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## Behaviors, Contextual Influences, and Consequences: Relationships that affect Student Decision-making of Academic Misconduct in College

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Behaviors, Contextual Influences, and Consequences:  
Relationships that affect Student Decision-making of Academic Misconduct in College

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Dissertation submitted  
to the College of Education and Human Services  
at West Virginia University  
in partial fulfillment of the requirements for the degree of  
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## **Abstract**

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Justine A. L. Burnett

Academic misconduct on college campuses is not a new challenge for higher education institutions but an old problem that has changed considerably. Student demonstrations of academic misconduct behaviors have evolved, making it difficult for institutions to consistently keep well-informed on how students cheat to effectively respond to violations of academic integrity policies. This study investigates the relationships between misbehaviors, their associated consequences, and influences to prevent, respond to, and reduce academic misconduct at a large research-intensive university.

This quantitative study uses institutional academic misconduct reports between 2017 and 2020 and student surveys to examine significant relationships in the decision-making process of academic misconduct. Evidence shows that student characteristics and behaviors were significant when assigning sanctions to respond to cases of academic misconduct. According to the data, students had a general understanding of what constitutes academic misconduct when behaviors were clearly defined as wrong, but in instances of group work when there was no direct/active participation in the behavior, students could not differentiate whether it was academic misconduct. Additionally, instructor support and adequate time allocation to complete assignments were important factors when deciding whether to cheat. Overall, consistent communication of expectations in the classroom and providing the support to help students understand academic misconduct remain important in preventing, responding to, and reducing academic misconduct.

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## CHAPTER ONE

### Introduction

Academic misconduct is a pervasive and consistent problem confronted by higher education institutions that if left unchecked, threatens the core mission of colleges and universities, to impart knowledge that can be applied with integrity to solve problems beyond the classroom. U.S. Federal Commission of Research and the Office of Research Integrity defines academic misconduct as “practices that deviate from commonly accepted community standards” and “behaviors that fail to respect the intellectual contribution or property of others, intentionally hinder the progress of research, risk corrupting scientific record or compromises practices” (Decoo, 2001). Institutions confer degrees to certify student qualifications in specific areas of knowledge, but behaviors that conflict with its purpose diminish its value. These behaviors include cheating, plagiarism, fabrication/falsification, facilitation, and any other actions in which institutions, policies, or departments have been identified as prohibited.

The bedrock of academic misconduct leans on the concept of, any action that misrepresents knowledge that has been produced for academic gains. In its earliest discovery, academic misconduct included cheating (copying from others) and plagiarism (unacknowledged use of another person’s ideas) but has progressed significantly to include facilitation (helping another person to cheat), fabrication (making up data, results, or records), falsification (manipulating materials, data, results or records) with various ways in which these behaviors are demonstrated (Decoo, 2001). As a result, institutions are constantly in an arms race to control academic misconduct behaviors on their college campuses to effectively prevent, respond to, and reduce its occurrence.



## The Problem

The issue of academic misconduct in college is not new, but an old problem that is continuously being encountered on college campuses. What has changed over the years, is how students exhibit these behaviors that do not align with institutional purposes which have garnered attention for the same reasons as it did its earliest identification, “the need to ensure that ideas are protected, accurately represented and applied with integrity” (Decoo, 2001). Imbedded in understanding why students cheat is also understanding the differences in academic misbehaviors (the likelihood of one behavior versus another) and what influences these behaviors. With a comprehension of misbehaviors in the student decision-making process that result in academic misconduct, researchers and institutions can be adequately equipped to combat academic misconduct incidents.

It is important to note, that conceptually there is a difference between the use of academic misconduct and academic dishonesty which is a deliberate distinction in this study. Academic dishonesty advances the idea of a breakdown in ethics, morals, beliefs, or values within the decision-making process. Although there is evidence to support such a relationship between ethics and misbehaviors (Wowra, 2007), the term dishonesty can be emotionally charged language provoking students to feel being categorized as a dishonest person rather than viewing violation as a decision that conflicted with institutional policy. Instead, academic misconduct refers to actions that are deemed prohibited by academic policy, regulations, standards, or rules and is directly associated with behavior rather than individual values, morals, or ethics. Academic misconduct can suggest a more educational than punitive reaction when institutions respond to such behaviors. Additionally, the term cheating is used interchangeably with misconduct and captures all types of misbehaviors and can also be used as a term to indicate

copying from another student. It is with this lens that academic misconduct in higher education will be examined to prevent and reduce student academic misbehaviors and thereby inform institutional strategies to reduce its frequency.

Strom & Strom 2007 suggest that if students begin cheating in middle school and high school, they are more likely to cheat in college. Whilst Noris & Swift 2001 argued that if students cheat in college, they are more likely to also be dishonest in the workplace. However, college students have been cheating steadily for decades, and “it occurs on most, if not all college campuses” (Kibler, 1993). Regardless of whether students cheated before entry or after graduation, colleges and universities continue to grapple with issues of academic misconduct on their campuses and the problem remains, that students capitalize on any opportunity that gives them an unfair advantage over others to yield similar outcomes as those who follow the rules. These trends are a clear indication that academic misconduct is a problem that needs to be addressed to both maintain the integrity of knowledge and the mission of all institutions of higher education.

### **Purpose**

The primary goal of this study is to investigate the relationships between misbehaviors, their associated consequences, and influences to prevent, respond to and reduce academic misconduct at a large research-intensive university. West Virginia University has a student population of approximately thirty thousand (30,000) students across three campuses (Morgantown, Beckley, and Potomac) with an R1 (high research activity) rating. Several identities are associated with the institution which includes public institution, land grant, number one party school, vibrant Greek-life, the flagship university in a college town, and Big 12

institution. These identities provide the context of student life, its environment, and academic misconduct trends.

The theory of planned behavior is used as the main theory for understanding student misbehaviors. It suggests that attitudes, subjective norms, and perceived control are “antecedents which in final analysis determine intentions and actions” (Ajzen I. , 1991). The concept of risk vs rewards infers the probability of students exhibiting these behaviors. This will provide evidence of the likelihood of student cheating, the likelihood of repetition of cheating after educational intervention, and the importance of establishing institutional mechanisms to influence decisions that lead to academic integrity and reduce risk/reward calculations.

### **Research Questions**

RQ 1: Did the association between student characteristics and behaviors increase the likelihood of specific sanctions being assigned?

RQ 2: Is there a negative relationship between assigning grade sanctions and reducing GPA for repeat violations of academic misconduct?

RQ 3: Is there a positive relationship between assigning educational sanctions or grade sanctions and reducing repeat violations of academic misconduct?

RQ 4: What are student attitudes towards cheating?

RQ 5: What do students think about peers cheating?

## Background

The origin of academic misconduct traces back to the seventeenth century when invention and authorship rights were disputed in the royal scientific societies of England and France. These disagreements led to the establishment of copyright, intellectual property, patent, and trademarks which were then adopted and legally supported in Western society (Decoo, 2001). The premise for creating laws that addressed invention and authorship rights was that it identified who produced, owned, or had the rights to ideas and if misused by others, the possible consequences that followed.

As early as 1928, researchers have been interested in explaining academic misconduct (why students cheat?). Hartshorne tested moral knowledge and attitudes as determinants of misconduct in religious education. This study uncovered that individual behavior was a series of behaviors and attitudes that were motives entertained by the individual (Hartshorne, 1928). Essentially, students committed academic misconduct if their attitudes towards cheating were neutral, there was a tangible reward (improved grade), and if an act was performed multiple times without being discovered (Hartshorne, 1928). H. C. Brownwell published a similar article in 1928 that examined the mental traits of cheaters and found a consistent disposition among thirty (30) students who cheated on a final examination which was, that the reward (grade) outweighed the risk (sanction/consequence) (Brownwell, 1928). With a risk/reward calculation, the higher the reward, the students were more likely to participate in academic misconduct.

In 1935, the effectiveness of preventative measures such as proctoring systems versus honor systems was explored as a means of combating academic misconduct but concluded that academic misconduct occurred more under a proctor system than an honor system (Campbell, 1937). Honor systems made students feel both accountable and responsible for their actions

rather than being forced to follow the rules through a proctoring system with someone constantly observing their behaviors. Though, the application and success of such systems were dependent on institutional implementation and management.

Bushway and Nash in 1977 suggested that multiple factors influence student cheating, and it is difficult to identify all factors, but institutions should focus on preventative methods which include educating students on cheating. Students should be educated on what constitutes academic misconduct and if violated the associated consequences. When communicated clearly to students, its effects can reduce student cheating (Bushway, 1977). Understanding academic misconduct to prevent, respond, and reduce has been consistent amongst higher education institutions and evidence suggests that it cannot be resolved in isolation but requires a multidimensional approach including departments, faculty, staff, students, and policy that can lead to an effective methodology to combat.

### **Current Context**

Academic misconduct challenges in higher education remain current with unconventional techniques of cheating which has created a research area of interest for engaged institutions to discover an effective approach to reduce its presence. In 1964, Bowers reported that approximately 75% of undergraduate students admitted to at least one cheating behavior. McCabe and Trevino conducted a comparable study in 1996 and found that about 70% of students cheated at least once during their college years. The International Center for Academic Integrity (ICAI) 2005 reported cheating trends with 68% of undergraduate students admitting to either written or test cheating. Institutions are aware of its existence and have been coping with understanding the scope of cheating on their campuses to effectively inform decisions on how it can be prevented, identified, responded to, and thereby reduced.

Most recently, institutions have seen a spike in reports of academic misconduct due to a global pandemic which has added a layer of issues to confront coupled with shifting institutional resources to provide the same level of education. Zerikina et al (2021) argue that universities have been forced to spend significant funds to digitalize classes, train instructors, transition employees to remote work, and update supportive departments to assist students which have made it difficult to manage issues of academic misconduct. However, updating technology has allowed for a quicker response to misconduct that may have been undiscovered (Zerkina, 2021). The pandemic has also provided a better view of challenges students may have in the classroom and the support needed to respond to such incidents of misconduct and create an environment of academic integrity with a remote approach (Koris, 2021).

The issue of academic misconduct has been examined from various lenses such as academic dishonesty trends (Bowers 1964; ICAI 1999; McCabe 1992; McCabe and Trevino 1993; McCabe et al. 2001; Kelly et al. 2008), characteristics of students who cheat (Baird 1980; Dawkins 2004; Hutton 2002; McCabe et al 2001; McCabe and Trevino 1997; Whitley 1998; Wideman 2008), student cheating motivations (Ajzen 1991, 2002; Beck and Ajzen 1991, Whitley 1998; Whitley and Keith-Spiegel 2002), types of cheating (Bowers 1964, McCabe and Trevino 1996; McCabe et al. 1999; McCabe 2001), methods of cheating (McCabe and Bowers 1996), the effectiveness of honor codes (McCabe 1993; McCabe and Trevino 1993; 1997; McCabe et al. 1999; McCabe 2001) and intervention approaches (Aleude et al. 2006; ICAI 1999; Hutton 2002; McCabe and Trevino 1997), all contributing significantly to the understanding and explaining academic misconduct but the problem continues to be inevitable.

Considering the constant issue of academic misconduct on college campuses, researchers have offered recommendations to address cheating which include but are not limited to the use of

honor codes, improving policies, and improving teaching techniques and student skills. McCabe and Trevino (1993) suggested that implementing honor codes made students accountable for their actions and created communities that supported academic integrity and made good academic decisions. However, Bok (1990) reported that honor codes were most effective on small campuses since larger institutions had competing interests such as grades, large class sizes, and impersonal nature which made it difficult to create a sense of community.

Improving or creating academic integrity policies, could establish a clear institutional stance on academic misconduct and thereby prevent cheating but a policy's success is limited when implementation and evaluation are absent (Kibler, 1993). Howard and Davies (2009) proposed that actively teaching the skills required in the classroom can reduce the occurrence of cheating. Institutions should not expect students to have skills that are not taught in the classroom. Engaged students who learn these skills such as correctly citing resources can facilitate learning and are less likely to commit academic misconduct. Teaching students how to maintain academic integrity through consistent communication between faculty and students to make academic integrity the norm can also prevent and reduce academic misconduct (Hutton, 2006).

This study intends to explain the relationships between academic misconduct behaviors in conjunction with their consequences and influences in the student decision-making process as predictors of responding to misconduct. Each behavior (cheating, plagiarism, fabrication, falsification, facilitation, and specified prohibited behavior) has an associated consequence that institutions utilize to respond to violations. Its goal is to educate and deter future behaviors, but trends suggest that students continue to cheat notwithstanding consequences with some behaviors being more common than others. This presumes that other factors are operating in the

decision-making process that influences the behavior of academic misconduct. If the risk (being caught) is low on an assessment, students are more likely to exhibit specific behaviors than others which proposes the necessity of understanding the relationships that can respond to and prevent cheating.

### **Significance**

This study is important because it advances understanding of academic misconduct behaviors that operate in tandem with student environmental influences and associated consequences. Academic misconduct research shows that students are continuously cheating despite multiple efforts to create systemic approaches to reduce opportunities for misconduct. What is unknown, is how students view academic misconduct and how they decide to commit misconduct notwithstanding institutional safeguards which this study intends to answer. Decisions of academic misconduct do not operate separately but are affected by interactions within the decision-making process that promote or inhibit misbehaviors. The use of student input and institutional data provides a practical approach for institutions to effectively prevent, respond to, and reduce academic misconduct. This study's results will assist institutional stakeholders in better addressing academic misconduct and promoting integrity at each level of interaction, urging student awareness of institutional expectations to influence behaviors of academic integrity.

Despite extensive research, academic misconduct remains a problem for higher education institutions. Literature suggests that academic misconduct will continue to be a problem due to institutional deficiencies to respond (McCabe 1993, 2005; McCabe et al. 2001, 1999), lack of faculty concern about academic misconduct (McCabe 1993; Nuss 1984), deficiency of honor codes or academic integrity policies (McCabe and Trevino 1993) and inadequate implementation



of policies (McCabe 2005; McCabe and Trevino 1993, 1997; McCabe et al. 2001, 2002). Students will continue to cheat because of the need for high grades or pass a class (McCabe et al. 2001; Odunayo and Olujuwon 2010; Petress 2003), social influences for certification (Odunayo and Olujuwon 2010; Wideman 2008), need for a leveled “playing field” ( Kelly et al. 2008; McCabe et al. 2001, 2002), desire for high paying jobs (McCabe et al 2001; Whitley 1998; Wideman 2008), unaware of what academic misconduct entails (McCabe et al. 2001; McCabe 1993; Petress 2003), peer influences (McCabe and Trevino 1993; McCabe et al. 2001; Whitley 2008) and difficult/heavy workloads (Kelly et al. 2008).

This signals the risk/reward calculation in the decision-making process is ever-present and internal/external influences contribute to the consistent trends of academic misconduct. In the absence of understanding their relationships in the decision-making process, institutions cannot effectively prevent, respond to, or reduce its occurrence. These are necessary to understand student decision-making and subsequent behaviors (Imran, 2013). Regardless of institutional size and resources dedicated to responding to academic misconduct, this problem remains evident.

Institutions are actively seeking various methods to prevent, respond, and reduce instances of academic misconduct but more importantly as trends increase it begins to threaten institutional missions and raises concern about degree value, instructional techniques, institutional responses, and student motivations. Notwithstanding extensive research seeking a universal method that can be adapted to prevent misconduct, one approach is not sufficient to completely resolve student cheating. The need remains present that creative approaches are necessary to ensure a “hands-on” approach to effectively respond to incidents of academic misconduct.

College student cheating has been positioned based on responses to student behaviors with limited research to predict these misbehaviors to enlighten institutional abilities to prevent and reduce misconduct (Kibler, 1993). Considering student perceptions, attitudes towards cheating, decision-making influences, and risks associated with behaviors, can facilitate an understanding of possible patterns of student behaviors to further explain why college students cheat although numerous measures to discourage it. More specifically, limited research has been done to predict student academic misbehaviors based on planned behavior theory (Stone et al. 2007; Mayhew et al. 2009; Harding et al. 2007, 2012; Kisamore et al. 2007) and risk assessment theory, although the problem is faced by almost all institutions of higher education.

By examining student misbehaviors from a decision-making perspective and the influences surrounding the decision to cheat, we can better recognize why students cheat and provide targeted mechanisms to change their attitudes, norms, perceived control, and risk/reward calculations. ICAI research suggests “campus norms and practices can make significant difference in student behaviors and attitudes” (International Center of Academic Integrity, 1999). This study will add to the body of research to explain college student academic misconduct behaviors at large research-intensive institutions and provide evidence on the importance of shaping student attitudes, subjective norms, perceived control, reducing risk/reward calculations, and influences to maintain academic integrity can dissuade and reduce deviant academic behaviors.

### **Theoretical Framework**

Academic misconduct is a challenge for higher education institutions despite policy changes, dedicated departments, academic integrity champions, and enhanced instructional measures to deter misbehaviors. The planned behavior theory provides an opportunity to explain

the decision-making mechanism in student academic misconduct. This theory has been proven useful in predicting student intentions and behavior (Stone et al. 2007; Mayhew et al. 2009; Harding et al. 2007, 2012; Kisamore et al. 2007).

Before the act of academic misconduct, students decide regardless of ill intention. When the violation is reported or discovered, institutional responses should align with the act of academic misconduct to educate students on institutional expectations. In some instances, one incident is sufficient to inform better decisions and deter repetition but, in other instances, students have additional violations even after education/intervention. This assumes that the decision-making process before and post-academic misconduct is crucial to understanding why students cheat and how institutions can effectively respond and prevent to reduce its occurrence.

Planned behavior theory is premised on the idea that three factors within the decision-making process contribute to a student's academic misconduct. These include student attitudes towards misconduct, their subjective norms, and perceived control over the behavior (Genereux, 1995). A combination of these factors can predict whether students cheat and why some students cheat despite intervention. This can facilitate understanding of the necessary institutional changes to align student attitudes, subjective norms, and perceived control to maintain academic integrity and thereby reduce academic misconduct.

Although planned behavior theory provides an opportunity to examine three facets of the decision-making process, each phase also raises practical questions about risk/reward calculations and decision-making influences. The term risk has varying meanings based on viewpoint and experiences. Broadly, it is the probability of failure in achieving an objective, and in terms of misconduct, the objective is an academic gain (Lu, 2012). Risk encompasses being caught and the associated consequences whilst reward relates to not being caught, gaining a

better grade, or avoiding any consequences for behavior. Students are motivated to cheat by an intrinsic factor of a balance between risk and reward. When the reward outweighs the risk, students are more likely to cheat or less likely to feel that their behavior violates the rules (Hulbert, 2018).

The decision-making process of academic misconduct begins with student characteristics which build a student profile. These characteristics include gender, college, class, status (full-time vs part-time), residency (international vs domestic), housing (on/off campus), student organization membership, professional organization membership, student-athlete, and employment. It is then influenced by multiple factors such as institutional conduct, knowledge of academic integrity, risks (possible sanctions), the weight of assessment, attitudes towards cheating, peer norms, instructor expectations, institutional policy, confidence in completing the task, and pressure to complete the task that can lead to the decision of misconduct. If students decide to cheat after considering these factors, they exhibit academic misconduct behaviors but if they do not, it feeds back into the influences. However, when students decide to cheat, they confront another crossroad which is whether the institution will detect misconduct and again it feeds back into the influences in the decision-making process. This process accounts for why students cheat, but it also suggests why students continue to cheat despite being held responsible or educated on expectations. Considering, this process and each variable in the process, institutions can create targeted approaches to change student attitudes, norms, and perceived control to then predict misconduct and strategically reduce its occurrence. The following chart depicts the decision-making process within the environment of influences and risk/reward calculations.

