

Changes in Academic Dishonesty among MIS Majors between 1999 and 2004

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ABSTRACT

A QUESTIONNAIRE ON ACADEMIC DISHONESTY was administered to management information systems majors at an eastern state university in 1999 and 2004. The often-cited proposition that the level of student academic dishonesty among college and university students is increasing was unsupported. While the level of participation in one practice increased between 1999 and 2004, the level decreased for three practices. Little difference was found in the reasons for participation. It was discovered that both participation and reasons for participation were much more dependent on the student characteristics of GPA, gender, and class rank in 2004 than in 1999, suggesting that efforts to reduce student academic dishonesty among MIS majors need to be more focused on particular types of students. (*Keywords: academic dishonesty, academic ethics, cheating, MIS students*)

INTRODUCTION

STUDENT ACADEMIC DISHONESTY has been a concern of college and university faculty and administrators for several decades. Surveys of students from various disciplines and types of schools have revealed alarmingly high levels of academic dishonesty on the country's campuses. Baird (1980) found that 75.5% of undergraduates from several majors had cheated while in college. Singhall (1982) and Sisson and Todd-Mancillas (1984) both reported a dishonesty rate of 56% for undergraduate engineering majors. Tom and Borin (1988) found that 49% of students in marketing classes had cheated in college. In 1992, Greene and Saxe (1992) reported a cheating rate of 81% among undergraduates, while Meade (1992) reported a rate of 87% among undergraduates in various majors at 31 top schools. Brown and Abramson (1999) found that 100% of a sample of marketing majors had cheated, and Brown and McInerney (2001) reported a rate of 96.7% for management majors at the same school.

Recently published studies suggest that the high rates of academic dishonesty are not abating (Young, 2005). Dawkins (2004) surveyed undergraduate, graduate, and professional students on a small campus and measured the level of participation in one form of cheating. He found that 41% of respondents admitted to having cheated on tests while in college. Chapman and Lupton (2004) surveyed undergraduate business students at Colorado State University. They found that 68.5% had given students in a later section information about an exam, 73.9% had received exam information from a student in an earlier section, and 88.7% had used answers from a prior term to study for a current exam. Robinson, Amburgey, Swank, and Faulkner (2004) included seven ways of cheating on a questionnaire distributed to undergraduate students from a wide variety of majors. About one-third had used cheat sheets in exams, but a majority had participated in the other six practices, ranging from 57% to 89%.

A search of the literature revealed that academic dishonesty among information systems and information technology students has not been widely studied. Our review produced only two published studies of

students in these majors. Nowell and Laufer (1997) found MIS majors more likely to cheat on self-grading exams than nonbusiness majors. Accounting, business administration, and economics majors were not more likely to cheat. Sheard, Markham, and Dick (2003) found that 79% of undergraduate and 53% of graduate information technology students at an Australian university admitted to cheating at least once on the scenarios they included in their study.

Several variables have been studied as possible correlates of dishonest academic behavior. Investigations of academic rank have produced mixed results. Sierles, Hendrickx, and Circle (1980) and Moffatt (1990) found that juniors and seniors were more likely to cheat than younger students, but Stern and Havlicek (1986) found no difference across class ranks. Whitley (1998) in a review of 107 studies concluded that class rank is essentially unrelated to the level of cheating.

Studies of students' gender have produced more consistent results. Males have generally been found to engage in academic dishonesty at a higher rate than females (Baird, 1980; Seirles, Hendrickx, & Circle, 1980; Tang & Zuo, 1997). Brown and Abramson (1999) found participation in dishonest academic activities related to gender for four of 16 practices. Whitley (1998) found that, overall, males are more likely to cheat. However, Stern and Havlicek (1986) found few differences between the genders.

Students' GPA is another variable that has been studied. Several researchers have found that students with lower GPAs cheat more than those with higher GPAs (Moffatt, 1990; Bunn, Caudill, & Gropper, 1992; Tang & Zuo, 1997). However, Whitley (1998) concluded that, overall, GPA has not been found to be related to cheating.

In addition to the high existing level of student academic dishonesty, there have been numerous claims in the popular press that the level is increasing (for examples, see: Donahue & Heard, 1997; Kleiner & Lord, 1999; "Your cheatin' heart," 1992). However, published research has not always supported these claims.

