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# Academic Dishonesty in Graduate Business Programs: Prevalence, Causes, and Proposed Action

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*Little is currently known about cheating among graduate business students. We collected data from more than 5,000 business (mostly MBA) and nonbusiness graduate students at 32 colleges and universities in the United States and Canada during the 2002–2003 and 2003–2004 academic years to test a series of hypotheses regarding the prevalence of graduate business student cheating and reasons why these students cheat. We found that graduate business students cheat more than their nonbusiness-student peers. Correlation results found cheating to be associated with perceived peer behavior, as well as the perceived certainty of being reported by a peer, and the understanding and acceptance of academic integrity policies by students and faculty. But, regression analysis results suggest that perceived peer behavior has the largest effect. Drawing from these findings and past research on undergraduate students, we propose strategies that business schools and faculty can use to promote academic integrity in graduate business programs.*

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*"I think the WorldCom and Enron scandals point to the need for character in our business schools. If the driver at the helm is unethical, so shall the crew be."*

—Comments of an MBA student at a large U.S. university.

As this student suggests, high-profile ethics scandals have once again focused attention on ethics and cheating in business. Some business schools are responding by expanding their attention to ethics in their curricula, and some are attempting to make judgments about an applicant's ethical inclinations in admissions processes (Harker, 2005). In addition, some schools are promoting academic integrity as part of their strategy to enhance the ethical development of their students. These efforts related to academic integrity commonly include lectures during orientation sessions, website pages and chapters in student

handbooks devoted to ethical standards, and admonishments in course syllabi. Although such techniques have been found to be effective in undergraduate schools (Baird, 1980), little is known about their effectiveness among graduate business students. We also know very little about why graduate business students cheat and whether they cheat more than their peers.

Understanding cheating among graduate business students is important because these students are tomorrow's business leaders. In addition, in light of recent scandals in corporations, business schools have been searching for ways to send students the message that ethics is important. Attention to students' cheating behavior likely has some role to play in that process. Finally, there is reason to believe that cheating may be more of a problem in business schools than it is elsewhere. Research has demonstrated that undergraduate business students cheat more than their nonbusiness peers

and that they are less likely to disapprove of cheating (e.g., Baird, 1980; Bowers, 1964; McCabe, 1997). Similar differences may exist between MBA students and their nonbusiness counterparts. Although previous research has examined cheating among various types of undergraduate and graduate students (e.g., Bowers, 1964; Haines et al., 1986; Stern & Havlicek, 1986; Davis et al., 1992; McCabe & Treviño, 1995, 1997), to our knowledge this is the first multicampus study to examine cheating among graduate business students.

This study has three major objectives: (1) to test hypotheses concerning the factors that influence graduate business students' cheating behavior; (2) to examine the prevalence of cheating to determine whether business graduate students cheat more than their nonbusiness graduate student peers, and; (3) to propose strategies for promoting academic integrity in graduate business programs.

## THEORY AND HYPOTHESES

### Cheating Among Graduate Business Students

In his classic study of cheating at the undergraduate level, Bowers (1964) documented higher levels of cheating among business students. He reported that 66% of the undergraduate business students in his survey of 99 campuses reported at least one incident of cheating (operationalized as plagiarism, copying or using crib notes on a test, or turning in work done by another) in the previous academic year—8 percentage points higher than engineering students, the next highest group, and 16 percentage points higher than the overall average of 50% found in his survey of over 5,000 students. Using a more comprehensive definition of cheating, McCabe (1997) reported similar differences for a sample of 16 schools with science and engineering programs—84% of business students reporting one or more incidents of serious cheating in the past year vs. 72% of engineering students and 66% of all participating students. In a study of 31 undergraduate institutions, McCabe and Treviño (1995) also found that undergraduate students who aspired to a career in business reported higher levels of cheating than did students with other career aspirations. They proposed a number of reasons for this finding, including business-oriented students' bottom-line mentality, their higher rating of the importance of being financially well off, and their competitiveness vis-à-vis grades. Graduate business students are likely to share these characteristics.

There are multiple theoretical reasons why grad-

uate business students may cheat more. It is possible that students who are prone to cheating select themselves into business schools at a higher rate because of preexisting attitudes, such as the value of being financially well off. Or, students may be learning something in business school that leads them to have such attitudes. In support of the learning explanation, Ghoshal (2005) argued that the economic theories and free-market philosophy that form the foundation of much of the business school curriculum have a harmful impact on business students' values, attitudes, and behavior. Ghoshal (2005: 76) claimed that "by propagating ideologically inspired amoral theories, business schools have actively freed their students from any sense of moral responsibility." Business school curricula generally emphasize the maximization of shareholder wealth, without equal attention to other societal stakeholders.