## Academic Misconduct Decision-making Process

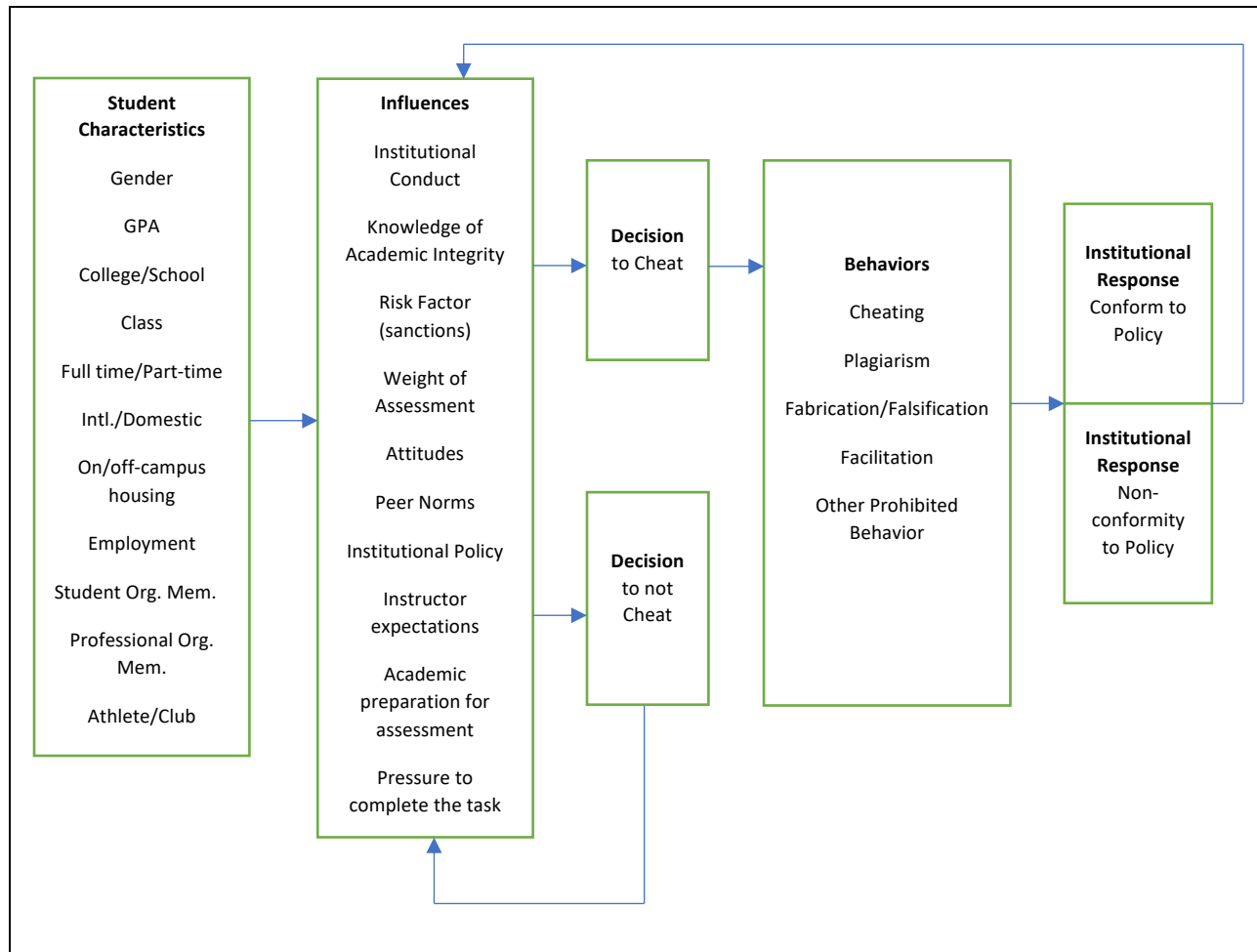


Figure 1: Decision-making process

## **Limitations**

Notwithstanding the utility of this study, there are important limitations to be considered. First, although the theory of planned behavior provides evidence of success in predicting student academic misconduct, additional variables can exist that influence student attitudes, norms, and perceived control towards cheating such as membership in different social groups, relationships with instructors, and university communication of policy expectations. Second, considering McCabe et al (2001) which surveyed 31 institutions (14 with honor codes and 17 with other policies), this study's generalizability is reduced since one institution is investigated rather than multiple institutions with similar institutional characteristics. Third, consequences/risks can be subjective based on institutions and students, harsher sanctions for lower-level behaviors can act as a deterrent. However, if institutions favor educational rather than punitive responses, students might be able to cheat more at one institution than another. The concept of risk can vary across students. Some students might perceive lower-level behaviors as very risky whilst others can assume high-risk behaviors as lower with less likelihood of being caught.

## **Definition of Terms**

Given the use of planned behavior and risk/reward calculation theories for analysis, it is critical to define key terms that are common throughout this study.

Academic Integrity - "A commitment to the fundamental values: honesty, trust, fairness, respect and responsibility that are foundational to the academy, improves ethical decision-making capacities that enable academic communities to translate their ideas to action" (International Center of Academic Integrity, 1999)

- Academic misconduct - Student behaviors that operate contrary to institutional ideals, practices, and policies that affect the accomplishment of missions, learning outcomes, and core purposes.
- Cheating - “The reliance on unauthorized resources, in connection with an examination of academic assignments. It includes unauthorized collaboration, unauthorized use of technological or physical resources, copying from another student or the acquisition of academic material without the permission of faculty/staff” (West Virginia University, 2019). The term cheating is also used interchangeably with misconduct to capture all misbehaviors.
- Plagiarism - “The appropriation of another person’s ideas, processes, results or words without giving appropriate credit” (Decoo, 2001).
- Falsification - “The manipulation of research materials, equipment or processes or changing or omitting data or results such that the research is not accurately represented in the research record” (Decoo, 2001).
- Fabrication - “Acts of misrepresentation, forgery, or fraud as it relates to academic or educational matters. This includes fabricating citations, data, other records, attendance, or participation records, altering educational records including university documents or instruments of identification” (West Virginia University, 2019).
- Facilitation - “Providing unauthorized materials or personal assistance to another student when such assistance allows them to commit

academic misconduct or compelling someone else to commit academic misconduct on one's behalf" (West Virginia University, 2019).

Other prohibited conduct - "Engaging in behavior specifically prohibited by a faculty member in the course syllabus or violating other departmental, college or university academic standards and/or legal or professional standards" (West Virginia University, 2019).



## **CHAPTER TWO**

### **Review of Literature**

Extensive research has been done on academic misconduct to better understand and explain why college students cheat to prevent, respond to, and ultimately reduce its occurrence. Despite these efforts, academic misconduct remains evident on college campuses and literature suggests that the problem will continue and increase in the future given its pervasive nature (Perez-Pena, 2012). This suggests that although a universal approach does not exist to completely remove instances of academic misconduct, considering the decision-making process that led to behaviors of misconduct can inform institutional strategies to predict, respond to and reduce academic misconduct.

Research reviewed for this study is examined following the conceptual decision-making process for academic misconduct behaviors identified in the previous chapter. It is organized beginning with defining academic misconduct, student characteristics and student development, factors that influence academic misconduct, student decision-making process (theories), academic misconduct behaviors, and institutional responses to behaviors that will lead to gaps between the institutional responses and student decision-making process that result in academic misconduct.

### **Defining Academic Misconduct**

Student cheating is defined as “behaviors that undermine academic integrity and do not comply with rules, norms or expectations” (Yu H. G., 2018, p.551). The terms academic misconduct or academic cheating is therefore any action/behavior that gives a student an unfair advantage over another student. However, its meaning takes on a different interpretation for

stakeholders in the decision-making process. Because of this variation, a disconnect can exist causing students to commit academic misconduct without considering actions as misbehavior. Faculty or institutions then respond, in a manner that does not align with student understanding and requires additional efforts to educate on expectations and what constitutes academic misconduct to respond to misbehaviors.

### **Students**

Students have a general understanding of what constitutes academic misconduct and are mostly aware of what cheating can look like when it is openly done in the classroom such as looking at classmates' exams or passing notes. Students are also very much knowledgeable about cheating techniques, other students who cheat, and cheating practices. But Burgason et al (2019) argue that how students define academic misconduct does not always agree with the normative description of academic misconduct. As such, students can be far-removed from knowing that some actions are unacceptable within the academic environment. Hence, institutions must communicate explicitly and frequently what is academic misconduct and what behaviors are considered prohibited to establish a clear understanding and reduce attitudes and beliefs that justify cheating behaviors (Burgason, 2019).

### **Faculty**

Instructors/faculty frequently share similar definitions and understanding of academic misconduct with their institutions. Fendler and Godbey (2016) argue that faculty are aware of student cheating, and it is one problem in higher education that is longstanding, deep, and discipline neutral. In 2005, Premeaux reported that faculty believed that between 30% - 45% of students cheated on their assessments (homework, assignments, or exams). Although faculty

understanding may not differ from the institutional definition of academic misconduct, faculty tend to respond differently to its occurrence in their classrooms. Their responses can either concur with institutional efforts to reduce academic misconduct or conflict with institutional actions. Instructors do not condone student cheating but apply multiple techniques to prevent academic misconduct within their classrooms. However, unison in understanding and approach is important to define and communicate what is academic misconduct, institutional expectations and why cheating diminishes the integrity of academic success.

### **Institution**

Defining academic misconduct at the institutional level is foundational for creating a culture of academic integrity through policies and processes that establish expectations and respond to misbehaviors. Institutions utilize these strategies to make students aware of possible consequences for a violation of such policies (McCabe D. L., 1993). Through institutional policies, faculty have a clear guideline on how to respond to academic misconduct that is not separate but holistically applied and removes conflicting meanings of academic misconduct. Institutional and faculty definitions and understandings should work in concert to foster behaviors that align with maintaining academic integrity and reducing the behaviors that deviate from institutional missions and objectives.

### **Student Characteristics and Student Development**

Understanding, and explaining student behaviors and decisions coincide with understanding student characteristics and student development. Student development research suggests that college experiences are informed by individual characteristics and interactions/experiences students have during their college years. These experiences prompt

cognitive dissonance that can support or hinder student development but allow higher education administrators to identify key areas to provide support and encourage growth. This section addresses concerns in the academic misconduct decision-making process that account for student characteristics and their interactions with the environment, providing further explanations for decisions regarding academic misconduct.

### **Intellectual and Ethical Development Theory**

William Perry's theory proposes that intellectual and ethical development structures/positions shape how individuals view experiences, interpret right or wrong and affirm personal commitment to knowledge and values (Evans, 2010). Perry utilizes positions rather than stages because development is not always linear but can move between positions when confronted with a problem. Positions include duality, multiplicity, relativism, and commitment to relativism.

In the duality structure, right or wrong is associated with authoritative figures such as instructors, advisors, or policy administrators (Evans, 2010). There is no opposition by the student on what is deemed to be right, just complete acceptance. Clarkeburn et al (2003) argues that though this position provides an opportunity for students to believe in absolute right and wrong actions to ethical problems, it limits successful consideration of moral options. Justification of decisions is due to others proposing a particular action is right or wrong. In essence, duality removes understanding of why academic misbehaviors are unacceptable and do not align with institutional expectations for academic integrity in individual success.

Multiplicity structure/position, however, considers diverse views without limiting views to authoritative roles (Evans, 2010). Other views are considered to add equal value to a decision.

This position accounts for peers and other student groups that may have a different view about academic misconduct. Students place the same amount of value on the opinions of their peers as their instructors or other authoritative figures. Scrimshire et al (2017) argue that the difference in views can trigger cognitive dissonance since external views can conflict with personal views but students justify their actions to cheat because they value peer views and consider actions of misconduct to not be very serious or bad. In some instances, the value of peer views weighs more than those of authoritative roles.

Relativism is the structure that which the views of others are not equal, but their value is based on evidence and supporting arguments (Evans, 2010). This position/view prompts independent choices and decisions given information received from others. Clarkeburn et al (2013), and Thomas and Rest (1999) contend that the shift to relativism is only successful if students can apply and understand the reason for choices independently. If not, students are more confused and can return to other views that do not require choosing on their own. It is, therefore, crucial for institutions and others within the decision-making process, to support and aid in ethical development so that students have the integrity not due to others emphasizing its importance or value but because students genuinely understand why it is needed and coincides with their academic success, therefore, reducing the appeal of academic misconduct.

Perry introduces the structure of commitment to a relativism which places importance on actions that are well informed after thorough processing of views and making a choice based on values (Evans, 2010). This is observed in behaviors when students decide to cheat. They have considered right and wrong, values, and understand the consequences of their decision nonetheless cheat. At this point in the decision-making process, students begin to think about the risk/reward calculations and although behaviors may not be “right”, the outcomes are more

valuable than the risk involved. Hence, institutions can have challenges moving students along to make the right decisions on their own when it's of less value to them. But assigning sanctions and educational interventions that address the behavior and reduce the benefit of misbehaviors can prompt cognitive dissonance and a commitment to academic integrity.

Historically, researchers of academic misconduct have used terms such as dishonesty or unethical behaviors to address issues of misconduct which has resulted in a general interpretation by students, faculty, and stakeholders in the process, to also believe and use similar terms when encountering academic misconduct behaviors. Tensions also exist with the use of these terms which changes how students view behaviors. This means that when responding to such issues, administrators should be cognizant of student perceptions of behaviors and consequences. Perry's theory on ethical development explains how students and faculty can view behaviors and more importantly how they respond, understand, and process information and expectations.

Perry's structures of duality, multiplicity, relativism, and commitment to relativism are ethical drivers that are dissimilar from the use of the term academic misconduct, which is deliberate in this study. However, since a culture shift has not occurred in academic misconduct research with the use of academic misconduct versus academic dishonesty and unethical behaviors, the context of ethical development is important to better understand student perceptions, behaviors, and decisions. Whether students view behaviors as misconduct or unethical, institutional responses should make the distinction between terms to avoid emotionally charged language but directly address behavior and not students' values, views, beliefs, or ethics.

## **Social Cognitive Learning Theory**

Social cognitive learning theory recognizes the relationships of behavior, cognition, personal attributes, and the social and physical environment that exist in instances of academic misconduct (Burnett, 2016). Behaviors are not exhibited in isolation but are a result of interactions between the individual and persistent influences within the environment that lead to different types of misbehaviors in the classroom. Central to social cognitive learning theory is that people conform to patterns of behaviors they observe and go through a process of learning, unlearning, and self-regulating behaviors, developing an understanding of acceptable and unacceptable behaviors (Selemani et al 2018; Scott 2017; Ormrod 2012). As a result, misbehaviors can become trendy and students who do not follow, feel pressured to be a part of the peer culture, increasing their propensity to cheat based on observed and learned behavior (Scott, 2017).

Ormrod (2012) argues that environmental and social factors such as reinforcement or punishment facilitate self-regulation. Reinforcement strengthens expectations, making it clear what behaviors are acceptable and should be the norm whilst punishment weakens motivation to exhibit unacceptable behaviors (Ormrod, 2012). Students observe behaviors and make their own decision on whether to engage in misconduct (Yang, 2017). However, self-regulation works in both directions. Students can choose to cheat and view behaviors as acceptable or not cheat and meet institutional expectations. It, therefore, means that peers play a critical role in regulating behaviors and creating a culture of academic integrity. Institutions should be aware of student factors to promote and maintain integrity thus reinforcing expectations. Burnett et al (2016) argue that understanding these relationships and possible outcomes can assist faculty in creating

environments that are prudent in achieving academic integrity and improving student interactions with others within the environment.

Social cognitive learning theory emphasizes the importance of interactions with peers and the value of their views on student behaviors. It also explains trends of group academic misconduct cases, why one student views sharing codes with a friend as help rather than misconduct or places more value on maintaining a friendship than maintaining integrity in their work. It is through this theory, that the researcher can understand, how students view peer behaviors that translate into norms and their behaviors. Students are more likely to either view their peers' behavior as normal if they conform to similar actions or view their peers' behavior as misconduct if they disagree. As such, it is equally important to address behaviors in groups with the same level of sanction based on behavior because students will also view the sanctions of others as the expectations/standard for them should they have an academic misconduct incident.

### **Developmental Ecology Theory**

“Behavior is a function of the interaction of the person and the environment to development” (Evans, 2010). Bronfenbrenner's developmental ecology theory is based on a series of interactions that occur within the environment that can prompt or inhibit student development. This theory includes four main components: process, person, context, and time (PPCT). These interactions provide an opportunity to understand multiple interactions that occur throughout the decision-making process of academic misconduct and identify factors that are most/least influential in preventing and responding to behaviors.

The first component process captures the types of interactions that occur within the decision-making process. Bronfenbrenner suggests that these interactions should progress and



become complex to achieve optimal development (Evans, 2010). Interactions with faculty, administrators, and policy can support development through proper implementation and adaptation to encourage understanding of academic misconduct and possible consequences of behaviors. The second component is the person which refers to the individual that is developing. “The attributes of the person shape the course of development, for better or worse, that inhibit or encourage dynamic dispositions toward the immediate environment” (Evans, 2010). These are the student characteristics and individual attitudes towards academic misconduct. Institutional efforts are needed to understand students and the behaviors that exist based on their individuality and the factors associated with these behaviors.

The third component is context. These are the circumstances of interactions that can be within the microsystem (peers, instructors), mesosystem (department), exosystem (policy administrators, appellate officers), or macrosystem (institutional policy). Each level of interaction should be targeted toward creating a culture of academic integrity. However, interactions that do align with institutional expectations can easily inhibit behaviors of integrity which may lead to increased numbers of violations. These interactions should be intentional and targeted to prompt decisions academic integrity (Yang, 2017).

Lastly, all interactions within each component operate over time (Evans, 2010). Behaviors are learned or unlearned based on the influential factors within the environment. Schunk (2000) found that students who observed or interacted with students who exhibited behaviors of integrity increased confidence in one’s capabilities of imitating the same behaviors and having academic success. This suggests that peers are a driving force within the environment but interactions with authoritative figures, policy, and processes in responding to misconduct can shape behaviors of integrity thus reducing its prevalence.

Interactions within the decision-making process and the academic misconduct process determine how students view their behaviors, the behaviors of peers, institutional responses, and interactions with policy administrators. An effective policy requires a structured approach to behaviors that address behaviors and makes clear institutional expectations. Bronfenbrenner's theory emphasizes how institutions should maximize these interactions that maintain the same objective to ensure an environment of academic integrity is created through the promotion of its importance at every level of interaction to shift decisions from one of misconduct to integrity.

The student development theories work together to provide perspective and understanding of why students cheat, what are the critical factors to explain the behaviors, and how institutions can create targeted approaches to reduce the likelihood of academic misconduct and effectively educate to promote academic integrity with every opportunity to reinforce the importance of academic integrity.

### **Factors that Influence Academic Misconduct**

Researchers have found that students commit academic misconduct for several reasons, but few explanations are consistently present which underscore the decision to cheat. These include prior violations, the weight of assessment, level of risk associated with the act of cheating, attitudes towards cheating, peer norms, and knowledge of what constitutes academic misconduct. The commonality across research suggests that these are central factors to be addressed, to effectively respond to, prevent, and reduce academic misconduct. Additional factors that are included in this study facilitate the capturing of influential factors produced through interactions in the system/process of responding to misbehaviors (institutional policy, instructor expectations, preparations, and pressure to complete tasks).

