Learning and Development as a Result of Student Conduct Administration

By

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Abstract

This study employed quasi-experimental methods to examine the educational outcomes associated with college disciplinary processes. Using an online survey designed to measure the learning that might result from student conduct administration (SCA), this study analyzed 3,228 responses from students attending four separate institutions. The sample included students who participated in an SCA process in addition to those who did not participate in an SCA process. The treatment group included students who participated in the SCA process while a group of students who did not participate in an SCA process provides a plausible counterfactual. Each group was surveyed once at the beginning of fall 2016 and then again at the end of fall 2016. This study did not produce strong evidence that supports an assertion that student conduct administrative processes are educational. However, supplemental exploratory analyses, offer useful information and insights for the field.

Keywords: Econometric, Psychometric, College Student Development, Student Conduct Administration, Higher Education, Student Affairs.

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Chapter 1 Introduction & Overview

This chapter accomplishes three main objectives. First, to introduce the research questions. Second, to provide an explanation of student discipline, student behavior management, and student conduct administration in American higher education. Third, to offer justification for the research questions.

The gist of this study's primary research question is to investigate whether student discipline, student behavior management, and student conduct administration in American higher education are educational processes. After reciting all three research questions in more specific terms this chapter moves to its second objective, providing an explanation of student discipline, student behavior management, and student conduct administration in American higher education. The explanation is available from three perspectives including the practitioner's, the scholar's, and the historian's. Lastly, in justifying these research questions this chapter introduces the notion that a review of the literature has yet to provide strong evidence that student discipline, student behavior management, and student conduct administration in American higher education produces an educational effect. Subsequently Chapter 2 further discuses the evidence that is available.

1.1 Research Questions

Figure 1.1 simplistically illustrates student discipline, student behavior management, and student conduct administration in American higher education. Many times the issues that present themselves in this context are simplistic or relatively insignificant matters such as a quiet hours policy violation, as illustrated here. Other times the issues are serious but routine such as underage drinking, alcohol policy violations, vandalism, theft, or similar. Importantly, at times the issues can be more grievous involving violence, assault, sexual assault, weapons, or similar.

