatest frequency.[7]

[7] Prof. D. McCabe, Rutgers University Graduate School of Management, conducted a nationwide survey of 31 competitive colleges and universities in 1990-91 concerning undergraduate cheating. His study showed data comparable to MIT data but with a notable difference -- MIT exam cheating rates are lower.

Students' Estimates of Cheating by Their Peers

Along with reporting their own levels of cheating behavior, students were asked to estimate what they thought their peers did. They were asked, for each act, whether they thought other students had engaged in this during 1991-92: never, once or twice, occasionally, or frequently. The list was the same as for self-reported behavior. In almost all cases they believe their peers cheat more often than they themselves do. For example, 67% percent of students report they collaborated on homework problem set answers when this was prohibited at least once during the year (as was noted earlier in Figure 4), yet 99% say they believe other students did. However, when it comes to the more serious types of cheating (i.e., exam cheating and submitting another person's paper as one's own), students tend to believe that the frequency of peer cheating is similar to their own.

The question about peer group cheating was a difficult one to frame. The response gives the percentage of students who believe others cheat, not an estimate of how many students cheat. This at least provides a sense of the large amount of cheating that students believe exists. Whether this belief that their peers cheat more is the result of rumor or observation, or whether students may have under-reported their own behavior, cannot be said.

What Variables Are Related to Cheating?

The social demographic variables of sex, citizenship status, and school within MIT are not associated with any of the cheating indexes mentioned above. There are associations, however, between some of kinds of cheating and year in school, grade point average, and living group type.

Year in School

Sophomores are significantly more likely than students in other years to have higher mean values on the"Serious" Cheating Index ($p<.05$) and on the Misrepresentation/Plagiarism Index ($p<.05$) (see Table 3).[8] Sophomore year is the first year students receive regular letter grades (A,B,C,D,F) and begin taking classes in their majors. It is a time of transition and possible stress which could lead to increased cheating. Once students have completed the sophomore year, feelings of anxiety and pressure may lessen as they become accustomed to grading and have moved through the challenging introductory subjects. Whatever special pressures may be felt in the freshman, junior and senior years, these have no discernible effect on cheating. Although freshman year is generally thought to be a time of great tension, the lower cheating rates among freshmen may be attributable to the first-year prohibition against subject overloading and the existence of Pass/No Record grading.

Table 3. Mean Index Values by Year in School
(1991-92 Academic Year)

	Freshmen	Sophomores	Juniors	Seniors
"Serious" Cheating Index	1.7	2.5	2.0	1.9
Misrepresentation/ Plagiarism Index	1.6	2.5	1.8	1.7

[8]The MIT Committee on Academic Performance (CAP) records indicate that in 1986-90 (the four years prior to the change in freshman grading that made D a non-passing grade) sophomores received the highest percentage of academic warnings. Sophomores also received the largest number of Required Withdrawals from the CAP.

Cumulative Grade Point Average (GPA)

Students with GPAs under 4.0 are more likely to cheat than students with higher GPAs (see Table 4). In fact, the higher the student GPA, the less cheating there is.[9] Those with GPAs under 4.0 have higher mean values on the Homework Problem Set Index ($p<.01$), the "Serious" Cheating Index ($p<.01$), and the Exam Cheating Index ($p<.01$). The relationship between GPA and cheating is not surprising, as research about undergraduate students in other universities has revealed a similar pattern. It does debunk the common myth that high levels of cheating are also found among "excellent" students who will stop at nothing to reach or remain on the top.

Table 4. Mean Index Values by GPA
(1991-92 Academic Year)

	Under 4.0	4.0 to 4.5	4.6 to 5.0
Homework Problem Set Cheating Index	4.4	3.6	3.0
"Serious" Cheating Index	2.7	2.1	1.6
Exam Cheating Index	0.4	0.1	0.1

Living Group Type

Where students live affects the likelihood of their engaging in homework problem set cheating. Those from independent living groups have a higher mean value on the Homework Problem Set Cheating Index than other students ($p<.01$) (see Table 5). They are more likely to copy a problem set or study from an old quiz or exam (i.e., make use of a compilation of materials called a "bible") than those living in dorms or off-campus are.

It should be kept in mind that many students regard homework problem set cheating as an inconsequential form of cheating. Two-thirds believe collaboration on homework when that has been prohibited is "trivial;" this is one of the acknowledged "gray areas" referred to in academic honesty guidelines. A smaller number, two-fifths, believe copying homework that will be graded is "trivial" as well. Collaboration on problem set homework is valued generally among students, and the climate at independent living groups is especially conducive to collaboration. Among the strengths of the independent living group are the strong social and academic support system it provides and the high level of interaction that exists among freshmen and upper-class students.

As for cheating by making use of "bibles," it is readily acknowledged on campus that independent living groups make an organized effort to provide members with these compilations of regularly updated materials which are passed on to other residents each year. Although some dorms have tried to institute this kind of system, results are often haphazard and lack yearly follow-through.

Table 5. Mean Homework Problem Set Cheating Index Value by Living Group Type
(1991-92 Academic Year)

	ILG	Dorm	Other
Homework Problem Set Cheating Index	4.3	3.4	2.4

[9] The survey asked for GPAs in broad groupings (under 3.0, 3.0 to 3.9, 4.0 to 4.5, and 4.6 to 5.0). Since few students are in the lowest category, this category was grouped together with the next higher one. Freshmen are on the "Pass/No Record" system and are excluded from this analysis.

Subjects in Which Cheating Is More Likely

When asked if cheating is more likely to occur in certain kinds of subjects, three-quarters of the students say it is more likely in subjects for which there are "bibles,"(the regularly organized and updated compilations of old homework, exams and quizzes).[10] Fifty percent of students say they think cheating is more likely in computer programming subjects and subjects that meet core science requirements. Few students (13%) report that cheating is likely in required Humanities, Arts and Social Sciences (HASS) subjects. Given the amount of misrepresentation and plagiarism students report, it is interesting that so few note cheating in HASS subjects. Cheating may, in fact, be less common in these subjects. Not only are problem sets unlikely, but classes are smaller and it may be more difficult to act improperly without being noticed by the instructor. It may also be that when students are prompted to think about cheating by a survey question, they focus on problem set cheating.

To What Extent Are Faculty and Teaching Assistants Aware of Cheating?

Although faculty[11] are well aware of cheating, more teaching assistants than faculty actually suspect cheating during a typical academic year -- 86% of the teaching assistants compared with 76% of the faculty (see Table 6). Not only are more teaching assistants aware of cheating, but they suspect a larger number of cheating occurrences.

Table 6. Number of Times Faculty and TAs Suspect Cheating (During a Typical Academic Year)

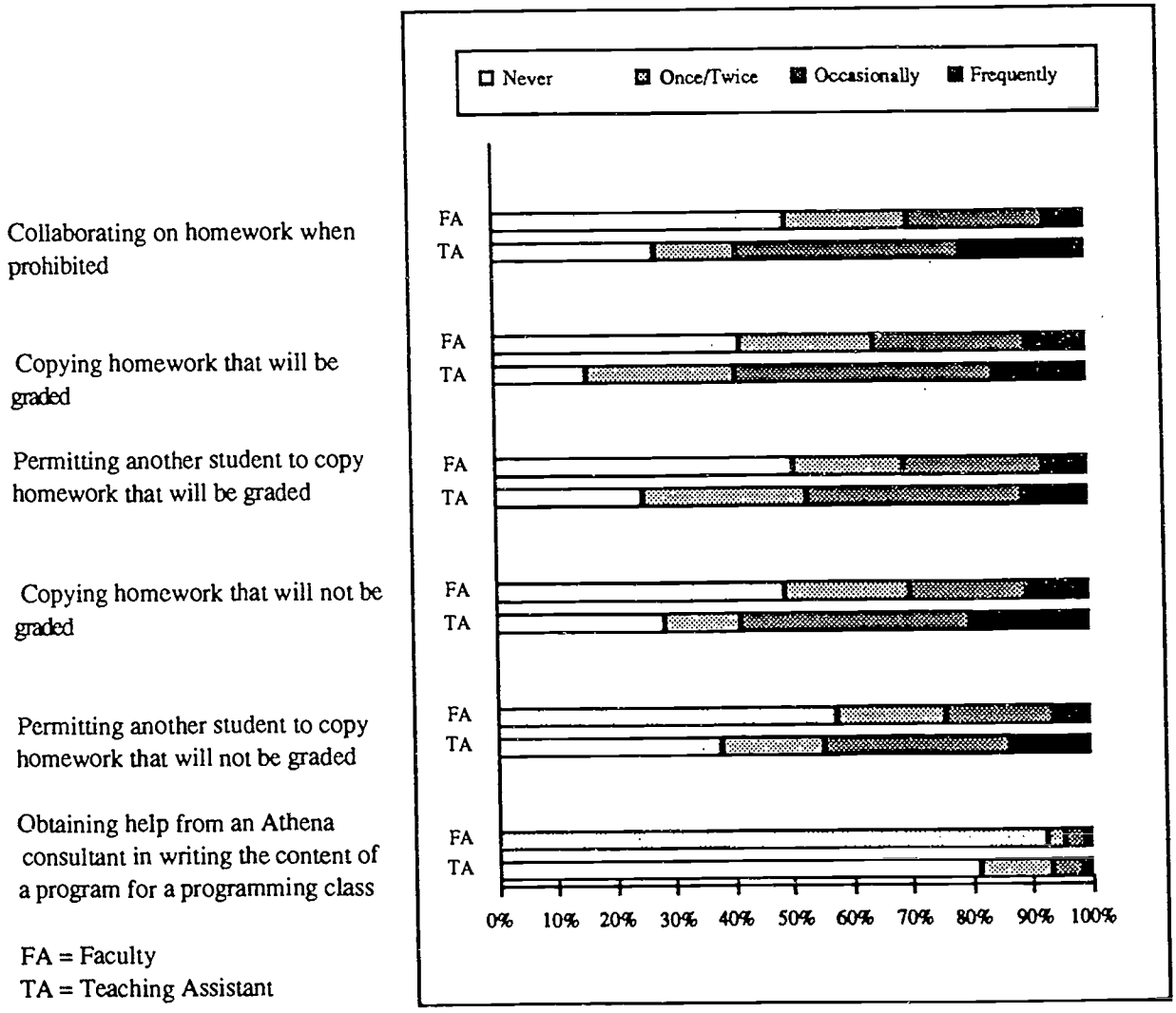
No. of Times	Faculty	TAs
none	24%	15%
1-2 times	41%	30%
3-5 times	28%	30%
6 or more times	7%	26%
Mean No. of Times Faculty and TAs Suspect Cheating	3.4	5.0