Nonis and Swift (2001), Smith et al (2004), Elias (2009), and Ma (2013) contend, that prior academic cheating increases student propensities for future acts of academic misconduct. The first act of cheating might be extrinsically or intrinsically motivated, but it is also the similar motivation that is present for other occurrences of misconduct (Pfeffer, 2004). In some cases, the decision to cheat is rationalized as only once but students may continue to cheat depending on whether their goal was achieved without any major costs. If students with prior violations have either committed the act without penalties or received minor consequences for their actions, they are more inclined to cheat thus normalizing the behavior. As such, Ghanem and Mozahem (2019) conclude, that students with a history of academic misconduct, are not only aware of their actions being unethical but will continue to cheat unless their actions have consequences that are severe enough to deter future misbehavior or significantly reduce academic success.

The weight of assessment (homework, test, assignment, or exam) is another important factor considered by students in the academic misconduct decision-making process. Each level of assessment has a degree of effort needed to cheat for behaviors to be undetected. Mensah C. et al (2018) argue that cheating behaviors such as working with another student or copying their work are subtle actions that can easily be unnoticed hence the frequency of some behaviors over others. However, behaviors with a greater weight of assessment such as final exams require more effort to execute and conceal. This suggests that students may be more likely to cheat on perceived low-risk assessments. As such, institutional responses should be aligned with addressing the behavior, reducing future occurrences but also being able to detect easily executed actions.

In conjunction with the weight of assessment is the risk factor of each behavior, meaning the sanctions that may be assigned given the type of behavior. Such sanctions can range from a

warning to expulsion, each with an educational aspect excluding expulsion. Ives et al (2017) argue that if the costs of the behavior are perceived to be minimal, students are more likely to cheat continuously. As a result, behaviors may not be seen as less unacceptable and some sanctions may not be as effective as punishment (Ives, 2017). This raises the concern for targeted institutional efforts to reduce the reward achieved when students misbehave. Hulbert (2018) refers to the risk/reward calculation as a key factor in the student academic misconduct decision-making process. Students are constantly calculating rewards (good test scores) and risks (possible sanctions) when thinking to cheat. Hence, students should not perceive misconduct as a viable option to succeed but rather a behavior that deviates from genuine academic success.

Students cheat despite knowing that their actions are unacceptable (Ghanem, 2019). Student attitudes towards cheating move back and forth on the continuum of whether academic misconduct is acceptable or unacceptable, both being subjective. This movement also challenges when or how far behavior becomes unacceptable. Imran & Nordin (2013) describe these attitudes as tolerance towards academic misconduct behaviors that affect whether students form an intention to act. If students cheat and consequences do not deter future behaviors, those attitudes become justifiable and translate into the acceptability of academic misconduct. Whitley (1998) argues that students who have cheated have more tolerance for misconduct than their counterparts who believe academic misconduct to be unacceptable. This suggests the need for institutional approaches to mold attitudes of integrity and draws a strong delineation between acceptable and unacceptable. If not, student attitudes are easily skewed to what they believe is acceptable but truly is academic misconduct.

As an extension of student attitudes toward cheating is peer norms that influence behaviors of academic misconduct. Although student attitudes can be internally driven, there is

evidence of external factors that contribute to the creation and shaping of these attitudes which is peer influences. Students observe each other's behaviors including consequences of actions that shift individual attitudes towards cheating when perceived/observed to be acceptable. Payne and Nantz (1994) argue that peer influence can be so dominant that it can define academic misconduct, creating social realities and cultures where academic dishonesty is more acceptable and less serious behavior. It is due to this shift to the acceptability of academic misconduct that researchers contend that students perceive others to cheat more and the cheating they do is less serious than their counterparts but, they are cheating more causing behaviors to become widespread (Imran & Nordin 2013; Ives et al 2017; Scrimshire et al 2017; Yang et al 2017; Mensah et al 2018; Ghanem & Mozahem 2019). Therefore Imran & Nordin (2013) conclude that in an academic environment, social/group norms can signal the level of academic misconduct with tendencies that are more pronounced in groups, giving way to peer influences.

Another key influence in the decision-making process is institutional education which is how students are taught about academic misconduct in college which can be introduced before or post violation. Institutions educate students through multiple methods for prevention and intervention, including tutorials, syllabus statements, and classroom conversations about expectations and what is required to execute assessments with integrity. However, for education on academic integrity to be successful, it needs to be consistent. Weber (1990) argues that students are more aware of academic misconduct and the consequences of actions after being taught about what constitutes academic misconduct, but it can also be fleeting if students are not reminded of expectations. Conversely, though education can assist in preventing academic misconduct it can also assist students in cheating better if they know what is being observed

which implies that in educating students, institutions must also be aware of the extra effort students may invest to hide misconduct.

Other influences exist that contribute to academic misconduct decisions but are a result of an interaction with the system/institution. These include institutional policies, instructor expectations, pressure to complete academic tasks, and whether students are prepared to complete these tasks. Institutional policies communicate expectations and consequences; however, their implementation and execution determine whether students consider the seriousness of their misbehaviors. These policies are then incorporated into the classroom through instructor expectations and how they respond to violations in their classroom. Communicated and understood expectations can be a significant deterrent to academic misconduct behaviors but students remain the key determining factor on whether they will cheat or not even after policy and expectations are shared. McCabe et al (1999) argue that despite having policies and expectations students cheat due to pressure to get high grades to excel and whether they have invested sufficient time and effort to succeed which sometimes can justify the reasons for cheating because it is a means to achieving their goal. From an institutional level, internal motivations cannot be managed but they can be supported to influence better and informed decisions through interactions with students to communicate when they are having challenges so that support can be available to deter them from cheating but rather allowing the institution to support their goals.

### **Decision-making Process**

Explaining human behavior is challenging given the myriad of variables that lead to a particular action. Although behaviors can be observed and easily recognized, the reasons why decisions are made are not as clear. Researchers of academic integrity have found multiple theories which provide a foundation to explain these behaviors and can assist in responding to misconduct. Academic misconduct is simply behaviors that go against institutional expectations in maintaining academic integrity and when these behaviors are confronted, institutions must apply approaches that understand behaviors and can also redirect decisions to one of integrity. But the question remains, why do students cheat? Icek Ajzen's theory of planned behavior has been successful in explaining and predicting behaviors of academic misconduct and will be used to further examine behaviors to create institutional strategies for responding to and reducing academic misconduct.

### **Theory of Planned Behavior**

Central to the theory of planned behavior is an individual's intention to perform a given behavior (Ajzen I. , 1991). Regardless of the type of behavior, the intention is present. Ajzen (1991) argues that an individual's intentions are the driving forces that determine whether behaviors are demonstrated, given their willingness and effort exerted to perform these behaviors. These factors create a conducive environment for the likelihood of actions to be exhibited which Ajzen, (1991) refers to as volitional control (at will to perform or not perform the behavior). Additionally, opportunities and resources must also be present which hones into the active process of choosing to act. Simply, intentions are antecedents for behaviors.

The theory of planned behavior suggests that attitude towards behavior, subjective norms, and perceived control produce intention that led to the behavior. Attitude towards behavior is a person's disposition towards behavior or its consequences (Imran, 2013). Students consider whether behaviors are viewed as good or bad and depending on where their individual views lie, they have a proclivity to some behaviors rather than others. Attitudes towards behavior have been influential in predicting behavioral intention and performance (Leonard et al 2004; Henle et al 2010). Students with positive attitudes towards cheating, meaning that they did not necessarily see their actions to be wrong but an alternative to achieve goals, were more likely to cheat than students who saw cheating as wrong.

Subjective norms are the expectations of others or the culture of behavior. Subjective norms can include the views of peers, instructors, or the institution and whether those behaviors are acceptable or unacceptable (Leonard L. N., 2017). These subjective norms create and maintain cultures of misconduct or integrity. The third element of intention is perceived control which is the opportunity and resources available to execute behavior. This accounts for how easily a behavior can be accomplished without being discovered. When opportunities or resources are reduced in the decision-making process, it simultaneously reduces the likelihood of behavior.

Using the theory of planned behavior, institutions can better understand behaviors of academic misconduct. Each aspect of intention influences the other and when all three are present, the likelihood of behaviors is evident. Attitudes are influenced by norms and perceived control (opportunities), norms by attitudes and control, and control by attitudes and norms. This suggests that to shift intentions of misconduct, institutions should work towards influencing attitudes of integrity, expectations that promote integrity, and reducing the opportunities for academic



misconduct. It may not eliminate academic misconduct because students maintain the right to choose to act, but it does reduce occurrences.

### **Academic Misconduct Behaviors**

Behaviors of academic misconduct are generally placed in five categories including plagiarism, cheating, fabrication/falsification, facilitation, and other prohibited conduct. These categories allow institutions to respond in a way that aligns sanctions and education/intervention to reduce future incidents. It is evident that some behaviors are more common than others due to student willingness and effort exerted to perform those behaviors, but it also signals that based on the behaviors, responses should be equally impactful to deter occurrence.

#### **Plagiarism**

Plagiarism is the failure to acknowledge a resource when paraphrasing, quoting, or summarizing (Selemani, 2018). Plagiarism is the most common academic misbehavior exhibited by college students because it can be easily performed and can be perceived as a low-risk behavior. Selemani et al 2018, categorizes plagiarism as either intentional or unintentional. Intentional acts occur when students have full knowledge of what constitutes plagiarism, overestimate their writing skills, inconsistent penalties exist, or minor sanctions were applied if students committed these actions. Intentional plagiarism also deduces an independent decision considering benefits, costs, or risks due to possible outcomes of these actions (Wilks, 2016). As such, intentional plagiarists are more likely to repeat plagiarism and thereby normalize it until it is no longer viewed as misconduct (Scott, 2017).

Unintentional plagiarism, however, arises when there is a lack of relevant skills, knowledge, and inadvertent omissions. Most students fall within this category for the simple

reason that they do not have the required skills to produce a good academic writing piece without prior learning or corrections in the process of learning (Selemani, 2018). Some students do not understand what plagiarism involves and seek the assistance of peers rather than instructors for help which can easily become problematic if their peers do not have the correct understanding or are intentional plagiarists thus creating an environment where plagiarism is normalized (Wilks, 2016). Moreover, students may have varying understandings of plagiarism given cultural factors and exposure to college-level writing, all contributing to accidental plagiarism (Camara, 2016).

Students plagiarize for many reasons regardless of intention. These reasons include poor knowledge, pressure to meet deadlines, lack of writing skills, the convenience of internet sources, demands of study, cost of studying, academic and nonacademic workloads, pressure from family to excel, the need for high grades, poor pedagogy practices and inconsistent penalties for violations (Selemani, 2018). All raise concerns on how students can learn the necessary skills to avoid plagiarism and produce work that supports their work and knowledge gained. From an institutional standpoint, students need to learn the skills needed to perform at their level. This can be accomplished by providing opportunities to learn about plagiarism, and what it entails, addressing plagiarism through student handbooks, websites, and policies to respond to incidents to create an environment that supports academic integrity.

Importantly, a significant reason for students committing plagiarism is peer influence (Scott, 2017; Selemani et al, 2018; Camara et al 2016; Wilkes, 2016). Students observe the actions of their peers and when students are perceived to be “getting by” when they plagiarize, others are more likely to model the same behaviors. The “getting by” perception could be a result of inconsistent sanctioning/penalties that do not fully address the behavior (Selemani, 2018). Students view this response to violations as it is not wrong or if held responsible for actions that

the risks are very low. Hence plagiarism is the most common academic misconduct behavior. It, therefore, means that it is important to consider not only the reasons that lead to plagiarism, but it is critical to consider the peer influence in the decision-making process. If peer groups can normalize academic integrity, it is more likely that others will follow or change groups that support their decision-making processes.

### **Contract cheating**

Contract cheating is a subcategory of plagiarism. Submitting work for academic credit that has been completed by someone else who was paid for that service is contract-cheating (Carmichael, 2019). Another term associated with contract cheating is ghost-writing. The true writer is paid for a service, but they do not receive recognition for the work published, presented, or submitted. The act of submitting someone else's work as your own is an extension of plagiarism and falsification. Approximately 62% of students who admitted to engaging in contract cheating had repeated this behavior (Curtis, 2017). This behavior can be difficult and time-consuming to detect but is becoming a lucrative business for organizations that provide these services (Lancaster, 2014). Students can easily search the internet (Carmichael, 2019) and filter based on the level of writing skills needed for assignment (degree, master's, or Ph.D.) at a cost-effective rate and high quality, both contributing to the ease of displaying such behavior (Lines, 2016).

Students seek out contract cheating services for multiple reasons including easy accessibility and affordability of services, a concern for tangible rewards rather than learning (this mindset increases the probability of cheating), unwillingness to commit to academic preparation needed for assessment, the need for a specific grade to pass the course, external pressures to excel and changing student perceptions of cheating with higher acceptability

(Hernandez et al, 2006; Saunders, 2014; Grym & Lilijander, 2016; Agrawal, Gans & Goldfarb, 2018).

Institutions and faculty respond differently to contract cheating but joint efforts are needed to deter and reduce opportunities. Institutions that are engaged in maintaining academic integrity begin with establishing and implementing a well-defined policy that addresses contract cheating and outlines the penalties for participating in such behaviors (Hernandez, 2006). Faculty should be familiar with the policy and their responses to student violations should also align with institutional policies. Additionally, investing in software programs can assist in detecting contract cheating. A prevalent platform used in higher education is Turnitin which can identify similarities in written submissions if used multiple times by different students. It may not fully detect contract cheating but can detect when one paper has been purchased by more than one student (Lines, 2016). However, in some instances due to the difficulty to identify contract cheating and processing time for an academic violation report, faculty can become discouraged or inconsistent to report violations thus causing the behavior to go undetected and offenders get by without consequences (Stowe, 2017). As such, it is equally important to have an effective policy and implementation by stakeholders to ensure that such behaviors are adequately addressed and controlled.

## **Cheating**

The term cheating is often used interchangeably with academic misconduct but can also have separate meanings and behaviors which include copying from another student, unauthorized collaboration, using cheat sheets, or using unauthorized resources. These behaviors occur often in the classroom due to the ease of performing the act. McCabe et al (2012) argue that to effectively respond to student cheating, institutions should first define what is cheating. Students

do not always understand what is cheating because a clear definition does not always exist. Burrus et al (2007) argue that students are more likely to report cheating when a definition is provided and examples of behaviors that constitute cheating. Institutions can be less effective in responding to cheating if their students do not know what they are doing wrong.

Second, communicating why cheating is unacceptable can reduce its occurrence. Creating links between behaviors and cost to learning helps students to better understand the importance of academic integrity. Yu et al (2017) suggest that instructors have direct interaction and connection with students to promote academic integrity through explaining what cheating is and how it affects genuine academic success. Consistent engagement helps to promote a culture of academic integrity, but it also increases student intentions when they choose to cheat despite knowing their behavior is unacceptable. Hence, sanctions should be assigned to address the behavior and further emphasize academic integrity.

### **Fabrication/Falsification**

Fabrication and falsification are acts of fraud where there is manipulation, omission, or changes to processes, data, or results such that information is inaccurately represented (Nurunnabi, 2019). This is not a common behavior but there is evidence of academic integrity violations that prove that it occurs and, in some cases, can lead to very severe consequences such as expulsion for modifying academic records. Such behaviors are not easily executed but also require additional effort to be discovered. Nurunnabi & Hossain (2019) argue that fraud is a very serious violation in research with consequences that may not only affect the individual committing fraud but can affect those who consume the information that was misrepresented. As such, institutions must communicate expectations and penalties for committing acts of fabrication or falsification.

To prevent such behaviors Nurunnabi and Hossain (2019) suggest the implementation of verification systems that perform an audit of work submitted. Such systems can flag work with discrepancies and provide an opportunity for intervention and education. However, the responsibility remains on the student to be aware of their behaviors and whether their actions align with institutional expectations and maintain academic integrity (Nurunnabi, 2019). Given the level of willingness and effort needed to perform tasks of fabrication and falsification, there also needs to be an institutional response that not only responds with education but is very punitive in nature since this behavior can also reduce the integrity of the academic community within which it occurred and operates.

### **Facilitation**

Facilitation is an indirect behavior of academic misconduct through helping someone else to cheat and assisting to create an environment conducive to cheating by providing them with the information/resources to pass work off as their own. It takes away from the overall learning experience since the beneficiary of information is not able to prove knowledge of content on their own. Though the behavior of facilitation is less common than other behaviors, it is prevalent and can be easily detected especially if work is submitted in the same class to the same instructor.

Students do not always view sharing their work with another student as academic misconduct but often view it as helping another student. Their intention may be to help but, it does not guarantee that the beneficiary will use the information for guidance and can submit the information received as their submission. Scott (2015) argues that instructors spend an invaluable amount of time creating assessments to test knowledge and skills. When students deviate from the goal of the assessment, they reduce their ability to develop skills necessary to

learn and apply knowledge in the future. As a result, educating students on acceptable and unacceptable behaviors is crucial for understanding and prompting individual work and learning.

Institutions can implement detection software to flag such instances of facilitation. But students must be aware of their actions in the decision-making process as either a facilitator or beneficiaries of information that is then misrepresented. Through communication about what facilitation is and how to avoid being a participant, students can develop the skills to complete independent work and maintain academic integrity.

### **Other Prohibited Behaviors**

Lastly, other prohibited behaviors. These are the behaviors that instructors, programs, or colleges implement to add another layer of academic integrity. For example, some colleges like health sciences may have a higher academic standard than other colleges because of accreditations and licensing. Students who graduate from their school can impact the lives of others if not completed accurately and with integrity such as prescriptions or diagnoses. This does not reduce the accountability of all students, but it means that sanctions can be more severe for actions that may have been responded to differently in another college.

Overall, researchers of academic integrity agree that to respond to and prevent academic misconduct, students need to know what constitutes academic misconduct. Having information and being consistently engaged reduces the likelihood of academic misconduct. Students should also have consequences for their actions that are more educational than punitive when necessary. In some instances, behaviors are far-removed from education and are impactful to the integrity of the institution but in other cases, students benefit more when there is consistent engagement with

information to prompt understanding of acceptable and unacceptable behaviors to create and maintain a culture of academic integrity.

### **Institutional Responses to Academic Misconduct**

#### **Faculty**

Faculty/instructional staff play a critical role in preventing, identifying, responding to, and reducing academic misconduct. In the classroom, instructors bear the responsibility of imparting knowledge and testing student understandings of concepts learned. As a primary point of engagement for students, they communicate expectations as well as policies and processes utilized to address violations. However, instructors must strike a balance between addressing academic misconduct issues and ensuring that their class objectives are met which can become a difficult task and struggle between personal goals and institutional missions.

The job market for faculty positions is steadily shrinking with fewer available tenure track positions (Lightfoot, 2021). Higher education institutions have been opting for either non-tenor track or adjunct professors to fulfill the duties and responsibilities of an instructor which in turn reduces their job security. Reevy and Deason (2014) suggest that approximately 70% of faculty members hired are offered non-tenor track positions. As a result, there has been a disproportionate allocation of workloads with adjunct and non-tenor track faculty having heavier workloads and larger class sizes that allow tenor track faculty to focus on their research and administrative duties (Blau, 2018). Tenor track faculty, on the other hand, must confront the challenge of publishing research whilst teaching classes which poses difficulties even though they might have multi-year contracts and job stability (Blau, 2018).



