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Cheating During the College Years: How do Business School Students Compare?

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ABSTRACT. When it comes to cheating in higher education, business school students have often been accused of being the worst offenders; if true, this may be a contributing factor in the kinds of fraud that have plagued the business community in recent years. We examined the issue of cheating in the business school by surveying 268 students in business and other professional schools on their attitudes about, and experiences with, cheating. We found that while business school students actually cheated no more or less than students in other professional schools, their attitudes on what constitutes cheating are more lax than those of other professional school students. Additionally, we found that serious cheaters across all professional schools were more likely to be younger and have a lower grade point average.

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Introduction

After a six-month investigation, Primetime, an ABC television news magazine, aired an hour-long program in August 2004 concerning cheating on college campuses and in high schools. Investigators indicated that cheating had become both more frequent and more sophisticated. Interviewed students said that they felt an increasing pressure to get good grades and many seemed to view cheating as a legitimate strategy to accomplish that end. Students casually described and demonstrated the methods they routinely used to cheat.

As business professors at a comprehensive state university with 23,000 students, we noted, in particular, the statement of a college administrator interviewed by Primetime who claimed that there was no question that business students cheat more than others. If this is true, there are serious implications for these students' future employers because there is evidence that cheating in school and cheating in the workplace are related. In a study of employed MBA students, Sims (1993) found a high degree of correlation between cheating in school and unethical behaviors at work. This high correlation led him to conclude that situational factors had less to do with unethical behaviors on the job than did general attitudes about dishonesty. In 2001, Nonis and Swift (2001) obtained similar results when they studied the self-reported behaviors of 1,051 business students and found that the frequency of cheating in college was highly correlated with cheating at work.

Finally, Lawson (2004) reported that business school students who cheat are more likely to be accepting of unethical workplace behavior.

There is good reason to be concerned about how business students will behave when they eventually become business professionals. In 2003, it was estimated that fraudulent or criminal activity on the job cost U. S. businesses close to $50 billion per year (Coffin, 2003). And while the business world has been recently rocked by major scandals that have been carried out by top company officers, the average on-the-job criminal is "...a much lower-grade employee who, by design or by opportunity, steals from or defrauds his or her employer" (Coffin, 2003, p. 8). The problems of on-the-job crime are not limited to larger corporations. A 2002 study performed by the Association of Certified Fraud Examiners found that substantial amounts of occupational crime are occurring in small and medium-sized businesses; smaller companies are particularly vulnerable as each incident costs them an average of $127,500 (Conroy, 2003). If business school students do indeed cheat more while in school, and if that behavior indicates a predisposition to engage in dishonest workplace behavior, then these are issues that should be of concern to both business schools and business organizations.

Since the literature is so scant on the topic of cheating behavior and academic major, we conducted a study designed to examine this issue by answering the following questions:

- How do business school students define cheating?
- Do business students' perceptions about the behaviors that constitute cheating match the perceptions of students in other professional schools (i.e., Nursing, Biomedical Sciences, Engineering, Social Work, and Criminal Justice)?
- How much do business students cheat?
- Do business school students cheat more than students in other professional disciplines?
- Beyond major, are there other significant ways in which cheaters differ from non-cheaters?

Answers to these questions may provide a better understanding of the attitudes and actions of today's business students and thereby potentially shed light on factors that may be contributing in some way to the reported ethical problems of business organizations today. While not all business employees are business school graduates, business schools have a responsibility to educate ethically responsible professionals who will positively contribute to the ethical environment of business. By understanding the nature of cheating in business schools, we hope to come closer to this goal.

This study was performed on the campus of one mid-western university and is therefore not immediately generalizable. However, we believe that the insights we provide will be valuable to other business schools and the business community.

Background

Numerous sources indicate that cheating on college campuses is an issue of some significance. Whitley (1998) reviewed 46 studies conducted from 1970 to 1996; although the numbers of students who engaged in different kinds of cheating ranged from 9% to 95% across the different samples, the mean was 70.4%. Additionally, there is some concern that rates of cheating may not be static, that cheating behaviors may be on the rise. Anecdotal sources like Primetime claim that this is the case. The findings of others, however, are mixed. According McCabe and Trevino (1996), there is very little concrete evidence that cheating has actually increased since the 1960s. A major problem with trying to assess the prevalence of cheating and whether cheating behavior is increasing is the great variability within studies, which differ on how cheating was defined, the time period over which cheating behavior was measured, the variety and size of samples employed, and the different methods by which data were gathered. We could find no true longitudinal studies that used multiple measures to track cheating behavior over a number of years. In one notable attempt to compare cheating behaviors over time, McCabe and Bowers (1994) examined the differences in cheating behaviors in 1963 (based on Bowers, 1964) and 1991 (based on McCabe and Trevino, 1996). This research concluded that there was a small (7%) increase in all cheating behaviors studied during these 28 years and more significantly, that there was a

pronounced increase in more severe forms of cheating (i.e. cheating on tests).