[10] It is possible that this number is higher than it should be. Some of the "cheating" reported may include the use of "bibles" when their use was not explicitly sanctioned, since this question did not make a distinction between proper or improper "bible" use.

[11] The analysis of faculty awareness of cheating is based on the responses of faculty who indicated on the survey that they taught during the 1991-92 academic year.

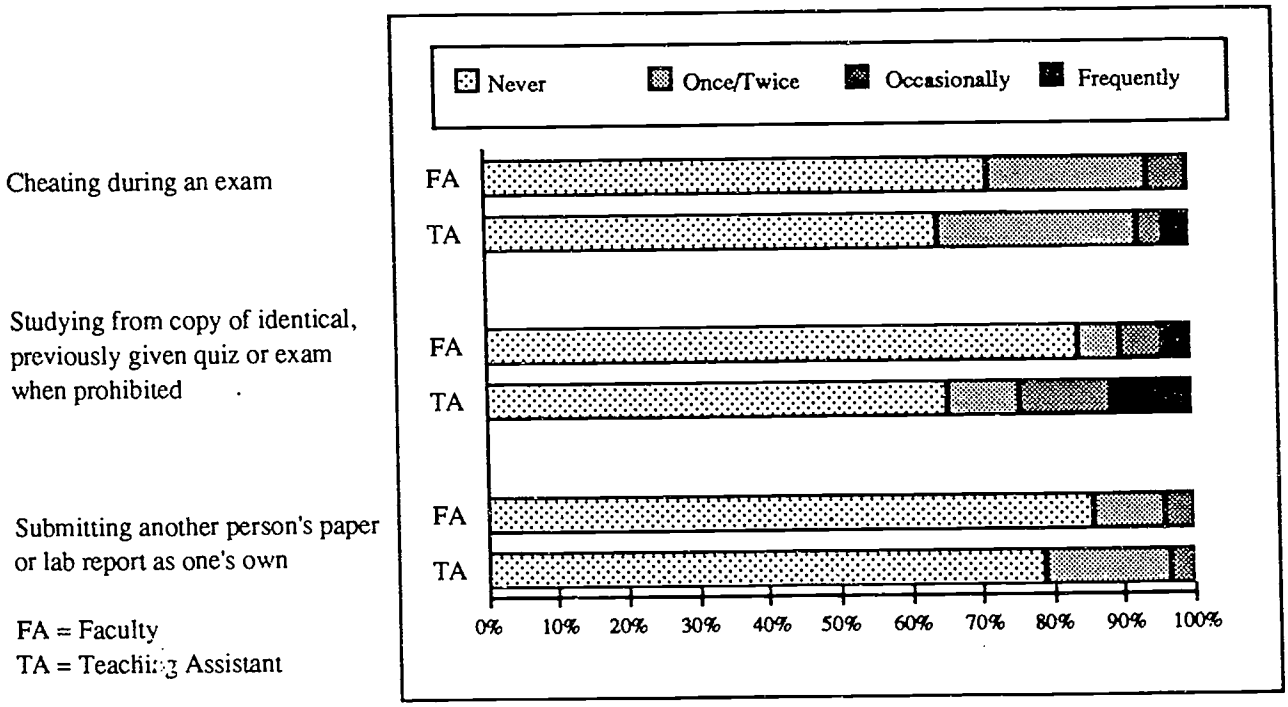
Figure 5 presents a comparison of faculty and teaching assistant awareness of homework problem set cheating *during the 1991-92 academic year*. Teaching assistants are more aware than faculty of each kind of cheating that relates to homework problem sets. The differences between faculty and teaching assistants are sharpest for awareness of graded-homework copying and prohibited collaboration. Over four-fifths of the teaching assistants, compared with three-fifths of the faculty, noticed copying of graded homework at least once during the year. Although small percentages of both groups "frequently" noticed homework cheating, 20% of the teaching assistants, but only 7% of the faculty, "frequently" noticed collaboration when this had been prohibited. This difference may be attributable to the fact that teaching assistants are most often those who grade problem set homework.

Figure 5. Faculty and TA Awareness: Homework Problem Set Cheating (During the 1991-92 Academic Year)



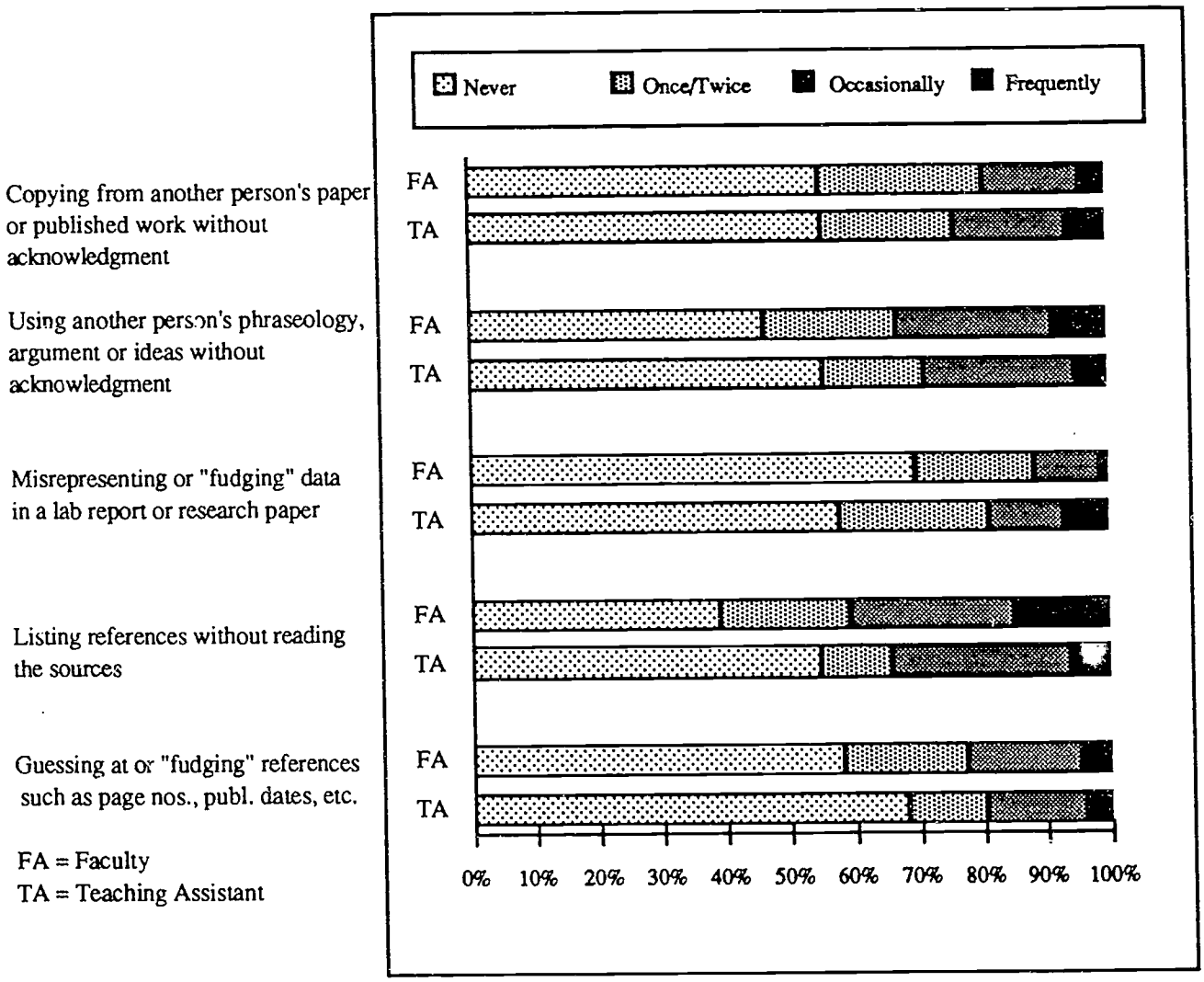
Teaching assistants also notice other forms of cheating more often, such as students studying from a copy of an identical, previously given exam (probably found in a "bible"). However, as Figure 6 shows, there are only minor differences between the two groups in their awareness of exam cheating and of students submitting another person's paper as their own.