Regardless of classification, responding to academic misconduct in the classroom can present challenges. First, faculty can have difficulty understanding the concept of academic misconduct even though they are aware of its existing (Volpe, 2008). Faculty may have been good students during their time studies and did not see the need to cheat which makes it hard for them to understand why students cheat since they were also students who were able to meet their goals in the absence of cheating (Fendler, 2016).

Second, instructors do not like the burden of having to police students. They have expectations that if students “just do the work”, it will make both the job of an instructor and the student easier and smooth (Keith- Spiegel, 1998). Third, the process of reporting academic violations can be tedious and time-consuming to prove cheating rather than grading the assignment aligned with the work the student has inputted. It is simpler to fail a student on an assignment that they cheated on than to complete a report and submit documentation of cheating (Fendler & Godbey, 2016; Coren, 2011).

Depending on the severity of an academic misconduct violation, faculty can be fearful of the possibility of being sued by parents for reporting a violation and the outcome (Lester, 2002). Academic misconduct reporting processes usually include an appeal process that incorporates student rights to present evidence that can refute charges against them. At this time, parents can get involved and may hire attorneys to represent their children. Although having legal advice does not guarantee winning an appeal decision, it can be intimidating for instructors to be questioned about their work and challenged on their decisions. As a result, considering the challenges associated with addressing academic misconduct in the classroom, instructors have varying responses to resolve.

Blau et al (2018) reported a significant difference in faculty responses to academic misconduct in their courses. Non-tenor track and adjunct professors were more likely to express expectations, give a strong verbal warning and provide resources to students when there was the first violation, and file a report to the Dean's office for subsequent violations. Whilst tenured faculty were more likely to give a zero on an assignment and not file a report (Blau, 2018). Given the inconsistent responses to academic misconduct, students who violate policies repeatedly are more likely to get by without a report being filed by tenured faculty and can also have many violations in multiple classes with non-tenure or adjunct professors when they are comfortable with the consequences attached to their actions (zero on assignment or warning).

A unified response is needed to effectively address academic misconduct to not only capture all incidents of misconduct but to also help students to make better decisions and learn to maintain academic integrity thereby reducing opportunities for misconduct. An involved policy and process for reporting are essential to first build confidence and support of instructors to report violations.

At the instructor level, Liebler (2012) suggests, using learning management systems such as blackboard and canvas with updated detection software (Turnitin, SafeAssign), increasing proctors for in-person exams, creating a large test bank for exam questions when possible, and utilizing assigned seating. There are also opportunities to have multiple versions of exams with small changes that act as an instrument to reduce misconduct and identify offenders (Fendler, 2016). With advances in technology, online exams can also be proctored with face detection and video recording technology (WebAssign). Additionally, an educational approach is necessary through communicating expectations, consequences for misconduct (syllabi statements) and directing students to resources that can help them learn the skills or concepts (tutoring services,

tutorials) needed for successful completion of courses that have been useful as proactive deterrents. (Molnar & Kletke, 2012; Blau et al, 2018).

### **Institution**

Institutions respond to incidents of academic misconduct through policies and procedures to deter future occurrences. However, having a policy without adherence by instructors and administrators reduces its effectiveness to manage incidents of academic misconduct.

Christensen Hughes and McCabe (2006) argue that lower rates of student cheating exist when there are academic integrity policies with penalties that are equally severe for students that are held responsible for misconduct. This ensures that not only students are aware of the consequences of their actions, but it also provides guidance for those who implement policies.

Furthermore, policies provide opportunities for education on what constitutes academic misconduct, how their choices can affect their academic success, and communicate expectations in a manner that addresses their behavior and its unacceptability in an academic environment.

### **Supportive Units**

Achieving an institutional goal of preventing and reducing academic misconduct should not be limited to instructors, policies, and procedures. Other departments/units can provide opportunities to support building a culture of academic integrity on campus. Although residence halls, libraries, student organizations, and social groups are not directly involved in addressing incidents of academic misconduct, they serve as a point of interaction that if adequately utilized can help students learn and develop the academic skills needed to be successful. Chauhan et al (2018) suggest teaching students about academic integrity in the residence halls using peers such as residence assistants and coordinators to present information. Students spend most of their time outside of the classroom in the living spaces with friends and participating in activities tailored to

enhance their experiences in college. Using peers to disseminate information, the formality of the classroom is removed with relaxed interactions. In such an environment, concepts such as academic integrity can be taught at a level that is sometimes more relatable to students.

A study was conducted in 2017 by the psychology department at Wilfrid Laurier University to investigate the effectiveness of peer-based intervention in the residence halls on academic integrity. A total of 192 first-year students participated in the experiment. Students were first administered a pre-knowledge check to assess their level of understanding of what constituted cheating, how it is detected, the consequences of cheating, and the importance of academic integrity. Following the pre-test, residents participated in a presentation that was facilitated by a residence hall coordinator who was a third-year student. After students were retested on what they learned about academic integrity within the major aspects that were previously tested and another round of tests was completed four weeks later (Chauhan, 2018).

Students were able to interact with the information and ask questions. This is a strategy that allows students to build on their current knowledge, making it meaningful and open dialogue which signals favorable processing and understanding of the information (Chauhan, 2018). Understanding what academic integrity means and how to avoid misconduct, is essential in teaching students the attitudes needed to maintain academic integrity. Researchers also found that students were more likely to fully participate in conversations about academic integrity with peers when there were no perceived judgments about decisions they made before or not knowing the differences between behaviors. Hence, it is beneficial to incorporate departments and units to extend the efforts of building academic integrity.

Another practical opportunity for engagement, is the library, writing studios, and learning commons. Students use these services for help and support in the classroom. They also serve as

another point of interaction that can assist with helping students understand and maintain a culture of academic integrity. The library's position outside of the classroom can be beneficial as a supportive resource (Bell, 2018). Qualified university employees are available to direct the student to the right information on any topic including academic integrity but can also teach students about academic integrity. Similarly, writing centers have the positionality outside of the classroom with the propensity to teach students how to write correctly at the college level in the absence of the teacher-student power structure (North, 1984; Harris, 1995).

Institutions stand a better chance of controlling academic misconduct when every opportunity for engagement and interaction is fully utilized. Students are constantly reminded of the importance of academic integrity and having the necessary information to make better decisions that are aligned with institutional missions and goals. It may not guarantee students do not cheat after being exposed to information, but it does influence the decision-making process on whether to cheat.

### **Gaps between Institutional Responses and Student Decision-making Process**

Institutional responses to academic misconduct can be addressed in isolation without the interaction with the students who display these behaviors. Institutions create systems to respond when there are incidents of misconduct but do not create systems that educate to prevent academic misconduct which can place students at a disadvantage not having all the information to make the right decision of choosing academic integrity. Fida et al (2018) argue that it is important to understand the underlying factors that sustain engagement in misconduct which is the decision-making process (why students cheat). To fully investigate, student interaction is required to be aware of the factors that influence decisions of academic misconduct.

Academic misconduct incidents may be of a smaller percentage when compared to the number of students who do not commit academic misconduct. This can suggest that students who are held responsible are those who cheat or those who are not, are cheating better which can indicate students passing through the system without learning the skills needed to succeed beyond the classroom. Institutions should make the effort to not only respond to issues of misconduct but also educate students on what academic misconduct is and the importance of having integrity in their work. The absence of engaging students with information increases the probability of misconduct and reduces the opportunity to create a culture of academic misconduct.

The education/intervention process should not be limited to when a violation occurs or a one-time proactive measure. Ghanem and Mozahem (2019) argue that this approach is short-lived and does little to maintain the culture of integrity. Educating students on academic misconduct should be consistent to remind students of acceptable and unacceptable behaviors. This is an opportunity for institutions to shape student attitudes, norms, and perceived control that create an intention to perform behaviors. Lonsdale (2017) argues that educating students on misconduct is a targeted approach to prompt better and informed decisions when the information is consistent and encourages individual thought in choices to cheat or not cheat.

Another concern is the value of peer influences in the decision-making process of academic misconduct. Peer influences are a driving force in creating a culture of integrity or misconduct. As such, students can be the key component to disseminate the importance and value of academic integrity. Institutions cannot fulfill the ideal of a culture of academic integrity without the support of students who also influence other students to commit to academic integrity or academic misconduct. Working in partnership with students to create a culture of

integrity, requires making students a part of the process of implementation. McCabe (1993), McCabe & Trevino (1993), and McCabe & Butterfield (1999) argue that honor systems are effective given the student component in implementation. Students bear the responsibility solely of maintaining their integrity and the integrity of others. Though this process becomes more difficult on large campuses, the peer group influence remains strong as a key factor to establish cultures of integrity.

To effectively prevent, respond to, and reduce academic misconduct, there needs to be an institutional effort to influence student decisions to align with institutional expectations. Consistent effort is required to educate students on what is academic misconduct with consistent engagement with information and the partnership of students to create a culture of integrity. In the absence of these efforts, institutions are merely responding to incidents rather than taking a proactive and strategic approach to instill the skills and knowledge necessary to lead to work that has integrity and is accurately represented beyond the classroom.

## CHAPTER THREE

### Methodology

Academic misconduct research is extensive given its pervasive nature on college campuses. This study's unique approach of using institutional data on academic misconduct reports and student surveys for analysis provides evidence to better understand the decision-making process of misconduct, the relationships between behaviors, consequences, and influences, and how institutions can interpret those decisions to prevent, respond to, and reduce academic misconduct incidents effectively.

### Data

Data was collected from two main sources including West Virginia University's academic violations reports over four years (2017-2020) and student surveys administered through the Survey Tuesday email listserv of the University Relations department which included registered students for Spring, Summer, and Fall 2021, totaling 30,660 students. Calendar years were considered rather than academic years for institutional data because it was easier to capture based on reporting dates (January 1 – December 31) than resolution dates using the Advocate platform, capturing all semesters.

### Institutional Data

There were 367 cases (2017), 518 cases (2018), 698 cases (2019), and 1084 cases (2020) reported for academic misconduct. Of these reports, there were 354 cases (2017), 502 cases (2018), 532 cases (2019), and 699 cases (2020) where students were held responsible for violations of the academic integrity policy which signals both an increase in reporting but also a



clearer depiction of what is happening on campus and issues most common to be addressed by the institution. Only cases of responsible status were examined in this study.

Before the Fall 2018 academic term, West Virginia University did not have a specific department responsible for addressing academic integrity violations. Incidents of academic misconduct were resolved through the student conduct process with minimal sanctions added to resolve incidents. Additionally, a separate policy did not exist to respond to these cases until 2019, resulting in repeat offenders receiving minor consequences for misbehaviors, difficulties in identifying repeat violations, and the absence of a clear institutional process to respond to incidents of academic misconduct. This required data cleaning to ensure that all cases that occurred before 2018 at all three campuses were accurately accounted for and represented in data analysis.

## **Survey**

The student survey was approved by IRB before distribution via email to students. Three rounds of student surveys were completed (June 15, July 20, and August 23) and sent to 30, 660 students across all three campuses (Main, Tech, and Potomac). A total of 958 responses were received (3.12% response rate) and provided some insight into student perceptions and attitudes towards academic misconduct. Of the 958 responses received, 11 students did not agree to participate and of the 947 students who agreed to participate, 860 students completed section one of the survey (student characteristics), 504 students completed the second two sections (behaviors), and 498 students completed all three sections.

Institutional reports captured student characteristics, behaviors, and outcomes whilst student surveys provided student input on attitudes, norms, perceived control towards behaviors,

student characteristics, and influences. Using both data sources allowed complete analysis of relationships within the decision-making process of academic misconduct and how West Virginia University can effectively respond to and reduce incidents of academic misconduct.

## **Research Methods**

### **Institutional Data**

Two regression models were conducted to analyze academic misconduct incidents on campus using Stata software. OLS regression models were used because the researcher assumes that the relationship between behaviors and sanctions is linear and OLS regression minimizes the sum of squares in the difference between observed (behaviors and student characteristics) and predicted values (sanctions). The first model examined the relationship between student characteristics (GPA, international student status, on campus, gender, class) and academic misconduct behaviors (plagiarism, cheating, fabrication/falsification, facilitation, and other prohibited behaviors) to determine whether specific characteristics and behaviors increased the likelihood of different types of sanctions to be assigned. Specifically, the first research question addresses how the institution responds to incidents of academic misconduct. The following specification was used:

$$Y = aG + bC + cB + e$$

In this specification, Y represents the dependent variable or sanctions students are assigned (assignment grade, course grade, educational, disciplinary, other sanctions, suspension, and expulsion). G represents student GPA at the time of the incident. C represents student characteristics (international, on-campus, freshman, sophomore, junior, senior, professional, and graduate). B represents behaviors including plagiarism, cheating, fabrication/falsification,

facilitation, and other prohibited behaviors. Letters a, b, and c are vectors of regression coefficients and e represents the error term.

The second model examined the relationship between student characteristics and behaviors to determine whether educational or grade sanctions are effective to reduce repeat violations for students with one violation. Specifically, whether the assigned sanctions were sufficient to deter future misbehaviors. The following specification was used:

$$Y = aG + bC + cB + e$$

In this specification, Y represents the dependent variable or sanctions students are assigned (assignment grade, course grade, educational, disciplinary, other sanctions, suspension, and expulsion). G represents student GPA at the time of the incident. C represents student characteristics (international, on-campus, freshman, sophomore, junior, senior, professional, and graduate). B represents behaviors including plagiarism, cheating, fabrication/falsification, facilitation, and other prohibited behaviors. Letters a, b, and c are vectors of regression coefficients and e represents the error term.

Variables for regression models included: GPA at the time of the incident, Student International, On Campus, Student Male, Freshman, Sophomore, Junior, Senior, Professional, Graduate, Plagiarism, Cheating, Fabrication/Falsification, Facilitation, Other prohibited behaviors, and constant. Each reporting year (2017, 2018, 2019, and 2020) from January 1 – to December 31 was generated using the Advocate platform and converted into an excel spreadsheet for data cleaning. Student names were removed, and variables were renamed before being converted to a Stata data file. Next, codes were created for string variables including on/off-campus, gender, class, major, and school. Variables were created for charges (plagiarism,

cheating, fabrication/falsification, facilitation, other prohibited behaviors) and sanctions (assignment grade, course grade, educational sanction, disciplinary, other, suspension, and expulsion). For both regression models, left-out categories included domestic students, off-campus status, female students, students whose gender was not recorded, and class rank (other) to avoid collinearity and compare categories.

A statistical summary table was used to assess GPA changes for repeat violations, which addressed whether grade sanctions negatively affected student GPA if reported multiple times. The table included variables (number of violations), observations (number of students with repeat violations), mean, standard deviation, minimum and maximum.

## **Survey**

A revised version of the PACES-1 (Perceptions and Attitudes towards Cheating among Engineering Students) survey developed by Carpenter, Harding, Montgomery, and Steneck (2002) was distributed to all enrolled students for Spring, Summer, and Fall 2021 (30,660) at West Virginia University via University Relations Survey Tuesdays on June 15, July 20, and August 23. The revised survey included three sections. The first section consisted of eleven (11) questions on student characteristics after students agreed to participate. The second section recorded student attitudes towards twenty-five (25) behaviors, the number of times they committed those behaviors, and their views of peer behaviors. Section three consisted of four questions on conduct history, academic integrity violations, and essential factors to either act with integrity or participate in misconduct.

Surveys were approximately fifteen (15) to twenty (20) minutes to complete. Participants had three opportunities to complete the survey before closure on September 14<sup>th</sup>. Rounds two

and three of the survey distribution reminded students to complete if they had not done so before. The results provided data on student dispositions about academic misconduct and allowed the researcher to connect student behaviors and current trends to understand and explain behaviors.

## **Limitations**

### **Institutional**

First, data used was drawn from one institution thus reducing the generalizability of results that can be replicated at another institution with similar institutional and student characteristics. Second, data collected before 2018 and 2019 may not fully reflect the actual number of incidents if not reported or reported incorrectly. Third, data collected after the institutional change to online instruction due to the global pandemic reflect a spike in reports due to increased opportunities for academic misconduct given reduced physical proctoring. Fourth, it was difficult to separate response rate from incident rate specifically, the likelihood of students committing academic misconduct and reporting behavior. Fifth, some incidents may have been unnoticed by the institution or not reported which may have resulted in an inadequate depiction of the number of incidents that occurred. Sixth, ordinary least squares regression was used because it minimizes the sum of squares in the difference between observed (behaviors and student characteristics (x)) and predicted values (sanctions (y) ). However, when using OLS, probabilities are limited between 0 and 1 which means that probabilities close to 0 or 1, predictions might be inaccurate, unlike logit regressions where predictions are non-linear. Overall, the data collected provided evidence of institutional challenges and opportunities to effectively address incidents of academic misconduct.

## Survey

Surveys were distributed during Summer 2021 and the beginning of the Fall semester which garnered a low response rate due to students either not actively checking their emails during the summer break or opting not to participate based on the topic being surveyed. The researcher was asked by a few participants whether they can be reported if they disclosed participation in academic misconduct. This may have been a concern for other participants. However, the researcher was clear that the information received was confidential and did not include any self-identifying information. Additionally, 37.16% of students who participated in the survey, only completed the student characteristics section excluding sections on behaviors and perceptions which may have also been a concern for students whether admitting to misbehaviors could prompt an academic misconduct report.

## CHAPTER FOUR

### Results

#### Institutional Data

There were 354 cases (2017), 502 cases (2018), 532 cases (2019), and 699 cases (2020) of students held responsible for academic misconduct. Student names were removed from the excel spreadsheet which was generated from the Advocate platform and variables were created for charges which included plagiarism, cheating, fabrication/falsification, facilitation, and other prohibited behaviors. Variables were also created for sanctions (assignment, course, educational, disciplinary, other, program dismissal, and expulsion). Major and school were removed as variables.

#### Descriptive Statistics

##### 2017

A total of 354 cases occurred on Main Campus, Potomac (0), and Tech (0) which consisted of 226 (63.84%) males and 128 (36.16%) females. Out of 354 reports, 5 (1.41%) lived on campus and 349 (98.59%) off-campus. International students accounted for 63 (17.80%) cases. Students had an average GPA of 2.56. Class variable comprised of 20 freshmen, 53 sophomores, 29 juniors, 203 seniors, 7 professionals, 32 graduates, and 10 others. Charges involved one or a combination of the following: plagiarism (147), cheating (217), fabrication/falsification (14), facilitation (11), and other prohibited behaviors (11). These cases were resolved by the following sanction or a combination of sanctions: assignment grade (163), course grade (97), educational (10), disciplinary (19), other (95), program dismissal/suspension (11), and expulsion (1).

**2018**

A total of 502 cases were reported: Main Campus (493), Potomac (1), and Tech (8) which consisted of 311 (61.95%) males, 190 (37.85%) females, and 1 (0.20%) gender not recorded. Out of 502 reports, 14 lived on campus and 488 off-campus. International students accounted for 97 (19.32%) of the cases. Students had an average GPA of 2.53. Class variable comprised of 17 freshmen, 55 sophomores, 88 juniors, 308 seniors, 0 professionals, 26 graduates, and 8 others. Charges involved one or a combination of the following: plagiarism (261), cheating (324), fabrication/falsification (0), facilitation (0), and other prohibited behaviors (3). These cases were resolved by the following sanction or a combination of sanctions: assignment grade (392), course grade (130), educational (2), disciplinary (7), other (25), program dismissal/suspension (0), and expulsion (5).

