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Cheating With Honor

Christian A. Pfeiffer

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Submitted to the faculty of Ursinus College in fulfillment of the requirements for Honors in Business and Economics
Michael Palentine is a first semester junior studying Business Management at a small liberal arts college in southeastern Pennsylvania. This week he is beginning to have particular trouble dealing with the stresses of class, homework, and trying to find time to spend with his friends while juggling a part time job at Monkey Business, a local college haunt. He arrives home late Thursday night feeling exhausted after an exhausting late shift at work and lies down in bed with the comforting thought that he only has one class, Gender and Politics, tomorrow at 10am. Before long Michael passes out.

At 3:04am Michael's eyes creak open and he shoots out of bed realizing that he has completely forgotten about the mid-term scheduled for tomorrow's class. Panic overwhelms him as he decides what to do. He's got less than seven hours until the exam and time is quickly running down. He could pull an all night study session, not study and hope he paid enough attention in class, or smuggle in a small note card with important definitions from the book. He is terribly worried that if his grades this semester suffer, he may not be eligible for a program in Spain that he's been planning since spring last year.

Many college students find themselves at this very same or similar ethical crossroads, but what are the factors that influence the decision to cheat? Cheating can be simple and effective, but there are also social and moral boundaries to cheating. Many researchers have studied the subject of collegiate cheating (Burrus, McGoldrick, & Schuchmann, 2007; Butterfield, McCabe, Trevino, 1999; McCabe & Trevino, 1993). Such studies have neglected to view this question through the lens of a small liberal arts institution, choosing instead to group schools of varying sizes together into one sample or only study large universities. To many students and parents, however, the size of a school is an important decision factor when choosing a college. Therefore, the size of the institution is important to consider as many studies on cheating have pointed to the importance of campus culture and, moreover, the individual student's perception of it.
Cheating has been found to reflect the cultural climate of the campus (McCabe & Trevino, 2002, Butterfield et al., 1999).

The intent of this paper is to understand what leads a student to cheat within the context of a small (enrollment below 2,000 students) liberal arts college. The development of a model will examine cheating from three categories highlighted in the literature: demographics, college culture, and the perception of cheating. Demographics capture relevant personal attributes of a student such as gender, GPA, and major. Cultural variables include variables for the presence of an honor code and participation in a sport or social organization, which provide that student with a unique cultural experience. Perception variables deal with the perceptions the students have developed about cheating based on the academic culture within which they operate, such as student perception of cheating on campus, perception of peer behavior, and perceived faculty involvement.

The structure of this paper is broken into five main parts. The first will examine the literature which is currently present on various variables pertaining to collegiate cheating. The second sections will then describe a model based on the literature covered in section one. The data collection method, survey design, and sample statistics will then be described in section three. Following this the results of the model will be explained in section four. Finally, a discussion and conclusions portion will comprise the fifth piece of the paper.

Section 1: Review of Literature

**College Student Academic Cheating**
In 1963, Bowers administered a survey to more than five thousand American college and university students and produced a dissertation on his findings the following year. This breakthrough study was one of the earliest academic studies on college cheating behavior in America. Later research by Don McCabe, professor of organization management at Rutgers University, took this further and broke student behavior down into various categories of cheating, examining the relative levels of increase within each grouping. He found cheating on tests and examinations had grown from 39% in the 1963 survey to 64% in 1990. Also, cheating on written assignments had remained steady, increasing only by a single percentage point, from 65% to 66%. Younger generations however had a decreased understanding of what constituted plagiarism and how to define cheating behavior (McCabe, 2005). McCabe has championed the concept of the honor code throughout his research and his exploration of its impact on cheating has shown that honor codes significantly lower the incidence of self reported cheating (Butterfield et al., 1999; McCabe & Trevino, 1993).

Are students actually unaware of what constitutes cheating? The 2006 Josephson Institute on the Ethics of American Youth found that while 33% of high school students admitted to plagiarizing an internet source, 60% admitted to cheating on a test, and 92% of these same students said this behavior was acceptable. Additionally, 82% said they had lied to a parent in the past 12 months, 62% said they had lied to a teacher, and 28% admitted to stealing from a store (Jark, 1993).
According to the Merriam-Webster Dictionary, to cheat is, "...to deprive of something through fraud or deceit...to practice fraud or trickery...[or] to violate rules dishonestly" (Mish, 2004). Political and social doctrines emphasize the importance of ethical behavior throughout the world however cheating is a widespread phenomenon and has been proven to present few moral boundaries to many individuals (Adams, Overdorf, & Vencat, 2006). In America, a country based on principles of equal opportunity the cheating is seen as unjust, as it gives one individual an unfair advantage over another. Yet countless researchers have devoted themselves to understanding cheating, and with such bountiful research, how can it be ignored?

To many, cheating is a means to a seemingly unreachable outcome. Students take pride in the cunning of their cheating methodology; collaborating with friends, smuggling crib sheets into exams, and even studying professors’ habits so that they can exploit them during testing (Shon, 2006). At the same time many students take an opposing stance to this issue, priding themselves on their individual achievements, pushing themselves to understand, learn, and achieve on their own terms. How do students make these decisions and what factors are most important to them when they confront cheating? A student from Syracuse University noted on their 2001 academic integrity survey that, “While cheating is often tempting, the grade means nothing if it was gotten through cheating. I am not here specifically for good grades, I am here to learn. The time it takes to cheat and not get caught could be better spent studying and actually learning the material” (Villalba, p. 7). This student’s comment indicates that he/she values
knowledge and believes that time spent learning is more valuable than time spent planning to cheat. Were these values previously held? Was this student looking to cultural artifact such as an honor code when shaping his/her view on cheating? Were his/her values shaped by the behaviors of others?

Not only is cheating alive and well today, its occurrence is has shown a presence without regard to age, gender, race, or beliefs. It also has been shown to occur at every level of education (Pearlin, Scarr, & Yarrow, 1967; Jark, 1993; McCabe & Trevino, 1993). One remarkable aspect of this research can be seen in how little consistency is present when dealing with the understanding of what cheating behavior is. Students find defining cheating as something akin to explaining the meaning of life. Research shows there are a host of misconceptions about what cheating actually is. One Syracuse student stated, "I believe that helping each other on written homework is not cheating...but simply giving your paper to someone and having them copy it is" (Villalba, p. 7). While this student may honestly believe this, at schools throughout the country both of these behaviors would be considered cheating if they were not approved by a professor.

Research seems to show that many students are unwilling to recognize their own cheating behaviors. In a study by Neil Granitz and Dana Loewy, it was found that 41.8% students at a large West Coast university who plagiarized explained that they did not understand what they had done (2006). Even if these students are defending their behavior, their justifications show the importance of a
clearly defined notion of cheating which delineates responsibility. These students
did not realize that their situation requires a moral decision.

Research by Shalom Schwartz suggests that there are certain criteria to be
met in a situation in order for an individual to make a moral decision. The
individual must recognize that his or her actions have consequences for the
wellbeing of others and take on responsibility for any consequences relative to
those actions. Once a moral decision is realized, cultural norms dictate an
individual’s “right and wrong” behavior (Schwartz, 1968). Therefore, once
cheating behaviors are understood to be a moral decision, cultural perceptions
define right and wrong actions. Honor codes have been pointed to as a successful
deterrent of cheating because they emphasize the role and consequences of
cheating to students (McCabe & Trevino, 1993).

**Cultural/Perception Variables: How They Affect Cheating Behavior?**

Taking the temperature of academic culture is important when trying to
understand why students cheat. Culture is a set of shared values that drives a
unified perception of “right and wrong” on any campus. In addition the way
students perceive the culture in which they function can have an impact on how
they view a situation involving cheating. It has been said that an honor code helps
strengthen this unity because it, “establishes academic integrity as a clear
institutional priority” (McCabe & Trevino, 2002).