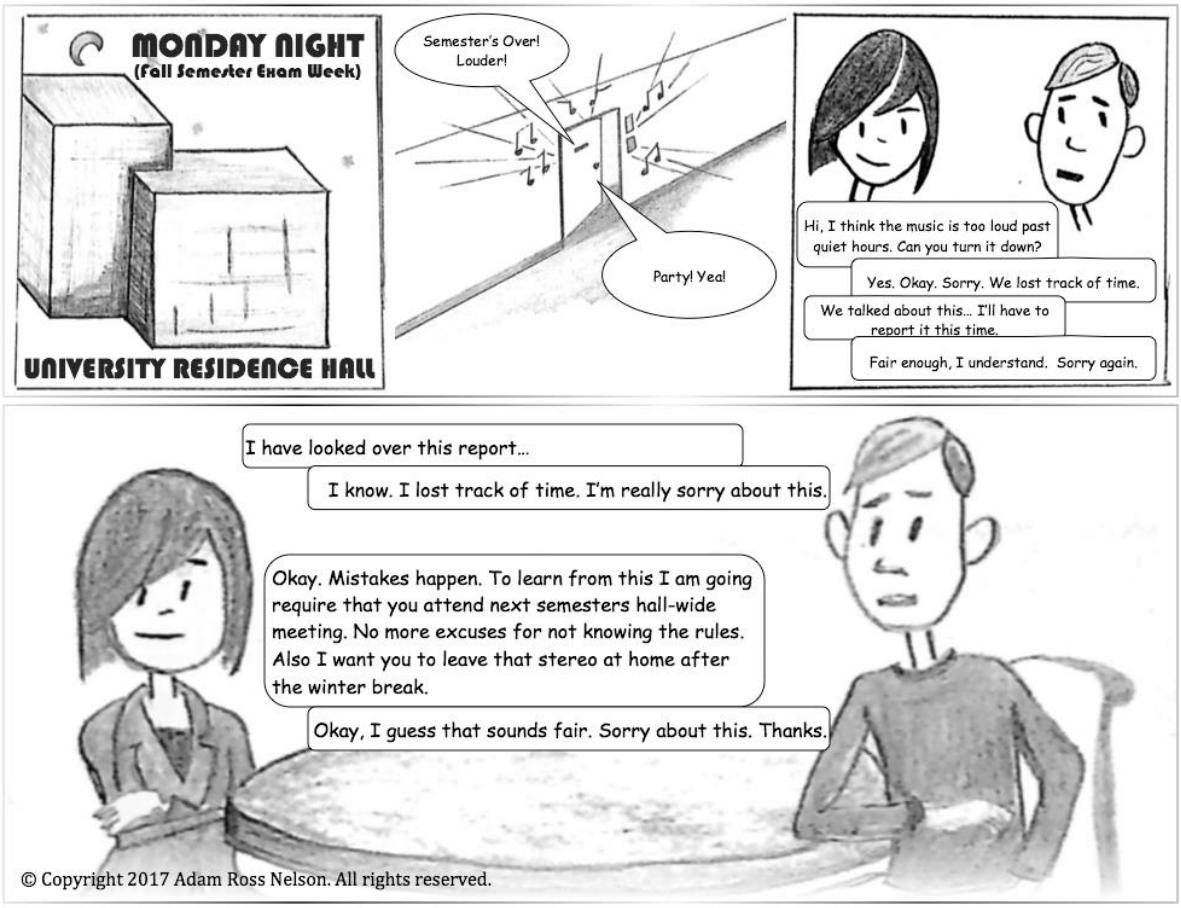

Figure 1.1. Cartoon illustration of a student conduct administrative (SCA) process. Student (on the right) was playing music too loudly past quiet hours during first semester final exams week. The student was documented at the time of the incident. The student accepted and admitted to his responsibility for the policy violation. Later, the SCA professional (on the left) assigned the student to attend a hall meeting as an educational assignment or task. Also, the SCA professional instructed the student to take his stereo equipment home and leave it there.

Logically, not every student participates in an SCA process. Some do participate while others do not. This study leverages a natural experiment in which participating in a disciplinary process serves as a package of treatments. Regarding how this treatment package on the whole does or does not operate to produce an educational result, this study proposes to investigate three research questions.

Research question 1: Is participating in student conduct administrative processes an educational experience?

Research question 2: If participating in student conduct administrative processes is an educational experience, what do students learn?

Research question 3: If students learn anything from student conduct administrative processes what is the magnitude of that learning?

1.2 What is Student Conduct Administration (SCA)?

Those who administer student disciplinary processes in higher education, the so-called disciplinarians, are "purveyors of two types of specialized knowledge: student development and legal issues" (Stimpson & Stimpson, 2008, p. 15). An idiosyncratic consequence of the interaction between their developmental or educational role and their quasi-legalistic disciplinarian role is the vernacular associated with their trade. Disciplinarians in higher education identify as student conduct administrators or student conduct administrative professionals (SCAs).[1] SCAs prefer the SCA turn of phrase to alternatives that imply legalistic or judicial disciplinary processes. The field is demonstrably self-conscious that it may devolve to be too legalistic. One study inventoried a sample of SCA processes by categorizing them on a four-point ordinal scale ranging from "Non-Legalistic" to "Legalistic" based largely on the word choices found in each process's written documentation (Martin & Janosik, 2004, pp. 39-41). The authors found no documents to inventory as "Legalistic" and endorsed this result as

[1] See, for example, The Association of Student Conduct Administrators at www.theasca.org. Throughout, "SCA" refers to student conduct administration, "SCAs" will synonymously refer to student conduct administrative professionals and student conduct administrators, while "SCA processes" will refer to the processes and procedures association with SCA. Also as a means of introducing this study's topic the earlier chapters frequently refer to "student behavior management" or "student discipline" which are synonymous with SCA.

good for the field (p. 43). Martin & Janosik (2004) explained that prevailing wisdom recommended against including legalistic language. Among SCAs, an important rationale in support of excluding legalistic language is to avoid distracting from the educational goal. Legalism and education are sometimes viewed as two notions in mutual conflict.