Baird (1980) cited five studies conducted between 1941 and 1970 that showed a change in the cheating rate from 23% to 55%. In his

1980 study he found that about 75% of undergraduate business, liberal arts, and education majors had cheated in college. He concluded that the cheating rate in college had been increasing and that his data showed a continuation of the upward trend.

McCabe and Trevino (1996) conducted a broad-based survey of college students in 1990. They extracted a subsample from their database that matched the sample used in a 1963 study by Bowers (1964) and compared the rates of participation in nine unethical academic behaviors included in both studies. The subjects were junior and senior males in small to medium-sized residential schools that had selective admissions policies. In non-honor-code schools, collaboration on individual work increased, while cheating on tests, plagiarism, and turning in work done by others decreased. In schools with honor codes, cheating on tests and collaboration increased, while other forms of cheating decreased. The authors stated that the high rates of increase in cheating heralded by the media were unfounded.

In 1993 McCabe and Bowers (1994) surveyed students enrolled at nine medium to large state universities that were in Bowers' 1963 sample (Bowers, 1964). In the Bowers study, 63% of respondents admitted cheating in college. The rate was 70% in 1993. Rates of cheating on exams and collaboration on individual work increased. The rate of copying from another student's exam went from 26% to 52%, while collaboration increased from 16% to 27%. However, plagiarism and turning in work done by someone else decreased slightly.

Cole and McCabe reported in 1996 that surveys of undergraduate students at Stanford in 1976, 1980, and 1984 found no significant changes in types or levels of student dishonesty. In a second study published in 1996, Diekhoff, LaBeff, Clark, Williams, and Haines found some increases in student dishonesty from 1984 to 1994 in two first-year survey courses. Cheating on exams stayed about the same, but cheating on quizzes increased from 22% to 31%, cheating on assignments increased from 34% to 45%, and the proportion of students cheating overall increased from 54% to 61%.

Spiller and Crown (1995) identified 24 studies conducted between 1927 and 1986 that operationalized cheating as college students' changing answers on self-graded tests. They used linear regression to examine the influence of time on this one form of college cheating, where the percentage cheating was the dependent variable, and the year the study was conducted was the independent variable. They found an adjusted R^2 of -.048, which was not statistically significant. The authors concluded that the empirical data did not support a claim of an increased incidence of cheating as measured by this one behavior. They acknowledged that other cheating behaviors might have increased, but stated that they were unable to find studies in which other behaviors were consistently measured over time.

Brown and Emmett (2001) found that the year of publication of studies was not related to the overall cheating rate, while the number of forms of cheating included on the questionnaire was significantly related to the overall rate of cheating, again calling into question the proposition that the level of academic dishonesty is on the increase.

Several authors have offered explanations for the inconsistency of results of the studies. Baird (1980) and Cole and McCabe (1996) point out the difficulty of making meaningful comparisons from different studies conducted over time. Problems include the measurement of different cheating behaviors, taking measurements over different periods of time, using different sample and class sizes, conducting studies in different types of institutions, and an increase in the willingness of students to report cheating behavior as it becomes more acceptable. Other authors (Nelson & Schaefer, 1986; Karlins, Michaels, & Podlogar, 1988) have postulated that the results are influenced by the measurement method used. They suggest a tendency for students to report on questionnaires higher levels of cheating than actually exist. Some form of observational measurement is recommended as an alternative to questionnaires.

This study contributes to our understanding of student academic dishonesty by investigating not only the level of dishonesty in a discipline that has received little attention in the literature, but also offering evidence as to the changes in dishonesty in the discipline over a five-year period.

METHODOLOGY

QUESTIONNAIRE

THE QUESTIONNAIRE was the one used by Brown (Brown & Abramson, 1999; Brown & McNerny 2001) in several publications on academic dishonesty. It contained 16 academic practices selected from the literature that might be considered unethical. Respondents were asked to indicate on a six-point scale how often they had engaged in each activity while a university student. Scale points ranged from one, *frequently*, through five, *infrequently*, with six being *never*. Respondents were then asked to rate the ethical level of each practice from one, *very unethical*, to five, *not at all unethical*. Eleven reasons why students might engage in unethical academic behavior were selected from the literature. Respondents were asked to rate on a five-point scale from one, *not at all likely*, to five, *very likely*, the chance that each would be a reason why students would participate in such behavior. Respondents were also asked their class rank, grade point average (GPA), and gender. Questionnaires were administered during class meetings. Respondents were assured that their responses were anonymous.