Figure 6. Faculty and TA Awareness: "Serious" Cheating (During the 1991-92 Academic Year)



It is worth note that faculty are more aware than teaching assistants of much of the cheating behavior in the category of Misrepresentation/Plagiarism (Figure 7). Only in the area of laboratory and research-related data are teaching assistants more aware of misrepresentation than faculty. This may be attributed to the faculty's wider familiarity with source materials and teaching assistants' closer connection to data gathering.

Figure 7. Faculty and TA Awareness: Misrepresentation/Plagiarism (During the 1991-92 Academic Year)



How Do We Deal With Cheating?

A Graduate Teaching Assistant
My impression is that faculty members are very, very reluctant to deal aggressively with cases of cheating, for fear of making an improper accusation.

A Faculty Member
I have been exposed to only two very serious incidents involving academic dishonesty.... In the first case, my TAs caught a student cheating on an exam (using a "cheat sheet"). I was new to MIT and not accustomed to procedures. I spoke with the student, who was an emotional wreck at the time, to explain my utter disappointment and to understand what might have led to such a misjudgment. I offered the student a choice: accept an F for the course, or that I refer the case to the appropriate MIT committee to adjudicate. The student decided to accept an F. The entire experience was extremely unpleasant and emotionally draining.

A Student
Cheating is very, very easy to do at MIT.... I witnessed blatant cheating during a final. The desks weren't spread out and it was easy to cheat. I got up and told the prof during the exam, but I don't know what was done. [The student] is in my class again this term, so I assume he didn't fail. That makes me mad.

What Happens When Cheating Is Suspected?

When cheating is suspected, most faculty and teaching assistants take some type of action, but faculty are more likely than teaching assistants to do so. Choices of possible actions listed in the survey ranged from talking with a suspected student to taking the case to the Committee on Discipline (COD). As Table 7 shows, over half the faculty who suspect cheating during a typical academic year take action every time they suspect cheating compared with one-third of the teaching assistants.

Table 7. Frequency of Faculty and TA Action When Cheating is Suspected (During a Typical Academic Year)

Frequency of Action	Faculty	TAs
Never	12%	18%
Less than 50% of the time	9%	16%
50% of the time	17%	14%
More than 50% of the time	9%	19%
Always	53%	34%

Faculty who suspect cheating take action, on average, three-quarters of the time, while teaching assistants take action less frequently -- slightly more than half the time.

The primary reason both faculty and teaching assistants give for *not* taking action is a pragmatic one: "the cheating was difficult to prove." It is a reason given by more faculty than teaching assistants. The next most frequently given reason, that "the cheating was not serious," is cited by more teaching assistants than faculty, perhaps indicating the differences between faculty and teaching assistants about what constitutes "serious" cheating. Two other reasons, cited by slightly less than two-fifths of the teaching assistants, are worth note: they "lacked knowledge about procedures" and/or "believed the instructor would feel the cheating was not serious" (see Table 8).

Table 8. Reasons for Inaction When Cheating Is Suspected: Faculty and TA Responses
(Percentage Indicating "Very Important" or "Important")

Reasons	Faculty	TAs
Cheating was difficult to prove (suspected, but lacked hard evidence)	87%	64%
Cheating was not serious	42%	63%
Established procedures seemed ineffective	13%	not asked
Lacked knowledge about the procedures for handling the incident	9%	17%
Reluctant to confront student	7%	14%
Felt sympathy for student	6%	9%
Not enough time to take necessary action	4%	9%
Not my area of responsibility	4%	10%
Believed instructor would feel cheating was not a serious issue	not asked	19%
Peer pressure from other TAs	not asked	1%
Did not want to destroy relationship of trust between myself and student	not asked	10%

Most suspected cheating occurrences are handled privately between faculty and student. The faculty member may give the student a warning, assess a grade penalty on the assignment or the subject, or take the case to a higher authority. It is striking how infrequently formal resources (department heads, the Committee on Discipline [COD], and Undergraduate Education and Student Affairs [UESA]) are used when cheating is suspected, even when the cheating is as serious as exam cheating or submitting another person's paper as one's own. Only a small percentage of faculty take exam cheating to their department head or to the COD, and an even smaller number place a letter about the incident in a central file (a file in the office of the Dean for Undergraduate Education and Student Affairs).

Table 9. Actions Taken by Faculty When Cheating Is Suspected (During a Typical Academic Year)

Note: For each type of cheating behavior respondents were permitted to circle as many actions as were relevant.

Action Taken	Cheating During an Exam[12]	Submitting Another Person's Paper as One's Own	Copying a Problem Set that Will Be Graded	Collaborating on a Problem Set When Prohibited
None	2%	5%	10%	10%
Discuss generally with class	17%	23%	39%	49%
Discuss with/warn student[13]	51%	65%	63%	62%
Ask student to re-do assignment	4%	32%	13%	11%
Give grade penalty on assignment	37%	54%	46%	36%
Give grade penalty in subject	35%	25%	5%	3%
Discuss with colleagues	53%	22%	16%	15%
Take to dept. head	24%	11%	2%	<1%
Place letter in central file (UESA)	18%	10%	2%	2%
Take to COD	20%	4%	1%	1%

Faculty were asked about their general satisfaction with the handling of cheating incidents (whether they handled them on their own or referred them to a higher authority), not for their evaluation of specific actions related to specific forms of cheating. Sixty-eight percent indicated satisfaction, 14% were neutral, and 18% were dissatisfied.

[12] The questionnaire asked about eight types of cheating behavior. For ease of presentation four were selected for this table: two of the most serious types of cheating and two of the most common.

[13] It is difficult to explain why only 51%- 65% of the faculty indicate they discuss the more "serious" forms of suspected cheating (e.g., exam cheating and paper copying) with a student since most take some action and discussion with a student would presumably be one of the first action steps taken. It is possible that in the case of the more serious forms of cheating faculty were thinking primarily about the final rather than the initial actions they took.

Teaching assistants were also asked about their reactions to cheating. Most teaching assistants indicate they inform instructors about incidents of serious cheating. The less serious the cheating, the more frequently teaching assistants tend to handle matters on their own without informing the instructor (see Table 10).

Table 10. Actions Taken by TAs When Cheating Is Suspected

Note: For each type of cheating behavior respondents were asked to circle one response.

Action Taken	Cheating During an Exam	Submitting Another Person's Paper as One's Own	Copying a Problem Set that Will Be Graded	Collaborating on a Problem Set When Prohibited
None	8%	8%	14%	15%
Discuss with student or write comment on paper	6%	20%	50%	58%
Inform instructor [and may discuss with student]	86%	72%	36%	28%

When students were asked about the types of actions they *think* faculty take, over 90% believe that faculty take some type of action when "serious" cheating such as exam cheating and paper copying is suspected, while only 40% to 51% think that faculty take action in cases involving homework problem set cheating, such as collaborating when prohibited and copying a problem set that will be graded (see Table 11). Few (4%) estimate that homework problem set cheating occurrences are brought to a higher authority. Comparing these findings to earlier ones in Table 9 shows that students *overestimate* the percentage of faculty who take "serious" cheating incidents to a higher authority, but they correctly assess how infrequently homework problem set cheating is taken to a higher authority. Importantly, they seem to *overestimate* the percentage of faculty who do not take any action on homework problem set cheating.

What students think TAs do closely parallels what they think faculty do. A comparison of these findings to those shown earlier in Table 10 reveals that in the case of homework problem set cheating students *underestimate* the percentage of TAs who bring these cases to a higher authority, the instructor. Similar to their perceptions of faculty, they *overestimate* the percentage of TAs who do not take any action.

Table 11. Student Perceptions of Faculty and TA Reactions When Cheating Is Suspected

Note: For each type of cheating behavior respondents were asked to circle one response.

Perceived Faculty and TA Reactions	Cheating During an Exam	Submitting Another Person's Paper as One's Own	Copying a Problem Set that Will Be Graded	Collaborating on a Problem Set When Prohibited
Aware But Take No Action				
Faculty	2%	3%	40%	51%
TA	6%	4%	41%	53%
Comment/ Discuss with Student and/or Class				
Faculty	22%	27%	56%	49%
TA	16%	20%	52%	44%
Bring to a Higher Authority				
Faculty	76%	70%	3%	<1%
TA	78%	76%	7%	3%

Are Actions Taken To Prevent Cheating?

When asked about the type of guidelines governing academic dishonesty that they give to students at the beginning of each term, faculty have a mixed response. Nineteen percent do not use guidelines at all. Spoken guidelines are given by 43% of the faculty and written guidelines by 7%. Both spoken and written guidelines are employed by 31% of the faculty. The fact that guidelines are given in a class, however, is no guarantee that they are clear and comprehensive. As noted earlier, official academic dishonesty guidelines acknowledge there are "gray" areas like homework collaboration. Although some instructors make their instructions clear, many do not. Often their instructions ask that the work be "primarily" or "substantially" the students' own. Such messages leave interpretation largely up to the students.

Three-quarters of the faculty say they give teaching assistants guidelines about handling cheating, while only two-thirds of the teaching assistants say they receive them. This discrepancy may be due to a difference of opinion about what constitutes "guidelines." What teaching assistants are most commonly instructed to do is bring all occurrences of cheating to the instructor's attention. It is possible that they may not consider this instruction as one that meets their definition of "guidelines."