Spiller and Crown (1995) compared cheating studies published since 1900 and attempted to factor out the effects of different methodologies and cheating definitions by examining one type of cheating behavior that has been defined and measured consistently since the 1920s (i.e., changing answers on a self-graded test). Using this single measure, Spiller and Crown concluded that this type of cheating did not demonstrate a linear trend over time. On the other hand, several researchers have asserted that cheating has been on the rise over the last 50 years (Baird, 1980; Davis et al., 1992; Singhal, 1982).

Much work has been done examining the situational and individual factors that may contribute to cheating behavior. Regarding situation, cheating appears to be lower on smaller college campuses where students feel they are a part of the college and where academic honesty is highly valued (McCabe and Trevino, 1996). Reported results from student samples suggest that they cheat less when they feel they are more likely to get caught (Corcoran and Rotter, 1989; McCabe et al., 2001), when their college has a known honor code (May and Loyd, 1993; McCabe and Trevino, 1993), and most importantly, when the behavior of other students discourages cheating behaviors (McCabe and Trevino, 1993).

Houston (1976) found that students appear to cheat more in large crowded classrooms, where instructors use multiple choice exams. Although not an empirical study, Primetime reported that students find it easier to use cell phones to store answers and transmit them to others when they are taking tests in large rooms where phones can easily be concealed from a proctor's view.

Individual factors, including gender and age, have been extensively studied in relationship to cheating behavior. Regarding gender, study results are inconsistent. About half of the studies including this variable showed that males cheat more often than females; the other half found no relationship between gender and cheating. A review of 14 studies (Ford and Richardson, 1994) that examined the relationship between gender and reported ethical behavior yielded the same kind of results; seven studies found a positive effect for female gender and the other seven found no relationship. More recent studies indicate that the gender effect, if any, is decreasing (Crown and Spiller, 1998).

Age and marital status also have a moderate linear relationship with cheating; younger and unmarried students cheat more (Whitley, 1998). Studies also indicated that the fewer resources students had to expend on their education, the more likely they were to cheat. Students with more financial support from their parents and those who worked fewer hours per week cheated less (Diekhoff et al., 1996; Haines et al., 1986).

Other individual factors that influence cheating behaviors include grade point average (GPA) and various personality traits. Crown and Spiller (1998) reviewed 14 studies examining grades and cheating; the majority found that students with lower GPAs cheat more. The 1998 Whitley review cited lack of industriousness, procrastination behaviors and high test anxiety as personality variables related to cheating. The majority of researchers examining locus of control have found those with an external locus are more likely to cheat (Crown and Spiller, 1998). Low maturity and rationalizing behaviors are two additional personality traits linked to higher rates of cheating behavior (Haines et al., 1986).

Despite Primetime's assertion that business students cheat more, we were able to find only two studies that examined the relationship between cheating and academic major. Baird (1980) surveyed 200 students at a small state college; he reported that business school majors were more likely to cheat on tests than liberal arts or education majors and business school majors were less likely to disapprove of cheating behavior. McCabe and Trevino (1995) surveyed 6,096 students in 31 top-tier institutions and found that those intending careers in business reported cheating more than students who were planning careers in arts, education, engineering/science, law, medicine, and public/government service. However, due to the low incidence of business majors at the surveyed colleges, McCabe and Trevino used intended profession rather than academic major as the variable of interest. When using academic major, business school students still had a higher rate of self-reported cheating, but this should be interpreted with caution since business majors constituted less than 4.5% of the sample. Roig and Ballew (1994) found that business and

economics students had a more tolerant attitude about cheating, although cheating behavior itself was not measured.

While not specifically concerned with cheating, research by Borkowski and Ugras (1998) examined 30 studies that tested the relationship between academic major and reported ethical behavior; the majority of these studies reported non-significant results, but there were some notable exceptions. St. Pierre et al. (1990) found that accounting students scored lower on a test of moral reasoning than did Psychology students. Hosmer (1999) reported that Accounting and Finance students perceive business ethics as less important than do non-business students. These studies are part of a substantial literature that examines the ethical attitudes and behaviors of business school students. Like the cheating literature, definitions, methodologies and samples differ across studies, making generalization difficult. Ford and Richardson (1994) reviewed this literature and identified presumed predictors of students' ethical behavior; these included gender, age, nationality, religion, education, personality traits, and values.