SAMPLES

The samples were convenience samples of management information systems majors at an eastern state university. The questionnaire was administered in the spring term of the 1998-99 academic year and the fall term of the 2004-5 year. Seventy-one questionnaires were returned in 1999. The demographic breakdown of the sample was 23.9% female and 76.1% male, 56.3% with a GPA of less than 3.0 and 43.7% with a GPA of 3.0 and higher, and 36.6% juniors and 63.4% seniors. Ninety-one questionnaires were returned in 2004. The demographic breakdown of the sample was 24.7% female and 75.3% male, 40.4% with a GPA of less than 3.0 and 59.6% with a GPA of 3.0 and higher, and 35.4% juniors and 64.6% seniors.

RESULTS

PARTICIPATION IN PRACTICES

IN ORDER TO DETERMINE THE PERCENTAGES of MIS majors who had ever participated in the practices the six-point frequency of participation scale was converted into a two-category nominal-level scale. The five levels of participation from *infrequently* to *frequently* were combined into one category indicating that the practice had been engaged in at least once. The other category was the *never* point on the scale. The percentages of MIS students admitting participation in the 16 dishonest academic practices in 1999 and 2004 are shown in columns two and three of Table 1. The chi-square test was utilized to determine if the differences were statistically significant. Significance levels of the tests are shown in column four of Table 1.

There was not a consistent pattern of higher levels of participation between the two years. The highest levels of participation were evenly split between the two years, with each year having the highest level for eight of the 16 practices. However, most of the differences were not statistically significant.

Only four of the 16 practices showed statistically significant differences in levels of participation. Only one of these showed an increase from 1999 to 2004. The proportion of students who reported having someone check over a paper before turning it in increased from 84.5% in 1999 to 92.6% in 2004. This change moved the practice from the third most engaged in for 1999 to the most engaged in for 2004.

The proportion of students reporting engaging in the other three practices showing significant differences in levels of participation decreased from 1999 to 2004. Padding a bibliography dropped from 73.2% to 58.5%, plagiarism dropped from 67.6% to 53.2%, and having information programmed into a calculator during an exam dropped from 42.3% to 28.7%. Consequently, the results suggest a modest decrease in the level of participation in dishonest academic practices among MIS majors over the five-year period from 1999 to 2004.

An examination of the results shows a high level of consistency in the rankings of the practices between the two years. The six practices

Table 1.
Participation in Unethical Academic Activities: 1999 vs. 2004

Practice	Percent Participating			Mean Frequency* (Sample Size)			Ethical Levels**		
	1999 (%)	2004 (%)	P	1999	2004	P**	1999	2004	P**
Having someone check over a paper before turning it in	84.5	92.6	.050	2.60 (60)	2.85 (87)	.284	4.33	4.25	.637
Giving information about the content of an exam to someone who has not yet taken it	83.1	76.6	.257	3.34 (59)	3.43 (72)	.683	3.13	3.18	.741
Working with others on an individual project	85.9	78.7	.191	3.33 (61)	3.39 (74)	.803	2.97	3.16	.257
Asking about the content of an exam from someone who has taken it	85.9	87.2	.779	2.93 (61)	3.30 (82)	.111	3.32	3.40	.648
Padding a bibliography	73.2	58.5	.029	4.06 (52)	3.96 (55)	.680	2.69	2.81	.435
Plagiarism	67.6	53.2	.037	4.27 (48)	4.28 (50)	.965	2.01	2.11	.482
Taking credit for full participation in a group project without doing a fair share of the work	42.3	36.2	.368	4.50 (30)	4.59 (34)	.695	2.13	2.07	.692
Before taking an exam, looking at a copy that was not supposed to be available to students	40.8	41.5	.925	3.86 (29)	3.92 (39)	.853	2.34	2.40	.733
Visiting a professor to influence a grade	45.1	46.8	.802	3.78 (32)	3.45 (44)	.300	2.82	3.08	.188
Using exam crib notes	29.6	31.9	.717	4.29 (21)	4.40 (30)	.679	1.86	1.86	.972
Allowing another to see exam answers	42.3	37.2	.459	4.33 (30)	4.31 (35)	.937	1.62	1.93	.037
Using a false excuse to delay an exam or paper	43.7	42.6	.872	4.48 (31)	4.22 (40)	.245	1.90	2.24	.019
Having information programmed into a calculator during an exam	42.3	28.7	.038	3.90 (30)	4.00 (27)	.741	2.06	1.94	.491
Copying from another student's exam	31.4	36.2	.477	4.45 (22)	4.32 (34)	.609	1.35	1.57	.083
Passing answers during an exam	18.3	22.3	.479	4.23 (13)	4.14 (21)	.838	1.38	1.64	.050
Turning in work done by someone else as one's own	26.8	31.2	.489	4.58 (19)	4.07 (29)	.127	1.45	1.51	.678