**2019**

Out of 532 cases reported; Main Campus (479), Potomac (21), Tech (32) consisted of 290 (54.51%) males, 240 (45.12%) females, and 2 (0.37%) with gender not recorded. A total of 46 lived on campus and 486 off-campus. International students accounted for 100 (18.80%) cases. Students had an average GPA of 2.39. Class variable comprised of 38 freshmen, 107 sophomores, 89 juniors, 257 seniors, 1 professional, 36 graduates, and 4 others. Charges involved one or a combination of the following: plagiarism (328), cheating (224), fabrication/falsification (37), facilitation (16), and other prohibited behaviors (35). These cases were resolved by the following sanctions or a combination of sanctions: assignment grade (394), course grade (93), educational (295), disciplinary (45), other (15), program dismissal/suspension (0), and expulsion (7).



**2020**

There was a total of 699 cases: Main Campus (638), Potomac (6), and Tech (55) which consisted of 404 (57.80%) males and 295 (42.20%) females. Out of 699 reports, 111 lived on campus and 588 off-campus. International students accounted for 118 (16.88%) cases. Students had an average GPA of 2.73. Class variable comprised of 109 freshmen, 184 sophomores, 145 juniors, 235 seniors, 5 professionals, and 21 graduates. Charges involved one or a combination of the following: plagiarism (281), cheating (380), fabrication/falsification (17), facilitation (71), and other prohibited behaviors (54). These cases were resolved by the following sanctions or a combination of sanctions: assignment grade (469), course grade (114), educational (684), disciplinary (55), other (7), suspension (2), and expulsion (3).

**Table 1**

Academic Misconduct Reports 2017-2020				
Variables	2017	2018	2019	2020
Incidents	354	502	532	699
Campus - Main	354	493	479	638
Potomac	0	1	21	6
Tech	0	8	32	55
Gender - Male	226	311	290	404
Female	128	190	240	295
Gender not recorded	0	1	2	0
On-campus	5	14	46	111
Off-campus	349	488	486	588
International student	63	97	100	118
Domestic student	291	405	432	581
GPA	2.56	2.53	2.39	2.73
Freshman	20	17	38	109
Sophomore	53	55	107	184
Junior	29	88	89	145
Senior	203	308	257	235
Professional	7	0	1	5
Graduate	32	26	36	21
Others	10	8	4	0
Plagiarism	147	261	328	281
Cheating	217	324	224	380
Fabrication/falsification	14	0	37	17
Facilitation	11	0	16	71
Other prohibited behavior	11	3	35	54
Assignment grade	163	392	394	469
Course grade	97	130	93	114
Educational	10	2	295	684
Disciplinary	19	7	45	55
Other	95	25	15	7
Program dismissal/suspension	11	0	0	2
Expulsion	1	5	7	3

## Coding

Institutional academic integrity reports generated nineteen (19) categories which included incident type, date of the incident, case number, international student, GPA, on campus, gender, class, major, school, charges, responsible for, not responsible for, sanctions, appealed, appealed decision outcome, case status, IR status, and parent case. A parent case is an initial case created by in advocate which can include one student or multiple students. A child case is generated from the parent case and is represented by a 12-digit case number. The incident type was recoded to campus with three responses (Main, Potomac, and Tech). The date of the incident was recorded as year, the case number was kept as an identifier, the international student variable was coded to yes or no responses, and GPA was also kept. On-campus was coded to yes or no responses, gender was changed to male or female responses, and the class was coded (FR, SO, JR, SR, PR, and GR). Four categories were left-out to avoid collinearity in regression models. These included domestic students, off-campus living, female students or not recorded, and students whose class rank was other. Major and school were initially coded but removed given the number of options.

Charges were coded into five categories based on behaviors (plagiarism, cheating, fabrication/falsification, facilitation, and other prohibited behaviors). Similarly, sanctions were also coded into seven categories which consisted of assignment grade, course grade, educational, disciplinary, other, suspension, and expulsion. Advocate generated categories: not responsible, appealed, appeal decision outcome, case status, IR status, and parent case number were removed.

## Results

Reporting increased from 2017 – 2020 across all campuses: 2017 (354), 2018 (502), 2019 (532) and 2020 (699). Reported students had an average GPA of 2.59 during 2017 – 2020 with 2019 having the lowest GPA of 2.39 and 2020 with the highest GPA of 2.73. Reporting of international students increased but remained an almost consistent percentage of the total number of reports: 2017 (17.8%), 2018 (19.32%), 2019 (18.73%), and 2020 (16.88%). More male than female students were reported each year. Students were most likely senior or junior in 2017 and 2018 but in 2019 and 2020, students were most likely senior or sophomore. Seniors accounted for the highest reported students.

**R1:** Did the association between student characteristics and behaviors increase the likelihood of specific sanctions being assigned for academic misconduct?

GPA was significant in predicting assignment grade (p-value = 0.048), course grade (p-value = 0.013), educational sanctions (p-value = 0.002) and disciplinary sanctions (p-value = 0.048). International students were more likely to be assigned a course grade (p-value = 0.013) and 6 percentage points more likely than domestic students. International students were more likely to be assigned a disciplinary sanction (p-value = 0.002) and 4 percentage points more likely than domestic students. Students who lived on campus were more likely to receive an assignment grade (p-value = 0.024) and 9 percentage points more likely than students who lived off-campus. Students who lived on campus were more likely to be assigned an educational sanction (p-value = 0.000) and 23 percentage points more likely than students who lived off-campus.

Male students were more likely to receive a course grade (p-value = 0.000) and 7 percentage points more likely than female students and students whose gender was not recorded. Male students were more likely to be assigned an educational sanction (p-value = 0.038) and -5 percentage points more likely than female students and students whose gender was not recorded. Male students were more likely to be assigned a disciplinary sanction (p-value = 0.032) and 2 percentage points more than female students. Freshman students were more likely assigned an educational (p-value = 0.007) and 13.5 percentage points more likely than seniors. Similarly, sophomores were more likely assigned an educational sanction (p-value = 0.006) and 9 percentage points more likely than seniors.

Juniors were more likely to receive an assignment grade (p-value = 0.010) and 8 percentage points more than seniors. Juniors were more likely to receive an educational sanction (p-value = 0.000) and 24.1 percentage points more likely than seniors. Professional students were more likely assigned an assignment grade (p-value = 0.012) and - 28.5 percentage points more likely than seniors. Professional students were more likely to receive other sanctions (p-value = 0.000) and 24.2 percentage points more likely than seniors. Graduate students are more likely to receive suspension (p-value = 0.002) and 3 percentage points more likely than seniors. Graduate students were more likely to be expelled (p-value = 0.002) and 3 percentage points more likely than seniors.

Plagiarism resulted in an assignment grade (p-value = 0.000) and 20.7 percentage points more likely than students who were reported for other behaviors. Students charged with plagiarism also received an educational sanction (p-value = 0.000) and -10 percentage points more likely than students reported for other behaviors. Plagiarism also resulted in a disciplinary sanction (p-value = 0.011) and 3 percentage points more likely than students who were reported

for other behaviors. Cheating triggered a course grade ( $p\text{-value} = 0.000$ ), and students were 9 percentage points more likely to receive a course grade than students reported for other behaviors. Cheating resulted in an educational sanction ( $p\text{-value} = 0.000$ ) and -16.1 percentage points more likely than students reported for other behaviors.

For fabrication/falsification, sanctions included educational sanction ( $p\text{-value} = 0.005$ ) and were 17.5 percentage points more likely than students reported for other behaviors, disciplinary ( $p\text{-value} = 0.000$ ) and were 18 percentage points more likely than students reported for other behaviors, other sanctions ( $p\text{-value} = 0.004$ ) and were 9 percentage points more likely than students reported for other behaviors, suspension ( $p\text{-value} = 0.000$ ) and were 5 percentage points more likely than students reported for other behaviors or expulsion ( $p\text{-value} = 0.015$ ) and were 3 percentage points more likely than students reported for other behaviors. Students reported for facilitation received assignment grade ( $p\text{-value} = 0.001$ ) and were -16.2 percentage points more likely than students reported for other behaviors, course grade ( $p\text{-value} = 0.011$ ) and were 10.7 percentage points more likely than students reported for other behaviors, educational sanction ( $p\text{-value} = 0.000$ ) and were 39.6 percentage points more likely than students reported for other behaviors or disciplinary ( $p\text{-value} = 0.000$ ) and were 10 percentage points more likely than students reported for other behaviors.

Similarly, other prohibited behaviors resulted in assignment grade ( $p\text{-value} = 0.001$ ), educational sanction ( $p\text{-value} = 0.000$ ) or disciplinary ( $p\text{-value} = 0.000$ ). Students reported for other prohibited behaviors were 15.3 percentage points more likely to receive an assignment grade, 26.7 percentage points more likely to receive an educational sanction and 9 percentage points more likely to receive a disciplinary sanction. Table 2 shows the regression results for assigned sanctions.

Table 2

		Assigned Sanctions between 2017 & 2020													
Variables Obs.:	2087	Assignment Grade		Course Grade		Educational		Disciplinary		Other		Suspension		Expulsion	
		coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value
GPA		-0.020	0.048**	-0.023	0.013**	0.033	0.002***	-0.010	0.048**	0.000	0.934	0.000	0.920	0.001	0.721
Student Intl.		0.003	0.904	0.059	0.013**	-0.022	0.424	0.043	0.002***	0.013	0.381	-0.001	0.832	0.002	0.710
On Campus		0.089	0.024**	-0.060	0.085*	0.230	0.000***	-0.003	0.867	-0.035	0.100	-0.005	0.559	-0.007	0.355
Student Male		-0.005	0.832	0.071	0.000***	-0.045	0.038**	0.023	0.032**	0.003	0.807	0.002	0.686	0.004	0.277
Freshman		0.001	0.984	0.056	0.191	0.135	0.007***	0.000	0.996	-0.005	0.865	0.018	0.108	-0.004	0.695
Sophomore		0.038	0.225	0.036	0.183	0.088	0.006***	0.008	0.590	-0.006	0.710	-0.003	0.653	0.009	0.116
Junior		0.076	0.010	0.036	0.161	0.241	0.000	0.000	0.981	-0.030	0.059	-0.003	0.613	0.002	0.779
Professional		-0.285	0.012**	-0.067	0.502	0.175	0.134	0.020	0.722	0.242	0.000***	-0.008	0.741	-0.006	0.795
Graduate		-0.001	0.981	-0.009	0.799	-0.039	0.355	0.009	0.665	0.016	0.482	0.029	0.002***	0.025	0.002***
Plagiarism		0.207	0.000***	-0.040	0.075*	-0.097	0.000***	0.033	0.011**	-0.021	0.132	0.001	0.868	0.008	0.098
Cheating		-0.023	0.373	0.089	0.000***	-0.161	0.000***	0.016	0.212	0.027	0.054*	0.007	0.253	0.009	0.059*
Fab./Fals.		0.007	0.907	-0.072	0.175	0.175	0.005***	0.180	0.000***	0.094	0.004***	0.052	0.000***	0.028	0.015**
Facilitation		-0.162	0.001***	0.107	0.011**	0.396	0.000***	0.099	0.000***	0.007	0.774	0.003	0.768	0.000	0.981
Other proh. Beh.		0.153	0.001***	-0.020	0.623	0.267	0.000***	0.087	0.000***	0.005	0.856	0.018	0.084*	0.014	0.129
cons		0.623	0.000***	0.174	0.000***	0.460	0.000***	0.022	0.299	0.058	0.011**	0.001	0.924	-0.010	0.209

\*\*\*p<0.01, \*\*p<0.05, \*p<0.1

Cheating (1,148) and plagiarism (1,015) were the highest reported behaviors, followed by facilitation (102), other prohibited behaviors (100), and fabrication/falsification (64). The assignment of educational sanctions increased in 2019 and 2020 with almost all the 2020 cases consisting of an educational sanction. Assignment grade (1,411) was the most assigned sanction. Educational sanctions (1,016) were the second-highest assigned sanction. Other sanctions included course grade (434), other sanctions (137), disciplinary (120), suspension (22), and expulsion (16).

**R2:** Is there a negative relationship between assigning grade sanctions and reducing GPA for repeat violations of academic misconduct?

Out of 2,087 cases of academic misconduct, 189 students were reported at least twice which accounted for 499 cases (23.91%). A total of 56 students had three incidents, 20 students had four incidents, 8 students had five incidents and 1 student had at least 6 violations. Students with at least two violations (189) had an average GPA of 2.64 at their first violation and a GPA of 2.67 at the second violation. Students with three violations (56) averaged a GPA of 2.60, a decrease in GPA after their first and second violations. Students with four violations (20) averaged a GPA of 2.54, a decline after a third violation. Similarly, students with five violations (20) had an average GPA of 2.52, a decrease after a fourth violation. There was one student who have six violations and was also the same student for seven, eight, and nine violations. This student had an average GPA of 2.21 which remained the same with nine violations. Table 3 shows GPA changes by violations.



**Table 3:**

GPA changes by Violation					
Variable	Observations	Mean	Std. Dev.	Min	Max
First	189	2.647937	.7652537	0	4
Second	189	2.676296	.6458155	0	4
Third	56	2.602143	.6012252	0	3.74
Fourth	20	2.5415	.5216399	1.7	3.5
Fifth	8	2.5225	.5678971	2.03	3.4
Sixth	1	2.21	.	2.21	2.21
Seventh	1	2.21	.	2.21	2.21
Eighth	1	2.21	.	2.21	2.21
Nineth	1	2.21	.	2.21	2.21

**RQ 3:** Is there a positive relationship between assigning educational sanctions or grade sanctions and reducing repeat violations of academic misconduct?

Out of a total of 2,087 cases of academic misconduct, 1,588 students (74.09%) were reported once. These students' total violations between 2017 and 2020 were 1 when compared to students who had more than 1 violation. This research question examined whether the assigned sanctions were effective in deterring future violations. GPA was significant in predicting course grade (p-value = 0.007) and educational sanctions (p-value = 0.001). International students were more likely to be assigned a course grade (p-value = 0.000) and 10.1 percentage points more likely than domestic students. International students were also more likely to have a future violation (p-value = 0.000) and 16.7 percentage points more likely than domestic students. Students who lived on campus were more likely to receive an assignment grade (p-value 0.046) and 8 percentage points more likely than students who lived off-campus. Students who lived on campus were more likely to be assigned an educational sanction (p-value = 0.000) and 21.7 percentage points more likely than students who lived off-campus. On-campus students were more likely to have a future violation (p-value = 0.027) and -8 percentage points more likely than students who lived off-campus.

Male students were more likely to receive a course grade (p-value = 0.003) and 6 percentage points more likely than female students and students whose gender was not recorded. Similarly, male students were more likely to have a future violation (p-value = 0.001) and 6 percentage points more likely than female students and students whose gender was not recorded. Freshman students were assigned an assignment grade (p-value = 0.006) and 33.8 percentage points more likely than students whose class rank was other. Freshman students were more likely to be assigned an educational (p-value = 0.000) and 46.8 percentage points more likely

than students whose class rank was other. Freshman students were more likely to be assigned other sanctions (p-value = 0.003) and -19.1 percentage points more than students whose class rank was other.

Students who were sophomores were more like to receive an assignment grade (p-value = 0.000) and 44.8 percentage points more likely than students whose class rank was other.

Sophomores were more likely to receive educational sanctions (p-value = 0.000) and 48.5 percentage points more than students whose class rank was other. Sophomores were more likely to be reported for a future violation (p-value = 0.052) and 18.8 percentage points more likely than students whose class rank was other. Juniors were more likely to receive an assignment grade (p-value = 0.000) and 47.5 percentage points more likely than students whose class rank was other. Juniors were more likely to receive an educational sanction (p-value = 0.000) and 60.5 percentage points more likely than students whose class rank was other. Seniors were more likely to receive an assignment grade (p-value = 0.002) and 36 percentage points more likely than students whose class rank was other. Seniors were more likely to receive an educational sanction (p-value = 0.005) and 34 percentage points more likely than students whose class rank was other.

Professional students were most likely to be assigned an educational sanction (p-value = 0.005) and 47.1 percentage points more likely than students whose class rank was other, for academic misconduct. Graduate students received an assignment grade (p-value = 0.003) and 35.3 percentage points, educational (p-value = 0.028) and 28 percentage points more likely than students whose class rank was other.

Plagiarism resulted in an assignment grade (p-value = 0.000) and 24.3 percentage points and an educational sanction (p-value = 0.000) and -11.2 percentage points more than other

behaviors. Students who were reported for plagiarism were more likely (p-value 0.005) and 7 percentage points more likely to be reported in the future than other behaviors. Cheating resulted in a course grade (p-value = 0.005) and 7 percentage points more likely than other behaviors. Students reported for cheating were 6 percentage points more likely to be reported in the future. For fabrication/falsification, sanctions included educational sanction (p-value = 0.035) and 15 percentage points, disciplinary (p-value = 0.000) and 12.1 percentage points, suspension (p-value = 0.019) and 3 percentage points or expulsion (p-value = 0.006) and 2 percentage points more likely than students who were reported for other behaviors. Incidents of facilitation, students received assignment grade (p-value = 0.000) and -20.1 percentage points, course grade (p-value = 0.004) and 13 percentage points, educational sanction (p-value = 0.000) and 34.8 percentage points more than students reports for other behaviors. Similarly, other prohibited behaviors resulted in assignment grade (p-value = 0.001) and 17.7 percentage points, educational sanction (p-value = 0.000) and 28.5 percentage points or disciplinary (p-value = 0.000) and 7 percentage points more likely than students reported for other behaviors. Table 4 shows the regression results for assigned sanctions for students with one violation.

Table 4:

Assigned Sanctions for students with one violation between 2017-2020

Variables Obs.: 1588	Assignment Grade		Course Grade		Educational		Disciplinary		Other		Suspension		Expulsion		Future Violation	
	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value	coeff.	p-value
GPA at 1 <sup>st</sup> violation	-0.019	0.093*	-0.027	0.007**	0.041	0.001***	-0.005	0.203	0.000	0.965	-0.002	0.932	-0.000	0.794	-0.027	0.005***
Stu. Intl. at 1 <sup>st</sup> viol.	-0.003	0.937	0.101	0.000***	0.008	0.805	0.001	0.951	-0.004	0.824	-0.001	0.862	-0.004	0.234	0.167	0.000***
On-Campus at 1 <sup>st</sup> viol.	0.081	0.046**	-0.063	0.078*	0.217	0.000***	0.009	0.555	-0.042	0.052**	-0.001	0.93	-0.001	0.77	-0.080	0.027**
Stu. Male at 1 <sup>st</sup> viol.	0.025	0.279	0.061	0.003***	-0.015	0.535	0.012	0.177	-0.001	0.963	0.003	0.578	-0.002	0.951	0.062	0.001***
Freshman at 1 <sup>st</sup> viol.	0.338	0.006***	0.042	0.700	0.468	0.000***	0.041	0.38	-0.191	0.003***	-0.032	0.204	0.001	0.917	-0.045	0.660
Sophomore at 1 <sup>st</sup> viol.	0.448	0.000***	-0.029	0.780	0.485	0.000***	0.021	0.631	-0.190	0.002***	-0.065	0.007***	0.002	0.882	0.188	0.052**
Junior at 1 <sup>st</sup> violation	0.475	0.000***	0.001	0.990	0.605	0.000***	0.023	0.6	-0.238	0.000***	-0.064	0.007***	0.002	0.859	0.100	0.299
Senior at 1 <sup>st</sup> violation	0.360	0.002***	-0.007	0.941	0.340	0.005***	0.032	0.46	-0.206	0.001***	-0.059	0.011**	0.005	0.691	0.099	0.293
Profess. at 1 <sup>st</sup> violation	0.053	0.734	-0.068	0.621	0.471	0.005***	0.071	0.233	0.044	0.591	-0.063	0.049**	0.002	0.891	-0.133	0.342
Graduate at 1 <sup>st</sup> viol.	0.353	0.003***	-0.03	0.776	0.280	0.028**	0.069	0.131	-0.189	0.003***	-0.019	0.431	0.021	0.127	0.049	0.625
Plagiarism at 1 <sup>st</sup> viol.	0.243	0.000***	-0.029	0.245	-0.112	0.000***	0.016	0.127	-0.023	0.113	-0.007	0.246	-0.003	0.38	0.067	0.005***
Cheating at 1 <sup>st</sup> viol.	0.003	0.923	0.068	0.005***	-0.143	0.000***	0.003	0.763	0.022	0.124	0.002	0.789	0.004	0.164	0.058	0.013**
Fab./fals. at 1 <sup>st</sup> viol.	0.109	0.105	-0.063	0.291	0.150	0.035**	0.121	0.000***	-0.010	0.784	0.032	0.019**	0.021	0.006***	0.073	0.186
Facilitation at 1 <sup>st</sup> viol.	-0.201	0.000***	0.130	0.004***	0.348	0.000***	0.006	0.772	-0.047	0.790	-0.010	0.350	-0.005	0.422	-0.043	0.321
Oth. proh. Beh. at 1st	0.177	0.001***	-0.03	0.512	0.285	0.000***	0.070	0.000***	-0.021	0.439	-0.011	0.295	-0.004	0.445	-0.026	0.545
_CONS	0.229	0.054**	0.196	0.062*	0.118	0.348	-0.014	0.756	0.266	0.000***	0.066	0.007***	-0.002	0.870	0.086	0.382

\*\*\*p&lt;0.01, \*\*p&lt;0.05, \*p&lt;0.1

## Survey

Surveys were distributed to 30,660 students and a total of 958 responses were received. Of these 958 responses, 11 students did not agree to participate, and 87 students agreed but did not answer the survey questions. These 98 responses were removed, reducing responses to 860 in section one. Out of the 860 responses in section one, 504 participants completed section two and 498 in section three. As such, results were analyzed based on sections.