Borkowski and Ugras (1998) reviewed several hundred studies dealing with business students and ethical attitudes/behavior; they found that the most consistently studied independent variables were age, gender and academic major. A meta-analysis of 47 studies that tested the effects of age, gender and academic major on students' ethical attitudes and behaviors discovered that women reported more ethical attitudes/behaviors than men and that students became more ethical with age. This meta-analysis also found that academic major had no effect on ethical attitudes/behavior.

Methodology

A student questionnaire was administered in 2004 in the schools of Business, Criminal Justice, Engineering, Biomedical Sciences, Nursing, and Social Work at a comprehensive Midwestern public university. The questionnaire was administered to students in capstone courses during the summer semester; it was part of a larger 88-item survey designed to gain insight into student attitudes on a number of issues, including cheating. The cheating portion of the survey took about 10 min to complete and captured the following information:

- Demographic information about the respondent
- Answers to 13 questions on students' perceptions of what behaviors constitute cheating using three possible responses
  - Cheating
  - Trivial cheating
  - Not cheating
- Student reports about the frequency and type of their cheating behavior using a nominal scale where:
  - 1 = "I have done this"
  - 0 = "I have not done this"

Students were assured of anonymity and were generally given class time to complete the survey. We received usable questionnaires from 268 students representing a response rate of 82.5% for the six professional schools (see Table I for response rates). Overall, student respondents were split 43.8% male and 56.2% female; they reported an average ACT score of 23.8, a mean GPA of 3.15 on a 4.00 scale, an average age of 24.47 years, and an average number of credit hours taken of 12.88. A comparison between these demographics and those of all students enrolled in professional schools indicated that our sample was representative of the professional student body as a whole. In addition, the distribution of students from the various professional schools in the sample was proportionate to overall enrollment in these schools (see Table II).

TABLE I

Student response rates

Discipline	Enrolled in Capstone Course	Returned & Valid	Percent
Biomedical	39	28	71.8
Business	143	124	86.7
Criminal Just.	22	20	90.9
Engineering	48	48	100.0
Nursing	53	37	69.8
Social Work	20	11	55.0
Totals	325	268	82.5

TABLE II

Student distribution – enrollment vs. sample

School	Enrollment Data		Sample Data		Difference
	Enrollment	Percent	Surveys	Percent	
Biomedical Sciences	448	10.7	28	10.4	0.3
Business School	1738	41.7	124	46.3	−4.6
Criminal Justice	587	14.1	20	7.5	6.6
Engineering	151	3.6	48	17.9	−14.3
Nursing	996	23.9	37	13.8	10.1
Social Work	250	6.0	11	4.1	1.9
Business vs. Other Students					
Business	1738	41.70	124	46.30	4.6
Other	2432	58.30	144	53.70	−4.6

Due to their smaller size, response rates from several of the professional schools were low. Therefore to facilitate further analysis, we grouped our samples into Business School Students and Other Professional Students. An examination of these groupings in light of the overall distribution of professional school students indicated that our sample was consistent with overall student enrollments (again, see Table II).

Appropriate statistical tests were used to analyze the data (e.g. *t*-tests, cross tabulation and chi-square analysis).

Results

Perceptions of cheating

The most egregious cheating behaviors, according to students, were using an unauthorized cheat sheet on an exam ($\bar{x} = 1.10$, $s = 0.421$, using a scale where 1 is Cheating, 2 is Trivial Cheating and 3 is Not Cheating) and looking at or copying from someone else's exam during a test ($\bar{x} = 1.11$, $s = 0.444$) (see Table III). The least egregious behaviors were collaborating on assignments that were supposed to be done alone ($\bar{x} = 2.03$, $s = 0.649$) and telling another student what is on an exam before s/he takes it ($\bar{x} = 1.79$, $s = 0.735$).

Responses from business versus non-business students were examined; we found significant differences with respect to 6 of 13 behaviors. For a majority of these behaviors, particularly those that are "collaborative" in nature, business school students seem to have a more relaxed attitude towards what constitutes cheating than other professional school students. This is consistent with Roig and Ballew (1994).

Frequency of cheating

Approximately, 86% of the students responding reported that they have cheated during their college career. This is higher than that in Whitley's 1998 review, which found a mean of 70.4% across 46 studies. However, as noted earlier, the methodologies, samples, and timing of cheating studies are so varied that this reported mean may not be particularly informative.

Fifty percent of students have engaged in two to five different kinds of cheating behaviors and approximately one-fourth of our students have engaged in six or more different kinds of cheating behaviors. No significant differences were found in overall reported cheating rates between business students and other students.