Note. * Scale: 1 = frequently, 5 = infrequently

** p value for chi-square test

** p value for t test

** Scale: 1 = very unethical, 5 = not at all unethical

showing the highest levels of participation in both years are the same, though there is some variation in the rankings within the top six. The largest change was the move of having someone check over a paper from the third most engaged in practice in 1999 to the most engaged in practice in 2004. Four of the top six practices involve some form of unauthorized collaboration. There is also a fair amount of consistency on the lower end of the rankings. Copying from another student's exam, passing answers during an exam, and turning in work done by someone else as one's own showed low levels of participation in both years.

PARTICIPATION BY STUDENT CHARACTERISTICS

Participation in the dishonest academic practices was analyzed by the three student characteristics of grade point average (GPA), gender, and class rank. The results of the analysis are shown in Table 2. Significant differences by the chi-square test for 1999 are shown on the first line of the cells and significant differences for 2004 are shown on the second line of the cells.

Only one significant relationship was found for 1999. Students with a GPA of less than 3.0 were more likely to take credit for full participation in a group project without doing a fair share of the work, at 52.5%, than were students with a GPA of 3.0 or higher, at 29.0%.

Twelve significant relationships were found between level of participation and the student characteristics in 2004. Students with GPAs of less than 3.0 had higher levels of participation than did students with GPAs of 3.0 or higher for giving information about the content of an exam to someone who had not taken it, using a false excuse to delay a paper or exam, and copying from another student's exam. Females showed a higher level of asking about the content of an exam from someone who had taken it than did males, but showed lower levels of participation than males in padding a bibliography and using exam crib notes. Juniors had higher levels of participation in six practices than did seniors, five of which were exam related. The practices were visiting a professor to influence a grade, using exam crib notes, using a false excuse to delay a paper or exam, having

Table 2.
Percent Participating in Unethical Academic Activities by Student Characteristics: 1999 vs. 2004

Practice	GPA		Gender		Class Rank	
	Under 3.0 (1999 2004)	3.0 and Up (1999 2004)	Female (1999 2004)	Male (1999 2004)	Junior (1999 2004)	Senior (1999 2004)
Giving information about the content of an exam to someone who has not yet taken it	84.2	71.4				
Asking about the content of an exam from someone who has taken it			100.0	84.3		
Padding a bibliography			43.5	64.3		
Taking credit for full participation in a group project without doing a fair share of the work	52.5	29.0				
Visiting a professor to influence a grade					64.7	40.0
Using exam crib notes			17.4	37.1	52.9	30.0
Using a false excuse to delay an exam or paper	57.9	32.1			58.8	34.0
Having information programmed into a calculator during an exam					47.1	28.0
Copying from another student's exam	47.4	28.6			70.6	30.0
Passing answers during an exam					47.1	24.0

Note. Percentages in table are significantly different by the chi-square test at $p < 0.05$. 1999 data is on first line of cell; 2004 data is on second line.

information programmed into a calculator during an exam, copying from another student's exam, and passing answers during an exam.

FREQUENCY OF PARTICIPATION

For this part of the analysis students who said they had never participated in a practice were omitted. Means on the frequency of participation scale were calculated for the remaining students, and the *t* test was used to determine if the differences were statistically significant. The results are shown in columns 5, 6, and 7 of Table 1. Sample sizes for this analysis are shown in parentheses in columns 5 and 6. None of the differences in means were significant. The data from both years demonstrated a tendency for the practices engaged

in by higher proportions of students to also be engaged in at higher frequencies. No significant differences were found when frequencies were analyzed by student characteristics.

ETHICAL LEVELS

The mean ratings on the ethical level scale are shown in the last three columns of Table 1. Three of the differences were statistically significant by the *t* test. All three practices were exam related: allowing another to see exam answers, using a false excuse to delay an exam or paper, and passing answers during an exam. In all three cases, students rated the practices less unethical in 2004 than in 1999.