Further supporting the learning explanation are studies (Frank, Gilovich, & Regan, 1993) demonstrating that economics students, perhaps driven by their exposure to the self-interest model, act in more self-interested ways than other students. Indeed, in the course of a single semester Frank and his colleagues observed a significantly greater decline in the honesty of students taking an introductory economics course (and a correspondingly greater increase in self-interested behavior) compared to students taking an introductory course in astronomy. In addition, a recent study conducted by the Aspen Institute (2003) found that during their 2 years in an MBA program, students' values shift away from customer needs and product quality and toward shareholder value as a measure of business success and corporate responsibility.

Finally, many graduate business students work while attending school, which only increases the pressures on them. They have less time to get their work done, and they may be under pressure to keep their grades up in order to continue getting financial support from their employers. In their work experience, these students may have also been exposed to the "get it done at all costs" culture found in many corporate workplaces. Graduate business students are also more mature, and their attitudes may be more entrenched than are those of undergraduate students or more influenced by others outside of the business school.

In light of the above factors, and the empirical evidence that undergraduate business students cheat more often than their nonbusiness peers (Bowers, 1964; McCabe, 1997), we propose that graduate business students will also engage in cheating behaviors more than their nonbusiness peers:

*Hypothesis 1: Graduate business students will report more cheating behavior than will their nonbusiness peers.*

### What Influences the Degree of Cheating?

Previous research on undergraduate students has shown that contextual variables can be a significant influence on a student's cheating behavior (McCabe & Treviño, 1993, 1997; McCabe, Treviño, & Butterfield, 2002). These contextual variables include deterrence-based variables such as perceived likelihood of being reported for cheating and the perceived severity of penalties, along with other factors likely to influence cheating behavior, such as the behavior of one's peers and one's understanding and acceptance of campus academic integrity policies (e.g., McCabe, Treviño, & Butterfield, 2001). In our survey, we sought to explore similar relationships at the graduate student level.

#### *Deterrence-based Factors*

Deterrence theory suggests that misconduct results from a rational calculus that represents a joint function of the perception of the likelihood that one will be caught and the perception of the severity of the penalties imposed for the misconduct (e.g., Gibbs, 1975). Researchers have applied this theory to cheating behavior among college students, suggesting that the higher a student's perception that cheating will be reported and the more severe the perceived penalty, the less likely a student will be to risk such behavior. In addition, because students may be able to hide cheating from faculty, student perceptions that a peer would report cheating are likely to be most relevant (McCabe & Treviño, 1993; Michaels & Miethe, 1989; Tittle & Rowe, 1973).

*Hypothesis 2: Cheating will be inversely related to the perceived certainty of being reported by a peer.*

*Hypothesis 3: Cheating will be inversely related to the perceived severity of penalties.*

#### *Normative Factors*

Much of the previous research on academic integrity has also taken into account the role of normative factors in the contextual environment, especially academic integrity policies such as honor codes, in reducing student cheating (May & Lloyd, 1993; McCabe & Treviño, 1993; McCabe & Pavela, 2000). These policies create standards of academic integrity that students and faculty are expected to follow. However, policies may or may not be widely communicated, understood, and followed.

Therefore, if students perceive that campus integrity policies are understood and accepted by both students and faculty, cheating should be lower (McCabe & Treviño, 1993). Such understanding and acceptance is likely to create a culture supportive of academic integrity. Indeed, in this previous research, students who perceived such a campus culture of integrity were likely to cheat less than those who did not perceive it.

Social learning theory (Bandura, 1986) suggests that "much of human behavior is learned through the influence of example" (p. 527) and that people do not need to be personally reinforced in order to learn. In fact, according to Bandura (1986), most of what individuals learn, they learn through vicarious processes. They observe others' behavior and the outcomes of that behavior. As such, observing peers cheat successfully should increase the tendency of the observer to behave similarly. Peer behavior also provides normative support for cheating—when peers are seen cheating, cheating may come to be viewed as an acceptable way of behaving and of getting ahead (McCabe & Treviño 1993). Conversely, if students see their peers engaging in behaviors such as making pledges regarding personal integrity, educating other students about the importance of academic integrity, and behaving honestly, then cheating should be less likely. Although our primary argument relies on social learning theory, it is also possible that observing peers cheating provides license to cheat or even creates competitive pressure to do so. If students see others getting ahead by cheating, they may feel free to or compelled to do the same.

Thus, we propose that the stronger students' perception that faculty and students understand and accept academic integrity policies and the stronger their perceptions of ethical peer behavior, the less students will engage in academic dishonesty.