In looking at this idea of a campus wide culture researchers have noted the
similarities between campus and organizational culture. In their study,
*Organizational Theory and Student Cheating*, Tricia Gallant and Patrick Drinan
sought to understand and prescribe strategy to limit cheating by looking at it through the lens of organizational structure (2006). They found that the application of organizational theory should be explored by institutions looking to decrease cheating behavior on their campuses. From developing the concept of cheating to connote corruption rather than simply eliciting punishment to building the “presidential platform” as a role model and leader on campus, this study explored many specific strategies for culture change (2006).

Of course, a cheating culture can develop anywhere. Prestigious institutions such as the Massachusetts Institute of Technology have been known for the “bibles” or survival guides which are passed down through the generations of students to prepare them for notoriously difficult coursework (McCabe & Trevino, 2002). The role of the student as a survivor in this environment is thought of as a partial explanation for cheating, however, a uniquely perceived campus ethos is understood by each individual student that can be bolstered or hindered by cultural factors such as peers, faculty, school policy (honor code or academic integrity policy), and administrative action taken against cheaters. These are perception variables, which have been proven to have a significant correlation with cheating (Bisping, Patron, & Roskelley, 2008).

Perception of What Constitutes Cheating

Culture is however ineffective if students and faculty fail to realize that cheating is a moral dilemma. As research by Schwartz suggests, if a student does not recognize their decision as one involving a moral dilemma they will not look to cultural norms for direction (Schwartz, 1968). In this way, if there is no culture
in place which students perceive to emphasize the immorality of cheating, the cultural norms in place are irrelevant. Thus, without a clear definition of cheating behavior accompanied by a firm campus ethos that devalues cheating, students will not recognize cheating behavior.

*Faculty Perception*

College faculty have a large impact on the cheating behaviors of their students. Their policy and reactions to cheating can buttress cheating, or increase student awareness about its consequences. A syllabus, for example, can indicate the value placed on academic integrity in the classroom, thus serving as a cultural artifact. The attitudes present in the classroom trickle out into the greater campus environment. A 2004 study of course syllabi found that while cheating was a top priority at a religiously based mid-sized college in the southeastern United States, 62.8% of all course syllabi did not mention the academic integrity policy. Without an honor code, this school was theoretically at a disadvantage. However, this was emphasized with negligence on the part of the faculty, which created a lack of continuity on campus between teachers/departments and students (Welch, 2005). This was seen as a detriment to the campus as it created a lack of unity.

Students have also blamed faculty for not dealing with cheating when it happens in the classroom.

A study called, *Faculty and Academic Integrity: The Influence of Current honor Codes and Past Honor Code Experiences* documented importance of honor code experience to a professor’s response to cheating in the classroom. Honor code faculty were found to be more supportive of their administration’s policies
on academic integrity and had more confidence in the protocol put forth by the college than those at schools without honor codes. In addition to this, professors with experience at code institutions tended to be more willing to confront cheating in their classrooms (Butterfield, McCabe, & Trevino, 2003).

**Peer Cheating/Policy Perception**

The student body’s overall understanding of cheating has also been seen as a key factor in cheating behavior at the collegiate level. A student’s sensitivity to the school’s academic integrity policy is also very important in deterring cheating. The lack of a clear definition outlining cheating behavior has been shown to be associated with higher incidences of cheating (Burrus et al., 2007; McCabe & Trevino, 1993). It is important that a student understand regulations as outlined by an institution, however, if he/she does not it creates a very grey area of misunderstanding to develop and it fosters confusion and apathy towards academic dishonesty.

Peer behaviors have a profound influence on cheating at code and non-code schools and honor codes themselves have been equated to a form of peer pressure in their own right (Arnold, Bigby, Jinks, & Martin, 2007). A student’s perceptions of his/her fellow students’ behaviors thus became a key variable in Don McCabe and Linda Trevino’s study in the early 1990’s on academic dishonesty in American colleges (1993). They found that peer perceptions were of vast importance. These perceptions come to form a large piece of the context for an individual’s decision making on campus. One student responded to the study saying, “[Academic dishonesty] is rampant…so much so that the attitude
seems to be everybody does it—I’ll be at a disadvantage if I don’t” (McCabe and Trevino, 1993, p. 533).

**Perception of Punishment**

It has also been proven that students’ understanding of what is going to be done to ensure cooperation also deters cheating (Braumoeller & Gaines, 2001). In one study, two groups of students were each given a paper assignment for a politics class. One group was informed that the papers were to be run through detection software as part of the grading process, the other group was not. The group who had been informed showed fewer signs of plagiarism when their papers were run through the detection software (Braumoeller & Gaines, 2001). This shows that students’ perceptions not only of cheating’s definition is important, but also their perceptions of faculty sensitivity to cheating.

Knowledge of punishment for cheating behavior can also form an important contextual factor in ethical decision making. The severity of punishment for cheating thus becomes the value which a student must weigh against the benefits he/she will gain from not being caught. It has been found that as the perceived severity of punishments increases, the levels of individual cheating are lower (Burrus, et al., 2007; Butterfield, McCabe, & Trevino, 2001). While some schools have protocols for students to receive an academic warning for cheating, others simply expel cheaters. When there are no standardized repercussions for cheating and when current rules are not enforced, a cheating culture develops (Callahan, 2006). Thus, a cheating culture absorbs into it a wide
array of variables creating a collective environment that can either abate or encourage academic integrity.

**Honor Codes: Their Effect on Cheating**

Distinctly American in tradition, honor codes have been present in U.S. institutions since the colonial period. Honor codes have gotten more attention with extensive studies being carried out by researchers in the 1990's. Boasting the longest standing honor code, the College of William and Mary in Virginia has had its students pledge a code of honor since 1779. The college developed with sons of the aristocratic southern gentry in mind. Their cultural emphasis on reputation and chivalrous behavior encouraged the school to take steps towards integrating a similar code in school policy (W&M Undergraduate Honor Council). Honor codes have since branched off and taken on many incarnations, however, “…moral norms are more likely to be activated and influence behavior under honor codes.” (Butterfield, et. al., 1999, p. 212). An honor code should therefore serve as a guide for student values universally held throughout a college or university campus. In this way, students are thought to be more aware of the overall attitude of the campus, thus defining social values as well. This is important because cheating is a social activity which often involves and exchange of information between two parties, even if one party is unaware.

Honor codes manifest themselves in a variety of ways, from the simplistic 15 word code of the United States Military Academy at West Point to Brigham Young’s code which details academic honesty, presentable dress, and social conduct while also incorporating the principles of the Church of Jesus Christ of...
Latter Day Saints. (Jones; Brigham Young University) Both of these schools are considered code schools, each shaping their culture in a unique way. Schools taking on honor codes each develop a distinctive approach to their code and how they use it as a cultural stimulus on their campus. While exploring cheating behavior in small liberal arts colleges, however, an honor code will regarded as having to meet the requirements designed by Brian Melendez in his 1985 study on code schools. According to these criteria an honor code must have a written or oral pledge, a student comprised judiciary board, peer reporting, and un-proctored examinations (Melendez, 1985).