Over 50% of the teaching assistants mention they take specific actions (besides using guidelines) in their classes to guard against both homework and exam cheating. To prevent exam cheating TAs may do such things as give two test versions on multiple choice exams, change classrooms to increase the space between students during exams, patrol the aisles during tests, and make copies of quiz answers. Measures taken to prevent homework cheating may include assigning different problems to small groups of students, collecting homework at the beginning of the class, and insisting that the derivation of the results be included with the homework answers. Among those taking preventive measures, 58% called them "effective," 33% gave a "mixed" response, and 10% considered them "ineffective."

Is Cheating a Result of Workload and Pressure?

A Faculty Member
I teach a rigorous course not because I am into cruelty, but because I sincerely believe I am not doing [students] any favors by letting them off easy. It's a tough, competitive world out there.

A Student
This disappoints me, that people feel they have to cheat to get by. People just seem to get so stressed out that they feel they have no other choice... I think the majority of the people who cheat, cheat only to keep their heads above water when they feel like they are drowning in work.

A Faculty Member
MIT does not condone or encourage dishonesty, but it induces it. This is a tough and in some way inhumane place for young people.... The price of failure -- and even of just being good enough -- is very high.

A Graduate Teaching Assistant
MIT creates a high pressure environment where the focus is chiefly on getting good grades. Much is demanded from the undergraduates, more than any other university. With the exception of a tiny handful... I am generally quite impressed with the quality (both raw ability and work ethic) of the undergrads.... Considering the environment they face (there's no time for personal growth at the Institute), I'm surprised they are as sane as they seem to be.

A Faculty Member
I believe we must optimize our teaching, workload and level [of difficulty] for serious, honest students. I refuse to water a course down because it might slightly decrease the pressure for a marginal student to cheat.

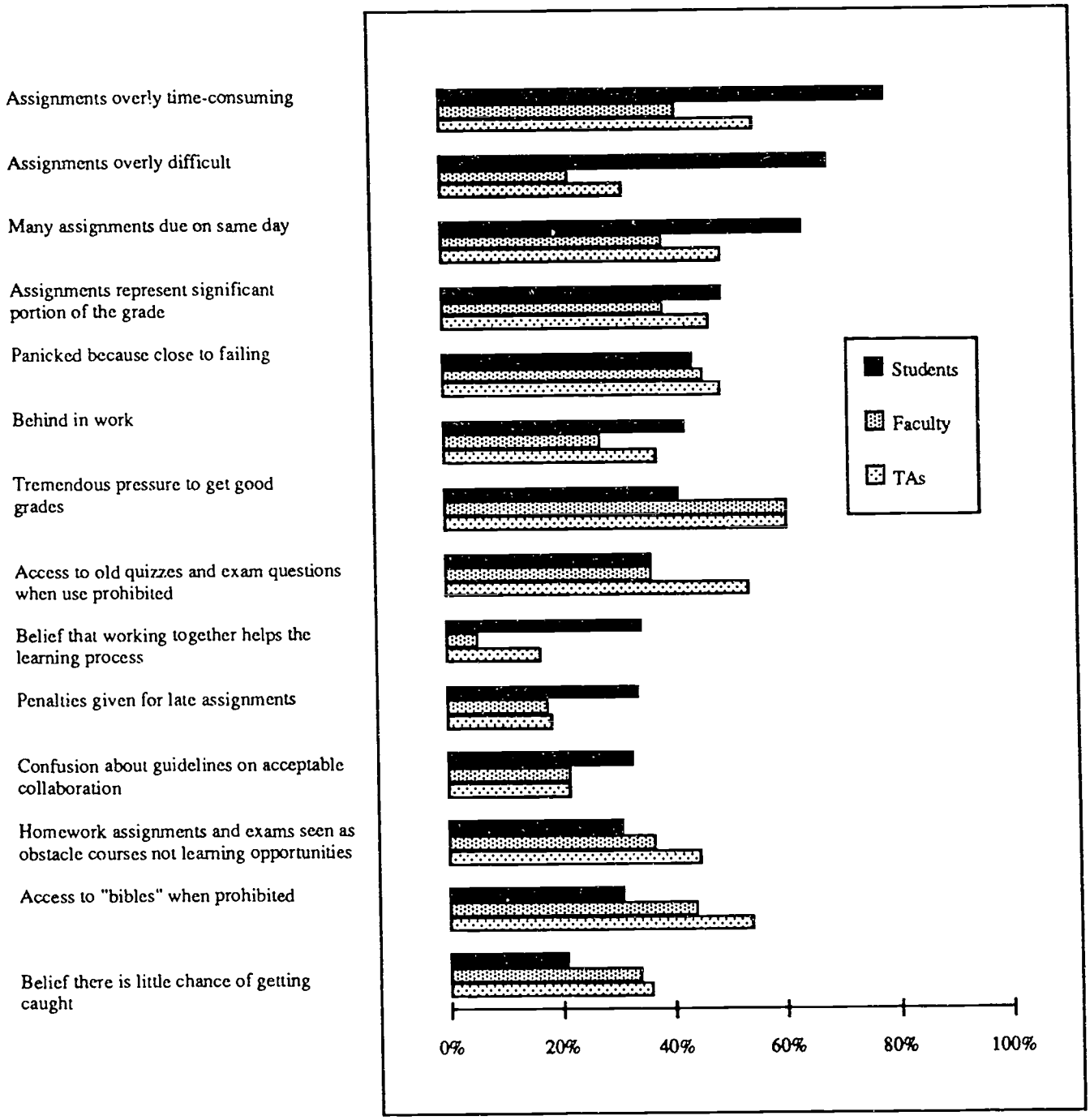
A Graduate Teaching Assistant
I think the only way for many of these kids to survive is to cheat.... Most of these students sleep three, four hours and often stay up for nights at a time. They eat garbage and don't get enough exercise. Social life revolves around Athena. Does the faculty care? No. They just keep dishing out problem sets that are undo-able without consulting "bibles." Even if they were do-able, time constraints alone would make them undo-able without collaboration.

A faculty member
We just plain work them [students] too hard.

Why Do Students Cheat?

Each survey included a list of possible reasons for dishonest behavior, grouped into four main types. These relate to (1) problem set homework assignments, (2) quizzes and exams, (3) classroom characteristics, and (4) personal or situational reasons. Respondents were asked to indicate how much each influenced undergraduate cheating behavior on a four-point scale ranging from "no influence at all" to "strong influence." Figure 8 presents the ten reasons most frequently mentioned by each group.

Figure 8. Causes of Cheating: Primary Reasons
(Percentage Indicating "Strong Influence")



There is considerable agreement about what students believe causes cheating -- over 60% cite workload pressures. Workload pressures include: overly time-consuming homework, overly difficult homework, and many assignments due on the same day. These are cited even more frequently by students who have a high rate of cheating on the Homework Problem Set and "Serious" Cheating Indexes. Students with high values on the Homework Problem Set Cheating Index are more likely to give the reason that "working together helps the learning process." Students who have high values on both cheating indexes are more likely to note

"behind in work" as a reason.

Of the ten reasons most frequently cited by each group, seven are the same:

- overly time-consuming assignments
- many assignments due on the same day
- assignments represent a significant portion of the grade
- panicked because close to failing
- behind in work
- pressure to get good grades
- access to old quizzes and exam questions ("bibles").

Despite these similarities, there are notable differences. Faculty and teaching assistants fail to support what students see as an important issue: overly difficult assignments. While the majority of the students (69%) cite "overly difficult assignments" as the second most important cause of cheating, far fewer faculty (23%) and teaching assistants (33%) view it as having a major influence.[14]

Given the finding that workload-related cheating (cheating having to do with problem set homework) is the most prevalent and the only kind that can be described as widespread, student responses need to be viewed not only as justifications or rationalizations about behavior, but as feedback about their academic experience. It is also striking that a majority of faculty and teaching assistants cite "tremendous pressure to get good grades" as the most important influence on cheating (mentioned by three-fifths), while students put it in seventh place (mentioned by two-fifths). Faculty may have a sense of students' being far more competitive and grade-conscious than they really are.

Student-faculty communication patterns play an important role. When students were questioned about approaching faculty when they have academic problems, responses show that serious student-faculty communication barriers exist. Although many students believe faculty are willing to talk with them about their academic difficulties, they feel uncomfortable about actually doing so. [15] Faculty and teaching assistants are well aware of this reluctance.[16]

The attitude of students with low GPAs toward communicating with faculty is especially troubling. Students with GPAs under 4.0 are significantly more likely than those with high GPAs (above 4.5) to "strongly disagree" with the statement, "Professors would like to have students talk with them when they are having difficulties in a subject" ($p < .01$). Likewise, students with low GPAs are significantly more likely than those with high GPAs to report they feel uncomfortable talking with faculty about their academic problems ($p < .05$). When students with low GPAs hesitate to discuss academic problems with faculty, a potential resource is closed to students who could use it most. As noted earlier, students with low GPAs cheat more than students with high GPAs. Although student attitudes toward faculty communication is only one

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[14] Faculty were asked whether they agreed with the statement that "faculty in my department set reasonable expectations about student performance and workload." Three-quarters of the faculty "agreed" with this statement, which emphasizes still more the discrepancy between faculty and student perceptions.