Another important rationale was that SCAs thought they would earn greater deference from courts, society, regulators, parents, faculty, administrators or others by characterizing SCA processes as educational. Courts in particular have been known for their skepticism that SCA processes were educational as opposed to legal or quasi-legal when legalistic terminology pervaded the practice (Gehring, 2013). The legalistic terminology and process seemed to invite scrutiny by judges. Thus, the push away from legalistic word choices is simultaneously a push toward more educational word choices. Therefore, this dissertation where applicable uses less-legalistic word choices, including the SCA shorthand.

1.2.1 Practitioner's Perspective

Writing in the edited volume entitled *Enhancing Campus Judicial Systems* (Caruso & Travelstead, 1987), Boots provided an overview of a hypothetical and generic SCAs' Monday morning, she appears to have framed her opening comments for audiences potentially broader than SCAs (she referenced the desk of "student development professionals"):

> The weekend's reports surface on the desk of student development professionals across the country. Incidents range from injuries to thefts, from unapproved parties to self-destructive behaviors, and from cheating to vandalism. (Boots 1987, p. 63)

Speaking from personal experience, Boots' description is indeed representative of the SCAs' experience these thirty years later.

College and university life often mimics larger systems at work throughout society. For example, the student disciplinary processes mimic civil and criminal justice systems, which serve to regulate the behavior of citizenry. SCAs and the SCA processes "share the twin goals of student development and deterrence" (Schuck, 2016 p. 4). These separate goals often conflict. One goal is to regulate student behavior through general and specific deterrence. The role of general and specific deterrence comes with great power. Another goal is to wield that power in a manner that will promote student learning (student development). Punctuating the potential for conflict between these two roles is the topic of student retention. "One of our primary roles–recognizing that dismissals [expulsions and suspensions] are sometimes necessary–is to help students who commit disciplinary offenses make amends and stay enrolled" (Karp and Sacks, 2014, p. 155).

In theory, SCAs directly help students learn from their misbehavior through the course of the SCA processes. SCAs meet with students who have been documented for potential policy violations. Through those meetings SCAs interact with students. Those interactions, SCAs hope, are at least part of what makes SCA processes educational. Sometimes there are boards, committees, or panels who are involved in the processes of investigating potential policy violation or deliberating on the results and in assigning consequences. SCAs also hope to support and promote the learning and development of boards, committees, and panels who are involved in the SCA processes.

SCAs also indirectly support the learning of all students, even those who do not misbehave (or rather, those who do not get caught for their misbehavior), by promoting the orderly conduct of students throughout campus. The indirect theory relies on an assumption

that when students follow the rules, the campus will be a safer, happier, healthier, or otherwise more conducive to learning.

For those who do get caught, who participate in the SCA processes, "the student code is designed to help students understand the impact of their behavior on both the victim [(if present)] and the larger community, take responsibility for their actions, and conceptualize alternative methods for addressing similar situations in the future" (Schuck, 2016, p. 4).

Shuck's concise overview of the goals of SCA is the most recently published, peer reviewed expression of the goals for SCA that is also consistent with this study's theoretical framework. However, trading brevity for specificity and parsing the deeper meanings of these words quickly becomes difficult. What scholars and practitioners might mean here is not clear. Does *taking responsibility* include offering an admission that the student committed a policy violation? Or does *taking responsibility* mean that the student affirmatively acts to repair any harms or damages caused? Does *understanding the impact of their behavior* mean demonstrating an ability to explain or articulate those impacts verbally? Does *understanding the impact of their behavior* pertain only to past behavior or also to the future behavior? Maybe *taking responsibility* and *understanding the impact of their behavior* means something else not listed here. Thus, the essential definition(s) of *learning* and *development* in the context of SCA, are open to broad interpretation. Chapter 2 will discuss contributions from other scholars that clarify, or sometimes muddle, for both researchers and practitioners what it is that students should learn from participating in disciplinary processes.

1.2.2 Law & Policy Scholar's Perspective

The legal scholar's perspective is not necessarily dissimilar from the practitioner's perspective. In short, SCA processes, policies, procedures, and professionals are a collection of

associated mechanisms related to the management of student behavior in American higher education. The abbreviation SCA, for "student conduct administration" or sometimes "student conduct administrative," is an adjective that modifies the programs, policies, processes, procedure, and professionals associated with managing student behavior. "SCA professionals" (SCAs) for example, are the staff responsible for administering "SCA processes."