Honor codes have been shown to be a key independent variable in the study of student cheating in colleges (Butterfield et al., 1999; McCabe & Trevino, 1993; Willin, 2004). Along the way, research has incited much debate as to where and when honor codes should be instituted. While some non-code schools have been shown to have high incidents of self reported cheating, there have also been reports of non-code schools with incredibly low rates of self reported cheating. In 2001, Syracuse University’s Office of Residence Life issued a survey to its students regarding cheating on their campus. The survey asked students to self report their own cheating behaviors while also making observations about their perceptions of the cheating climate on their campus. Syracuse, which like most schools does use an academic integrity policy (a campus wide definition and regulations regarding cheating), but does not have in place a formal honor code (as per Melendez’s definition), found a 25% rate of self-reported cheating.
An academic integrity policy deals with a particular institution’s definitions and guidelines regarding things like plagiarism and other forms of cheating. The codes also often outline protocol and punishment for these actions. According to the Syracuse findings, 75% of students reported they had never cheated in college (Villalba, 2001). This survey, however, brings to the surface an important issue when attempting to measure self reported cheating in any environment. Allowing students to self report cheating places a great deal of trust in them, thus creating the possibility for an immeasurable non-sampling error as students may not always be honest. On the surface, this report, which Syracuse published on their website, suggests an idealized educational environment, however looking deeper into the report some open ended responses from students shed a good deal of light on the fact that there is likely to be a high incidence of biased self-reported cheating in this data set. One of these responses reads, “I am not saying that I am lying...But how many people do you really think are going to tell you that they cheated?” (Villalba, 2001, p. 7). This student was not alone in his/her comment as another student also reported, “I have witnessed blatant cheating at this university” (Villalba, 2001, p. 8). While this study sheds doubt on the validity of such findings, in other cases these studies have helped to diagnose and address excessive cheating behavior on the campus.

Contrast these findings with those of Eastern Kentucky University researchers who used a survey to assess the level of cheating on the campus (Bauer, Keeley, Spain, & Street, 2005). Their findings indicated cheating incidences were slightly higher compared to national averages. In addition to
students’ cheating levels, the survey also was able to show levels indicating student awareness of cheating on campus and faculty perceptions therein. The findings of this survey helped the administration move towards installing an honor code on their campus (Bauer, Keeley, Spain, & Street, 2005). Both of these reports highlight the sensitivity with which investigating cheating and its relationship with the honor code must be carried out. Clearly there is an uncertainty that must be confronted and students will not always be honest; however in pursuing a study of honesty in academia few other options are present in the absence of self reporting. The presence of an honor code has been a central cultural variable when investigating cheating on college campuses; however, culture is only one piece of the puzzle. Demographics, culture, and cultural perceptions will form three categories of independent variables which will be investigated based on a review of the literature.

**Student Demographic Variables Affecting Cheating Behavior**

Several studies have proven that there are significant differences in cheating outcomes between the sexes (Becker, Ulstad, 2007; Jones, Bichlmeier, & Whitley, 1999; McCabe & Trevino, 1993). Gender has been shown not only to affect his/her ideas about whether or not cheating is right or wrong; it also effects perceptions about what actually constitutes cheating. In their 2007 study, Becker and Ulstad stated that the reason for a greater cheating sensitivity amongst females was due to heightened social conditioning, they concluded females were more concerned with their place in society. Indeed women have been shown to be more in touch with social networks and the responsibilities that they bring with
them (Jones, et al., 1999). Women were therefore more, "influenced by potential sanctions such as a reduction in status" (Becker, Ulstad, 2007). Gender also has been shown to affect the type of cheating in which a student will engage according to some studies. It has been shown that women have a more negative attitude towards the act of cheating and that their cheating behavior is often directed at helping other students (Jones, et al., 1999). More recently however, the conclusiveness of results which have proven a higher incidence of cheating amongst males have been challenged.

Within the last 10 years however, more research has shown that female cheating has been increasing as women continue to move into traditionally male dominated fields of study. When Don McCabe revisited William Bower's research in 1993, he found that during the 30 year period female cheating had risen from 59% to 70%. This suggests that the presence of male cheating at many schools has forced females to engage in this behavior in order to remain competitive (McCabe & Trevino, 1996). Additionally, in their compilation and review of research trends for the last 25 years, researchers Deborah Crown and M. Shane Spiller observed a similar trend. Prior to 1970, there was a significant difference in cheating behavior between the genders, though more recently this gap has narrowed (Crown & Spiller, 1998). After 1970 more and more studies show that there are no significant differences in cheating behavior between the sexes. It therefore cannot be concluded from the research that there is a clear understanding of the role of gender in collegiate cheating outcomes.

_class year_
Each new class of students can shape the culture of an institution. Therefore the cheating behaviors and perspectives that each new class carries with them are important to investigate. Interestingly, younger students have been proven to exemplify different cheating behaviors than their more seasoned peers. A study by Elliot Levy and Carter Rakovski found in their exploration of the cheating habits of business students that younger students were more “desperate cheaters”. While they may have cheated no more than other students, they went to greater lengths and committed more serious cheating offenses. These offenses were defined as “active”, which involve cheating on an exam, copying a paper, or submitting a project that was not original (Levy & Rakovski, 2007). This could have something to do with the more general survey style classes to which many freshmen are exposed. The American Freshman Study conducted by UCLA in 1999 showed that many freshmen (39.9%) frequently felt bored in class and only 31.5% reported doing 6 or more hours of homework a week (Butterfield, McCabe, & Trevino, 1999). Freshman introductory coursework may be too simplistic for many students and lead to apathy. Such apathy could transfer to a failure to recognize the consequences of cheating behavior, making them more likely to engage in it. Thus, investigating variation between class year will be important to this analysis. While factors like class year seem to differentiate individuals only slightly, in fact, they have an exponential effect on student experiences in and outside the classroom with regard to cheating.

*Student’s Major*
Different major choices expose students to varying situations and individual paths to learning. Thus different students place value on various approaches to learning and the same can be said for varying approaches to developing integrity. The emphasis of each major is unique; clearly there are different means of assessment which accompany the varying disciplines. While some majors emphasize writing, others may rely on multiple choice exams. Therefore it should not be surprising that there is a degree of variation in cheating behaviors. While this could have other explanations, most research points to the variation in values between such majors. Programs with heavy concentrations of business students have recently been scrutinized for a lack of ethics and widespread cheating (Crown & Spiller; Mangan, 2006; Sharda, 2006).

On the other hand, some majors have taken this criticism as an opportunity to look for ways to deter and devalue cheating in their own departments. Levy and Rakovski’s 2007 study also found that certain cultures of cheating developed even within these small enclaves of the academic environment. They found that amongst business students, marketing majors were the most frequent cheaters when compared to accounting, management, and finance majors (Levy & Rakovski, 2007). Interdepartmentally, variations in cheating patterns can exist. Accounting majors at Northern Illinois University for example have taken it upon themselves to create their own departmental honor code in light of the unethical events surrounding Enron and Worldcom. The emphasis here is on developing a culture that amalgamates the values of high quality work and academic honesty.
This again shows how different departments’ value systems can translate into individual student behavior.

*Grade Point Average*

Higher student GPAs have been shown to have a negative correlation with the cheating behaviors of college students (Burrus, McGoldrick, & Schuchmann, 2007; Crown & Spiller, 1998; Levy & Rakovski, 2007; McCabe & Trevino, 1993). This has been attributed to the high cost of penalties associated with cheating for high performing students. Ambitious students with high GPAs have a lot to lose if they are caught cheating. It is possible, though highly unlikely that a student could cheat his/her way throughout college and maintain a high GPA. The effort and time commitment necessary to cheat successfully on a frequent basis is daunting. Many students are striving to achieve entry into a graduate program or pursuing career goals that would be very hard to attain with a documented account of academic dishonesty on their record.