*Hypothesis 4: Cheating will be inversely related to the perception that students and faculty understand and accept campus academic integrity policies.*

*Hypothesis 5: Cheating will be positively related to a student's perception of peers' academic dishonesty (the perceived level of cheating among their peers).*

### METHODS

Data were collected at 54 colleges and universities in the United States and Canada in the 2002–2003 and 2003–2004 academic years as part of a larger project being conducted by the Center for Academic Integrity at Duke University. Of these schools, 32 had graduate business programs and

were included in the final sample for this analysis—11 schools in Canada and 21 in the United States. The mean undergraduate and graduate enrollments for the 11 Canadian universities were 19,450 and 3,340, respectively. The mean number of students at the 21 U.S. schools was 11,950 undergraduates and 1,510 graduate students.

Because survey procedures were not under our exclusive control, we could only estimate response rates. About half of the participating schools invited all their students to participate in this survey, while others chose to include select populations, typically a random sample of students (sometimes as few as 500 or 1,000). At those schools that invited all students to participate, a broadcast e-mail was sent to all students on campus, inviting them to complete the survey. Unfortunately, a large number of undeliverable survey invitations were generated because many students do not use their official campus e-mail address. Using published data on the graduate student population at each participating school, we were able to estimate that the 5,331 responses we received equated to a 13% response rate. While this rate is low, participating schools stated that it was typical for a graduate student web-based survey on a sensitive topic. Nevertheless, readers should keep this low response in mind when interpreting our results. Responses from graduate students majoring in business ( $N = 623$ ), almost all of whom were MBA students, represented 12% of the total graduate student response.

A cover letter introducing the survey to students informed them that their school was "participating in a nationwide survey of college students on the subject of academic dishonesty . . . [a] study designed to get student and faculty opinions about the current state of academic integrity at our nation's colleges and universities." To encourage student participation, students were assured their responses would remain anonymous. In addition, on most campuses, there was some advance publicity for the survey in the student newspaper or the invitation to complete the survey was preceded by or accompanied by a letter from a campus official—provost, dean or president. Although precise calculations cannot be made in this case, the results suggest that females are overrepresented in the response group, a finding that has been observed in earlier cheating surveys (e.g., McCabe & Treviño, 1993).

## Measures

### *Academic Dishonesty*

Similar to the measure used by McCabe and Treviño (1993), the measure of cheating included 13

different behaviors—five related to cheating on test and exams (explicit copying of another student's paper during a test either with or without their permission, the use of unauthorized crib notes, helping someone else to cheat on a test, and learning in advance what was on a test from someone who previously took the test); and 8 related to written work (plagiarism, collaborating on assignments when specifically asked for individual work, cut and pasting a few sentences from either a written or Internet source without attribution, fabricating or falsifying a bibliography, submitting work done by someone else, providing unauthorized help to someone on an assignment, and submitting a paper downloaded from a term paper mill or website). These questions were presented to respondents in a section of the survey entitled "Specific Behaviors" and were introduced by telling respondents that "this section asks you some questions about specific behaviors that some people might consider cheating." They were reminded that their answers would remain anonymous.

With three choices available for each of the 13 behaviors (never engaged in this behavior, engaged in the behavior once, engaged in the behavior more than once), this variable ranged from 13 to 39 and had a mean of 14.81, a standard deviation of 3.10, and a Cronbach's alpha of .804. Because the resulting variable was skewed, values were standardized and the log of the resulting variable (plus a constant of ten) was used in all analyses. This transformed variable had a mean of 10.00 and a standard deviation of .04.

### *Understanding and Acceptance of Academic Integrity Policies*

Understanding and acceptance of academic integrity policies was measured with a 5-item scale: student understanding of campus academic integrity policies, student support of these policies, faculty understanding of these policies, faculty support of these policies, and effectiveness of these policies. Each item had four possible response categories: a 4-point Likert scale ranging from very low to very high. This composite measure had a mean of 16.71, a standard deviation of 3.84, and a Cronbach's alpha of .838.

### *Peers' Behavior*

Peers' behavior was measured with a single 5-point Likert scale item (1 = *never*, through 5 = *many times*) that asked respondents how often they had observed another student cheating. This item had a mean of 1.82 and a standard deviation of 1.17.

### Perceived Certainty of Being Reported by a Peer

Certainty of being reported was measured by a single 4-point Likert scale item that asked respondents how likely they felt it was that the typical student on their campus would report an incident of cheating they observed (1 = *very unlikely*, through 4 = *very likely*). This measure had a mean of 1.98 and a standard deviation of 0.67.

### Perceived Severity of Penalties

Severity of penalties was measured with a single 4-point Likert scale item (1 = *very low*, to 4 = *very high*) that asked students to rate the severity of penalties on their campus. The resulting measure had a mean of 3.42 and a standard deviation of 1.01.