Figures 1.1 and 1.2 outline a typical SCA process. In general, SCA processes begin with an intervention, which results in documentation of the intervention and of the student's behavior. Following the intervention is an evaluation. During evaluation, SCAs will review the documentation and other available information to ascertain if there may be a potential policy violation. The evaluation typically involves a meeting between the student and an SCA professional. The goal of an evaluation is to ascertain whether the student is, or is not, responsible for a policy violation.

Finally, the entire process closes when one of three events occurs. First, if upon review of the documentation there is no reason to believe that a violation occurred, the process ends. The second possible event is a determination that indicates the student is not responsible. The third possible event is a determination that the student is responsible after which the closure phase begins.

Closure is the phase of SCA where students complete any consequences as assigned by SCAs. However, following a finding that the student is responsible, and when the student disagrees with that result, there is usually an opportunity to appeal. Although no two processes are identical, these diagrams capture many of the most essential components common to the majority of SCA processes. Multiple codes of conduct demonstrating the diversity of proceses

have been published. (Bach, 2003; Pavela, 1979; 1997; 2000; 2005a; 2005b; Stoner, 1998; 2000; 2008; Stoner & Cerminara, 1990; Stoner & Lowery, 2004).

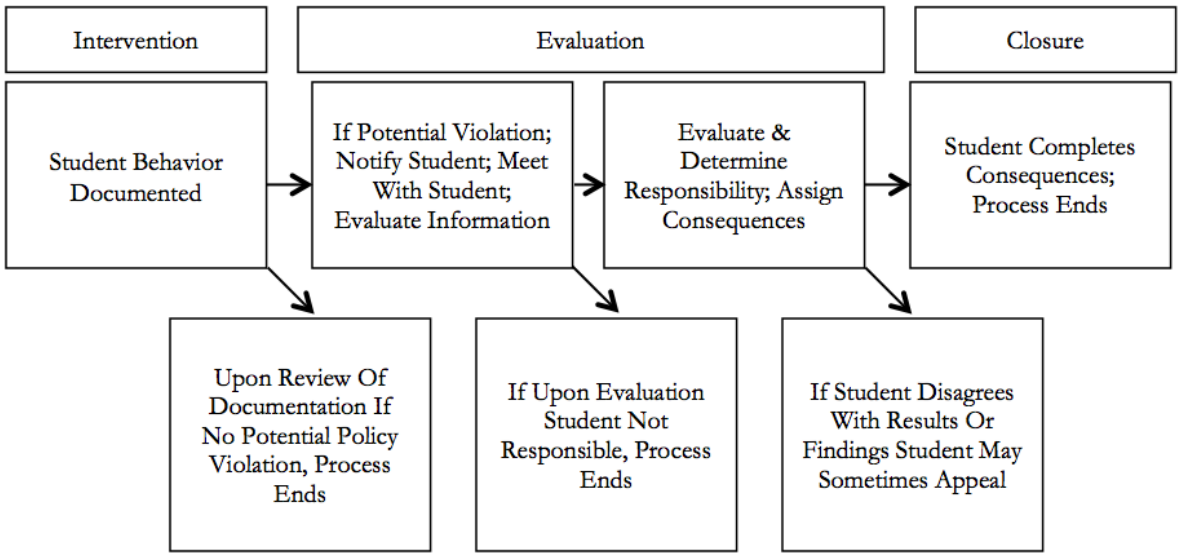

Figure 1.2. The three phases of student conduct administration (SCA) processes. The terms and phrases used by institutions to describe the procedural aspects and elements of SCA processes tend to vary. For example, *notice* is a procedural aspect that occurs early in the evaluation. Some institutions might choose words other than notice. Alternatives are *appointment letter* or *summons*. Another example of a word that may vary among institutions is *hearing*. Some institutions may call the moment(s) when an institutional representative meets with the student a *hearing*. However, another option would be *educational conference*. A generic term such as a *meeting* may also suffice. This figure demonstrates the most basic elements common to most SCA processes by omitting select important intricacies, such as appeal processes.