*Sports*

Extracurricular activities such as sports have been shown to influence a student’s tendency to cheat (Burrus et al., 2007; Butterfield, McCabe, & Trevino, 1999). Sports participation understandably puts excess pressure on students because of the amount of time they require on a regular basis. This pressure exists because there is then less time for student-athletes to pursue their course obligations. The consequences of these pressures often spring up in the media as schools with powerhouse teams have shown some of the most blatant acts of cheating ever. According to Robin Moroney of the Wall Street Journal, “one of
the most powerful inducement’s to cheat is the assumption that everyone else in
the sport is cheating”. (Moroney, 2007)

Some players have been accused of being intentionally given unproctored
examinations, had others copy notes, and even complete assignments for them
(Farrell, 2002). The blame for these incidents is most often given to stringent
regulations on eligibility placed on these athletes by organizations such as the
NCAA. A 1990 study by the University of Cincinnati polled head football
coaches at Division 1 schools on their thoughts on the cheating behaviors of other
coaches. The findings were interesting and seem quite important in developing an
understanding of student-athlete cheating. Most coaches, who serve as a
figurehead for the entire team, believed that roughly one third of all coaches who
participated with a Division 1 team cheated regularly (Byrne, Cullen, & Latessa,
1990). Coaches then pass this mentality onto their players.

The definition of cheating used in the survey encompassed mostly
infractions to NCAA regulations, but also crossed over to infractions on school
policy in the area of student drug use and academic performance. In addition to
this, coaches listed many of the same pressures students feel as reasons for their
indiscretions, such as pressure to keep a job or maintain a sufficient GPA retain a
scholarship. Coaches are judged on the results of their team, which also drives
the profitability and renown of colleges and universities, adding to the incentive
to cheat (Byrne et al., 1990). If coaches believe they are involved in a culture of
cheating however, it is not surprising that this “winning” attitude would trickle
down to players who carry it with them into the academic arena.
Fraternity/Sorority Participation

Participation in a fraternity or sorority has also been linked to an increased tendency to cheat (Burrus, McGoldrick, & Schuchmann, 2007; (Butterfield, McCabe, & Trevino, 1999). Older research has suggests that Greek organizations encourage cheating by keeping files with old papers, assignments, and tests for brothers/sisters to use (Hamalian, 1959; Drake, 1941). More recently, however, it has been shown that this increased tendency to cheat comes more out of the social nature of these groups. In Self Reports of Student Cheating: Does a Definition of Cheating Matter? it seems that the reasoning for this is that these organizations allow for the development of tightly knit friendships and communities and most cheating occurs between friends (Burrus, McGoldrick, & Schuchmann, 2007). Because Greek organizations foster these friendships they have been associated with higher incidences of cheating.

Graduate Students

Recently MBA programs have become scrutinized their reported cheating behavior (Mangan, 2006; Sharda, 2006). Graduate schools have been noted for their competitive nature and also for the “type A” personalities that such environments attract. Competitive undergraduates apply to these schools and often exemplify cheating behaviors in graduate school at a higher rate because of their focus on results (Willin, 2004). This could indicate one of two things. It could show that there is a significant difference in culture between undergraduate and graduate institutions. At the same time, such results could also indicate that top performing students are less likely to report their cheating behavior in their
undergraduate work, and more candid when they reach the graduate level. In addition to this, there are also external factors that can influence graduate behavior such as pressure which "type A" students are willing to accept from a current employer or the anxiety to obtain a high paying job upon graduation (Sharda, 2006).

**High School Cheating**

Student cheating in high schools is an important determinant when dealing with college level cheating as past actions often dictate future behavior. The two levels of academia are often experienced seamlessly and the transition into college can be seen as a cultural migration as students bring with them many cultural elements from their high school experience. Eastern Kentucky University, as previously noted, came to understand its own cheating culture in its 2005 survey, which subsequently led to its adoption of an honor code. The survey looked at first year students and continuing undergraduates to discern any differences in the cheating habits of each group. Seventy-eight percent of first year students reported they had worked with others on explicitly individual homework assignments while in high school. This is interesting because looking at the "Continuing Undergraduate" sample, the largest proportion of students, 68%, stated that they had participated in the very same behavior. This indicates that high school cheating behavior translates directly into later patterns found in college cheating behavior.

If high schools serve as an incubator for cheating behavior then what responsibility do high schools have to prevent cheating? While not the purpose of
this paper, research in this area shows that high school cheating is as bad, if not worse than, as the rates reported in colleges (Meche, M., & Vincent, A., 2001; Gravenor, 2007). A high proportion of students reported in a 2001 survey that they would cheat on timesheets, plagiarize, and tolerate drug use and sexual harassment in the workplace. In addition, Julia Hughes of the University of Guelph, in association with Don McCabe, studied 15,000 Canadian high school students in 2006 to examine their cheating habits. The research showed that 86% cheated on group work, 72% got test answers from a friend, and 62% admitted to plagiarizing (Gravenor, 2007). These numbers reflect certain statistics from college research, especially in the prevalence of cheating in group work. McCabe & Trevino's 1993 survey found that 83% of students did not consider these behaviors to be serious (McCabe & Trevino, 1996). Even though all high school students do not attend college, the similarities in cheating levels and overall cheating culture are unmistakable.

Section 2: Description of Model

Model of Cheating Behavior

Based on previous literature, college cheating is determined by student demographics, cultural norms and perceptions of cheating. Equation (1) represents a multiple regression model for cheating with the three vectors of determinants. The dependent variable is a cheating index, which is created using fourteen examples of cheating.

\[ \text{CHEATINDEX}_i = \beta_0 + \beta_d \cdot \text{DEMOGRAPHICS}_i + \beta_c \cdot \text{CULTURAL}_i + \beta_p \cdot \text{PERCEPTION}_i + \epsilon_i \]

*where \( i = \text{student}, \) and \( \epsilon_i \) represents the stochastic error
The fourteen types of cheating take on different levels of occurrences, ranging from never occurring, to occurring just once, to several times, to very often. These behaviors were then compiled to create the index for the dependent variable.

**Demographic Variables**

All demographic characteristics will be represented by binary variables, except for GPA. The first demographic trait, SEX will be represented by a dummy variable with a one representing males. Traditionally it has been expected that males will have a greater likelihood of cheating, hence the expected sign of the coefficient on gender would be positive. However due to new research suggesting in an insignificant difference in male to female cheating rates, a concrete hypothesis therefore cannot be constructed from the literature. The expected sign of this variable is therefore uncertain.

GPA is a variable taken on a 4.0 scale and will be expected to have an inverse relationship with cheating outcomes. Based on the review of literature, students with higher GPAs are hypothesized to have more to lose, thus will exhibit a lower instance of cheating behavior. A student who is pursuing an MBA after graduation is expected to have a higher incidence of cheating behavior because of the competitive nature of their industry and the program they are entering. MBA will represent those students who are pursuing this degree; students pursuing other graduate programs will be accounted for in the intercept. Sports participation will be represented by a dummy variable called ATHLETE.
Involvement on a sports team has been shown to increase the likelihood of cheating based on the cultural and individual differences it presents students. Greek organization participation is furthermore expected to increase the likelihood of cheating. The variable GREEK will report members of fraternities/sororities while non-Greeks will be accounted for in the intercept. The variable BESTUDENT captures Business/Economics students who participated in the survey. Based on the literature, these students are expected to have an increased likelihood of cheating. Other majors will be accounted for in the intercept.

**Culture and Perception Variables**

The first of the cultural variables will be HONCOL1 and HONCOL2. These variables capture a student’s attendance at one of the two honor colleges participating in this study. Both of these schools have honor codes and therefore their students are expected to display less cheating behavior.

A student’s perception of cheating is denoted by an index, CHEATPRCPINDEX, that discerns how severe students believe various cheating behaviors are. The survey presented the students with fifteen behaviors and four levels of severity to assign each behavior ranging from “Not Cheating” to “Serious Cheating”. These answers were then compiled into an index which increased as a student’s perception of severity increased. Therefore, as students believe these behaviors are more acceptable, the likelihood that they will participate in them will increase. An increase in CHEATPRCPINDEX suggests
greater severity of cheating, implying a decrease in the amount of cheating a student undertakes, thus an expected negative coefficient.