### Analyses

Hypothesis 1 was tested using simple *t* tests. We tested Hypotheses 2–5 using bivariate correlations and a multiple regression model with academic dishonesty as the dependent variable and understanding and acceptance of campus academic integrity policies, certainty of being reported, severity of penalties, and peers' cheating behavior as the independent variables.

## RESULTS

A *t* test comparing the self-reported incidence of cheating among graduate business students versus other graduate students supported Hypothesis

1. Graduate business students self-reported more cheating than their nonbusiness peers. The mean level of academic dishonesty reported by graduate business students using our transformed measure was 10.17 compared to 9.97 for all other graduate students ( $t = 3.854$ ,  $df = 3453$ ,  $p < .001$ ). This difference was also reflected in the percentage of students who admitted to one or more incidents of cheating in the past academic year—56% of graduate business students compared to 47% of their nonbusiness peers ( $t = 3.674$ ,  $df = 3453$ ,  $p < .001$ ).

Table 1 shows the bivariate correlation analyses for the total graduate student sample as well as separate analyses for graduate business students and nonbusiness students. For the graduate business sample, as well as the nonbusiness sample and full sample, correlational analysis supports Hypotheses 2, 4, and 5, suggesting that cheating behavior is inversely related to the perceived certainty of being reported by a peer and understanding and acceptance of academic integrity policies and positively related to perceptions of peer cheating behavior. Hypothesis 3, which predicted an inverse relation between academic dishonesty and the perceived severity of penalties, was not supported in any of the samples.

Table 2 summarizes the multiple regression models for both the full sample and the business and nonbusiness student samples. Similar to the correlational analysis, Table 2 shows that Hypothesis 2 (likelihood of being reported), Hypothesis 4 (understanding/acceptance of policy), and Hypothesis 5 (peer behavior) are significant for the full student sample at the  $p < .05$  level. Hypothesis 3

TABLE 1  
Intercorrelations of Study Variables

Measure	N	M	SD	Alpha	1	2	3	4	5
Full Sample									
1. Peer behavior	4457	1.81	1.17	—	—	—	—	—	—
2. Acceptance of policy	4525	16.71	3.84	.838	-.29*	—	—	—	—
3. Severity of penalties	4699	3.42	1.01	—	-.28*	.59*	—	—	—
4. Certainty of reporting	5105	1.98	0.67	—	-.24*	.31*	.21*	—	—
5. Academic dishonesty	3455	10.00	1.00	.804	.28*	-.11*	-.03	-.13*	—
Business Students									
1. Peer behavior	540	1.89	1.20	—	—	—	—	—	—
2. Acceptance of policy	571	17.89	3.85	.863	-.40*	—	—	—	—
3. Severity of penalties	588	3.04	1.01	—	-.31*	.57*	—	—	—
4. Certainty of reporting	597	2.05	0.70	—	-.27*	.38*	.22*	—	—
5. Academic dishonesty	428	10.17	1.15	.822	.30*	-.22*	-.03	-.22*	—
Nonbusiness Students									
1. Peer behavior	3917	1.81	1.17	—	—	—	—	—	—
2. Acceptance of policy	3954	16.54	3.80	.832	-.28*	—	—	—	—
3. Severity of penalties	4111	3.39	1.00	—	-.28*	.59*	—	—	—
4. Certainty of reporting	4508	1.97	0.66	—	-.24*	.30*	.20*	—	—
5. Academic dishonesty	3027	9.97	0.98	.801	.28*	-.10*	-.03	-.12*	—

**TABLE 2**  
**Regression of Contextual Factors on Academic Dishonesty**

Variables	Model 1 Full Sample		Model 2 Business Students		Model 3 Other Students	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
Peer's behavior	.261	12.71***	.280	5.01***	.253	11.42***
Severity of penalties	.088	3.61***	.142	2.29*	.074	2.81**
Certainty of being reported	-.069	-3.38***	-.100	-1.83	-.064	-2.87**
Understanding/acceptance of policy	-.056	-2.25*	-.120	-1.79	-.051	-1.88
Adjusted $R^2$	.08		.13		.08	
<i>F</i>	57.02***		12.57***		44.96***	
<i>n</i>	2,533		358		2,176	

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

(severity of penalties) was not supported because the relationship, although significant, was in the opposite direction of the hypothesis (and also in the bivariate correlation, suggesting a suppression effect as suggested by Cohen & Cohen, 1983). Table 2 also shows that in the regression analysis for the graduate business sample, only Hypothesis 5 (perceived peer behavior) was supported. In the regression analysis for the nonbusiness sample, Hypothesis 2 (likelihood of being reported by a peer) and Hypothesis 5 (peer behavior) were supported. Hypothesis 3 (severity of penalties) was not supported in either sample. A similar suppression effect was found (Cohen & Cohen, 1983).

