

AN ANALYSIS OF CHEATING AMONG BUSINESS STUDENTS: THE INFLUENCE OF RELIGION AND THE CAMPUS ENVIRONMENT

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Abstract

This study addresses the factors that contribute to dishonest behavior by business majors. It also looks at how today's students define academic dishonesty. Special emphasis is given to whether enrollment in religion and ethics classes and attendance at religious activities influence a student's definitions of and participation in dishonest behavior. The authors have surveyed students enrolled in business courses at a small, Baptist-affiliated university. Unfortunately for the faculty, students at this university cheat as frequently as students at large, public universities. Males are more likely to cheat than females, and upperclassmen more likely than younger students to cheat. Students for whom religion is personally important are less likely to cheat.

INTRODUCTION

It is unusual to listen to the daily news without hearing about a criminal investigation into the behavior of a corporate executive, political leader or star athlete. Faculty members often question the influence of current events on the ethics of today's students. There is a vast literature regarding cheating by college students, and research has found a definite link between cheating in college and cheating in the workforce.

While the literature addresses many questions regarding the prevalence and patterns of academic dishonesty, this study works to more fully answer others. Do the factors that influence unethical behavior by students at large universities also influence students at a small school? Does religious affiliation affect student behavior? Can a university improve its students' behavior by requiring students to take a course in religion or ethics?

One issue clouding the discussion of academic dishonesty is defining what behaviors are indeed dishonest. How do today's students define honesty? What are the implications of the behavior of these students when they enter the workforce?

LITERATURE REVIEW

Research shows that a person who cheats in one environment is likely to cheat in another. Sierles, Hendricks and Circle (1980) showed that cheating in college, cheating in medical school and cheating in internships are linked. Baldwin and Daugherty (1996) found that students who cheated in either high school or college were more likely to cheat in medical school. Fass (1990) found that dishonest students were more likely to cheat in areas including athletics, income tax payments and politics. Nonis and Swift (2001) found a strong correlation between dishonesty at school and at work for both

undergraduate and graduate business students. Cheating among college students is a warning about the future frequency of unethical behavior in all aspects of business.

Estimates are that 20 percent to 70 percent of students engage in dishonest acts (Crown and Spiller 1998). Cheating is more common among students with a low GPA, among business majors and among students who feel alienated or in need of approval. There are mixed results on whether gender, age and religion determine whether a student will cheat. Students at schools with strong honor codes are less likely to cheat (see McCabe and Trevino; also see McCabe, Trevino and Butterfield). While much of the literature on academic dishonesty uses survey data, experimental data supports the prevalence of cheating among business majors (Nowell and Laufer 1997). Rettinger and Jordan (2005) found that among students enrolled in a dual religious/college curriculum, more religiosity is associated with lower cheating behavior.

There is evidence to support that cheating has become more frequent over time. This increase may be due to dishonest behavior on out-of-class projects and due to convergence of cheating behavior by men and women. Between 1963 and 1993, the incidence of cheating among female students increased significantly. The cheating behaviors that most increased were copying test answers from another student (26% to 52%) and collaborating on assignments requiring individual work (11% to 49%) (McCabe and Trevino 1996). Swift and Nonis (1998) found that cheating on exams and quizzes was positively correlated with cheating on projects. These results have implications for business professors who require students to work both independently and in teams on papers and projects

Smith, Ervin and Davy (2003) found that students are more likely to cheat when alienated and when they engage in neutralization. Students who have lower academic performance and who feel alienated are more likely to engage in neutralization, again raising the likelihood of future cheating. The study also found that students who have engaged in prior cheating are more likely to cheat in the future, in part because prior cheating encourages neutralization. Instructors can reduce the amount of cheating through in-class deterrents; the deterrents do not reduce neutralization but do make cheating more difficult and potentially more costly to the student.¹

Students may define dishonesty in ways that professors do not expect. Ameen, Guffey and McMillan (1996) surveyed accounting students' perceptions. Nearly 20 percent of students said that asking questions of someone who has already taken an exam is not cheating. Around 30 percent of students said that failing to report grading errors and visiting a professor after an exam with the sole intention of influencing one's grade were not cheating. A student's propensity to cheat was influenced by a student's tolerance of cheating, whether a student had a cynical outlook, whether a student had a low GPA, whether a student had witnessed others cheat and whether a student expected punishment for cheating.

METHODS

We use the characteristics of the university as a type of natural experiment, comparing the university's students to what is known from the literature of the behavior of students at large- and mid-sized state schools. Variables on which this university

differs include small class sizes, a reliance on full-time faculty members, the use of an Honor Code, and the religious affiliations of the students and of the university itself.²

The University was founded by a state Baptist Convention and remains affiliated with these Baptist churches. Students are required to take a 100-level religion course focusing on the Bible and a 400-level ethics course. Students are encouraged to attend a weekly chapel service; the service is scheduled at a time with which no classes or other events may conflict.