The variables PEERREACT and PARENTREACT will be dummy variables accounting for a student's perception of his or her peer and parent's reactions to cheating behavior. If a student believes his or her parents or peers will be disappointed by cheating behavior this variable will assume a value of 1. If the student replied that they did not expect negative feedback from his or her parents or peers than this variable takes on a value of zero. It is expected that the perception of disappointment from either of these groups will decrease the likelihood of cheating, thus the expected signs on these coefficients is negative.

EVRY1DOESIT is a variable which measures a student's perception of a cheating culture on their campus. If a student agrees that there is an "everyone does it so its o.k." mentality on his or her campus then this dummy variable will assume a value of 1. It is expected that if a student believes this, he or she will be more likely to cheat.

The responsibility for upholding academic integrity will be expressed in two dummy variables, one called ADMINRESPONSIBLE and another called FACRESPONSIBLE. Placing responsibility on faculty and the administration has been shown to have a positive relationship with cheating as it takes responsibility off of the student and allows them not to recognize moral dilemma. The responsibility lying with the student is captured in the intercept.

Students participating in this study who had an honor code in high school will be represented by the dummy variable HSHONCDE, therefore students who
report attending a high school with an honor code will be represented by a value of one. Students whose high schools had an honor code have been shown to cheat less indicating an expected negative sign on this coefficient. The final variable will be HARSHPUNISH, which will take on a value of 1 if a student believes the repercussions which accompany being caught cheating are severe. This belief is expected to decrease the likelihood of cheating.

**Section 3: Description of Data**

During the spring semester of 2008 a web-based survey was sent to the student body of three small liberal arts colleges. Students’ participation in this survey was voluntary and completely anonymous. Two of the schools were currently using an honor code as defined by Mendelez in his 1985 study, the remaining school did not. The survey comprised 61 questions intended to extract demographic, cultural, and perceptive data from students about themselves and their schools environment, including a matrix of scenarios representing behaviors which may be considered cheating.

While the two schools currently using honor codes both fit into Mendelez’s definition of traditional honor codes, they do display some differences within the codes they use. Both HONCOL1 and HONCOL2 have written pledges of honor which must be signed upon enrollment. Both schools have an honor board made up of a body of students who work along side faculty advisors to ensure that code violations are heard. Both of these codes extend beyond the academic realm and into the social sphere and outline acceptable conduct while on campus and each code encourages students who observe
academic misconduct to confront the problem first with the student, to encourage them to turn themselves in to the honor board, and only then to take it to the honor board itself. In addition to the pledge shared by both schools, HONCOL2 also requires all students to sign an honor pledge on their academic assignments to ensure that each student realizes that they are to be acting in accordance with the prescribed code. The code at HONCOL2 was established only in 1975, while the honor code at HONCOL1 was established in 1896 giving it more time to seep into the culture of the institution.

Based on Don McCabe’s 2003 academic integrity survey, administered at Rutgers University, a set of fifteen questions was created to encompass various cheating behaviors which a student may be confronted with throughout their collegiate experience. McCabe’s matrix was made up of 26 different behaviors and while these behaviors were similar to those used in this survey, they are not direct copies. The questions were arranged in a matrix, asking students to respond to both how severe each behavior was and frequency with which the student had participated in the behaviors. Student’s answers to the cheating matrix questions comprised CHEATFREQINDEX, the dependent variable, based on the frequency of self reported student participation in various activities.

Of the total 3,992 students who received an e-mail containing a link to the survey, 687 students participated yielding a 17% rate of response. The sample sizes at the three colleges varied with 312 responses from HONCOL1, 127 responses from HONCOL2, and 247 responses from NOCODECOL. Rates of
response varied amongst the schools surveyed: HONCOL1 (26.7%), NOCODECOL (15.7%), and HONCOL2 (10%).

The overall mean GPA for respondents to the survey was a score of 3.4. The average GPA at each school was: HONCOL1 (3.44), HONCOL2 (3.43), and NOCODECOL (3.37). Thus the GPA between the schools was very similar. This is roughly an A- average on the four point scale which indicates that students with higher GPA scores were more likely to take an interest and answer the survey.

A student’s score of more than 14 points on his/her CHEATFREQINDEX matrix indicated that he/she had participated in some form of cheating. Of the total sample of students who took the survey, 93% reported some form of cheating behavior. According to the results of the survey, 5% of all students at HONCOL1, 43% of all students at HONCOL2, and 40% of all students at NOCODECOL responded that they had cheated because there was an atmosphere that everyone at their school did the same. This indicates that there are clearly differences in the perceived atmosphere amongst the colleges.

Table 1 illustrates the mean and standard deviation as well as the minimum and maximum values for the variables used in the regression model. The sample included 63% female and 37% male respondents. In addition, the sample was made up quite equally with regard to class year, as 25% of respondents were freshman, 27% were sophomore, 22% were junior, and 26% were seniors. Of the total sample, 35% of respondents were athletes, 12% of students were enrolled in a business, economics, or related major, 29% of
respondents had attended a high school with an honor code, and 25% of students plan on attending an MBA program following their graduation.

When asked about perceived reactions from reference groups, 94% of students responded that their parents would be severely disappointed in them if they knew about their son/daughters participation in cheating behavior and 63% of students felt the same way if their peers found out about their participation in cheating behavior. The sample also showed that 25% of students believed that there was a campus ethos that everyone cheated, which justified cheating behavior, 20% of students believed that faculty were responsible for upholding academic integrity policies, and 12% believed that it was the responsibility of the administration. In addition, 83% of students believed that there were harsh punishments in place for those caught cheating on their campus.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEATFREQINDEX</td>
<td>638</td>
<td>18.2</td>
<td>4.2</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>HONCOL1</td>
<td>684</td>
<td>0.19</td>
<td>0.39</td>
<td>0</td>
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<tr>
<td>HONCOL2</td>
<td>684</td>
<td>0.45</td>
<td>0.5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>SEX</td>
<td>684</td>
<td>0.37</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>HSHONCDE</td>
<td>684</td>
<td>0.29</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>GPA</td>
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<td>0.45</td>
<td>0</td>
<td>4</td>
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<tr>
<td>MBA</td>
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<td>0.25</td>
<td>0.43</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ATHLETE</td>
<td>684</td>
<td>0.35</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>GREEK</td>
<td>684</td>
<td>0.13</td>
<td>0.33</td>
<td>0</td>
<td>1</td>
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<tr>
<td>BESTUDENT</td>
<td>684</td>
<td>0.12</td>
<td>0.32</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CHEATPRCPINDEX</td>
<td>628</td>
<td>45.5</td>
<td>5.7</td>
<td>22</td>
<td>60</td>
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<tr>
<td>BADPARENTREACT</td>
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<td>0.94</td>
<td>0.24</td>
<td>0</td>
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</tr>
<tr>
<td>BADPEERREACT</td>
<td>684</td>
<td>0.63</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>EVRYIDOESIT</td>
<td>684</td>
<td>0.25</td>
<td>0.43</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FACRESPONSIBLE</td>
<td>684</td>
<td>0.2</td>
<td>0.4</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ADMINRESPONSIBLE</td>
<td>684</td>
<td>0.12</td>
<td>0.32</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
The variables CHEATFREQINDEX and CHEATPRCPINDEX were both derived from the list of questions outlined in Table 2, which were asked in the form of a matrix on the survey. The matrix was made up of two separate answer columns, one to gauge students' perceived understanding that the behavior was or was not cheating, and the other to quantify the amount of times, if at all, that a student had participated in the behaviors.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
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<tr>
<td>Q2</td>
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<td>Q13</td>
</tr>
<tr>
<td>Q14</td>
</tr>
<tr>
<td>Q15</td>
</tr>
</tbody>
</table>

The dependent variable, CHEATFREQINDEX, was comprised from the answers to only fourteen questions, as Question 5 is not considered cheating under any of the academic integrity policies being examined in this study. An answer of never have undertaken a particular type of cheating was given a value of one, thus a score of fourteen indicates no cheating behavior in any of the
fourteen cases. A CHEATFREQINDEX score greater than 14 indicated a student’s participation in a one or more of the cheating behaviors. Responses of having only participated in the behavior once were given a value of two. Someone who did each infraction just once would have a CHEATFREQINDEX of 28. Having cheated more than once but not very often was recorded as a three, whereas very often would be given a score of four in a category. This being the case, a student who cheated more than once in seven of the cheating behaviors but did not cheat at all in the remaining seven would also have an index value of 28. This variable does not measure whether or not a student has cheated, rather, the degree of his or her cheating behavior. The maximum value possible was 56, however, for this sample the maximum was 36, suggesting a modest amount of cheating overall. The mean of 18.2 implies very little cheating, akin to cheating just once in four categories or more than once in only two categories.