## DISCUSSION

The study results suggest that, as hypothesized, cheating among graduate business students is higher than cheating among nonbusiness graduate students. In this study, the perception that other students are cheating had the largest effect. Correlation analysis also demonstrated a relationship between academic dishonesty and the perception that other students are unlikely to report cheating, as well as the perception that academic integrity policies are not supported by students or faculty. We discuss these findings and their implications for graduate business education. Finally, we suggest strategies business schools and business school faculty may wish to adopt in response.

### *The Prevalence of Cheating Among Graduate Business Students*

As hypothesized, graduate business students' self-reports of cheating were higher than those reported by other graduate students. Unfortunately, cheating appears to be alarmingly high in both

groups. Fifty-six percent of the graduate business students, compared to 47% of their nonbusiness peers, admitted to engaging in some form of cheating or questionable behavior during the past year. The fact that more than half of these graduate business students admitted to some form of cheating within the previous year suggests that business schools have a significant problem that should be addressed.

In an attempt to better understand the most problematic types of cheating, we conducted a post hoc analysis to look more closely at different types of cheating. This analysis revealed that 23% of graduate business students admitted to having engaged in one or more incidents of test cheating compared to 18% for their nonbusiness peers ( $t = 2.758$ ,  $df = 4118$ ,  $p < .01$ ). This difference in test cheating appears to be driven by a single type of cheating behavior: learning what was on a test from a student who took that test in an earlier class period.

Next, looking at the four most serious forms of test cheating in our measure of academic dishonesty (explicit copying of another student's paper during a test either with or without their permission, the use of unauthorized crib notes, helping someone else to cheat on a test) we found that 10% of the business students surveyed admitted to such serious test cheating compared to 8% percent of nonbusiness students—a nonsignificant difference. Analysis of cheating on written work revealed that 53% of the business students admitted to one or more incidents versus 43% for nonbusiness students ( $t = 3.720$ ,  $df = 3724$ ,  $p < .001$ ). Two specific types of cheating that revealed important differences were collaboration cheating (collaborating on written assignments for which the instructor has explicitly asked for individual work) and technology-based cheating. Research has shown that collaboration and technology-based

cheating are increasing (e.g., Masur, 2001). We found that 28% of the graduate business students surveyed admitted to collaboration cheating compared to 23% of nonbusiness students ( $t = 2.670$ ,  $df = 4670$ ,  $p < .01$ ). Further, the Internet and other new technologies continue to create new opportunities for plagiarism and other forms of technology-based cheating (e.g., McCabe, 2001–2002). A few decades ago, students were asked to clear the memory of their programmable calculators to prevent cheating. Today, cheaters are armed with a variety of new technologies, including handheld computers and cell phones with Internet capability (e.g., Argetsinger, 2003). One indicator of the increasing use of technology to cheat is plagiarism from Internet websites where students use, without citation, small clips of material from multiple sources and weave them together to complete a written assignment. Thirty-three percent of the graduate business students admitted to such “cut and paste” plagiarism compared to only 22% for nonbusiness students ( $t = 5684$ ,  $df = 4867$ ,  $p < .001$ ).

Our findings suggest that a significant number of graduate business students cheat, and that they cheat more than their nonbusiness graduate student peers. In fact, if we can assume that those who cheat more would be less likely to respond to a survey (or more likely to lie about their cheating if they did), the results may actually underestimate the extent of cheating behavior. However, we do not believe that such response bias is likely to differentially influence business and nonbusiness students. Therefore, we believe that we can have some confidence in the differences we found between these business and nonbusiness groups. Nevertheless, it is possible that business students are more willing than nonbusiness students to self-report cheating because they see cheating as more acceptable or necessary in order to get ahead. Future research should consider this possibility. In addition, as noted in the Methods section, the low response rate suggests that all of the findings should be interpreted cautiously.

### Why Do Graduate Students Cheat?

Similar to previous results found for undergraduate students, observed peer behavior was the most important of the influences studied for all of the graduate students—more influential than deterrence-based factors such as the perceived certainty of being reported and the perceived severity of penalties (McCabe et al., 2002; McCabe & Treviño 1993, 1997) and more influential than perceived understanding/acceptance of academic integrity policies. The regression results showed that

these other factors did not significantly influence cheating among graduate business students. Apparently, these factors do not have the same impact on graduate business students that they have on undergraduate students. This may be because academic integrity policies (including their reporting and penalty components) are weaker in graduate business programs, or more weakly enforced. It may also be because graduate students have a wider array of commitments to people and organizations outside of their educational institutions than do undergraduates. As a result, the educational context is likely to have more competitors in the lives of graduate students and therefore less of an effect on students’ attitudes and behaviors.