[15] Students were asked two questions about their communication with faculty: To what extent did they agree or disagree that: (a) "Professors would like to have students talk with them when they are having difficulties in a subject," and (b) "I feel uncomfortable talking to a professor about difficulties I am having in a subject." Fourteen percent "strongly agreed" and 45% "somewhat agreed" that professors would like to have students talk with them when they are having difficulties in a subject, but 32% "strongly agreed" and 42% "somewhat agreed" that they feel uncomfortable talking to a professor about academic problems.

[16] The faculty and TA surveys asked about the extent to which they agreed or disagreed that "MIT undergraduates seem reluctant to talk to faculty about difficulties they are having in a subject." Twenty-three percent of the faculty "strongly agreed," and 55% "somewhat agreed." Forty-two percent of the TAs "strongly agreed" and 40% "somewhat agreed." When TAs were asked whether MIT students seem reluctant to talk to TAs about difficulties they are having in a subject, 14% "strongly agreed" and 41% "somewhat agreed."

of many complex factors influencing cheating, the data highlight the importance of paying close attention to this area.

It's Not Easy to Ask Faculty for Help.

A Student
Students usually cheat because they want good grades in the classes, yet they don't understand the materials and dare not ask the teachers. This situation usually occurs in large recitations when there are plenty of other "smart" people around, and one is afraid to ask "stupid" questions.... Since I don't want to appear "stupid" in class, I don't ask "dumb" questions. That hurts my grades in the end.

A Student With a Low GPA
I don't "use" faculty and TAs unless I feel they will be willing and able to help me. I've gone to TAs who were so shaky on the material themselves that I just gave up. I've had many professors talk to me very fast and intimidatingly, as if they really didn't even want to give me the time of day.

A Student
Students don't sit down and say, "I'm going to cheat." They ask for help when they don't know what to do; since that occurs late, the night before the problem set is due, faculty and TAs are usually unavailable.

A Student With a Low GPA
Many professors have been working in their respective fields for thirty to forty years. The problem sets they write may seem trivial to them, but to someone who has seen the material for the first time in their life just seven days before it is due, it may as well be a foreign language.

What About "Bibles"?

A Student
I think the thing professors have to realize is that it is meaningless to say "no 'bibles' allowed." If the professors insist on using the same material the same way year after year, "bibles" will be used. The classes that have the least emphasis on "bibles" are those where the professor makes new work for each term.

A Student
"Bibles" are extremely valuable resources. Anyone who uses them properly (not as something to copy from, but something to study from) learns an incredible amount and has a broader knowledge of the course topic. "Bibles" should be more publicly accessible. I like the idea of having them on-line.

A Faculty Member
It's awfully difficult to write new, good questions every year. If "bibles" were readily available, I suspect faculty would limit them to one or two prior exams, and recycle earlier questions. If files of earlier exams were kept, users might believe use of "bibles" was condoned (because readily available) and study from exams not in publicly available files. We need to clearly differentiate "licit" from "illicit bibles."

A Faculty Member
As I recall from my undergraduate days at MIT, "bibles" were an extremely effective way of learning what was important in each class. Making such material available to all would promote learning.

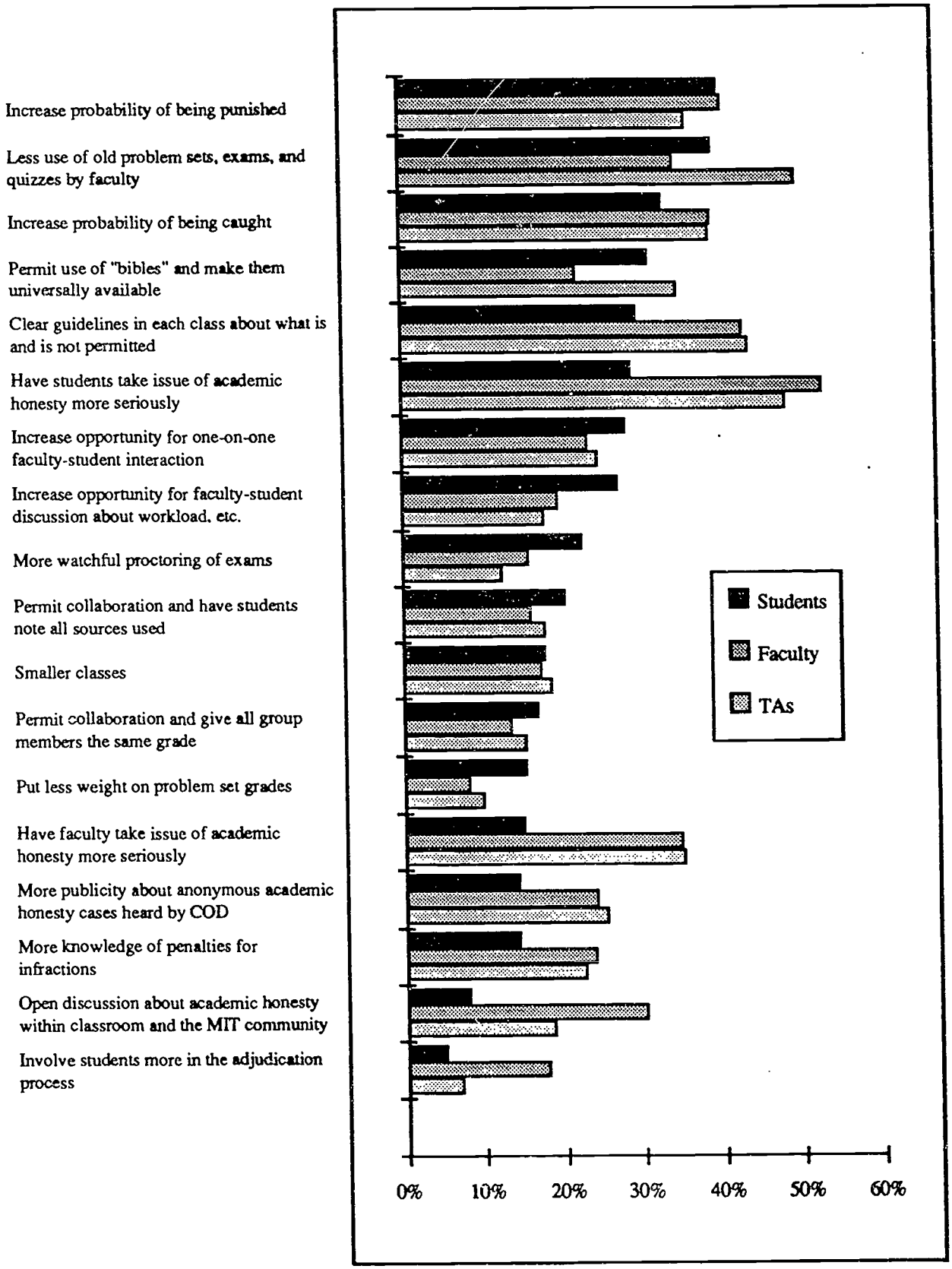
A Graduate Teaching Assistant
Course "bibles" exist and they can't be removed and one wouldn't want to; they are an important study aid.

A Graduate Teaching Assistant
The availability of "bibles" and the relatively unchanging nature of the lab experiments leads to trivializing the process of writing lab reports.... Students take the data they collect, plug it into the appropriate places in a "bible," possibly shuffle sentences around, and turn it in.

How Can More Honest Behavior Be Encouraged?

There is little consensus among respondents about what would encourage more honest academic behavior -- with some exceptions. About 40% in each of the three groups cite the importance of increasing the probability of students being caught and punished. Having clear guidelines within each class about what constitutes cheating is thought to be important by over 40% of the faculty and TAs. Over half of the faculty feel students need to take the issue of academic honesty more seriously. Half of the teaching assistants believe that faculty should use fewer old problem sets, exams, and quizzes (thus relegating "bibles" to study aids). Students are less optimistic than faculty about the usefulness of more student involvement in the adjudication process and about the benefit of open discussions of academic dishonesty in the classroom and elsewhere (see Figure 9).

Figure 9. Actions That Could Encourage More Honest Academic Behavior
(Percentage Indicating "To a Great Extent")



Undergraduates, faculty, and teaching assistants all agree that the subject of academic dishonesty needs to be addressed at MIT. There is clear consensus among all respondents that an MIT education should include learning standards of academic and professional ethical behavior. In addition, faculty and teaching assistants acknowledge the important roles they themselves play with regard to educating students about these concerns and creating an environment conducive to academic integrity. Approximately three-quarters of the faculty and slightly fewer TAs agree that proven cases should be kept on record within a student's major department. Somewhat fewer, two-thirds of faculty and teaching assistants, think that information about proven cases of academic dishonesty should be kept on file in a central administrative repository.