## Descriptive Statistics

### Section One – Student Characteristics

Out of 860 responses, 529 (61.5%) were female, 304 (35.3%) were male, and 27 (3.1%) selected other as gender. GPA ranges included 27 (3.1%) students between 0.00 – 2.00, 136 (15.8%) students between 2.01 – 3.00 and 697 (81%) students between 3.01 – 4.00. Colleges represented were Benjamin Statler College of Engineering 136 (15.8%), Center of Learning, Advising and Student Support 20 (2.3%), College of Creative Arts 34 (4%), College of Education and Human Services 41 (4.8%), College of Law 13 (1.5%), College of Physical Activity and Sport Sciences 27 (3.1%), Davis College of Agriculture Natural Resources and Design 62 (7.2%), Eberly College of Arts and Sciences 256 (29.8%), John Chambers College of Business and Economics 82 (9.5%), Other 38 (4.4%), Reed College of Media 23 (2.7%), School of Dentistry 4 (0.5%), School of Medicine 76 (8.8%), School of Nursing 27 (3.1%), School of Pharmacy 12 (1.4%), and School of Public Health 9 (1.1%).

Class comprised of 210 (24.4%) freshmen, 164 (19.1%) sophomores, 134 (15.6%) juniors, 157 (18.3%) seniors, 164 (19.1%) graduate, and 31 (3.6%) professionals. A total of 800 (93%) students were enrolled as full-time and 60 (7%) part-time. Out of 860 students, 822

(95.6%) identified as domestic and 38 (4.4%) as international whilst 600 (69.8%) lived off-campus and 260 (30.2%) on-campus. Student employment resulted in 148 (17.2%) fulltime, 382 (44.4%) part-time, and 330 (38.4%) unemployed. Student organization membership was 327 (38%) and 533 (62%) students were nonmembers. There were 162 (18.9%) students who were members of a professional organization and 698 (81.1%) were not members of a professional organization. There were 89 (10.3%) students who were student-athletes or participated in club sports and 771 (89.7%) who were non-members.

**Table 5:**

Survey Results – Section One	
Variable	Number (Percentage)
<i>Gender</i>	
Male	304 (35.3%)
Female	529 (61.5%)
Other	27 (3.1%)
<i>GPA</i>	
0.00 - 2.00	27 (3.1%)
2.01 - 3.00	136 (15.8)
3.01 - 4.00	697 (81%)
<i>College</i>	
Engineering	136 (15.8%)
CLASS	20 (2.3%)
Creative Arts	34 (4%)
CEHS	41 (4.8%)
Law	13 (1.5%)
CPASS	27 (3.1%)
Agriculture	62 (7.2%)
Arts and Sciences	256 (29.8%)
Business	82 (9.5%)
Other	38 (4.4%)
Media	23 (2.7%)
Dentistry	4 (0.5%)
Medicine	76 (8.8%)
Nursing	27 (3.1%)
Pharmacy	12 (1.4%)
Public Health	9 (1.1%)
<i>Class</i>	
Freshman	210 (24.4%)
Sophomore	164 (19.1%)
Junior	134 (15.6%)
Senior	157 (18.3%)
Graduate	164 (19.1%)
Professional	31 (3.6%)
<i>Status</i>	
Part-time	800 (93%)
Full-time	60 (7%)
<i>Residency</i>	
Domestic	822 (95.6%)
International	38 (4.4%)
<i>Housing</i>	
Off-campus	600 (69.8%)
On-campus	260 (30.2%)
<i>Employment</i>	
Part-time	148 (17.2%)



Full-time	382 (44.4%)
Unemployed	330 (38.4%)
<i>Student Org. Member</i>	
Yes	327 (38%)
No	533 (62%)
<i>Professional Org. Mem.</i>	
Yes	162 (18.9%)
No	698 (81.1%)
<i>Student Ath. /Club Sports</i>	
Yes	89 (10.3%)
No	771 (89.7%)
Number of observations	860

## Section Two – Behaviors

Question 1: “Copying from another student during a test or quiz” (Carpenter, 2002). A total of 499 (99.01%) participants identified as cheating, 3 (0.60%) not cheating, and 2 (0.40%) neither. The number of times participants copied from another student during a test or quiz included: 377 (74.8%) 0 times, 90 (17.86%) 1-2 times, and 37 (7.34%) 3 or more times. There were 321 (63.69%) participants that selected yes and 183 (36.31%) no for whether they believed their peers copied from another student during a test or quiz.

Question 2: “Permitting another student to look at your answer during a quiz or exam” (Carpenter, 2002). A total of 466 (92.46%) participants identified as cheating, 22 (4.37%) not cheating, and 16 (3.17%) neither. The number of times participants permitted another student to look at their answer during a quiz or exam included: 365 (72.42%) 0 times, 96 (19.05%) 1-2 times, and 43 (8.53%) 3 or more times. There were 328 (65.08%) participants that selected yes and 176 (34.92%) no for whether they believed their peers permitted another student to look at their answer during a quiz or exam.

Question 3: “Asking another student about questions on an exam you have not yet taken” (Carpenter, 2002). A total of 216 (42.86%) participants identified as cheating, 205 (40.67%) not cheating, and 83 (16.47%) neither. The number of times participants asked another student about questions on an exam they had not yet taken included: 206 (40.87%) 0 times, 142 (28.17%) 1-2 times, and 156 (30.95%) 3 or more times. There were 418 (82.94%) participants that selected yes and 86 (17.06%) no for whether they believed their peers asked another student about questions on an exam they had not yet taken.

Question 4: “Delaying taking an exam or turning in a paper later with a false excuse” (Carpenter, 2002). A total of 193 (38.29%) participants identified as cheating, 170 (33.73%) not cheating, and 141 (27.98%) neither. The number of times participants delayed taking an exam or turned in a paper later with a false excuse included: 398 (78.97%) 0 times, 89 (17.66%) 1-2 times, and 17 (3.37%), 3 or more times. There were 352 (69.84%) participants that selected yes and 152 (30.16%) no for whether they believed their peers delayed taking an exam or turned in a paper later with a false excuse.

Question 5: “Copying from an unapproved reference sheet during a closed-book test or quiz” (Carpenter, 2002). A total of 480 (95.24%) participants identified as cheating, 11 (2.18%) not cheating, and 13 (2.58%) neither. The number of times participants copied from an unapproved reference sheet during a closed-book test or quiz included: 407 (80.75%) 0 times, 62 (12.30%) 1-2 times, and 35 (6.94%), 3 or more times. There were 312 (61.90%) participants that selected yes and 192 (38.10%) no for whether they believed their peers copied from an unapproved reference sheet during a closed-book test or quiz.

Question 6: “Claiming to have handed in an assignment or exam when you did not” (Carpenter, 2002). A total of 251 (49.80%) participants identified as cheating, 86 (17.06%) not cheating, and 167 (33.13%) neither. The number of times participants claimed to have handed in an assignment or exam when they did not include: 464 (92.06%) 0 times, 35 (6.94%) 1-2 times, and 5 (0.99%), 3 or more times. There were 257 (50.99%) participants that selected yes and 247 (49.01%) no for whether they believed their peers claimed to have handed in an assignment or exam when they did not.

Question 7: “Taking an exam for another student” (Carpenter, 2002). A total of 496 (98.41%) participants identified as cheating, 1 (0.20%) not cheating, and 7 (1.39%) neither. The

number of times participants had taken an exam for another student included: 491 (97.42%) 0 times, 12 (2.38%) 1-2 times, and 1 (0.20%), 3 or more times. There were 186 (36.90%) participants that selected yes and 318 (63.10%) no for whether they believed their peers had taken an exam for another student.

Question 8: “Working in groups on assignment when there is no class policy on group work” (Carpenter, 2002). A total of 77 (15.28%) participants identified as cheating, 336 (66.67%) not cheating, and 91 (18.06%) neither. The number of times participants worked in groups on assignments when there is no class policy on group work included: 152 (30.16%) 0 times, 156 (30.95%) 1-2 times, and 196 (38.89%) 3 or more times. There were 446 (36.90%) participants that selected yes and 58 (63.10%) no for whether they believed their peers worked in groups on assignments when there is no class policy on group work.

Question 9: “Adding fake references to term papers to expand the bibliography” (Carpenter, 2002). A total of 313 (62.10%) participants identified as cheating, 71 (14.09%) not cheating, and 120 (23.81%) neither. The number of times participants added fake references to term papers to expand the bibliography included: 460 (91.27%) 0 times, 33 (6.55%) 1-2 times, and 11 (2.18%), 3 or more times. There were 214 (42.46%) participants that selected yes and 290 (57.54%) no for whether they believed their peers added fake references to term papers to expand the bibliography.

Question 10: “Copying an old term paper or lab report from a previous year” (Carpenter, 2002). A total of 322 (63.89%) participants identified as cheating, 124 (24.60%) not cheating, and 58 (11.51%) neither. The number of times participants copied an old term paper or lab report from a previous year included: 435 (86.31%) 0 times, 57 (11.31%) 1-2 times, and 12 (2.38%), 3

or more times. There were 318 (63.10%) participants that selected yes and 186 (36.90%) no for whether they believed their peers copied an old term paper or lab report from a previous year.

Question 11: “Studying with other students for a test” (Carpenter, 2002). A total of 7 (1.39%) participants identified as cheating, 488 (96.83%) not cheating, and 9 (1.79%) neither. The number of times participants studied with other students for a test included: 68 (13.49%) 0 times, 70 (13.89%) 1-2 times, and 366 (72.62%), 3 or more times. There were 467 (92.66%) participants that selected yes and 37 (7.34%) no for whether they believed their peers studied with other students for a test.

Question 12: “Copying another student’s homework when it is not permitted by the instructor” (Carpenter, 2002). A total of 447 (88.69%) participants identified as cheating, 22 (4.37%) not cheating, and 35 (6.94%) neither. The number of times participants copied another student’s homework when it is not permitted by the instructor included: 315 (62.50%) 0 times, 134 (26.59%) 1-2 times, and 55 (10.91%), 3 or more times. There were 381 (75.60%) participants that selected yes and 123 (24.40%) no for whether they believed their peers copied another student’s homework when it is not permitted by the instructor.

Question 13: “Copying a passage out of the textbook for homework assignments” (Carpenter, 2002). A total of 211 (41.87%) participants identified as cheating, not cheating 177 (35.12%) and 116 (23.02%) neither. The number of times participants copied a passage out of the textbook for homework assignments included: 308 (61.11%) 0 times, 126 (25%) 1-2 times, and 70 (13.89%), 3 or more times. There were 353 (70.04%) participants that selected yes and 151 (29.96%) no for whether they believed their peers copied a passage out of the textbook for homework assignments.

Question 14: “Submitting or copying homework assignments from previous terms” (Carpenter, 2002). A total of 272 (53.97%) participants identified as cheating, 139 (27.58%) not cheating, and 93 (18.45%) neither. The number of times participants submitted or copied homework assignments from previous terms included: 405 (80.36%) 0 times, 79 (15.67%) 1-2 times, and 20 (3.97%), 3 or more times. There were 324 (64.29%) participants that selected yes and 180 (35.71%) no for whether they believed their peers submitted or copied homework assignments from previous terms.

Question 15: “Witnessing a case of cheating in a class and not reporting it to the instructor” (Carpenter, 2002). A total of 74 (14.68%) participants identified as cheating, 178 (35.32%) not cheating, and 252 (50%) neither. The number of times participants witnessed a case of cheating in a class and did not report it to the instructor included: 322 (63.89%) 0 times, 103 (20.44%) 1-2 times, and 79 (15.67%), 3 or more times. There were 361 (71.63%) participants that selected yes and 143 (28.37%) no for whether they believed their peers witnessed a case of cheating in a class and did not report it to the instructor.

Question 16: “Storing answers to a test in a calculator or Personal Digital Assistant (PDA)” (Carpenter, 2002). A total of 453 (89.88%) participants identified as cheating, 24 (4.76%) not cheating, and 27 (5.36%) neither. The number of times participants stored answers to a test in a calculator or Personal Digital Assistant (PDA) included: 469 (93.06%) 0 times, 31 (6.15%) 1-2 times, and 4 (0.79%), 3 or more times. There were 263 (52.18%) participants that selected yes and 241 (47.82%) no for whether they believed their peers stored answers to a test in a calculator or Personal Digital Assistant (PDA).

Question 17: “Changing the answers to a test or homework after it has been graded and then telling the instructor a mistake was made in grading” (Carpenter, 2002). A total of 475

(94.05%) participants identified as cheating, 10 (1.98%) not cheating, and 19 (3.77%) neither. The number of times participants changed the answers to a test or homework after it has been graded and then telling the instructor a mistake was made in grading included: 488 (96.83%) 0 times, 13 (2.58%) 1-2 times, and 3 (0.60%), 3 or more times. There were 215 (42.66%) participants that selected yes and 289 (57.34%) no for whether they believed their peers changed the answers to a test or homework after it has been graded and then telling the instructor a mistake was made in grading.

Question 18: "Paying someone else to take an exam/write a paper for you" (Carpenter, 2002). A total of 477 (94.64%) participants identified as cheating, 10 (1.98%) not cheating, and 17 (3.37%) neither. The number of times participants paid someone else to take an exam/write a paper for them included: 491 (97.42%) 0 times, 11 (2.18%) 1-2 times, and 2 (0.40%), 3 or more times. There were 286 (56.75%) participants that selected yes and 218 (43.25%) no for whether they believed their peers paid someone else to take an exam/write a paper for them.

Question 19: "Working in groups on web-based quizzes" (Carpenter, 2002). A total of 252 (50%) participants identified as cheating, 158 (31.35%) not cheating, and 94 (18.65%) neither. The number of times participants worked in groups on web-based quizzes included: 291 (57.74%) 0 times, 130 (25.79%) 1-2 times, and 83 (16.47%), 3 or more times. There were 381 (75.60%) participants that selected yes and 123 (24.40%) no for whether they believed their peers worked in groups on web-based quizzes.

Question 20: "Working in groups on take-home examinations" (Carpenter, 2002). A total of 238 (47.22%) participants identified as cheating, 171 (33.93%) not cheating, and 95 (18.85%) neither. The number of times participants worked in groups on take-home examinations included: 306 (60.71%) 0 times, 130 (25.79%) 1-2 times, and 68 (13.49%), 3 or more times.

There were 386 (76.59%) participants that selected yes and 118 (23.41%) no for whether they believed their peers worked in groups on take-home examinations.

Question 21: Sharing exam question/s to an online platform. A total of 341 (67.66%) participants identified as cheating, 90 (17.86%) not cheating, and 73 (14.48%) neither. The number of times participants shared exam question/s to an online platform included: 461 (91.47%) 0 times, 29 (5.75%) 1-2 times, and 14 (2.78%), 3 or more times. There were 312 (61.90%) participants that selected yes and 192 (38.10%) no for whether they believed their peers shared exam question/s to an online platform.

Question 22: Submitting/viewing exam question/s on an online platform during an exam. A total of 425 (84.33%) participants identified as cheating, 36 (7.14%) not cheating, and 43 (8.53%) neither. The number of times participants submitted/viewed exam question/s on an online platform during an exam included: 402 (79.76%) 0 times, 61 (12.10%) 1-2 times, and 41 (8.13%), 3 or more times. There were 321 (63.69%) participants that selected yes and 183 (36.31%) no for whether they believed their peers submitted/viewed exam question/s on an online platform during an exam.

Question 23: Not reviewing course syllabus/policy for course expectations and prohibited behaviors. A total of 19 (3.77%) participants identified as cheating, 246 (48.81%) not cheating, and 239 (47.42%) neither. The number of times participants did not review the course syllabus/policy for course expectations and prohibited behaviors included: 351 (69.64%) 0 times, 103 (20.44%) 1-2 times, and 50 (9.92%), 3 or more times. There were 362 (71.83%) participants that selected yes and 142 (28.17%) no for whether they believed their peers did not review the course syllabus/policy for course expectations and prohibited behaviors.



Question 24: Signing into class then leaving for full participation points. A total of 193 (38.29%) participants identified as cheating, 169 (33.53%) not cheating, and 142 (28.17%) neither. The number of times participants signed into class then left for full participation points included: 387 (76.79%) 0 times, 83 (16.47%) 1-2 times, and 34 (6.75%), 3 or more times. There were 363 (72.02%) selected yes and 141 (27.98%) no for whether they believed that their peers signed into class then left for full participation points.

Question 25: Altering academic records. A total of 474 (94.05%) participants identified as cheating, 7 (1.39%) not cheating, and 23 (4.56%) neither. The number of times participants altered academic records included: 499 (99.01%) 0 times, 4 (0.79%) 1-2 times, and 1 (0.20%), 3 or more times. There were 142 (28.17%) participants that selected yes and 362 (71.83%) no for whether they believed their peers, altered academic records.