1.2.3 History of SCA, Selected Notes

This section explains why colleges and universities are in the business of managing student behavior. The explanation provided here is in two parts. The first is to note that colleges and universities have always been engaged in managing student behavior; the extant historical narrative of American higher education is flush with examples of student misbehavior. The second is to note that the modern regulatory scheme, whether by accident or design, now

requires colleges and universities to manage student behavior. This section also brings a critical lens to the discussion that focuses on the role that SCA had in preserving higher education as a white- and privileged-only institution.

Colleges and universities have always been engaged in managing student behavior. Chambers (2016), Horowtiz (1987), and Thelin (2011), quoted below, are examples of literature meant to discuss broader systemic issues associated with understanding the role of higher education in society at large. Despite the broader focus these sources also, more than briefly, touch on the topic of student behavior. Regarding this initial note, hundreds of years are perhaps not surprisingly easy to summarize: Students frequently do not behave in ways their faculty would prefer. Though it was not known as SCA until the past fifteen to twenty years, the issue of responding when students fail to behave as desired has touched four centuries of American higher education from the 1700s through the 2000s. "During the eighteenth and nineteenth centuries, student conduct was inseparable from the mission of higher education institutions" (Bracewell, 1997, p. 46). Near the beginning of his widely read *A History of American Higher Education,* historian of American higher education Thelin (2011) devoted a lengthy passage to the topic of punishing student misbehavior through the eighteenth century colonial era:

> Despite the glorification of the collegiate way as a haven for youth and a harmonious arrangement for learning, it also was a recipe for conflict characterized by student riots and revolts. These outbursts frequently were triggered by what we would call consumer complaints… Student offenders were subject to a range of punishments. Rustification, for example, meant that a student literally had to go to the country -- that is move his person and possessions off the college property for some stated period of time. A more enduring, formal punishment was degradation, the lowering of a student's

> ranking in his class. The dispensing of academic penalties in the colonial colleges appears to have lacked the humor and goodwill that often characterized student life in the medieval universities. In the fourteenth century Paris, for example, a young scholar found guilty of some offense such as speaking in the vernacular or missing vespers might be punished by having to provide wine for masters and fellow students alike. (internal references omitted) (Thelin, 2011, pp. 21-2)

Chambers (2016) is another example of literature meant to discuss broader systemic issues associated with understanding the role of higher education in society at large that also happens to touch on the topic of student behavior. Regarding student protests through the 1950s and 1960s Chambers explains:

> Many students faced criminal penalties, disciplinary action, and risked scholarships. These responses were not meted out evenly and Black students were disproportionately penalized for protest activity. . . The landmark freedom of expression case, *Dixon v. Alabama State Board of Education* (1961), regarding the expulsion of six Black students, otherwise in good academic standing, for participating at a sit in . . . held that students have due process rights.
>
> By contrast when White students attacked a Black Tugaloo student visiting a literary event . . . or when White students vandalized campus property in response to loosing a referendum on beer there were no disciplinary or criminal penalties. (internal references omitted) (Chambers, 2016, p. 134)

Through the nineteenth century students misbehaved and faculty responded. Frequently those responses did little in the way of deterring students from further misdeeds.

> College men protected each other's honor, no matter what the offense, even at the risk of expulsion. No shame adhered in low grades, a six-week suspension, or even severance from the college. As the Faculty's measure of quality, grades counted for nothing; the real measure of success was the judgment of peers. (Horowitz, 1987, p. 36)

Thus, Chambers (2016), Horowtiz (1987), Thelin (2011), and others still (Harper, Harris, & Mmeje, 2010; and Rudolph; 1990) seem to agree that American higher education offers numerous examples of open conflict between students and faculty. Horotwitz (1987) provides an interpretation that students organized to protect themselves from faculty. Students created what Horowitz termed *college life*. Students knew, or learned, that "they would lose in open conflict" (Horotwitz, 1987, p. 36). Thus "such students turned to deception, using any means to circumvent rules and fool their faculty, including lying and cheating" (Horotwitz, 1987, p. 36). This *college life* experience allowed students to obscure their defiance and avoid whatever short-lived inconveniences faculty could provide as punishment.

However, faculties were stubborn, too. Before the advent of modern SCA, the processes of responding when students misbehaved was a natural consequence of faculty asserting the principles of academic freedom. It was the right of faculty "to determine who taught what, and how. They wrote the rules. They admitted the students and could expel them" (Horowtiz, 1987, p. 28). This passage from Horowitz's (1987) *Campus Life*, illustrates in detail how students misbehaved and how faculty responded in the eighteenth and nineteenth centuries.