Students enrolled in business courses were surveyed.³ Surveys were administered in the classroom by other students, with the instructor absent. Students were guaranteed confidentiality and anonymity. The surveys generated 152 usable responses. 41% of the respondents were female; the student's average age was 19.4 years.

The instrument was adapted from questionnaires by Smith, Ervin and Davy (2003), Nonis and Swift (2001), Swift and Nonis (1998), and Ameen, Guffy and McMillan (1996). In addition, there are questions on the importance of religion in a student's life, the frequency of participation in religious activities and whether a student has completed the University's required religion courses. All students are in the same academic environment: a small, residential university where courses are taught largely by full-time faculty members and students may be expelled for violating the Honor Code.

Key Variables the Survey Instrument Addresses

- The influence of religion in a student's personal life
- The influence of religion and ethics courses
- The influence of being a business major
- Definitions of cheating
- Justification for cheating (Neutralizing attitudes)
- The percentage of students who engage in and expect to engage in dishonest behavior

ANALYSIS OF DATA

Students were asked to classify whether certain behaviors were cheating and, if so, to what degree. The mean severity rating by Wingate students was less than the main ratings reported in other research for six of the ten behaviors (Swift and Nonis 1998, Ameen et.al 1996) (See Table 1). Overall, the percentage of students who admit to at least one cheating behavior is 91%. This is higher than some surveys (Crown and Spiller 1998) but comparable with others (Swift and Nonis 1998). The frequency of cheating suggests that a small-campus environment is not necessarily a dissuading factor (See Table 2).

Table 1: Student Defined Cheating

Agree that the activity is cheating	Frequency	Mean ¹	Standard Deviation
Asking someone who has already taken an exam for details *	72%	1.34	1.25
Obtaining a copy of an exam before taking it in class *	93%	3.49	1.69
Looking at another student's paper during an exam *	99%	4.00	1.24
Using unauthorized 'crib' notes during an exam *	99%	3.89	1.18
Lying to a professor about illness, etc., when an exam or assignment is due *	86%	2.26	1.52
Copying homework from another student *	93%	2.00	1.40
Sharing your homework with another student	88%	1.64	1.23
Using words from a journal, book, web site, etc., without naming your source	97%	3.11	1.49
Borrowing another person's speech, report or project and turning it in as your own	99%	4.32	1.09
Asking for help from another student or professor when the instructions are to work alone	87%	1.79	1.34

* indicates a lower severity rating than reported in prior research at other institutions

¹ Means based on the following response range: 0-Not cheating, 1-Minor cheating, 2-Somewhat severe cheating, 3-Moderately severe, 4-Quite severe, 5-Most severe

Table 2: Frequency of Cheating

Percentage who have done the following:	Frequency	Mean	Standard Deviation
Asking someone who has already taken an exam for details	86%	2.82	1.15
Obtaining a copy of an exam before taking it in class	27%	1.40	0.76
Looking at another student's paper during an exam	28%	1.39	0.71
Using unauthorized 'crib' notes during an exam	19%	1.29	0.67
Lying to a professor about illness, etc., when an exam or assignment is due	29%	1.39	0.68
Copying homework from another student	63%	2.01	1.00
Sharing your homework with another student	81%	2.40	0.94
Using words from a journal, book, web site, etc., without naming your source	49%	1.73	0.89
Borrowing another person's speech, report or project and turning it in as your own	8%	1.11	0.42
Asking for help from another student or professor when the instructions are to work alone	68%	2.08	0.97
Total who admit to at least one of the above	91%		

REGRESSION ANALYSIS

The dependent variable, CHEATER, is a binary variable with a value of 1 if a student has admitted to cheating, 0 otherwise. Two separate sets of regressions are run. The first set defines CHEATER as a student who has admitted to doing any one of a list of ten activities (See Table 1 for the list). The second set of regressions defines CHEATER as a students who has admitted to doing any one of seven activities which, based on the survey results, are viewed by students as somewhat severe to most severe cheating. The three activities which were defined by students as minor cheating are asking someone who has already taken an exam for details, sharing homework with another student and asking for help from another student or professor when the instructions are to work alone (See Table 1).

The explanatory variables used to determine whether a student is a cheater are as follows:

- Intent to cheat in the future
- Own definition of cheating
- Neutralizing attitudes (Justification for cheating)
- Enrollment in a 100-level religion course
- Enrollment in a 400-level ethics course
- Attendance at religious events and the rating of importance of religion in the student's life
- Self-ranking of academic performance
- Gender
- Class

The survey instrument asked for information on GPA and major; however, many respondents omitted this information. The regression results do not include enrollment in either a 100-level religion course or 400-level ethics course because the enrollments were highly correlated with CLASS (0.66 and 0.54 respectively).