Table 12. Attitudes About Improving the Climate for Academic Honesty

(Percentage Indicating "Strongly Agree" or "Agree")

	Faculty	TAs	Students
An MIT education should include learning standards of academic and professional ethical behavior	93%	93%	91%
It is my responsibility to help students learn standards of academic and professional ethical behavior	93%	88%	*
Faculty should help students learn standards of academic and professional ethical behavior	*	94%	*
Faculty should be responsible for creating an environment that minimizes the pressure to cheat	78%	74%	*
All cases of proven student academic dishonesty should be reported to a central repository	68%	63%	*
All cases of proven student academic dishonesty should be kept on record within each department	76%	70%	*

* Not Asked

PART IV: CONCLUSIONS

The conclusions below were formulated by the report's authors in consultation with the head of Undergraduate Academic Affairs, other UAA staff, members of the MIT Colloquium Committee, and the Dean for Undergraduate Education and Student Affairs. They are rooted in the survey's findings, which include not only the quantitative data but also the often lengthy and detailed statements written by many who responded to the survey's invitation to make open-ended comments. The conclusions range from the general to the specific -- from the identification of broad areas of concern to the suggestion of possible corrective measures. They are intended more to stimulate Institute efforts at making things better than to prescribe exact systems for implementation. The Colloquium Committee expects that each of them will now be taken up by appropriate individuals and academic agencies at MIT -- administrators, schools, departments, committees, student organizations -- and be shaped into recommendations implementable in the near future.

Collaboration

Teamwork is common to many disciplines taught at MIT. Undergraduates and faculty alike value and support collaborative learning and action. Student attitudes about the benefits of learning with others are expressed with feeling in the open-ended survey comments. Most students understand well that "collaboration" that amounts to mere copying is dishonest. They also need to learn the attitudes and skills that can make purposeful teamwork a productive part of their learning experience, as in the Teamworks initiative designed by a Colloquium-inspired task force of students with UAA support. This initiative is now being tried out in freshman core subjects 5.11 and 3.091.

When working together on problem set homework is limited or not permitted, many undergraduates work together anyway. This is a fact that is hard to ignore. Messages about homework collaboration should be unambiguous. Although many faculty report giving students guidelines about the limits of collaboration, this is not done consistently or explicitly enough. The most effective message might employ both spoken and written guidelines, with examples, as well as discussion.

Communication Between Lecturers and Recitation Instructors

Faculty and teaching assistants who differ in the way they define cheating need to discuss these differences and agree about the degree of collaboration permissible. Many teaching assistants to whom faculty have not given guidelines about academic expectations may react to dishonesty in ways faculty would not endorse if they were aware. Faculty need to make more of an effort both to give teaching assistants guidelines and to make those guidelines clear. This will help teaching assistants better represent faculty interests when cheating is suspected. Both groups should routinely exchange information about cheating occurrences and penalties. Departments and subject staffs might well explore ways of making this happen.

Student Workload

The pressure created by a pile-up of homework assignments or a clustering of exams could be mitigated if faculty were aware of competing demands and able to take them into account. In the freshman year these competing demands are more evident since everyone takes more or less the same core subjects. Core instructors (lecturers and recitation instructors) already share information in regular meetings held by the Dean for Undergraduate Education and Student Affairs. In some core subjects students act as class representatives, interacting with faculty and teaching assistants about workload issues on behalf of the class.

Efforts to regulate the pressure of workload in core subjects could be extended to the rest of the curriculum. Getting reliable student input (in ways other than relying on grading outcomes) would aid the calibration of the difficulty, the number, and the timing of quizzes and assigned problems. If there were a mechanism or mode of communication that could overcome students' reluctance to talk with faculty, this could ease pressure on students and give faculty a better sense of how those students are really doing. One way to accomplish this might be an electronic mail or "discuss" channel that allows students to request help at any hour and permits an open exchange of comments about workload. Another is more widespread use of student representatives. Yet another is more face-to-face communication between students and faculty. There are doubtless many more.

Support for Students in Difficulty and at Critical Times

MIT students are noted for their independence and disinclination to ask for help. Students with lower GPAs (under 4.0) are even more reluctant than those with higher GPAs to ask for assistance. Yet their GPAs and greater frequency of "cheating" show they are the ones *most* in need of help. Rather than wait for students who are having academic difficulty to approach them, a typical pattern, faculty and teaching assistants ought actively to find new ways to overcome student reluctance to seek help. They must reach out and more consistently *initiate* conversations with students having academic difficulties.

Since sophomores tend to have higher rates of cheating, the transition from freshman to sophomore year seems to be more stressful than has generally been assumed. This is a time when it is crucial that students receive sensitive and knowledgeable advising. Providing sophomores with upperclass mentors or having orientation or welcoming programs for new majors might help to alleviate student concerns.

"Bibles" and Recycling

It is unlikely that the faculty will reach practical consensus on re-use of exam questions, problem sets, or other assignments. Many find that effective problems and questions are not easy to come by and believe it would be unreasonable to expect teachers to invent new ones continually. Different faculty will always have different ways of doing things. On the other hand, awareness and fair access are matters that MIT can do something about. Whatever their individual policies and practices, faculty need to understand that "bible" repositories of old problem sets and exam questions (often with solutions and answers appended) exist in many on- and off-campus locations, that there is little chance of eliminating them, and that many students make use of them whether permitted or not. A real problem is that students do not have equal access to "bibles." The Institute should seriously consider creating its own 24-hour-accessible "bible" repositories (in convenient campus locations and/or on Athena) to which faculty might contribute materials as they see fit, and making sure all undergraduates know how to use them.

Publicizing Punishment and Keeping Records

If punishment is to help reduce cheating, the likelihood that specific punishments will be meted out for specific offenses needs to be communicated publicly. The current secret sanction process sends the community no messages. Publicity about specific cases (with the anonymity of individuals protected) would let the community know that cheaters are caught and punished. Such publicity could apply to those cases heard, and sanctioned, at the departmental level as well as by the Committee on Discipline.

An enhanced system for central record keeping would ensure keeping track of repeat offenders and sanctions. An account of each case might consist of a detailed letter about the incident, including its outcome. The letter could be sent to and kept within the academic department and a central place such as the Office of the Dean for Undergraduate Education and Student Affairs.

This would apply to all cases heard by the Committee on Discipline or dealt with at the departmental level.

Ethical Values

Much of this report focuses on areas of dishonest practice such as cheating on homework. There appear to be other areas, however, in which the trouble is rooted in mistaken values. Half the undergraduates reported they had misrepresented or fudged data in a lab report or research paper, or had listed references without reading the sources, or had used another person's phraseology, argument, or ideas without attribution; about one-quarter admitted copying from another person's paper or published work. It is disturbing that many of these actions are considered either trivial cheating or not cheating at all. If such attitudes are to be changed, explicit guidance about fakery, plagiarism, and sloppy attribution needs to be on the educational agenda in our classrooms and laboratories.

APPENDIX I

A. Survey Respondents: Three Composite Sketches

B. Sample Questionnaire: Undergraduate Academic Dishonesty Survey

APPENDIX I

A. Survey Respondents: Three Composite Sketches

Below are sketches of "typical" (but fictitious) respondents to the three surveys: an undergraduate student, a faculty member, and a graduate teaching assistant. Each person is a composite who expresses the opinions reported by the majority and the uncertainties which reflect the divided views of respondents. These views are derived from both the quantitative and qualitative data.

A Student

This student has the demographic qualities of the majority of undergraduates who responded to the survey. Therefore, the composite student is a male senior with a cum between 4.0 and 4.5 who lives in a campus dormitory and is a US citizen.

There isn't any more academic dishonesty at MIT than there was in my high school. The cheating that goes on here is more likely to happen in classes where a lot of people make use of "bibles," in programming classes, or, more generally, in classes with very difficult assignments and heavy workloads. Cheating is not likely to occur in a HASS requirement subject.

I think the majority of students have engaged in most forms of activities that might be considered cheating. Most students, including myself, have worked together (on both approaches and answers to problem sets) when collaborating was prohibited. This is a trivial form of cheating. I think most MIT students have at times copied someone else's problem set, and allowed other students to copy. I haven't done it often, but I have done it. Most other students have listed or guessed at references they haven't actually read and have used another person's argument or ideas without acknowledgment. These aren't things I have done myself, although I feel they are also trivial forms of cheating.

Certain kinds of cheating are definitely serious. Copying from another student during an exam, or even allowing someone else to copy, using crib sheets, studying from an old exam that's identical to the one you're going to take, handing in another person's paper as your own, or fudging data in a research paper -- these are serious acts of cheating. I've never done any of them.

A lot of students are confused about just what constitutes academic dishonesty. I'm not certain myself how to categorize some kinds of behavior. For example, is copying a problem set you haven't worked on and that will not be graded actually cheating? Or letting someone else copy a problem set that won't be graded? Using another person's phraseology, argument or ideas without acknowledgment may be trivial or serious cheating, I'm not sure.

I think faculty also take certain kinds of cheating more seriously than others. If they discovered someone cheating during an exam or someone handing in another person's paper as their own, I think they would bring this to some higher authority. But I think most faculty either wouldn't notice or wouldn't react when the behavior was unallowed collaboration. Plagiarizing or fudging data might be an issue they would discuss with the student who did it or with the whole class. Graduate teaching assistants are probably more likely than faculty to notice collaboration when it wasn't allowed or the fudging of data, but they would react to other kinds of cheating about the same as faculty.

What exerts the strongest influence on cheating is our having overly difficult and time-consuming assignments, especially when they represent a significant portion of the grade and are due on the same day. Other factors count almost as much, like getting behind in work because of illness, or panicking because you think you're failing, or having easy access to old quizzes and exams. Also important is the tremendous pressure to get good grades. But that doesn't mean we feel we have to cheat to compete.