We proposed a number of theoretical explanations for cheating, but our data do not allow us to conclude that these are in fact the best or the only theories. Note that, for graduate business school students, the regression results explained only 12% of the variance in self-reported cheating. Clearly, future research should consider additional factors that may help to explain more of the variance in such behavior. For example, given that perceptions of unfairness have been associated with antisocial behavior, including theft (e.g., Greenberg, 1990) students’ perceptions of the fairness or unfairness of grading policies may influence cheating. Other theoretical explanations may also be possible, and we encourage others to propose them and to conduct research in this arena. In addition, we may need different theories to explain different types of cheating behavior (e.g., collaboration cheating vs. plagiarism vs. exam cheating). Finally, students may find it easier to rationalize some types of cheating over others. Therefore, future research may wish to delve further into how students think about different types of cheating with different levels of perceived seriousness.

Future researchers should also construct multi-item measures of the independent variables. Both peers’ behavior and student perceptions of the severity of penalties were measured using a single item. In the case of peers’ behavior, future researchers may want to expand the measure to include student perceptions of how often peers engage in different types of cheating (e.g., copying on a test, using crib notes on a test, etc.) versus the more global measure employed here.

### What Can and Should Be Done?

At a minimum, the results summarized above suggest that individual faculty should consider using strategies that reduce students’ perception that other students are cheating. For example, if stu-

dents are aware that some students are getting information about exams from students in other sections, faculty should create multiple versions of the exam. This open-ended comment from an MBA student at a large Canadian university suggests that students expect faculty to avoid creating cheating opportunities: "A professor should never use the same exam twice."

Although creating multiple versions of exams represents significantly more work for the faculty member, it sends a message that the professor cares about integrity in the classroom and it makes cheating more difficult, if not impossible, thus contributing to a perception that students are not cheating.

Similarly, technology-based cheating and collaboration on written work may respond to individual faculty intervention. For example, faculty can reduce technology-based cheating by insuring that students do not bring technology such as cell phones to exams and by demonstrating how technology can be used to catch "cut and paste" cheating from the Internet. A brief demonstration (perhaps during orientation) of how faculty can use websites such as *turnitin.com* to find such cheating could help reduce such behavior.

Students' open-ended comments on the survey also suggested that faculty members are sending mixed messages regarding teamwork. In many MBA courses, students are assigned to teams and are encouraged to collaborate on projects and other assignments. Students are also taught that collaboration is a critical business skill that is valued in corporations. Yet, students are often required to complete assignments by themselves, with no outside assistance. Many students view this as a confusing disconnect between academic norms and business practice. Some even argue that corporations value collaborative skills, and engaging in those activities now, even when not permitted by a faculty member on a specific assignment, is appropriate training. This problem is exacerbated by inconsistencies across faculty. As a result, students may not always understand when collaboration is acceptable or unacceptable or accept faculty directives. The nature of teamwork can further contribute to the problem. Student teams often develop powerful group norms and high levels of cohesiveness, each of which may support a strong sense of loyalty to the team. As such, when a team member cheats or otherwise behaves inappropriately, other team members are unlikely to prevent the behavior or report it.

Faculty should address collaboration issues on an assignment-specific basis and, when collaboration is prohibited, clearly explain why. Assign-

ments can also be designed to reduce the likelihood of collaboration. For example, assignments can and should be changed from year to year (to reduce cross-year collaboration) and, where possible, assignments can be personalized to make collaboration more difficult. For example, if an analysis must be related to one's own work experience, it becomes more difficult to get answers from someone else.

Finally, faculty should be aware that their grading policies may influence cheating and students' willingness to report their peers. Although we can not document it quantitatively, students' open-ended comments revealed an interesting tension that exists for many students when it comes to cooperative cheating behaviors (e.g., unauthorized collaboration on an assignment or helping another during a test or exam) and the reporting of cheating by others. In a community where grade competition seems to be so important to students, one might expect students to be unwilling to assist others and even to report the transgressions of others. But this does not appear to be the case. Rather, students seem to establish different standards for courses graded on the curve and those where a student's grade is not greatly impacted by the grades of others. Responding to questions about whether they would report cheating they might observe, students seem to make a clear distinction between these two conditions. While the vast majority would be unwilling to report cheating under any circumstances, others suggest they would seriously consider reporting in courses where the success of other students might impact their own grade. This is consistent with research suggesting that the interests of group members influence students' willingness to report a peer's cheating (Treviño & Victor, 1992). But even for these students, concerns about retribution and not wanting to be labeled as a "rat" or "tattle-tale" remain a strong deterrent to reporting others' cheating behavior.

Although they are likely to reduce cheating, the approaches presented thus far represent only piecemeal responses that depend upon individual faculty members taking more responsibility for academic integrity in their particular courses. Unfortunately, some faculty members may not be willing to do so, as suggested by students' answers to open-ended questions in our survey. For example, many students perceive that faculty fail to monitor academic dishonesty and fail to respond or take action when cheating is reported.