Cross-tabulation and chi-square analysis as well as percentages were used to examine types of reported cheating behaviors (see Table IV), using the same variables shown in Table III; a nominal scale where 1 = "I have done this" and 0 = "I have not done this" was used. Only a few significant differences were observed between business students and other students:

- Copied another student's homework or assignments ($X = 6.65$, df = 1, sig. = 0.013).

TABLE III

Students' perceptions: What constitutes cheating? *(Means shown, 1 = Cheating, 3 = Not cheating)*

Statement	Combined $n = 268$	Business $n = 124$	Other $n = 144$	Sig.
Copying another student's homework/ assignments	1.63	1.73	1.55	0.020
Allowing another student to copy your homework/assignments	1.75	1.87	1.64	0.002
Collaborating on assignments you are supposed to do alone	2.03	2.16	1.91	0.001
Collaborating on take-home exams you are supposed to do alone	1.64	1.77	1.53	0.005
Using an unauthorized cheat sheet on an exam	1.10	1.08	1.12	NS
Looking at or copying from someone else's exam during a test	1.11	1.10	1.12	NS
Allowing someone else to copy from your exam during a test	1.23	1.28	1.18	NS
Finding out what is on an exam before taking it	1.75	1.89	1.62	0.005
Telling another student what is on an exam before s/he takes it	1.79	1.99	1.61	0.000
Programming extra help or information into a calculator that you then use on an exam	1.39	1.32	1.46	NS
Copying information from a source for a paper without properly citing the source	1.54	1.65	1.44	0.016
Copying information from the Web for a paper without properly citing the source	1.53	1.63	1.44	0.019
Obtaining research paper(s) from the Web and handing in as your own	1.12	1.10	1.14	NS

- Allowed someone else to copy from you during a test ($X = 6.53$, df = 1, sig. = 0.012).
- Told another student what was on an exam before s/he took it ($X = 6.13$, df = 1, sig. = 0.018)

While other professional school students were more likely to copy homework, business students were more likely to allow exam copying or share their knowledge about exams.

Profile of cheaters

In an effort to gain some insight into the characteristics of cheaters, we examined the demographics of those students (business and others) who admitted to cheating more than others. Using the 13 cheating behaviors on which students were surveyed, we grouped students into three categories, non-cheaters (those having admitted to one or fewer cheating behaviors, $n = 54$), occasional cheaters (those admitting to 2–5 cheating behaviors, $n = 139$) and serious cheaters (those admitting to more than five cheating behaviors, $n = 67$).

Of the demographic data we collected (gender, age, ACT score, GPA, credit hours taken and hours worked), we found significant differences for serious cheaters at the 0.05 level or greater for only age and GPA. In all cases, the lower the GPA average and the younger the student, the higher the level of cheating. This is consistent with Crown and Spiller (1998) and Whitley (1998).

The serious business school cheater (33 of the 268 students returning surveys) had a mean GPA of 3.016 (lower than the 3.17 found for all business school students in the sample), a mean ACT of 22.5 (compared to 23.8), was 23.6 years of age (compared

TABLE IV
Student cheating behaviors ($N = 261$)[a]

Statement	I have done this %			I have not done this %			Crosstabs Statistics[b]	
	Comb.	Bus.	Other	*Comb.*	Bus.	Other	Chi Square	Sig.
Copied another student's homework or assignments	*51.5*	42.7	58.7	*48.9*	57.3	41.3	6.65	.013[c]
Allowed someone else to copy my homework/assignments	*63.0*	61.3	64.5	*37.0*	38.7	35.5	.287	.610
Collaborated on assignments I was supposed to do alone.	*55.9*	50.0	60.9	*44.1*	50.0	39.1	3.13	.083
Collaborated on take-home exams I was supposed to do alone.	*26.7*	28.2	25.4	*73.3*	71.8	74.6	.274	.675
Used an unauthorized cheat sheet on an exam.	*5.0*	5.6	4.3	*95.0*	94.4	95.7	.233	.778
Looked at or copied from someone else's exam during a test.	*14.1*	16.9	11.6	*85.9*	83.1	88.4	1.54	.286
Allowed someone else to copy from my exam during a test.	*16.4*	22.6	10.9	*83.6*	77.4	89.1	6.53	.012[c]
Found out what is on an exam before taking it.	*42.4*	44.4	40.6	*57.6*	55.6	59.4	.381	.617
Told another student what was on an exam before s/he took it.	*45.2*	53.2	62.0	*54.8*	46.8	38.0	6.13	.018[c]
Programmed extra help or information into a calculator that I then used on an exam.	*29.4*	25.0	33.3	*70.6*	75.0	66.7	2.19	.174
Copied information from a source for a paper without properly citing the source.	*17.9*	17.7	18.1	*82.1*	82.3	81.9	.006	1.00
Copied information from the Web for a paper without properly citing the source.	*18.7*	19.4	18.1	*81.3*	80.6	81.9	.066	.874
Obtained research paper(s) from the Web and handed in as your own.	*2.3*	0.8	3.6	*97.7*	99.2	96.4	2.32	.217