Table 6

Survey Results – Section two								
Behaviors Observations: 504	Attitude towards Behavior			Have done (# of times)			Do you think your peers are?	
	Cheating	Not Cheating	Neither	0	1-2	3+	Yes	No
1. Copying from another student during a test or quiz	499	3	2	377	90	37	321	183
2. Permitting another student to look at your answer during a quiz or exam	466	22	16	365	96	43	328	176
3. Asking another student about questions on an exam you have not yet taken	216	205	83	206	142	156	418	86
4. Delaying taking an exam or turning in a paper later with a false excuse	193	170	141	398	89	17	352	152
5. Copying from an unapproved reference sheet during a closed-book test or quiz	480	11	13	407	62	35	312	192
6. Claiming to have handed in an assignment or exam when you did not	251	86	167	464	35	5	257	247
7. Taking an exam for another student	496	1	7	491	12	1	186	318
8. Working in groups on assignment when there is no class policy on group work	77	336	91	152	156	196	446	58
9. Adding fake references to term papers to expand the bibliography	313	71	120	460	33	11	214	290
10. Copying an old term paper or lab report from a previous year	322	124	58	435	57	12	318	186
11. Studying with other students for a test	7	488	9	68	70	366	467	37

## Survey Results – Section two

Behaviors Observations: 504	Attitude towards Behavior			Have done (# of times)			Do you think your peers are?	
	Cheating	Not Cheating	Neither	0	1-2	3+	Yes	No
12. Copying another student's homework when it is not permitted by the instructor	447	22	35	315	134	55	381	123
13. Copying a passage out of the textbook for homework assignments	211	177	116	308	126	70	353	151
14. Submitting or copying homework assignments from previous terms	272	139	93	405	79	20	324	180
15. Witnessing a case of cheating in a class and not reporting it to the instructor	74	178	252	322	103	79	361	143
16. Storing answers to a test in a calculator or Personal Digital Assistant (PDA)	453	24	27	469	31	4	263	241
17. Changing the answer on your test or homework after it has been graded and then telling the instructor a mistake was made in grading	475	10	19	488	13	3	215	289
18. Paying someone else to take an exam/write a paper for you	477	10	17	491	11	2	286	218
19. Working in groups on web-based quizzes	252	158	94	291	130	83	381	123
20. Working in groups on take-home examinations	238	171	95	306	130	68	386	118
21. Sharing exam question/s to an online platform	341	90	73	461	29	14	312	192
22. Submitting/viewing exam question on an online platform during an exam	425	36	43	402	61	41	321	183

## Survey Results – Section two

Behaviors Observations: 504	Attitude towards Behavior			Have done (# of times)			Do you think your peers are?	
	Cheating	Not Cheating	Neither	0	1-2	3+	Yes	No
23. Not reviewing course syllabus/policy for course expectations and prohibited behaviors	19	246	239	351	103	50	362	142
24. Signing into class then leaving for full participation points	193	169	142	387	83	34	363	141
25. Altering academic records	474	7	23	499	4	1	142	362

### **Section three – Decisions, Conduct, and Assessments**

A total of 498 participants responded in section three. There were 43 (8.63%) participants that selected yes for a student conduct violation and 455 (91.37%) selected no. A total of 29 (5.82%) participants selected yes for an academic misconduct violation and 469 (94.18%) selected no. The most common factors to influence decisions of academic integrity were available authorized resources (387), preparation for assessment (387), syllabus/policy guidelines (375), instructor expectations (372), weight of assessment (290), and internal/external pressure to complete (218). However, decisions of academic misconduct were influenced by lack of understanding of task (414), lack of instructor support (391), time to complete assessment (327), weight of assessment (304), violation being reported (277), possible sanctions (266), easy access to unauthorized resources (255), behavior being undetected (257), and peer help on assessment (190).

### **Coding**

All questions were recorded for easier identification with a separate spreadsheet for each section due to response decline throughout the survey. Section one comprised 11 questions with 860 responses. Section two had 504 responses and 356 missing responses were removed. Section three had 498 responses and 6 missing responses were also removed. Questions 16 and 17 were recorded and separated into variables for each factor for decisions of integrity and decisions of misconduct.

Questions were reorganized into two groups of behaviors: direct/active participation and indirect/inactive participation. Direct participation was behaviors that which the respondent was actively engaged and benefited. These questions included: 1, 2, 3, 4, 5, 6, 7, 9, 10, 12, 13, 14, 16,

17, 18, 21, 22, 24, and 25. Indirect participation was behaviors where it was unclear whether the student benefited from the act. These questions included: 8, 11, 15, 19, 20, and 23.

## Results

Respondents had a general understanding of what behaviors constituted academic misconduct when actions included active participation. In instances when it is unclear whether the student benefited from the action, students were unsure whether cheating occurred. Students also responded to the number of times they committed academic misconduct and whether they believed their peers participated in misbehaviors.

### **R4:** What are student attitudes towards cheating?

Behaviors of direct participation such as copying during an exam or paying someone to take an exam, most participants (99.01%) identified as cheating. However, in behaviors where there was indirect participation such as working in groups on assignments when there is no class policy on group work, students identified as not cheating (66.67%) or neither (18.06%). More students (33.14%) believed that claiming to have handed in an assignment or exam when they did not (direct behavior), was neither cheating than those who believed that it was not cheating (17.66%). Most students (96.83%) believed that studying with other students for a test (indirect behavior), was not cheating.

More students (50%) believed that witnessing a case of cheating in a class and not reporting it to the instructor (indirect behavior), was neither cheating, than those who believed it was not cheating (35.32%). More students (3.77%) believed that changing the answer on a test or homework after it has been graded and then telling the instructor a mistake was made in grading (direct behavior) was neither cheating, than those who believed that it was not cheating (1.98%).

More students (8.53%) believed that submitting/viewing exam questions on an online platform during an exam (direct behavior) was neither cheating, than those who believed it was not cheating (7.14%). More students (4.56%) believed that altering academic records (direct behavior) was neither cheating, than those who believed it was not cheating (1.39%). Table 5 shows student responses to behaviors of academic misconduct.

**Table 7**

Student responses to behaviors of academic misconduct			
Behaviors Observations: 504	Is this behavior: Cheating	Is this behavior: Not Cheating	Is this behavior: Neither
*Copying from another student during a test or quiz	499 (99.01%)	3 (0.60%)	2 (0.39%)
*Permitting another student to look at your answer during a quiz or exam	466 (92.46%)	22 (4.37%)	16 (3.17%)
*Asking another student about questions on an exam you have not yet taken	216 (42.86%)	205 (40.67%)	83 (16.47%)
*Delaying taking an exam or turning in a paper later with a false excuse	193 (38.29%)	170 (33.73%)	141 (27.98%)
*Copying from an unapproved reference sheet during a closed-book test or quiz	480 (95.24%)	11 (2.18%)	13 (2.58%)
*Claiming to have handed in an assignment or exam when you did not	251 (49.80%)	86 (17.06%)	167 (33.14%)
*Taking an exam for another student	496 (98.41%)	1 (0.20%)	7 (1.39%)
Working in groups on assignment when there is no class policy on group work	77 (15.28%)	336 (66.67%)	91 (18.05%)
*Adding fake references to term papers to expand the bibliography	313 (62.10%)	71 (14.09%)	120 (23.81%)
*Copying an old term paper or lab report from a previous year	322 (63.89%)	124 (24.60%)	58 (11.51%)
Studying with other students for a test	7 (1.39%)	488 (96.83%)	9 (1.78%)
*Copying another student's homework when it is not permitted by the instructor	447 (88.69%)	22 (4.37%)	35 (6.94%)

\*Direct participation



Student responses to behaviors of academic misconduct			
Behaviors Observations: 504	Is this behavior: Cheating	Is this behavior: Not Cheating	Is this behavior: Neither
*Copying a passage out of the textbook for homework assignments	211 (41.87%)	177 (35.12%)	116 (23.02%)
*Submitting or copying homework assignments from previous terms	272 (53.97%)	139 (27.58%)	93 (18.45%)
Witnessing a case of cheating in a class and not reporting it to the instructor	74 (14.68%)	178 (35.32%)	252 (50%)
*Storing answers to a test in a calculator or Personal Digital Assistant (PDA)	453 (89.88%)	24 (4.76%)	27 (5.36%)
*Changing the answer on your test or homework after it has been graded and then telling the instructor a mistake was made in grading	475 (94.25%)	10 (1.98%)	19 (3.77%)
*Paying someone else to take an exam/write a paper for you	477 (94.65%)	10 (1.98%)	17 (3.37%)
Working in groups on web-based quizzes	252 (50%)	158 (31.35%)	94 (18.65%)
Working in groups on take-home examinations	238 (47.22%)	171 (33.93%)	95 (18.85%)
*Sharing exam question/s to an online platform	341 (67.66%)	90 (17.86%)	73 (14.48%)
*Submitting/viewing exam questions on an online platform during an exam	425 (84.33%)	36 (7.14%)	43 (8.53%)
Not reviewing course syllabus/policy for course expectations and prohibited behaviors	19 (3.77%)	246 (48.81%)	239 (47.42%)
*Signing into class then leaving for full participation points	193 (38.29%)	169 (33.53%)	142 (28.18%)
*Altering academic records	474 (94.05%)	7 (1.39%)	23 (4.56%)

\*Direct participation

**RQ 5:** What do students think about peers cheating?

Respondents viewed the behaviors of their peers as worse than theirs except for four survey questions. More students (63.10%) believed that their peers were not taking an exam for another student (direct behavior). More students (57.54%) believed that their peers were not adding fake references to term papers to expand the bibliography (direct behavior). More students (57.34%) believed that their peers were not changing the answers on a test or homework after it has been graded and then telling the instructor a mistake was made in grading (direct behavior). More students (71.83%) believed that their peers were not altering academic records (direct behavior). All these behaviors involve active participation in the act of cheating.

Conversely, students believed regardless of direct or indirect participation, that their peers were committing academic misconduct such as copying from another student during a test or quiz (63.69%), permitting another student to look at their answer during a quiz or exam (65.08), asking another student about questions on an exam they have not yet taken (82.94%), working in groups on an assignment when there is no class policy on group work. (88.49%), studying with other students for a test (92.66%), paying someone else to take an exam/write a paper (56.75%), working in groups on take-home examinations (76.59%), and signing into class then leaving for full participation points (72.02%). Table 6 shows student responses to behaviors of academic misconduct by peers.

**Table 8**

Student responses to behaviors of academic misconduct by peers		
Behaviors Observations: 504	Do you think your peers are? Yes	Do you think your peers are? No
*Copying from another student during a test or quiz	321 (63.69%)	183 (36.31%)
*Permitting another student to look at your answer during a quiz or exam	328 (65.08%)	176 (34.92%)
*Asking another student about questions on an exam you have not yet taken	418 (82.94%)	86 (17.06%)
*Delaying taking an exam or turning in a paper later with a false excuse	352 (69.84%)	152 (30.16%)
*Copying from an unapproved reference sheet during a closed-book test or quiz	312 (61.90%)	192 (38.10%)
*Claiming to have handed in an assignment or exam when you did not	257 (50.99%)	247 (49.01%)
*Taking an exam for another student	186 (36.90%)	318 (63.10%)
Working in groups on assignment when there is no class policy on group work	446 (88.49%)	58 (11.51%)
*Adding fake references to term papers to expand the bibliography	214 (42.46%)	290 (57.54%)
*Copying an old term paper or lab report from a previous year	318 (63.10%)	186 (36.90%)
Studying with other students for a test	467 (92.66%)	37 (7.34%)
*Copying another student's homework when it is not permitted by the instructor	381 (75.60%)	123 (24.40%)

\*Direct participation

Student responses to behaviors of academic misconduct by peers		
Behaviors Observations: 504	Do you think your peers are? Yes	Do you think your peers are? No
*Copying a passage out of the textbook for homework assignments	353 (70.04%)	151 (29.96%)
*Submitting or copying homework assignments from previous terms	324 (64.29%)	180 (35.71%)
Witnessing a case of cheating in a class and not reporting it to the instructor	361 (71.63%)	143 (28.37%)
*Storing answers to a test in a calculator or Personal Digital Assistant (PDA)	263 (52.18%)	241 (47.82%)
*Changing the answer on your test or homework after it has been graded and then telling the instructor a mistake was made in grading	215 (42.66%)	289 (57.34%)
*Paying someone else to take an exam/write a paper for you	286 (56.75%)	218 (43.25%)
Working in groups on web-based quizzes	381 (75.60%)	123 (24.40%)
Working in groups on take-home examinations	386 (76.59%)	118 (23.41%)
*Sharing exam question/s to an online platform	312 (61.90%)	192 (38.10%)
*Submitting/viewing exam questions on an online platform during an exam	321 (63.69%)	183 (36.31%)
Not reviewing course syllabus/policy for course expectations and prohibited behaviors	362 (71.83%)	142 (28.17%)
*Signing into class then leaving for full participation points	363 (72.02%)	141 (27.98%)
*Altering academic records	142 (28.17%)	362 (71.83%)
*Direct participation		

## CHAPTER FIVE

### Conclusion

The purpose of this study was to investigate the relationships between misbehaviors, their associated consequences, and influences to prevent, respond to and reduce academic misconduct at a large research-intensive university. This chapter includes a discussion on major findings and literature related to student characteristics, behaviors, and sanctions, the effectiveness of grade sanctions for repeat violations, student attitudes and behaviors, and student beliefs of peer behaviors of academic misconduct. The chapter concludes with a summary, implications for researchers, implications for practitioners, and areas for future research.

#### **RQ 1: Did the association between student characteristics and behaviors increase the likelihood of specific sanctions being assigned for academic misconduct?**

According to the data, there was an association between student characteristics and behaviors which increased the likelihood of being assigned specific sanctions. GPA was significant in predicting an assignment grade (p-value = 0.048), course grade (p-value = 0.013) and an educational sanction (p-value = 0.002). Students reported for academic misconduct had an average GPA of 2.59 which is generally classified within the murky middle range (2.00 – 3.00), these students are just above the minimum requirements to avoid academic probation but close to falling below program or scholarship GPA requirements. Such factors add to the risk/reward calculation when considering academic misconduct. If committed, and not discovered or reported, students can avoid consequences that can lead to academic probation, program dismissal, or disciplinary sanctions. However, if reported and sanctioned, the consequences can affect student academic success in the long term. In some instances, dropping

below program requirement GPAs can result in an additional semester before graduating or ultimately dismissal from their program. These are factors that can impact the decision of whether to commit academic misconduct and are also pivotal points within the decision-making process including intervention and support.

International student status was significant in predicting a course grade sanction (p-value = 0.013) and disciplinary sanction (p-value = 0.002). International students have more at risk than their domestic peers if a course grade or disciplinary sanction is assigned. These sanctions can affect their GPA causing loss of a scholarship and similarly with a disciplinary sanction, their visa status can be comprised. Gender was also significant in predicting sanctions. Male students were more likely to receive a course grade sanction (p-value = 0.000), educational sanction (p-value = 0.038) and disciplinary sanction (p-value = 0.032) than female students. Male students accounted for 58.98% of academic misconduct reports. This can suggest that male students need more support within the classroom to equip them with the resources to avoid decisions of academic misconduct.

Class rank was also important. Freshmen were most likely assigned an educational sanction (p-value = 0.007) or other sanction (p-value = 0.000). Similarly, sophomores (p-value = 0.006) were assigned an educational sanction. Juniors were more likely assigned other sanctions (p-value = 0.059). Professional students were most likely to be assigned an assignment grade (p-value 0.012) and other sanctions (p-value = 0.000) for academic misconduct. Graduate students were more likely to be suspended (p-value = 0.002) or expelled (p-value = 0.002). Students that were either professional or graduate were more likely educational or disciplinary sanctions. Progressive sanctioning was evident based on class rank, meaning that students with a higher rank such as graduate students were more likely to be suspended or expelled than other class

ranks. These institutional responses are targeted opportunities for intervention which can allow for better decisions of academic integrity.

Plagiarism and cheating were the most reported behaviors resulting in sanctions ranging from assignment grades to disciplinary sanctions. However, fabrication/falsification was the only behavior that was most likely to have a sanction of suspension (p-value = 0.000) and expulsion (p-value = 0.015). Such behaviors include fabricating data records or falsifying university documents which are very severe behaviors. Although there is an opportunity for intervention such as educational sanction (p-value = 0.005), disciplinary sanction (p-value = 0.000), and other sanctions (p-value = 0.004), fabrication/falsification threatens the core values of academic integrity through misrepresentation of information. Comparatively, other behaviors can also lead to suspension or expulsion but there are more opportunities for education than behaviors of fabrication/falsification.

The theory of planned behavior suggests that attitude towards behavior, subjective norms, and perceived control produce intention that led to the behavior. Attitude towards behavior is a person's disposition towards behavior or its consequences (Imran, 2013). Subjective norms are the expectations of others or the culture of behavior. Subjective norms can include the views of peers, instructors, or the institution and whether those behaviors are acceptable or unacceptable (Leonard L. N., 2017). Perceived control is the opportunity and resources available to execute behavior. The class variable was significant in reports of academic misconduct which means that depending on your class rank, there is a comparable time to develop a personal disposition towards misconduct and its consequences, to understand the norms about misconduct, and whether cheating can be easily executed without being discovered. Coupled with an average GPA of 2.59, possibly at risk based on program requirements, scholarships, or graduation,

increased the probability of being reported. However, although more male students were reported than female students, this can suggest that male students are indeed cheating more, or female students are better at committing the act and not being discovered because they also have the same goals at risk.

**RQ 2: Is there a negative relationship between assigning grade sanctions and reducing GPA for repeat violations of academic misconduct?**

There was a negative relationship between grade sanctions and GPAs for repeat violations of academic misconduct after a third violation. Students who were reported at least twice (189) accounted for 499 (23.91%) of academic misconduct cases. There was a GPA increase between the first violation (2.64) and second violation (2.67) but when students had a third violation, their GPA began to decline (2.60) which can suggest that sanctions assigned on the first violation can help students without affecting their GPAs but beyond a second violation GPA begin to be affected and students may become desperate due to declining GPAs. There was one student with nine violations and their GPA was not affected which also suggests that the effect on GPA depends on when the violation occurs, and the sanction assigned. If students were reported multiple times in the same semester without a course failure sanction, their GPAs were not affected. However, if they were reported multiple times across semesters and a grade sanction was assigned, their GPAs gradually declined after the third violation.

Student attitudes, subject norms, and perceived control are critical in the decision-making process of academic misconduct but are more evident when students have repeat violations. Ajzen (1991) argues that an individual's intentions are the driving forces that determine whether behaviors are demonstrated, given their willingness and effort exerted to perform these behaviors. These factors create a conducive environment for the likelihood of



actions to be exhibited. Students displayed a particular behavior when first reported and are aware of the possible consequences but are reported for a second or third time which can suggest that students think their behavior is acceptable even after they have been reported before and they believe that they have control over the outcome. Hence, the effectiveness of grade sanctions as a deterrent.

Although GPA can be reduced, with students having multiple violations, there should be a tangible consequence for behavior. As a result, when GPAs were affected, repeat violations begin to decline at the third (56) or fourth violation (20) for most students. This can be viewed in two different ways as either punitive or educational. Punitive because a reduced GPA has other consequences such as retaking a course, program dismissal, or scholarship withdrawal but educational because the sanction targets the behavior prompting a connection between action and consequences as well as learning what support is needed like tutoring to help students learn the required information and skills. Progressive sanctioning can act as a deterrent for behaviors of misconduct, meaning that with each report of academic misconduct, sanctions are heightened and targeted to behavior.

**RQ 3: Is there a positive relationship between assigning educational sanctions or grade sanctions and reducing repeat violations of academic misconduct?**

There was a positive relationship between assigning educational sanctions and grade sanctions to reduce repeat violations. Students reported once, accounted for 70.09% of cases between 2017 and 2020. GPA was significant in predicting a course grade ( $p$ -value = 0.007) and an educational sanction ( $p$ -value = 0.001). International students were most likely to receive a course grade sanction ( $p$ -value = 0.000) than domestic students on a first violation which means that this can affect their GPA, scholarship, or program requirements. Considering the

consequences of a course grade sanction for an international student, institutions must ensure that sanctions are sufficient to deter future behaviors but not punitive to the extent that it affects a student's status if harsh consequences can be prevented.