> Presidents and professors trained as ministers in eighteenth-century colleges could comprehend neither the changes of their era nor many of their students. To shift from absolute monarch to consultative ruler threatened the known order. As men of evangelical temperament, they assumed they could break the will of young and errant. Instead of compromise they insisted on their traditional prerogatives. Although the heads of all colleges shared similar assumptions, the conflicts these evoked were particularly acute in the southern institutions where planters' sons confronted rules invented in New England and largely maintained by New England-trained clergy. Young Georgians at Athens,

> young North Carolinians at Chapel Hill, young South Carolinians at Columbia, young Mississippians at Oxford -- all objected to such a system, suggestive to them of the subordination of slavery. The refusal of college faculty to hear and act on complaints or reconsider disciplinary judgments often provoked the original outburst. Gregarious, moderate young men presumed that they were reasonable adults… The orthodoxy and intransigence of college heads convinced students of a moderate temperament that the authority over them was unreasonable, and they joined their more spirited brothers in rioting in protest. (Horowitz, 1987, pp. 27-8) (Internal references omitted)

Of course, all of this conflict was in part made possible because college students "did not depend on college for a position in the world" (Horowitz, 1987, p. 27) which afforded students liberty to behave as they would chose and not as the faculty would prefer. Because students knew that at college they had "entered a society in which they did not make or enforce the rules" students were relentless and incorrigible in creating and protecting their *college life*, which "was their effort to protect themselves from the harsh and seemingly arbitrary authority of their faculty" (Horowitz, 1987, p 12). "During the eighteenth and nineteenth centuries… the student body in those times was all male, and the students were about the age of today's high school students" (Bracewell, 1997, p. 46). "Perhaps 2 percent" of "young men attended college in the early Republic" (Horotwiz, 1987, p. 29).

Towards the end of the nineteenth century responsibility for responding to student behavior shifted from faculty to institutional presidents. Instead of responding to student behavior themselves, institutional presidents adopted two new strategies designed to manage student behavior. First, "at the end of the nineteenth century, the president began appointing staff with the titles of dean of men and dean of women. These individuals were responsible for developing the whole student, not just enforcing the rules" (Bracewell, 1997, p. 46). The second

strategy began "early in the twentieth century, as presidents and deans empowered college men as the official student leaders, the cannons of college life shifted from antagonism to support of the administration" (Horowtiz, 1987, p. 13). "Colleges created student governments whose officers were elected by undergraduates. The official college thereby gave recognition to the students' own system of prestige. Its purpose, however was not to empower college leaders, but to foster communication with them and to co-opt them" (Horowtiz, 1987, p. 108). Horowitz explains that for purposes of managing student behavior "administrators perceived the value of communal order, even one patrolled by students," and "the trick was to harness college life, to limit its hedonism and more destructive elements, and to emphasize its relation to citizenship and service" (Horowtiz, 1987, p. 108).

Whether by accident or design current regulatory schemes now require colleges and universities to manage student behavior. The secondary note discussed in this history answers those who ask why a college or university should be involved in regulating student behavior at all. In regard to the modern era, that answer comes in two parts. The first part is to apply a critical lens that reveals SCA as a profession may have developed, at least in part, to prevent the erosion of American higher education's white supremacist heritage. The second part is a recitation of more traditional explanations that paint the rise of SCA as a reaction to higher education's evolving legal landscape.

Discussion that applies a critical lens to the history of SCA seems to be absent from the existing literature. The dominant narrative is that SCA, as a profession, honors educational and developmental opportunities and that the introduction of due process was an opportunity to bolster the educational nature of managing student behavior. For example, Pavela and Pavela (2012) articulate a view that "due process" "broadly defined as an inclusive mechanism for

disciplined and impartial decision making" (p. 568) supports the ability of educators to produce an educational outcome. Chapter 2 discusses at length the various and extensive, if widely inconsistent, conceptualizations of learning and development offered by the scholarly literature. Apparently the urge to profess idealistic educational missions started quite early. Mid-twentieth century scholarship traces the developmental and educational attention administrators brought to the question of managing student behavior.