The answers to the fifteen questions used in the index regarding the perceptions of what was and was not cheating were given a value range from one to four. Answers pertaining to a student’s perceived severity of each behavior were collected. They were then compiled into one variable (CHEATPRCPINDEX) which has a maximum value of sixty and a minimum value of fifteen (if no behaviors are considered cheating). The mean value from this sample was 45.5, the maximum was 60, and minimum from the sample was 22. As students perceived the behaviors to be more severe the value of their score increased.

**Section 4: Results**
Three models using ordinary least squares were estimated, as shown in Table 3. Model One includes GPA as an independent variable, whereas Model Two does not, as will be discussed below. Model Three is similar to Model One in terms of the independent variables, but the natural log of the cheating index is used in Model Three instead of its level as in Model One. Model One shows a corrected R2 of .43. This suggests that this collection of independent variables explains 43% of the variation in CHEATFREQINDEX and therefore does a good job explaining the reasons for these behaviors given that this data is cross-sectional. The model did indicate some multicollinearity by a condition index of , which diluted the t-scores for the variables used in the study. Regardless of this, there are still six variables showing confirmed significance at the 1% and 5% levels: Name them. MBA and ADMINRESPONSIBLE are both significant at the 10%. Also note the one’s that were not significant and if you were surprised by any. White's test indicated the heteroskedasticity was not evident.
Table 3

| Variable     | CHEATFREQINDEX | CHEATFREQINDEX no GPA | CHEATCPINDEX | GPA | MBA | ATHLETE | GREEK | BESTUDENT | CHEATPRCPINDEX | BADPARENTREACT | BADPEERREACT | EVRYI.equals | ADMRESPONSIBLE | HARSHPUNISH |
|--------------|----------------|------------------------|--------------|-----|-----|---------|-------|-----------|----------------|----------------|--------------|--------------|--------------|--------------|------------|
| Intercept    | 35             | 22.37**                | Intercept    | 32.18 | 25.69* | Intercept | 3.76 | 48.72*    | Intercept     | 3.76 | 48.72*      | Intercept | 3.76 | 48.72*      |
| HONCOL1      | -1.58          | -3.49*                 | HONCOL1      | -1.47 | -3.29* | HONCOL1   | -0.093 | -4.23*    | HONCOL1       | -0.093 | -4.23*      | HONCOL1   | -0.093 | -4.23*      |
| HONCOL2      | -0.27          | 0.68                   | HONCOL2      | -0.29 | -0.74  | HONCOL2   | -0.022 | -1.19     | HONCOL2       | -0.022 | -1.19       | HONCOL2   | -0.022 | -1.19       |
| SEX          | 0.41           | 1.43                   | SEX          | 0.43  | 1.52   | SEX       | 0.017  | 1.23      | SEX           | 0.017 | 1.23        | SEX       | 0.017 | 1.23        |
| HSHONCDE     | -0.39          | -1.31                  | HSHONCDE     | -0.38 | -1.27  | HSHONCDE  | -0.022 | -1.5      | HSHONCDE      | -0.022 | -1.5        | HSHONCDE  | -0.022 | -1.5        |
| GPA          | -1.07          | -3.34*                 | MBA          | 0.75  | 2.32** | GPA       | -0.049 | -3.18*     | MBA           | -0.049 | -3.18*       | MBA       | -0.049 | -3.18*       |
| MBA          | 0.64           | 1.94***                | ATHLETE      | 0.33  | 1.16   | MBA       | 0.037  | 2.34**     | MBA           | 0.037 | 2.34**       | MBA       | 0.037 | 2.34**       |
| ATHLETE      | 0.3            | 1.04                   | GREEK        | 0.41  | 0.96   | ATHLETE   | 0.013  | 0.96      | GREEK         | 0.013 | 0.96        | GREEK     | 0.013 | 0.96        |
| GREEK        | 0.33           | 0.76                   | BESTUDENT    | 1.12  | 2.37** | GREEK     | 0.018  | 0.87      | BESTUDENT     | 0.018 | 0.87        | BESTUDENT | 0.018 | 0.87        |
| BESTUDENT    | 1.11           | 2.31**                 | CHEATPRCPINDEX | -0.3  | -10.93* | BESTUDENT | 0.039  | 1.66***    | CHEATPRCPINDEX | -0.049 | -3.18*       | CHEATPRCPINDEX | -0.049 | -3.18*       |
| CHEATPRCPINDEX | -0.28  | -10.16*              | BADPARENTREACT | -0.05 | -0.15 | GDP      | -0.014 | -10.9*     | BADPARENTREACT | -0.014 | -10.9*       | BADPARENTREACT | -0.014 | -10.9*       |
| BADPARENTREACT | -0.06  | -0.19                 | BADPEERREACT | -0.8  | -2.48** | BADPARENTREACT | -0.003 | -0.22     | BADPARENTREACT | -0.003 | -0.22       | BADPARENTREACT | -0.003 | -0.22       |
| BADPEERREACT | -0.78          | -2.38**                | EVRYI.equals | 0.96  | 2.78*  | BADPEERREACT | -0.037 | -2.29**    | EVRYI.equals   | 0.045 | 2.68*        | EVRYI.equals | 0.045 | 2.68*        |
| EVRYI.equals | 0.9            | 2.6*                   | FACRESPONSIBLE | -0.12 | -0.29 | EVRYI.equals | 0.045 | 2.68*      | FACRESPONSIBLE | 0.045 | 2.68*        | FACRESPONSIBLE | 0.045 | 2.68*        |
| FACRESPONSIBLE | -0.05  | -0.15                | ADMINRESPONSIBLE | 1.03  | 2.12** | FACRESPONSIBLE | -0.004 | -0.24     | ADMINRESPONSIBLE | 0.004 | -0.24       | ADMINRESPONSIBLE | 0.004 | -0.24       |
| ADMINRESPONSIBLE | 0.95  | 1.95***             | HARSHPUNISH | -0.18 | -0.5  | ADMINRESPONSIBLE | 0.038 | 1.63***    | HARSHPUNISH    | -0.013 | -0.75        | HARSHPUNISH | -0.013 | -0.75        |

*Significant at the 1% level
**Significant at the 5% level
***Significant at the 10% level

N=574
R2 Corrected= .43

N=598
R2 Corrected= .42

N=574
R2 Corrected= .46

In Model One, GPA exemplified the expected inverse relationship with cheating and showed a 1.07 point decrease in cheating for every 1 point increase in GPA score. This supports the hypothesis that students with higher GPAs are less likely to participate in cheating behaviors. MBA was significant at the 10% level of significance. This variable took on the expected sign, however, therefore students planning on attending MBA programs show a .64 increase in CHEATFREQINDEX on average. When the regression was run again using a variable for all students attending graduate school there were interesting findings.
which bolstered this finding. Using the variable GRDSCHOOL to represent students who responded that they had plans to attend any form of graduate program\(^1\), this regression gave more insight into this question. In fact, students planning to attend any graduate program displayed no significance in cheating from those who did not have such plans. When this same regression was run with specific variables for law school (LAWSCHOOL), medical school (MEDSCHOOL), and PhD programs (PHD), the results again had no effect on cheating and were found to be insignificant. This suggests that there are significant characteristics in students who plan to attend MBA programs which make them more likely to cheat. BESTUDENT had the expected positive relationship with cheating behavior, noting a 1.11 point increase in the CHEATFREQINDEX if the student reported that they were a business/economics student. This variable was significant at the 5% level.