More honest academic behavior on the part of undergraduates might be encouraged if all students took the issue more seriously, and if the probability of being caught and punished for cheating was increased. (It may seem paradoxical, but I don't think the fact that penalties for cheating are minor actually causes cheating.) Faculty could encourage more honest behavior if they made less use of old problem sets and exams, and made "bibles" universally available. More opportunities for faculty-student discussion about classroom learning and workload would help, and so would increased one-on-one faculty-student interactions. I think faculty would like to have students talk with them when they're having academic problems, but the trouble is that I don't feel comfortable talking with faculty about this kind of thing. I don't know whether involving students in the adjudication process (such as having a student honor board) would have an effect on honest behavior. I believe than an MIT education should include learning about standards of academic, professional, and personal ethical behavior.

A Faculty Member

This faculty member is a male Professor in the School of Engineering who has been at the Institute for more than ten years. He teaches classes taken mainly by department majors and taught during the 1991-92 academic year.

In my years at MIT I haven't observed any changes in cheating patterns. When I compare my experience at MIT with my teaching experience at another institution, I can only say that academic dishonesty is about the same in both places. I'm somewhat bothered by the degree of dishonesty that exists among MIT students, and I see the issue of undergraduate cheating as one that is certainly as serious as the issue of cheating among professionals. An MIT education must include learning standards of academic and professional behavior, and I believe it is part of my responsibility to help students learn this. Creating an environment that minimizes the pressure to cheat is part of that responsibility. I give my students oral guidelines about academic honesty each term.

Some kinds of student cheating are more prevalent than others and they differ in seriousness. About half the undergraduates have at least on one occasion done such things as copy problem sets (homework that was not going to be graded) or allowed someone else to copy theirs, or listed references without reading the sources, or fudged references such as page numbers or publication dates. These are trivial forms of cheating. Collaborating on homework when I've prohibited this and copying homework that I plan to grade is more serious cheating. There is no question about the seriousness of cheating during an exam, or copying from another person's paper or published work without acknowledgment, or fudging data in a research paper, or submitting another person's paper as one's own. I doubt the majority of MIT students cheat in such ways. I am unaware of students ever getting help from an Athena consultant for a programming class and doubt whether students would do this. It is, in any event, a type of behavior I would not regard as particularly serious.

In a typical year I have been aware of about three cheating incidents and have taken action about two-thirds of the time. I have given my TAs guidelines about the handling of cheating. If they suspect students of doing something as serious as cheating on an exam, they will send those

students to me. When the behavior is homework-related they may handle incidents themselves by talking with the student or writing a note. When I did not take action in a case of suspected cheating, it was because the cheating was difficult to prove. The kind of cheating most likely to come to my attention is the copying of a problem set that I would have graded. It is not an issue I am likely to take beyond the classroom (where I might discuss the incident with the student, or give a grade penalty on the assignment, or perhaps discuss with the class as a whole). It is highly unlikely that I would bring this to the COD or to any other level. I have been satisfied by the handling of cheating incidents in general.

The major factor leading to cheating is the tremendous pressure students feel to get good grades. The belief that cheating is widespread and that students have to cheat to compete feeds that pressure. Although faculty in my department set reasonable expectations about student performance and workload, I believe that overly difficult or time-consuming assignments, or assignments that represent a significant portion of the grade or are all due on the same day, may lead students to cheat. When homework assignments are seen as obstacle courses, rather than opportunities for learning, students may be encouraged to cheat. Access to "bibles" or to old quizzes and exams are also important factors. Sometimes students may cheat because they get behind in their work or have personal problems or have gotten into a panic because they think they may fail. We should keep in mind that students believe they are unlikely to get caught and think penalties for cheating are minor.

If students were to take the issue of academic honesty more seriously, this would certainly have an impact on dishonest behavior. Having clear written or oral guidelines about academic dishonesty in every class is also important. We should increase the probability that students will be caught and punished for being dishonest. Although the accessibility of instructors and TAs doesn't play a significant role in causing students to cheat, I believe students are reluctant to talk to faculty about their academic difficulties. While I'm not sure whether having more opportunities for faculty-student interaction would be helpful, I think that open discussion about dishonesty, and having faculty take the issue more seriously, surely would. Changing grading (that is, giving less weight to problem set grades, or giving groups who are supposed to collaborate the same grade) and having smaller classes are unlikely to make a difference in cheating behavior. If all cases of proven student academic dishonesty were reported to a central repository or were kept on record within each department, we might affect behavior. More publicity about anonymous academic honesty cases heard by the COD may also encourage more honest behavior.

A Teaching Assistant

The composite teaching assistant is a male engineering graduate student in his third year at the Institute, which he did not attend as an undergraduate. He is in a doctoral program and is a US citizen.

I have TA'd for undergraduate subjects, teaching mostly engineering majors. These subjects are generally neither computing courses nor core subjects. I find the undergraduate dishonesty here at MIT to be about the same as, or worse than, it was at the college I attended. The amount of dishonest behavior bothers me somewhat.

Although I am acquainted to some degree with MIT's policies on academic honesty, I'm not sure how effective they are. What is important is the need for faculty to play a role in helping students learn standards of academic and professional ethical behavior, and take the issue of dishonesty seriously. The faculty are responsible for creating an environment that minimizes cheating. This is also my responsibility as a teaching assistant. Ethical learning should be part

of an MIT education. Students here seem confused about what constitutes academic honesty, and the guidelines could be clearer. Definitions of dishonesty vary as well. When they are having academic problems, undergraduates are reluctant to talk to professors about them. (They are less reluctant to talk with me and other TAs.)

I believe that the vast majority of undergraduates have cheated at least once on homework problem sets. Generally, unauthorized homework collaboration is a trivial issue, unless the homework is going to be graded. Allowing another person to copy homework is also a trivial matter when the homework is not going to be graded, but it becomes a serious cheating issue when it will be graded. I am not aware of cheating on exams, but I would regard it as a serious form of cheating. I have no knowledge of students studying from old exams, copying papers without acknowledgment, using another's ideas without acknowledgment, misrepresenting data, referencing without having read the sources, or fudging references -- all serious issues. I am unaware of anyone's having submitted another paper as his or her own, an extremely serious act of cheating, and I am unaware of a student getting unauthorized assistance from an Athena consultant, but the latter is a trivial act in any case.

All in all, about five cheating incidents usually come to my attention during a typical year. When the incident involved unauthorized collaboration I made a comment on the student's paper or discussed the issue with the student. Sometimes I did both. When the offense was cheating in one of the areas I consider more serious, I informed the instructor as well. Occasions when I might not take action at all might be cases in which the cheating was not serious (e.g., getting help on programming homework from an Athena consultant), or when the cheating was difficult to prove. But I have little reluctance to confront students I've found cheating. I feel this is part of my responsibility as a TA.

There is tremendous pressure here on undergraduates to get good grades. Homework is sometimes seen as an obstacle course rather than a learning opportunity. This, and having many assignments due on the same day, having these homework assignments represent a significant part of the grade, and having access to "bibles" or old quizzes and exams may all lead to cheating. I think students are also more likely to cheat when they panic because they think they are going to fail or when they get behind in their homework because of personal problems.

I think honest behavior could be encouraged if students took the issue of cheating more seriously. Clearer guidelines would help, too. So would less use of old homework problems. The probability of getting caught and punished would surely decrease dishonesty. I would like to see all proven cases of cheating kept on record within each department or kept in a central repository.

B. Sample Questionnaire: Undergraduate Academic Dishonesty Survey

Massachusetts Institute of Technology
MIT Colloquium Committee
April, 1992

Undergraduate Academic Dishonesty Survey
1992

1. To what extent do you agree or disagree with the following statements:

	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree	Don't Know
a. There is more academic dishonesty at MIT than there was at my high school.	1	2	3	4	5
b. I don't give much thought to the issue of academic dishonesty.	1	2	3	4	5
c. An MIT education should include learning standards of academic and professional ethical behavior.	1	2	3	4	5
d. The total MIT experience should help students learn standards of personal ethical behavior.	1	2	3	4	5
e. I am bothered by the academic dishonesty that goes on at MIT.	1	2	3	4	5
f. Professors would like to have students talk with them when they are having difficulties in a subject.	1	2	3	4	5
g. I feel uncomfortable talking to a professor about difficulties I am having in a subject.	1	2	3	4	5
h. I feel confused about what constitutes academic dishonesty.	1	2	3	4	5
i. Cheating is common in American society. It is an acceptable way to get ahead -- to get an advantage over others.	1	2	3	4	5