On campus students were most likely assigned an assignment grade (p-value = 0.046) and an educational sanction (p-value = 0.000) than students who live off-campus. Freshman (p-value = 0.006), sophomore (p-value = 0.000), junior (p-value = 0.000) and senior (p-value = 0.002) were most likely to receive an assignment grade and educational sanction (p-value = 0.000), (p-value = 0.000), (p-value = 0.000) and (p-value = 0.005) respectively. These sanctions were effective for freshman class, however, sophomore (p-value = 0.007), junior (p-value = 0.007) and senior (p-value = 0.011) were more likely to be assigned a suspension sanction on a first violation. Suspension on a first violation is severe but it also depends on the behavior, if there are aggravating factors, although it is a first violation, the consequences can be far-reaching and warranted.

Professional students were most likely to receive an educational sanction (p-value = 0.005) or suspension (p-value = 0.049). Professional students are held to a higher standard than other students because of what their profession entails such as healthcare. As a result, sanctions may be heightened even on a first violation. However, graduate students were most likely to receive an assignment grade (p-value = 0.003), educational sanction (p-value = 0.028) or other sanctions (p-value = 0.003).

Students with one violation were assigned an assignment grade (p-value = 0.000) and an educational sanction (p-value = 0.000) for plagiarism, course grade (p-value = 0.005) and educational sanction (p-value = 0.000) for cheating and assignment grade (p-value = 0.000), course grade (p-value = 0.004) or educational sanction (p-value = 0.000) for facilitation. Other

prohibited behaviors resulted in assignment grade (p-value = 0.001), educational sanction (p-value = 0.000) or disciplinary (p-value = 0.000). Fabrication/falsification was mostly sanctioned by education (p-value = 0.035), disciplinary (p-value = 0.000), suspension (p-value = 0.019) or expulsion (p-value = 0.006). Fabrication/falsification appears to be a more serious behavior with an institutional response that is equally more serious sanction than other behaviors even for a first violation. This means that it is critical that students understand what constitutes academic misconduct and more importantly the possible consequences for such misbehaviors.

A combination of grade and educational sanctions was effective in reducing the repeat violations because students were educated on what is acceptable and unacceptable. International students (p-value = 0.000), male students (p-value = 0.001), on-campus (p-value = 0.027), and sophomore students (p-value = 0.052) were more likely to be reported for a future violation although they were not reported more than once in the dataset used. First violations prompt interaction with the academic integrity process with the goal that students learn how to maintain academic integrity and the supportive resources available when they encounter such challenges. It is therefore critical that institutional responses are direct and educational to help students in the long term which the data suggests was effective for first violations.

“Behavior is a function of the interaction of the person and the environment to development” (Evans, 2010). Bronfenbrenner’s developmental ecology theory is premised on a series of interactions that occur within the environment that can prompt or inhibit student development (Evans, 2010). Students with one violation have one interaction with the process versus repeat violations that have multiple interactions from initial report to case resolution. What prompts development, is whether they learn about expectations and how to avoid academic misconduct. In the absence of learning from these interactions, students are more likely to repeat.

This infers that it is important to both educate and have grade sanctions when necessary to prompt development which was evident when both were assigned. Students with repeat violations have the same issues as those with one violation, however, what changes the outcome is the institutional response to misconduct and whether development is prompted or inhibited. When educational and grade sanctions were assigned, the likelihood of repeat violations was reduced but in cases of continued misconduct, these students have either not learned from the process, or made informed decisions to commit academic misconduct. As such, progressive sanctioning gives students multiple opportunities to learn but also prompts institutions to investigate whether there are more contributing factors outside of the classroom that is causing a student to exhibit these misbehaviors.

#### **RQ 4: What are student attitudes towards cheating?**

Respondents had a good understanding of academic misconduct behaviors when behaviors included direct/active participation in misconduct such as paying someone to take an exam or write a paper. These behaviors were easily classified as cheating. However, when behaviors involved indirect participation, such as working in groups on web-based quizzes, students selected neither (18.65%) or not cheating (31.35%). As a result, students are more likely to participate in indirect behaviors because they are unaware of what constitutes academic misconduct and which behaviors are acceptable. Hence, it is important to communicate institutional expectations at all levels of interactions so that students are informed to make decisions of academic integrity or to seek support when they are uncertain of expectations within the classroom.

William Perry (Evans, 2010) refers to a structure within intellectual and ethical development as duality, the structure of black and white decisions or right/wrong which was

evident in respondents' understanding of academic misconduct behaviors. Behaviors that were explicitly academic misconduct, students identified as such, however when it was a grey area to prompt independent understanding of misconduct and decision-making, students did not view it as misconduct. These were the same behaviors that students were also reported including facilitation and cheating. Because of this grey area (direct vs indirect participation), institutions need to make clear what behaviors are prohibited and instructors to also emphasize and communicate what is acceptable in the classroom.

#### **RQ 5: What do students think about peers cheating?**

Respondents rated peer behaviors as worse than theirs except for taking an exam for another student (63.10%), adding fake references to term papers to expand the bibliography (57.54%), changing the answer on a test or homework after it has been graded, and then telling the instructor a mistake was made in grading (57.34%) and altering academic records (71.83%). Out of 498 responses, 38.15% selected peer help on an assessment as a factor that would affect the decision to cheat. What was most important when deciding to cheat was the lack of understanding of tasks and having support from instructors. If students did not understand assessments, they were more likely to check with friends or online for assistance than seek support from their instructor. If they did seek support, they did not receive the support they needed to help to understand the task. Support from instructors is critical in determining whether to commit academic misconduct. However, in conjunction with receiving the support needed, students also needed to allocate sufficient time to complete the task required to avoid the pressure of meeting deadlines without proper preparation.

Social cognitive learning theory emphasizes that people adapt to patterns of behaviors they observe and go through a process of learning, unlearning, and self-regulating what is

acceptable and unacceptable (Selemani et al 2018; Scott 2017; Ormrod 2012). Although students viewed their peer behaviors as worse than theirs, a self-regulating process was evident to determine what was acceptable behaviors for them except for group work which was not as clear as other behaviors. Respondents were consistently observing behaviors of academic misconduct by their peers but made independent choices when thinking about what constituted academic misconduct and what was important to help them avoid cheating.

Although peer behaviors were not a common factor in deciding to cheat, most group behaviors such as working in a group on take-home examinations, students viewed as neither cheating nor not cheating. Again, direct vs indirect participation in misconduct, if students are not actively performing an act that is clearly defined as cheating, they did not view it as cheating. In groups, it is harder to pinpoint who did what or to what degree there was participation in misconduct which means that instructors should make it clear whether group work is acceptable. However, students are aware of the behaviors of their peers, but it did not affect whether they would commit academic misconduct.

### **Summary**

The academic misconduct decision-making process served as a guide to understanding misbehaviors. Some student characteristics were more impactful than others and contributed to their social interactions with others and exposure to misbehaviors. These characteristics also contributed to whether they had sufficient time to complete assignments or seek support from their instructors when they did not understand their assignments. Second, influences including attitudes, academic preparation for the assessment, and instructor expectations prompted decisions on whether to cheat. If students cheated and were reported, institutional response determined whether they could commit academic misconduct in the future. At this point in the

decision-making process, it was important to have both an educational and grade sanction to encourage understanding of behaviors, provide support and deter future violations. This does not mean that educational sanctions alone are not effective but depending on the behavior, grade sanctions provide tangible consequences. As such, students are supported and consider their behavior prompting decisions of academic integrity.

Plagiarism and cheating were the most reported behaviors which signal a need for preventative and educational resources to help students to acquire the skills to write at an academic level and communicate expectations when assigning assessments. Cheating included multiple group work behaviors that can be interpreted differently when it is not clear what can be done as a group versus what should be independent work. Fabrication/falsification, facilitation, and other prohibited behaviors were not as common as plagiarism and cheating but these were the behaviors that respondents understood as academic misconduct. Students who committed such violations also received heightened sanctions due to the clear indication of misconduct and what these behaviors entail such as forging academic records.

Institutional responses to academic misconduct specifically whether instructors report violations, are essential in determining whether students repeat violations and get the support needed to make better decisions in the future. When instructors resolve these issues on their own, though their intention might be to help students correct the behavior for this assignment, they are also unaware of whether students are having the same issues in other classes. Conforming to policy and reporting violations, streamlines resolving academic misconduct and pinpointing issues that students may be having to provide the right resources for support to reinforce expectations and help students to make decisions of academic integrity.

## **Implications for Researchers**

### **Reporting Issues**

Reporting of academic misconduct remains a challenge on college campuses even when there are policies and procedures to respond because there may not be complete buy-in of faculty, staff, or students to the idea of reporting academic misconduct. Faculty can have differing philosophies on how to resolve academic misconduct in the classroom from their colleagues and institution. In some instances, there is no confidence in the process of reporting and faculty feel that they can help students better if they explain what they did wrong and have it corrected. This approach can pose issues for institutions and researchers because a genuine reflection of academic misconduct violations is not accurately recorded to further understand the issue and create measures to respond and help students to make decisions of integrity from an institutional standpoint.

## **Implications for Practitioners**

### **Reporting Issues**

Underreporting of academic misconduct gives a false sense of what is happening on campus and combating the issue. It is easier to help students when it may be their first violation and minor which provides opportunities to educate. Due to underreporting, the data shows that students were most likely to be seniors at the time of their first violation or multiple violations. At this point, the stakes are higher for a senior who is about to graduate and begin graduate school. Early intervention and support can teach students the skills needed and avoid the dilemma of having to commit academic misconduct to graduate. Reporting should be ongoing



even in minor situations for institutions to have a better handle on academic misconduct and reduce its occurrence.

### **Partnerships across Campus**

Academic integrity policies work best when there is an “all hands-on deck” approach, from the initial report to resolution. All stakeholders are important for the overall success of the process and learning outcomes for students. Instructors should be aware of the process and how to correctly use it. The assigning of sanctions should be targeted to behaviors. Supportive services such as tutoring, libraries, and writing labs also play a critical role in providing students with the skills they need to make decisions of integrity. According to student surveys, when students did not understand their assignments or did not have resources available for support, they were more likely to commit academic misconduct. Hence, all levels of interaction with students must agree on how to support and help students who commit academic misconduct.

### **Policy and Evaluation**

Policy success is dependent on implementation and consistent evaluation. The goal of an academic integrity policy is to be explicit on expectations and how the institution resolves such cases. However, as an institution implements the policy, evaluating its effectiveness is equally important. Considering what works best for students, faculty, staff, and institution when resolving cases of academic misconduct. When policies are not assessed, issues such as instructors resolving cases on their own, underreporting, and underutilization of support services can arise. Therefore, consistent, and timely evaluation is necessary to understand whether the policy is working and making changes that are unique to the institutional needs.

### **Areas for Future Research**

Throughout this study, there were common themes that were evident to further research on academic misconduct in college. First, faculty understanding of academic misconduct and interpretation determines whether instructors will conform to a policy to report violations or resolve them on their own. Second, understanding why students are reported multiple times after education and intervention. There might be an underlying reason, that causes students to commit academic misconduct regardless of support and education. Third, partnerships across campus to promote academic integrity. It is critical for policy success when there is a shared goal and understanding of how the institution responds to academic misconduct. Each stakeholder in the process plays an important role in the success or failure of an academic integrity policy and whether students benefit to help them to make decisions of integrity.

### **Conclusion**

Students cheat because they do not fully understand what constitutes academic misconduct, have not adequately prepared, or lack support and understanding of tasks. Behaviors are not always black or white and as such, the grey area becomes confusing, and decisions are made in the absence of knowledge. It is important that institutions make clear and at every level of interaction what are prohibited behaviors. Instructor support and guidance are critical in determining whether to commit misconduct. Students need to have relationships with their instructors to feel comfortable asking for help while ensuring that they allocate sufficient time to complete assessments and avoid academic misconduct. The need for partnerships across campus is essential to help students to become aware of resources available for support and instructors feel supported in the process of responding to incidents in their classroom. Responding to academic misconduct to prevent and reduce its occurrence takes a cultural shift which takes a

long time to become part of the institutional identity. However, shifting to having the same goal in every interaction with students, prompts change that will eventually lead to a better overall understanding of academic misconduct and effectively supporting students to help them to make independent decisions of academic integrity.

This study shows that although the problem of academic misconduct remains present on almost all college campuses, teachable moments are created when students interact with instructors, policy administrators, staff, and supportive departments. Educating students on expectations, and behaviors, and assigning sanctions when appropriate can work and are opportunities for students to better understand what academic integrity is, how you can maintain it, and most importantly the supportive resources that exist for their academic success.

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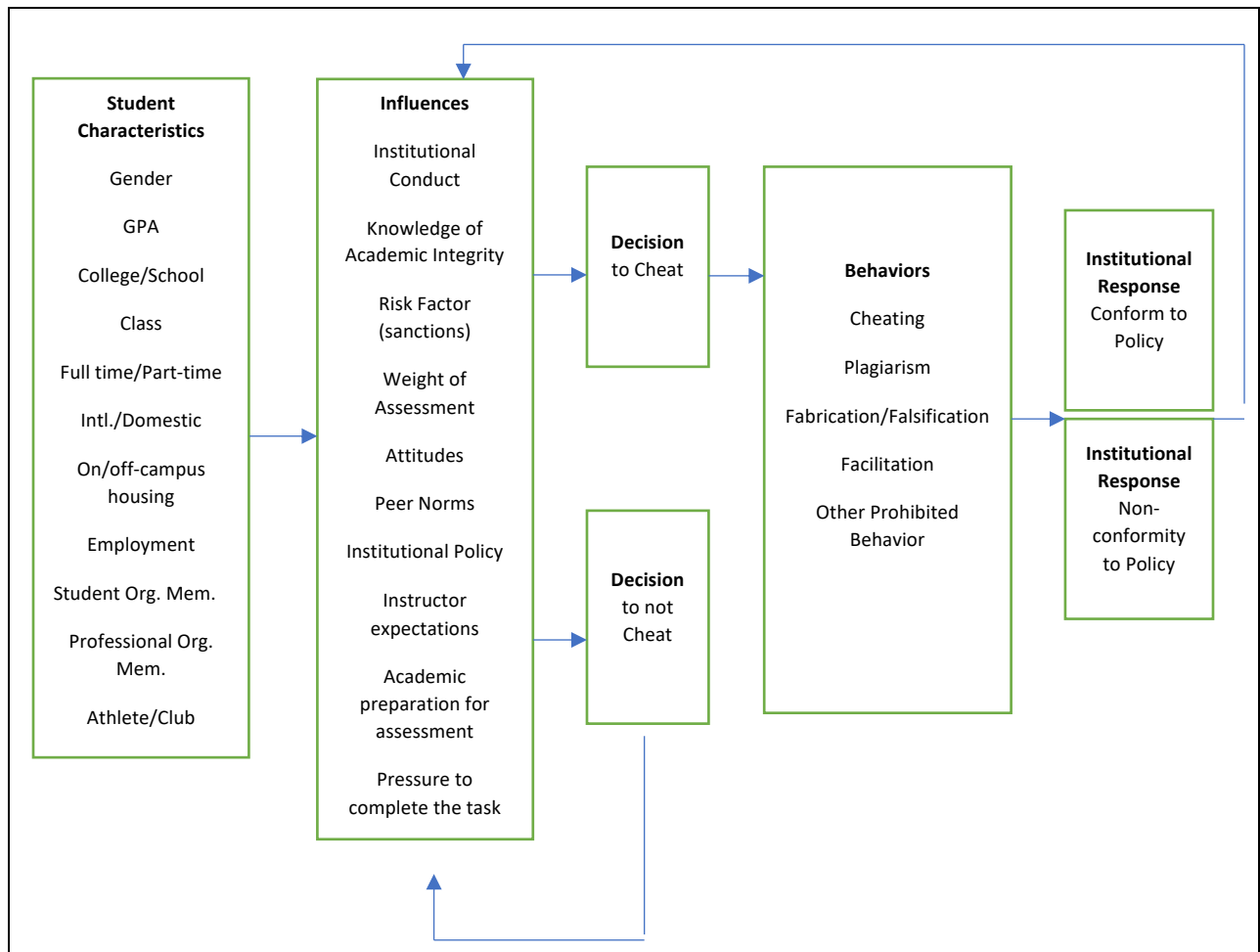
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**Figure 1**



**Figure 2**

IRB# 2103261559

Dear Participant,

My name is Justine Lee, and I am a doctoral candidate in the Higher Education Administration Ph.D. program. I am seeking your participation in a research project investigating academic misconduct behaviors and student perceptions at West Virginia University. This project is being conducted under the supervision of Dr. Nathan Sorber. Your participation in this project is greatly appreciated and will take approximately 15-20 minutes using this link [Student Survey](#) to complete.

Your contribution to this project will be kept as confidential as legally possible. No identifiable information will be reported. You must be 18 years of age or older to participate and your participation is completely voluntary. West Virginia University's Institutional Review Board's acknowledgment of this project is on file.

I hope that you will participate in this research project, as it would be beneficial in understanding student attitudes, perceptions of academic misconduct, and institutional resources necessary to support students in maintaining academic integrity. Thank you very much for your time. Should you have any questions or concerns about this letter or research project, please feel free to contact Justine Lee by email at [jal0001@mix.wvu.edu](mailto:jal0001@mix.wvu.edu).

Sincerely,

Justine Lee

**Figure 3**

## Survey Questions

**Section 1: Profile**

1. Gender
  - Male
  - Female
  - Other
2. Current G.P.A
  - 0.00 – 2.00
  - 2.01 – 3.00
  - 3.01 – 4.00
3. College/School
  - Benjamin M. Statler College of Engineering and Mineral Resources
  - Center for Learning, Advising and Student Success (CLASS)
  - College of Creative Arts
  - College of Education and Human Services
  - College of Law
  - College of Physical Activity and Sport Sciences
  - Davis College of Agriculture, Natural Resources and Design
  - Eberly College of Arts and Sciences
  - John Chambers College of Business and

- Economics
  - Reed College of Media
  - School of Dentistry
  - School of Medicine
  - School of Nursing
  - School of Pharmacy
  - School of Public Health
  - Other
4. Class
- Freshman
  - Sophomore
  - Junior
  - Senior
  - Graduate
  - Professional
5. Status
- Part-time
  - Full-time
6. Residency
- Domestic
  - International
7. Housing
- Off-campus
  - On-campus
8. Employment
- Part-time

- Full-time
- Not employed

9. Student Organization Membership

- Yes
- No

10. Professional Organization Membership

- Yes
- No

11. Student-Athlete

- Yes
- No









### Section 3: Assessments

1. Have you ever had a student conduct violation?
  - Yes
  - No
2. Have you ever had an academic misconduct violation?
  - Yes
  - No
3. Do you know what constitutes academic misconduct?
  - Yes
  - No
  - Not sure
4. Which factors are important to complete an assessment with integrity? Select all that apply.
  - Weight of assessment
  - Instructor expectations
  - Syllabus/policy guidelines
  - Internal/external pressure to complete
  - Peer support on assessment
  - Available authorized resources
  - Preparation for assessment
5. What factors would affect the decision to cheat? Select all that apply
 

- Possible sanctions	- Lack of instructor support
- Violation being reported	- Lack of understanding of the task
- Time to complete assessment	- Behavior being undetected
- Peer help on assessment	- Weight of assessment
- Easy access to unauthorized resources	- Internal/external pressure to complete