ETHICAL LEVELS BY STUDENT CHARACTERISTICS

The results of an analysis of the ratings of the ethical levels of the practices by the student characteristics are shown in Table 3. Only three significant relationships were found, and all three were in 2004. Students with GPAs under 3.0 rated giving information about the content of an exam and asking about the content of an exam as less unethical than did students with GPAs of 3.0 or higher. Juniors rated using exam crib notes as less unethical than did seniors. No differences in ratings of ethical levels by students' gender were found.

Table 3.
Mean Ratings of Ethical Levels of Academic Activities by Student Characteristics: 1999 vs. 2004

Practice	GPA		Gender		Class Rank	
	Under 3.0 (1999 2004)	3.0 and Up (1999 2004)	Female (1999 2004)	Male (1999 2004)	Junior (1999 2004)	Senior (1999 2004)
Giving information about the content of an exam to someone who has not yet taken it	3.38	3.04				
Asking about the content of an exam from who has taken it	3.59	3.25				
Using exam crib notes					2.25	1.71

Note. 1999 data is on first line of cell; 2004 data is on second line.

REASONS FOR PARTICIPATION

Ratings of the likelihood of the reasons for participation in unethical academic practices are shown in Table 4. Only one of the differences in the mean ratings was statistically significant. Students in 2004 rated irrelevancy of material as more likely to be a reason than did students in 1999. Wanting or needing a high grade was the most likely reason in both years. Lack of time to prepare, not using available time to prepare, difficulty of the material, and feeling no one is hurt by the behavior were likely reasons both years.

Table 4.
Reasons for Participation: 1999 vs. 2004

Reason	Rating of Likelihood ⁺		
	1999 (%)	2004 (%)	p [*]
Difficulty of material, course, or exam	3.73	3.79	.691
Inadequate time to devote to studies	3.44	3.46	.932
Believes everyone else does it	2.49	2.63	.343
Wants or needs a high grade	4.16	4.24	.503
Feels low risk of getting caught	3.20	3.31	.470
Feels no one is hurt by behavior	3.60	3.55	.790
Peer pressure	2.21	2.37	.343
Feels material is irrelevant	3.04	3.52	.003
Instructor poor or indifferent	3.27	3.31	.819
Had time but did not prepare	3.87	3.97	.450
Engaging in behavior a challenge or thrill	2.16	2.44	.092

Note. Scale: 1 = not at all likely, 5 = very likely
p value is for *t* test.

REASONS BY STUDENT CHARACTERISTICS

The results of an analysis of the reasons for participation by the student characteristics are shown in Table 5. Considerable variation was found for both years. In 1999, students with GPAs of 3.0 and above rated low risk of getting caught as more likely to be a reason than did students with GPAs of under 3.0. In 2004, the lower GPA

Table 5.
Reasons for Participation by Student Characteristics: 1999 vs. 2004

Reason	GPA		Gender		Class Rank	
	Under 3.0 (1999 2004)	3.0 and up (1999 2004)	Female (1999 2004)	Male (1999 2004)	Junior (1999 2004)	Senior (1999 2004)
Difficulty of material, course, or exam	4.03	3.63			3.35	3.90
Inadequate time to devote to studies			3.04	3.60	3.18	3.70
Wants or needs a high grade	4.47	4.09	3.71	4.30		
Feels low risk of getting caught	2.98	3.50			3.71 2.71	3.00 3.62
Feels no one is hurt by behavior	3.87	3.34	3.06 3.09	3.77 3.70		
Feels material is irrelevant					3.24	3.69
Instructor poor or indifferent			2.71	3.45		
Had time but did not prepare			4.36	3.87		
Engaging in behavior a challenge or thrill	2.26	2.55			2.57 2.76	1.89 2.28

Note. Scale: 1 = not at all likely, 5 = very likely
Means are significantly different by *t* test at $p \leq 0.05$
1999 data is on first line of cell; 2004 data is on second line

students rated difficulty of material or course, wants or needs a high grade, and feels no one is hurt by the behavior more likely to be reasons than did the higher GPA students. Also in 2004, the higher GPA group rated engaging in the behavior, because it was a challenge or thrill as more likely to be a reason.

In 1999, males rated wanting or needing a high grade, feeling no one is hurt by the behavior, and that the instructor was poor or indifferent as more likely reasons than females. In 2004, males rated inadequate time to prepare and feeling no one is hurt by the behavior as more likely, while females rated having the time but not using it to prepare as more likely.