CHEATPRCPINDEX had the expected positive relationship with cheating and was also significant at the 1% level. This variable indicated that a one point increase in CHEATPRCPINDEX decreased the value of CHEATFREQINDEX by .28. Thus as a student perceived a higher severity of cheating with regard to the fifteen cheating behaviors, his or her degree of cheating declined.

BADPEERREACT however displayed both the expected inverse relationship with cheating behavior, and was also significant at the 5% level. Thus, if a student believed that his or her peers would be “severely disappointed” in his or her cheating behavior, the CHEATFREQINDEX score decreased by .78.

\(^1\) A value of one represented those attending graduate school, those not planning to attend were accounted for in the intercept.
EVRY1DOESIT was significant at the 1% confidence level and had the expected sign. According to this variable, if a student believed there was a campus ethos that everyone participates in cheating, his or her CHEATFREQINDEX score increased by .9. ADMINRESPONSIBLE showed the expected positive relationship with cheating, meaning that a student's cheating behavior increased as he/she held the belief that the upholding of academic integrity policies was up to the administration. This variable was only found to be significant at the 10% level, however in the absence of multicollinearity may have taken on a higher level of significance.

HONCOL1 displayed the expected inverse relationship to cheating. This suggests that there are significant implications in the culture of this institution that decrease cheating outcomes in their students. According to the coefficient, enrollment in this institution lowered a student's likelihood of cheating by 1.58 points on the CHEATFREQINDEX.

HONCOL2 showed no significant difference in cheating outcomes when compared to NOCODESCHOOL. SEX, showed no significant difference in cheating behaviors between females and males. HSHONCDE did not show a significant difference in cheating behaviors amongst students who had attended a high school with an honor code. ATHLETE lacked significance showing that there is no noticeable difference in cheating behaviors between athletes and non-athletes for this sample. GREEK was not significant; therefore, there are no differences in cheating behaviors between greeks and non-greeks within this sample. BADPARENTREACT was not significant which showed that there was
no significant difference in cheating behaviors between students who believed his or her parents would be disappointed in his or her cheating and those who did not. FACRESPONSIBLE did not present a significant difference in cheating from students who felt the responsibility for upholding academic integrity rested with the student body\(^2\). It also did not have the expected sign. HARSHPUNISH was also not shown to be significant in this dataset.

When the first regression was run, there were 113 missing responses. After reviewing the data it was found that this was due mostly to missing values within the two indices and the variable GPA. Table 3 shows Model Two’s results due to the exclusion of GPA, which increases the sample size from 574 to 598. There are several small differences in the results. While the adjusted R\(^2\) decreased to .42, the variables MBA and ADMINRESPONSIBLE became more statistically significant, now at the 5% level. In addition to this, Table 3 also shows larger absolute values for all coefficients except, HONCOL1, BADPARENTREACT, and HARSHPUNISH. The importance of this second regression is that it showed that even with a larger sample size, the results did not experience drastic change.

In order to attain a model which explained CHEATFREQINDEX more effectively, other methods of manipulating the dependent variable were used. When the natural log of CHEATFREQINDEX was run the R\(^2\) increased again to .46 suggesting that this model explained 46% of the variation in CHEATFREQINDEX. This also allowed the variable coefficients to be interpreted in terms of percentage change in CHEATFREQINDEX. Table 3 shows the results of Model Three alongside One and Two.

\(^2\) Students who answered “Student Body” were accounted for in the intercept.
According to Model Three, MBA was significant at the 5% level and showed that students planning to participate in an MBA program had a 3.7% higher CHEATFREQINDEX score than those who did not. BESTUDENT was significant at the 10% level, showing that business/economics students, on average, had a CHEATFREQINDEX score that was 3.9% higher than students in other majors.

CHEATPRCPINDEX showed that a one point increase in a student's perception of a behavior as being a cheating behavior decreased students CHEATFREQINDEX by 1.4%. BADPEERREACT was significant at the 5% level and showed that if a student believed that their peer’s would seriously disapprove of cheating behaviors that they would have a 3.7% decrease in their CHEATFREQINDEX score. EVRY1DOESIT was significant at that the 1% level and showed a 4.5% increase in CHEATFREQINDEX score if a student believed that there was a culture where cheating was a regular occurrence. ADMINRESPONSIBLE was significant at the 10% level and showed that if a student believes that it is the administrations (and not the student’s) job to enforce a school's academic integrity policy his/her CHEATFREQINDEX increases by 3.8%.

HONCOL1 was again significant at the 1% level and showed that enrollment in HONCOL1 yielded a 9.4% decrease in CHEATFREQINDEX.
Section 5: Discussion

The purpose of this study was to understand why students in small liberal arts colleges cheat based on three basic categories (demographic, cultural, perception). In addition, this study set out to understand the impact of an honor code within the same small environment. When these results are compared against the overarching beliefs in the literature review there come to light some notable points about the differences in cheating behaviors relative to honor codes and other cultural and demographic behaviors in small liberal arts institutions. As was stated in the data section of this study, 93% of students self-reported at some of cheating behavior. This continues to support the theory that academic cheating is widespread even in smaller academic environments.

In this sample, gender was not significant. This could suggest that the gap in cheating behaviors between the genders continues to decrease. This could simply be explained by an extension of this timeline. As women continue to excel in previously male dominated fields, they must compete and adopt the behaviors which are commonly held within them. Therefore female students are taking on the cheating behaviors of their male counterparts as they continue to move into new fields.

Within this sample, athletes and members of Greek organizations were not found to have significant differences in cheating, when compared to those not participating in these activities. This went against the literature, though could again be explained by the size of the schools. Since Greek programs and sports teams at smaller schools are actually smaller themselves, there is more pressure
for these organizations to revere school policy. Thus, blatant cheating by fraternity/sorority members is harder to get away with on a smaller campus where the administration can keep a closer watch on its activities. Additionally, sports teams at smaller institutions are not the headlining cash cows that they are at larger state schools, bringing in large amounts of revenue from ticket and merchandise sales each year. The absence of these pressures allows athletes to focus more on their studies and balance their time more efficiently as a student-athlete.

Another interesting finding was that students are more interested in the reaction of their peers than those of their parents. According to this study, while peer reactions were found to be significant in deterring student cheating, parent reactions were not. This could be explained by the more intimate college environment, where students have more close social groups. As students reach college age, they begin to develop their own understanding of right and wrong, outside of the construct of their family. Students may develop more intimate bonds with their peers, because of their reliance on them throughout their college experience, and therefore construct a new set of “right or wrong” beliefs based on beliefs commonly held by their peer group.

CHEATPRCPINDEX was also an important variable which confirmed the value of student’s perceptions and understanding of what constitutes cheating behavior to his or her cheating behavior. This confirms what earlier researchers have found relating to the importance of understanding what constitutes a cheating behavior. While it may seem trivial, there is great importance in
educating students about behaviors which are and are not considered cheating within a college’s academic integrity policy. Many students simply may not know that what they are doing is a punishable offense in the eyes of the administration.