I noticed students cheating last semester and continuously tried to report it. I called the

professor during office hours (he was never there), I called him at home (I left messages with his wife, which were never returned), and I sent e-mails (which were never replied to)—MBA student at a large public university in the U.S.

I have witnessed cheating on several occasions and even reported it to the professors. On one occasion I was told no action was going to be taken against them since they were doing a poor job of cheating . . . —MBA student at a private university in the U.S.

Faculty need to be more active in monitoring academic dishonesty as well as punishing those students that participate in it. Faculty often turn their heads or “punish” on their own terms rather than follow university policy. —MBA student at a large public university in the U.S.

If students believe that faculty members either don't care or don't want to get involved in cases of academic dishonesty, they are less likely to get involved themselves. Why would a student risk reporting a peer, a difficult thing to do under any circumstances, if the faculty member is unlikely to take action? And, if faculty members take no action, students can only believe that cheating is going to be commonplace.

We are not surprised by these open-ended comments about business school faculty. Previous research has found that many college faculty are reluctant to get involved in academic integrity cases for a variety of reasons (Schneider, 1999), including fear of litigation if they accuse a student of cheating (Jendrek, 1989). But, the failure to act sends students the message that cheating is acceptable or at least that no serious consequences will result. So, although individual faculty members' efforts such as the ones we have described should help, we do not believe that administrators can rely on them because of faculty reticence in taking action.

Instead, we propose that administrators work with faculty and students to develop broader programmatic efforts based upon notions of ethical community building. The ethical community-building approach involves creating a “culture of integrity and responsibility” within the academic program. Such a culture of integrity and responsibility has been found to be effective in undergraduate education and at least some of these ideas should be applicable to graduate business education (e.g., McCabe, Treviño, & Butterfield, 2001a; Treviño &

McCabe, 1994; McCabe & Treviño, 1993). Further, ethical context (climate and culture) has been found to influence ethical/unethical behavior in corporate settings as well (see Treviño, Butterfield, & McCabe, 1998).

In an ideal culture of integrity and responsibility, faculty and administrators engage students in an ongoing dialogue about academic integrity that begins with recruiting, continues in orientation sessions and initiation ceremonies, and continues throughout the program. Such efforts create expectations for faculty, administrators, and students, and seek to bring everyone together into a community of trust. An ethical community approach assumes that community members will adhere to cultural values and norms that are developed together. It emphasizes the moral socialization and training of all community members, clear communication of rules and expectations, creation of normative pressures, commitment to prosocial values and norms, and mutual respect (McCabe et al., 2001a). Developing an ethical community happens outside the classroom as much as inside it, and thus involves creating a “hidden curriculum” in which students are actively engaged in developing moral reasoning skills through regular facilitated discussion of real-life ethical dilemmas that face them in the context of their educational program (e.g., Treviño & McCabe, 1994). In addition, students can be involved in the development and enforcement of a code of conduct. Unlike the deterrence approach that focuses exclusively on catching and punishing cheaters, the ethical community-building approach emphasizes a more positive message about creating a culture in which all members benefit from living in a culture of integrity.

Student involvement is central to the ethical community-building approach (McCabe & Pavela, 2000): “Such an approach not only communicates to students that [their] institution is committed to academic integrity, it also encourages students to take responsibility for their own behavior” (p. 35). With proper guidance, students can play a vital role in designing and enforcing academic integrity standards in their program. Ethical communities establish academic integrity as part of students' role responsibilities (McCabe et al., 2001b). Students learn that being part of an ethical community requires that they help to create the rules and then actively participate in their enforcement. This is particularly important given our findings regarding the role of peer behavior in influencing cheating among MBA students. If students see their peers behaving with honesty and integrity, designing academic integrity policies, living up to

pledges regarding personal integrity, and educating other students about the importance of academic integrity, then cheating should be less likely (McCabe et al., 2002, 2001a; McCabe & Treviño, 1993).

An increasingly common part of an ethical community-building strategy is establishing a code of conduct or honor code. Traditional academic honor codes typically include unproctored exams, the use of some form of honor pledge on exams and assignments, and a strong student role in a judicial process that addresses allegations of cheating. Many traditional honor codes also obligate students to report any violations of the honor code they may observe. Research at the undergraduate level has consistently shown that honor codes reduce cheating and promote student integrity (e.g., McCabe & Treviño, 1997; McCabe, Treviño, & Butterfield, 2002). But, little is known about whether codes of conduct would have the same impact on graduate business students for reasons discussed below. Thus, unique strategies may be required.