Juniors in 1999 rated low risk of getting caught and engaging in the behavior, because it was a challenge or a thrill as more likely reasons

than did seniors. The latter reason was also rated more likely by juniors in 2004, while seniors in 2004 rated inadequate time to prepare, low risk of getting caught, and feeling the material was irrelevant as more likely reasons.

DISCUSSION

THE DISCUSSION OF OUR FINDINGS begins with the warning that they should be interpreted with caution. The samples were convenience samples and were small due to the limited number of students enrolled in the MIS program at our university. The study should be replicated at other schools to determine the extent to which our findings can be generalized.

Our data on academic dishonesty on the part of management information systems majors did not support the claim often made in the popular press that such behavior is on the increase among college and university students in general. We found decreases reported in the level of participation in three of the practices averaging about 14%. Though there was an increase in the level of participation in having someone check over a paper before turning it in, it has been the authors' experience that many faculty view this practice as the least serious of the 16 included in the study. This project did not involve determining reasons for changes in levels of participation. Future research might investigate such reasons so that they can be re-enforced and possibly bring about further reductions in student academic dishonesty by MIS majors.

Means on the frequency of participation scale were calculated for those students who admitted having participated in each practice. None of the differences in means were statistically significant. This might indicate a second approach to improving the overall level of honesty in the students' academic pursuits. We would prefer that students cease participation altogether, but a decrease in the frequency of participation would be a step in the right direction. This seems most attainable with respect to activities that take place in the classroom, especially during exams. Using multiple versions of exams, using new exams each semester, spacing

seating during exams, and closely observing students while they are taking exams are all methods of reducing the incidence of exam-related dishonesty.

Three practices were rated less unethical in 2004 than in 1999. It is interesting to note that none of these were among the four practices showing different levels of participation. This suggests that a student's assessment of the ethical level of a practice is not the controlling influence on whether he or she participates in it. Consequently, efforts to change students' values, even if successful, will not necessarily bring about the desired change in their behavior.

The reasons for participation in the practices showed little change between 1999 and 2004. Wanting or needing a grade, having the time but not using it to prepare, the difficulty of the material, and feeling no one is hurt by the behavior were the top four reasons, in the same order, in both years. Only one reason, feeling the material is irrelevant, showed a significant change in likelihood, becoming more likely in 2004.

Perhaps the most significant findings of the study are shown in Tables 2 and 5. These tables show the results of analyses of the levels of participation and the reasons for participation by the student characteristics of GPA, gender, and class rank. In both instances there was more variation by student characteristic in 2004 than in 1999. In 1999, the level of participation varied by student characteristic in only one instance. In 2004, there were 12 instances of significant differences in the level of participation across the classification variables. Participation in the dishonest academic practices shifted from being engaged in evenly across the classification variables to being more concentrated among students with GPAs under 3.0, male students, and juniors. This suggests that efforts to reduce academic dishonesty might be more effective if concentrated on these types of students. For example, instructors might be especially watchful of male students while monitoring exams or more watchful in classes having high concentration of junior as opposed to senior students. Efforts at instilling in students the importance of being honest in their work or communicating penalties for getting caught cheating might be focused on classes with a high junior enrollment.

In 1999 the ratings of the likelihood of the reasons for participation showed six significant variations by student characteristic. In 2004 this number doubled to 12. This again suggests focusing efforts to reduce dishonest activity among certain types of students. For example, in 2004 seniors and students with GPAs of under 3.0 rated difficulty of material, course, or exam as more likely to be a reason for engaging in dishonest behavior. Instructors might emphasize to these types of students that they are available for help during their office hours or that special tutoring services are available. They might also put extra effort into classes having high enrollment of seniors to make sure concepts are communicated effectively.

In summary, our study did not confirm that the often-cited proposition that the level of dishonesty among college and university students is increasing is valid among MIS majors. In contrast, we found they showed a modest decrease in the level of participation in dishonest academic practices between 1999 and 2004. However, our results indicate a basic change in the nature of academic dishonesty among MIS students. In 1999, both the levels of participation and reasons for participation were more evenly spread across students with different GPAs, gender, and class ranks than in 2004. That is, academic dishonesty has become more concentrated among certain types of MIS majors. This suggests that efforts to reduce academic dishonesty among MIS majors might be more effective if strategies focused on the specific types of student who are more likely to participate or cite certain reasons for participation.

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