The most important finding that this study yielded was in relation to the honor code. Based on the third model it can be seen that attendance at HONCOL1 yielded a 9.3% decrease in cheating behavior. HONCOL1 was therefore the greatest deterrent to cheating. According to this sample, while at HONCOL1 there was a significant difference in cheating from NOCODECOL, at HONCOL2 there were no significant differences found. This shows that an honor code alone will not deter cheating. These results could be explained by HONCOL1’s code being much older than HONCOL2’s. Since HONCOL1’s was put in place in the 19th century, it is very likely that it is much more engrained in the culture of the college. This would create an atmosphere which is attracts those who value academic integrity and devalues cheating. It seems that while an honor code can direct student’s attention to the value that an institution places on academic integrity, it cannot completely change campus culture on its own. Rather, to change the ethos present on a college campus takes time and investment from strata therein.

Looking back on this study, a larger sample size and greater school participation would have benefitted this study immensely. Future research in this field should attempt to identify specific aspects of honor codes which have an effect on cheating. While the two codes that were investigated in this study
seemed quite similar, differences in the implementation of the codes as well as the length of time that the code had been in place differed dramatically. These differences could be very important in understanding why some codes are more effective than others. Additionally, there should be more attention paid to culture and how campus values are espoused. This could include a review of syllabi, course content, and other cultural indicators on campus.
Appendix

What college institution do you currently attend?
- Bryn Mawr College
- Dickinson College
- Gettysburg College
- Haverford College
- Ursinus College
- McDaniel College
- Washington College
- Muhlenberg College

What is your gender?
- Male
- Female

What is your age?
Please enter 0-100 only (i.e., 21). If under the age of 18 please do not go any further with the survey.

What is your class year?
- Freshman
- Sophomore
- Junior
- Senior

What is your major?

What is your current GPA?
Please use four point scale (i.e., 2.00)

What was your highest SAT verbal score?

What was your highest SAT math score?

**hours per week

<table>
<thead>
<tr>
<th>0-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21-25</th>
<th>26+</th>
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How many hours per week do you spend doing school work?

How many hours per week do you spend working for pay?

Do you participate in intercollegiate sports at your school?
- Yes
- No

Are you a member of a Greek organization (fraternity/sorority) on your campus?
- Yes
- No

Do you plan on attending graduate or professional school in the future?
- Yes
- No

Done
If so, in how many years and what type of program?
Please answer only if you answered "Yes" to the question above.
- MBA
- Medical School
- Law School
- PhD Program
- Other

- How many nights a week (on average) do you consume alcoholic beverages?
  - 0
  - 1-2
  - 3-4
  - 5-6
  - 7 or more

- In general, how many alcoholic beverages do you consume in a night?
  - 0
  - 1-2
  - 3-4
  - 5-6
  - 7 or more

- What is your religious affiliation?
  - Christian
  - Muslim
  - Jewish
  - Hindu
  - Buddhist
  - Other
  - None

- How often do you attend a place of worship?
  - Never
  - Very Seldom
  - Often
  - Very Frequently

- Did your father attend college?
  - Yes
  - No
  - Don't Know

- Did your mother attend college?
  - Yes
  - No
  - Don't Know

- What is your estimated family income annually?
  - $0-50.000
  - $50.000-100.000
  - $100.000-200.000
  - $200.000-500.000
  - $500.000 or more

- Does your college currently use any form of honor code?
  - An honor code is defined as having:
    1. Unwritten Examinations
    2. Peer Reporting
    3. A Written Honor Pledge
    4. Student Judiciary Board
   A modified code may have some of these qualifications, but generally doesn't require unproven testing or peer reporting.
  - Honor Code
  - Modified Honor Code
  - No Code
  - Don't Know

- Did you attend a high school with an honor code?
  - Yes
  - No

- How aware are you of your institution's code regarding academic integrity?
  - Slightly Aware
  - Moderately Aware
  - Highly Aware

- How aware is your student body of your institution's code regarding academic integrity?
  - Slightly Aware
  - Moderately Aware
  - Highly Aware

- How aware are faculty members of your institution's code regarding academic integrity?
  - Slightly Aware
  - Moderately Aware
  - Highly Aware

- How often do faculty members discuss the academic integrity code at the start of classes or highlight it in the course syllabus?
  - Never
  - Once
  - A Few Times
  - Numerous Occasions
How frequently do you feel the following events occur on your campus yearly?

- a. Plagiarism
- b. Using other's advice when the assignment specifies individual work only
- c. Cheating on tests or examinations
- d. How often (if ever) have you seen another student cheat on an examination or test?
- e. How frequently (if ever) have you witnessed a student being caught cheating?

- *How often do professors create and grade assignments and/or exams in a way that deters cheating?*
  - 0-25% of the time
  - 25-50% of the time
  - 50-75% of the time
  - 75-100% of the time

- *For students caught cheating, how severe is the punishment?*
  - Not at all
  - Somewhat Severe
  - Fits the Offense
  - Too Severe

The following are examples of activities that may or may not be considered cheating. The questions are targeting your participation in these activities and your perception of them relative to cheating.

Please respond as to how frequently (if at all) have you participated in the following? And how severely do you consider the activity to be cheating?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Once</th>
<th>More Than Once</th>
<th>Not Relevant</th>
<th>Not Cheating</th>
<th>Trivial Cheating</th>
<th>Moderate Cheating</th>
<th>Serious Cheating</th>
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<tbody>
<tr>
<td>a. Doing less than your fair share of work on a group project</td>
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<td>b. Fabricating or falsifying a bibliography, lab, or research data</td>
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<td>c. Paraphrasing a few lines from an online or print source without citing</td>
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<td>d. Purchasing or obtaining a paper either online or from someone else and turning it in as your own</td>
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<td>e. Marking all the same letter when answering a list of multiple choice examination questions</td>
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<td>f. Copying homework from another student</td>
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<td>g. Seeking help from other students in your class on a take home exam</td>
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<td>h. Working as a group when individual work is assigned</td>
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<td>i. Working with someone over e-mail or instant messaging on an individual assignment</td>
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<td>j. Copy and pasting another student's work and turning it in as your own</td>
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<td>k. Using text messaging or other technology to get answers on test information</td>
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<td>l. Copying off of another student during a test or examination</td>
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<td>m. Allowing someone to copy your answers during a test or examination</td>
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<td>n. Using crib notes (unauthorized by a professor) to answer test or examination questions</td>
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<td>o. Using a false excuse to get an extension on a paper or other class assignment</td>
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*How likely is it that you would perform your school outlined responsibilities (i.e. peer reporting or confrontation) regarding a student which you believed was cheating?*
- Unlikely
- Slightly Likely
- Moderately Likely
- Highly Likely
- No Such Responsibilities Exist

Done
if you believe that there is a fair amount of cheating at your school, do you believe that there is a mentality that "everyone does it so it's ok" which then creates even more cheating?

* Were you ever caught cheating in high school?
  - Yes
  - No

* Were you ever caught cheating in college?
  - Yes
  - No

If so, was it in a course in your major?
  - Yes
  - No

If you cheated on an assignment and your friends learned of it, how disappointed would they be of you?

If you were caught cheating, how disappointed would your parents be of you?

* Where does the responsibility for delineating and upholding your school’s academic integrity policy lie?
  - The Student Body
  - Faculty
  - Administration
  - Other

* Do you think an honor code deters cheating?
  - Yes
  - No

* Are you in favor of having an honor code at your school?
  - Yes
  - No

* Was your decision to apply to your college affected at all by the school’s academic integrity policy?
  - Yes
  - No

If you would like to make any comments, please feel free to do so in the box provided below.

Thank you for taking the survey.
Works Cited


Gravenor, J. D. (2007, March 20) Is Cheating on the Rise? From Copying and Pasting From the Internet without giving credit to getting your hands on test questions, research indicates the number of students who cheat is hitting new highs. The Montreal Gazette, pp. B8.