INTENT evaluates the each student's response to questions asking if they would participate in various dishonest activities. A high INTENT score indicates a student expects to participate in cheating activities in the future. DEFINITION is the average of each student's classification of ten activities, with 0 being 'Not Cheating' and 5 'Most Severe.' A student with a high DEFINITION score has a stricter definition of cheating than a student with a low DEFINITION score. JUSTIFICATION measures responses to a series of questions as to the circumstances in which cheating may be justified. A student with a high JUSTIFICATION score strongly agrees that cheating is justified in a variety of scenarios.

RELIGIOUSITY incorporates the number of times per typical week the student participates in a religious activity (such as a worship service or small group study) plus the student's rating of the importance of religion in his or her life. ACADEMIC is the student's rating of his or her overall academic performance, with 1 being low and 5 superior. Males are coded as 0 for GENDER and females 1. CLASS equals 1 for freshman rises to 4 for seniors.

Table 3: Correlations

	Cheater by absolute definition	Cheater by students' definition	Intent	Definition	Justific	Religiosity	Gender	Class	Self Rating
Cheater by absolute definition	1								
Cheater by students' definition	0.656	1							
Intent	0.426	0.464	1						
Definition	-0.161	-0.342	-0.301	1					
Justification	0.096	0.206	0.279	-0.390	1				
Religiosity	-0.254	-0.211	-0.193	0.140	-0.162	1			
Gender	-0.106	-0.108	-0.002	0.106	-0.150	0.136	1		
Class	0.173	0.132	-0.057	-0.007	-0.055	-0.001	0.255	1	
Rating of Academic Performance	0.063	0.081	-0.083	0.040	-0.111	0.033	0.111	0.15	1

Table 4: Means and Standard Deviations

Variable	Mean	Standard Deviation
Cheater by students' definition	0.809	0.394
Cheater by absolute definition	0.908	0.290
Intent	2.421	0.932
Justification	2.293	0.937
Religiosity	5.270	2.446
Gender	0.408	0.493
Class	2.020	1.095
Enrollment in 100-level Religion class	1.105	0.929
Enrollment in 400-level Ethics class	0.179	0.504
Self Rating of Academic Performance	3.500	0.728

The general form of the estimated equation is

$$\text{CHEAT} = \alpha + \beta_1 \text{INTENT} + \beta_2 \text{DEFINITION} + \beta_3 \text{JUSTIFICATION} \\ + \beta_4 \text{RELIGIOUSITY} + \beta_5 \text{GENDER} + \beta_6 \text{CLASS} + \beta_7 \text{ACADEMIC}$$

The four regression results differ in (1) the definition of cheater (absolute standard or standard based on group's rating of major cheating) and (2) the inclusion of the

DEFINITION variable. INTENT, GENDER and CLASS are significant in all regressions. A student who is willing to cheat in the future has likely cheated in the past. Females are less likely to cheat than males. Students who have been in college longer are more likely to cheat.⁴ Personal DEFINITION is not important when cheating is defined by an absolute standard. RELIGIOUSITY is significant in the regressions in which CHEAT is defined in an absolute manner. This suggests that students for whom religion is most important operate under a higher standard of honesty.

Table 5: Regression Results

	Absolute Standard				Omitting Minor Cheating			
	Equation 1		Equation 2		Equation 3		Equation 4	
Intercept	0.552	**	0.525	***	0.440	*	0.062	
INTENT	0.132	***	0.134	***	0.171	**	0.189	***
DEFINITION	-0.007				-0.098			
JUSTIFICATION	-0.018		-0.016		0.002		0.028	
RELIGIOUSITY	-0.019	**	-0.019	**	-0.015		-0.016	
GENDER	-0.092	**	-0.092	**	-0.104	*	-0.114	**
CLASS	0.059	**	0.059	**	0.061	**	0.065	**
ACADEMIC	0.033		0.033		0.063		0.064	*
R square	0.279		0.279		0.320		0.289	
Adjusted R Square	0.244		0.249		0.287		0.260	
Observations	152		152		152		152	
* Significant at the 0.10 level; ** .05 level; *** .001 level								
<i>Note: 138 of the students were defined as cheater by the strict standard; 123 by the more lenient standard.</i>								

CONCLUSION

More work remains. We would like to investigate behaviors by major. Around 25% of current respondents did not report their major. The authors will survey students again during the next academic year. More responses will improve the robustness of the results and allow for more sophisticated statistical analysis.

The initial work indicates that students at this small, religious-affiliated university do not have a lower frequency of cheating than prior literature has reported for large, public universities. The regression results do show that women are less likely to cheat than men, and underclassmen are less likely to cheat than upperclassmen. Students who indicate a willingness to cheat in the future have most likely cheated in the past. Students for whom religion is personally important are less likely to engage in cheating.

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