[a] Data are missing from 7 students who did not answer these questions.
[b] Degrees of freedom on all are 1.
[c] Pearson chi-square sig. $< .05$.

to 24.5), worked an average of 27.3 hours per week (compared to 30.3) and was taking an average of 13 credit hours (compared to 12.4). While these figures were slightly different for serious cheaters from the other professional schools (34 students in all), none of these differences was significant.

Discussion

The impetus for this study emerged from Primetime's August 2004 airing of a program about cheating on college campuses and, in particular, the allegations that business students cheat more than other students. We engaged in an investigation to discern if, in fact, business students hold different attitudes about cheating than other students (i.e., hold more inherently unethical attitudes) or engage in more or different cheating behaviors.

Contrary to two prior studies (Baird, 1980; McCabe and Trevino, 1995), the business school students in our study do not report cheating more than students from other professional schools. On the other hand, business students tend to be more lenient in their definitions of cheating than other professional students.

We also found that cheating behavior is common and there is no cheating behavior that at least some students have not participated in. The most common cheating behaviors by business students, as shown in Table IV, include copying (or allowing the copying of) homework/assignments, collaborating with other students on assignments/exams that were supposed to be done alone, and finding out and sharing information about exams before taking them. Each of these behaviors is typically done *outside* of the classroom (e.g., in the dormitory or apartment, library, hallway, or via some electronic means such as e-mail). Under normal circumstances, it is difficult for faculty members to detect these types of cheating behaviors. To combat these kinds of behaviors, it is perhaps best for faculty to be very explicit about their policies regarding outside-classroom work and academic honesty.

Students indicate that they are less likely to cheat on campuses that have a community atmosphere, where faculty members are committed to the courses they teach and care about their students, and where they (the students) are aware of their institution's policies concerning academic honesty (McCabe and Trevino, 1996). Thus, it may be fitting for faculty members to include their own academic honesty policy, as well as their institution's in their course syllabi. In addition, a discussion about what behaviors are and are not acceptable at the beginning of the semester is warranted.

In a recent study, Malone (2006) discovered that accounting students report they will not engage in unethical behavior, including cheating, if they know that these kinds of behaviors will result in harm to themselves or others. Rather than just forbidding cheating behavior, it may be productive for business schools to discuss the reasoning behind the prohibitions and enforce consequences when violators are discovered.

Even though they did not report cheating more than other professional students, it is of concern that business school students have more lenient attitudes towards what constitutes cheating. If students have lax attitudes towards one type of ethical behavior, they may carry that attitude with them into the workplace, where it has the potential to become a problem for future employers. We need more longitudinal studies that follow business students into the workplace and track their ethical attitudes and behaviors over time.

Two studies have indicated that business students are more accepting of unethical behavior than are practicing business people and that business students believe they may need to act unethically to achieve career success (Cole and Smith, 1996; Lawson, 2004). Rather than simply relying on courses taught by academics, business schools should consider regularly integrating practicing business people into ethics education; this may counter students' impression that ethics is not necessary or important to businesses. Future research that studies the effectiveness of such a strategy would be useful. To underline the importance attached to ethics and to nullify erroneous student perceptions, businesses should consider asking serious questions about ethics in their selection processes.

How can business schools alter lax attitudes towards cheating? Arlow and Ulrich (1985) conducted a four-year repeated measures study on the effects of ethics education on business students' ethical standards. They found that directly after taking an ethics course, student ethical standards rose for some majors, but all majors later returned to their original positions. Consequently, the authors recommended that continuous reinforcement of ethics is necessary to produce change in business students' ethical standards.

Faculty members and school administrators need to constantly articulate and enforce standards that address cheating behavior. In addition to classroom discussions, student organization meetings, orientations, school newsletters all represent opportunities to discuss the business school's position on cheating behaviors. We do not know to what extent faculty members and business schools currently do these things; whether increased communication or increased enforcement regarding cheating will make a difference is something a future study with pre- and post-measures could examine. Hopefully, consistently enforcing the message that ethical conduct is required in the business school will send the message that such behavior is also expected and required in the workplace.

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