2

	Question 2(a) (b). During the current academic year ('91-'92), how often would you estimate:		Question 2c. Which actions on this list do you consider to be cheating?
	2(a) most MIT students have engaged in these actions? 1 = Never 2 = Once/Twice 3 = Occasionally 4 = Frequently	2 (b) you have engaged in these actions ? 1 = Never 2 = Once/Twice 3 = Occasionally 4 = Frequently	1 = Not Cheating 2 = Trivial Cheating 3 = Serious Cheating
a. Collaboration on approach to problem set/homework when instructor prohibits any collaboration or group discussion	1 2 3 4	1 2 3 4	1 2 3
b. Collaboration on answers to problem set/homework when instructor asks for individually arrived-at answers	1 2 3 4	1 2 3 4	1 2 3
c. Copying a problem set (or parts of a problem set) you have not worked on that *will not be graded*	1 2 3 4	1 2 3 4	1 2 3
d. Copying a problem set (or parts of a problem set) you have not worked on that *will be graded*	1 2 3 4	1 2 3 4	1 2 3
e. Allowing someone else to copy a completed problem set/ homework that *will not be graded*	1 2 3 4	1 2 3 4	1 2 3
f. Allowing someone else to copy a completed problem set/ homework that *will be graded*	1 2 3 4	1 2 3 4	1 2 3
g. Exchanging answers during quiz/exams either verbally or by passing notes	1 2 3 4	1 2 3 4	1 2 3
h. Smuggling in crib sheets or other aids when crib sheets and other aids are not allowed	1 2 3 4	1 2 3 4	1 2 3
i. Copying from another student during a quiz or exam	1 2 3 4	1 2 3 4	1 2 3
j. Permitting another student to copy quiz/exam answers	1 2 3 4	1 2 3 4	1 2 3
k. Studying from the copy of an identical quiz/exam that was previously given when this was prohibited	1 2 3 4	1 2 3 4	1 2 3
l. Copying from another person's paper or published work without acknowledgment	1 2 3 4	1 2 3 4	1 2 3
m. Using another person's phraseology, argument or ideas without acknowledgment	1 2 3 4	1 2 3 4	1 2 3
n. Misrepresenting or "fudging" data in a lab report or research paper	1 2 3 4	1 2 3 4	1 2 3
o. Listing references without reading the sources	1 2 3 4	1 2 3 4	1 2 3
p. Guessing at or "fudging" references such as page numbers, publication dates, etc.	1 2 3 4	1 2 3 4	1 2 3
q. Submitting another person's paper or lab report as one's own	1 2 3 4	1 2 3 4	1 2 3
r. Obtaining help from an Athena consultant in writing the content of a program for a programming class	1 2 3 4	1 2 3 4	1 2 3

3. Based on acts of cheating that you know of at MIT (including your own, if any), how much do you think each of the following influences the behavior that is likely to lead to cheating?

Problem Sets/Homework Assignments	No Influence At All	Slight Influence	Moderate Influence	Strong Influence
a. Overly difficult assignments	1	2	3	4
b. Overly time-consuming assignments (official credit hours listed don't correspond with actual hours spent on subject)	1	2	3	4
c. Penalties for late assignments	1	2	3	4
d. Assignments represent significant portion of grade	1	2	3	4
e. Too many assignments due on same day	1	2	3	4
f. Access to "bibles" or commercial problem-solvers when they have been prohibited	1	2	3	4
Quizzes and Exams				
g. Unreasonable amount of formula memorization required	1	2	3	4
h. Easy visual access to another student's exam	1	2	3	4
i. Access to old quizzes and exam questions (known to have been repeated) when they have been prohibited	1	2	3	4
Class Characteristics				
j. Problems obtaining help from instructor (lack of accessibility, reluctance to ask for help, etc.)	1	2	3	4
k. Problems obtaining help from TA (lack of accessibility, reluctance to ask for help, etc.)	1	2	3	4
l. No allowances made for personal problems that get in the way of work	1	2	3	4
m. Cheating on homework seems to be tolerated by instructor and/or TA	1	2	3	4
n. Little opportunity for individual attention because class is large	1	2	3	4
o. Unclear guidelines about the amount of collaboration that is acceptable	1	2	3	4
p. Cheating is widespread and you have to cheat to compete	1	2	3	4
q. Penalties for cheating are minor	1	2	3	4
r. There is little chance of getting caught for cheating	1	2	3	4
s. Homework assignments and exams are obstacle courses not opportunities for learning	1	2	3	4
t. Mixed messages are given in different classes about amount of collaboration that is allowable	1	2	3	4
Individual/ Situational Reasons				
u. Got behind in work (illness, personal problems, missed classes, etc.)	1	2	3	4
v. Felt tremendous pressure to get good grades	1	2	3	4
w. Panicked because close to failing	1	2	3	4
x. Wanted to help other students	1	2	3	4
y. Working together helps the learning process	1	2	3	4
z. Not prepared for the level of the class	1	2	3	4
aa. Not interested in subject	1	2	3	4

4. Are there other factors which influence the decision to cheat? Please explain.

5. How do you think most MIT faculty members would react when the following types of incidents occur?

1 = Unaware
2 = Aware but no reaction
3 = Aware/handle at class level (write comment on problem set or paper and/or discuss with student and/or discuss with class without identifying student)
4 = Aware/discuss with student (and/or with class without identifying student) *and bring to attention of higher authority* (at department, school, or administration level)

	Unaware	Aware but No Reaction	Comment/ Discuss with Student/ Class	Bring to Higher Authority
a. Collaboration on problem set/homework when instructor prohibits collaboration	1	2	3	4
b. Copying a problem set or parts of a problem set	1	2	3	4
c. Cheating during an exam	1	2	3	4
d. Plagiarizing/copying materials (other than problem sets) without acknowldgement	1	2	3	4
e. Misrepresenting or "fudging" data in a lab report or research paper	1	2	3	4
f. Submitting another person's paper or lab report as one's own	1	2	3	4
g. Obtaining help from an Athena consultant in writing a program for a programming class	1	2	3	4

6. How do you think most MIT TA's would react when the following types of incidents occur?

1 = Unaware
2 = Aware but no reaction
3 = Aware/write comment on problem set or paper and/or discuss with student
4 = Aware/write comment on problem set or paper and/or discuss with student *and bring to attention of faculty member*

	Unaware	Aware but No Reaction	Comment/ Discuss with Student	Bring to Faculty Member
a. Collaboration on problem set/homework when instructor prohibits collaboration	1	2	3	4
b. Copying a problem set or parts of a problem set	1	2	3	4
c. Cheating during an exam	1	2	3	4
d. Plagiarizing/copying materials (other than problem sets) without acknowledgment	1	2	3	4
e. Misrepresenting or "fudging" data in a lab report or research paper	1	2	3	4
f. Submitting another person's paper or lab report as one's own	1	2	3	4
g. Obtaining help from an Athena consultant in writing a program for a programming class	1	2	3	4

7. Are there some types of subjects in which cheating is more likely?

☐ Yes ☐ No

(If "Yes") Place a check next to the types of subjects. (Check all that apply.)

____ Subject that is heavily "bibled"

____ Subject that is an elective for you but required for other students

____ Subject in your major

____ Subject that is an Institute Core Science Requirement

____ Subject that is a HASS Requirement

____ Computer programming subject

____ Other: (Please specify):

8. To what extent do you think each of the following would encourage more honest academic behavior?

	Not At All	To a Small Extent	To A Moderate Extent	To A Great Extent
a. Put less weight on problem set grades	1	2	3	4
b. Increase opportunities for faculty-student discussion about classroom learning/work load, etc.	1	2	3	4
c. Involve students more in the adjudication process (e.g., have some form of student honor board)	1	2	3	4
d. Permit use of "bibles" and make them universally available (in depts., libraries, on-line)	1	2	3	4
e. Clear written guidelines and/or clear oral communication in each class about what is and is not permitted	1	2	3	4
f. Increase opportunities for one-on-one faculty-student interaction	1	2	3	4
g. More watchful proctoring of exams	1	2	3	4
h. Permit collaboration and give all group members the same grade	1	2	3	4
i. Permit collaboration and have students note all sources used (e.g., persons collaborated with, etc.)	1	2	3	4
j. Less use of old problem sets, exams and quizzes by faculty	1	2	3	4
k. Open discussion about academic honesty within classroom and the MIT community	1	2	3	4
l. More knowledge of penalties for infractions				
m. Have faculty take issue of academic honesty more seriously	1	2	3	4
n. Have students take issue of academic honesty more seriously	1	2	3	4
o. Smaller classes	1	2	3	4
p. More publicity about anonymous academic honesty cases heard by the Committee on Discipline (COD)	1	2	3	4
q. Increase probability of being caught	1	2	3	4
r. Increase probability of being punished	1	2	3	4

9. Do you have other suggestions for encouraging more honest behavior? Please explain.

10. When you do your problem sets/homework assignments, do you study:

❒ Almost always alone ❒ Usually alone ❒ 50% alone/50% with a group ❒ Usually with a group ❒ Almost always with a group

11. Year in School:

❒ Freshman ❒ Sophomore ❒ Junior ❒ Senior ❒ Other

12. Are you pursuing a double major?

❒ Yes ❒ No

13. Which of the following broad occupational categories do you plan to enter after MIT or after graduate school?

❒ Engineering ❒ Science ❒Business ❒ Academic/Research

❒ Law ❒ Architecture/City Planning ❒ Medicine/Health

❒ Public service/government/non-profit ❒ the Arts ❒ Military

❒ Other

14. (For upperclass students) What is your CUM?

❒ Under 3.0 ❒ 3.0 through 3.9 ❒ 4.0 through 4.5 ❒ 4.6 through 5.0

15. Citizenship:

❒ US Citizen ❒ International Student

16. Sex:

❒ Male ❒ Female

17. (For upperclass students) Primary Course (Major): _____

18. Living Group:

❒ Dorm ❒ ILG ❒ Other

Please use page 7 for any comments you would like to make about the issue of academic dishonesty and/or this questionnaire.

THANKS FOR HELPING US UNDERSTAND THIS IMPORTANT ISSUE.

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April 1, 1994

From Alberta Lipson, in response to your request.