One promising approach that has worked in undergraduate programs and may hold promise for graduate business programs involves the use of "modified" honor codes (McCabe, Treviño, & Butterfield, 2002). Modified codes represent an alternative to traditional codes and are increasingly common at large, public universities such as the University of Maryland (McCabe & Pavela, 2000). Like traditional codes, modified codes emphasize the promotion of integrity among students rather than the detection and punishment of dishonesty, and the underlying thrust is to address the issue of student cheating through the development of strong community standards and the significant involvement of students in the formation and implementation of these standards. Modified codes differ from traditional codes in that they usually leave issues of exam proctoring and the use of an honor pledge to the instructor's (or program director's) discretion, and they generally do not mandate reporting requirements. Thus, a graduate business program might shape its culture around a "professional code of business conduct." Students could be required to sign a pledge upon entry into the program that affirms their obligation to act in a professional manner, including behaving with honesty and integrity at all times. Faculty and administrators could engage students in discussions of the code at several points during their program, introducing it during orientation sessions and discussing its application at the beginning of each course and when specific assignments are being made. Each faculty member would be expected to discuss academic integrity

expectations and standards in their course and include such information in syllabi. A primary goal would be to reinforce the code and embed it in an overall culture of integrity. Student participation in the process of creating the code would be essential to increase student acceptance of and commitment to the code. Students could also participate in an academic integrity committee that is responsible for dealing with suspected code violations and contribute to decision making about sanctions.

A stumbling block may be faculty resistance to any type of honor code system. Research has found that faculty often resist any efforts to minimize their authority to handle suspected cases of cheating on their own, often because they are skeptical that such approaches work or they don't fully understand, or agree with, the consequences students may face if found responsible for cheating (Nuss, 1984; Jendrek, 1989). In the case of honor codes, they may also resist what they perceive to be additional work such as requiring students to sign statements at the end of exams, papers, or projects that pledge that they have acted in accordance with the code and emphasizing the code in the course syllabus and in other important course documents. However, research also suggests that faculty typically benefit in honor code environments. At institutions that lack honor codes, faculty members are more squarely "on the front lines" because their institutions depend upon them to catch and report cheating incidents. By contrast, honor code faculty share responsibility with students for the monitoring of academic dishonesty and adjudicating suspected cases of cheating, and therefore, have less responsibility for catching and dealing with cheaters themselves. As a result, faculty at honor code institutions are more likely to support the institution's academic integrity system and to view it as fair and effective (McCabe, Treviño, & Butterfield, 2003). The practical implication for business schools is that honor codes, including modified codes, reduce the burden on faculty to monitor and enforce regulations concerning cheating and help cultivate students' character by holding them responsible for sustaining the ethical community.

We believe that ethical community-building efforts may be more of a challenge in the graduate business context because it is difficult to build community unless faculty and students feel that they are part of one. Most undergraduate institutions that have done this successfully have students for 4 years in a residential campus environment. But, in graduate business programs, students are in their programs for a relatively short period of time (usually 2 years or less for an MBA

student), and many of them attend school part time, attend classes at an off-campus facility, and are not part of a student cohort. In addition, many students have families and live off campus. They also generally have organizational experience (in fact, they may be currently working). All of this is likely to reduce the program's opportunity to create a strong culture of academic integrity and to influence student attitudes and behavior.

However, we have found that graduate students in general are cheating at an alarming rate, and business school students are cheating even more than others. To us, that means that business school faculty and administrators must do something because doing nothing simply reinforces the belief that high levels of cheating are commonplace and acceptable. In today's post-Sarbanes-Oxley environment, businesses are expected to create strong ethical cultures, to monitor employee conduct, and to create programs and processes (e.g., reporting systems) that support compliance with laws and regulations. At a minimum, business schools should be attempting to do the same. There is some evidence from undergraduate students (McCabe, Treviño, & Butterfield, 1996) to suggest that having experienced such a culture in school can help to prepare students for their organizational experiences.

But, whether in a corporation or a business school, developing an ethical culture is a complex task that should be undertaken only if there is a strong and ongoing commitment to it. For example, if a code is developed, but it is not enforced, or it is seen as window dressing, it may create only cynicism and do more harm than good. Clearly, we would like to see graduate business schools and programs focus more on academic integrity. But, we recognize that it will be challenging and the approaches that will work will certainly vary given the nature of the program. A full-time 2-year on-campus program is more likely to be able to effectively develop our ideal proposed culture of integrity than is a part-time program. Part-time programs may need to focus on the individual faculty efforts recommended above and simply coordinate and reinforce such efforts as much as possible in order to send a unified message to students. We encourage our colleagues to experiment with ways to reduce cheating among graduate business students and to send the message that academic integrity matters in their courses and programs. We hope that they will evaluate their efforts and share the results with all of us.

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