> Punishment of the right kind is sometimes a necessary part of this process, but primary emphasis must be placed upon handling disciplinary problems as positive educational experiences. Disciplinary measures in college residence halls can become sterile, negative, frustrating procedures, or they can result in profitable learning for students involved. (Clark, Hagie, and Landrus, 1952, p. 189)

However, there is a counter narrative. The discussion from Chambers (2016), introduced above, provides an example in support of the counter narrative. This counter narrative would likely demonstrate that the SCA profession might not fully deserve, without qualification, the idealistic labels of fairness, equality, due process, and education. *Dixon v. Alabama State Board of Education* (294 F. 2d 150, 5th Cir, 1961) has been discussed as an event that eventually led to the formation of the Association of Student Conduct Administrators (ASCA) (Bracewell, 1997). *Dixon* is also frequently referenced as a source in law that means students, faculty, and staff enjoy due process protections in an educational setting. Other examples were *Tinker v. Des Moines Independent Community School District* (393 U.S. 503, 1969) (establishing the basis for student freedom of expression and speech) and *Goss, et al. v. Lopez, et al* (419 U.S. 565, 1975) (affirming student's right to a hearing in the course of disciplinary processes).

The facts of *Dixon* are an important part of the counter narrative. The students in *Dixon* studied at Alabama State College, a historically black institution. They participated in a lunch counter sit-in and were expelled without a hearing. The students were told to leave the white-only government courthouse facility but refused. The governor of Alabama at the time pressured the president of Alabama State College to expel the student demonstrators.

If it is true that SCA's emergence as a profession followed, at least in part, as a result of *Dixon* then SCA as a profession has roots in the institutional responses that disproportionately punished Black students as an effort to suppress their roles during the 1950s and 1960s civil rights movements. This counter narrative explains that if institutions had not found a need to survive judicial scrutiny in the course of their actions that disproportionately punished Black civil rights protestors the field of SCA may not have developed as soon as it had, or maybe not at all. It seems, institutions were apparently unmotivated to formalize the role of punishing students until after the courts determined that institutions were unfairly punishing Black students. As indicated above however, the more traditional explanation paints the rise of SCA as a reactive product of higher education's evolving legal landscape.

Following the Second World War, institutions had more students than ever before. With that growth in enrollment came greater responsibility for student behavior. "Most likely, college administrators had an uneasy sense that the expanded numbers of students had put the institution in a precarious situation -- namely, one of increase responsibility for student conduct and decreased ability to control it" (Thelin, 2011; p. 221). During this time law bestowed upon students, in previously unprecedented ways, rights and privileges, which reduced the power and authority with which colleges and universities operated. *Dixon* which according to Bracewell (1997) "set in motion establishment of the Association for Student Judicial Affairs in 1987" (p.

47) was the first to hold that students "were entitled to a due process hearing before expulsion" (Olivas & Baez, 2011, p. 179). Subsequent litigation supported the trend in favor of affording students due process protections. Prominent examples were *Tinker* and *Goss, et al.* According to Pavela and Pavela (2012) these cases "set measured and moderate limits on unchecked disciplinary authority at public schools and colleges" (p. 580). It does appear that belief regarding educational value and fairness among SCA participants correlate as shown in Figure 4.15 and as further demonstrated in Table 5.2. Both this study, as well as others, have found similar results (King, 2012, Mullane, 1999). These correlations between perception of educational value and perception of fairness support Pavela and Pavela's argument. Despite the moderate modern assessments, the rhetoric in scholarship contemporaneous to these legal changes was sharp. Mash (1971) characterized "student discipline in higher education" as being on "a collision course with the courts" (p. 148).

Two other legal developments from the 1970s through the 1990s further evidence and effectuated loss of control for student behavior. First, in the late 1960s and early 1970s there was a change in both the cultural and legal age of majority. Second was the demise of *in loco parentis*. Gehring (2006) characterized the Twenty-Sixth Amendment to the United States Constitution as a "deathblow" (p. 13) for *in loco parentis*. The Latin term *in loco parentis* had been used to define the nature of the student-institutional relationship until courts rejected that conceptualization in favor of due process. When courts began requiring due process they rejected previous notions of *in loco parentis*. The change in age of majority served to further modify how students, families, institutions, and the public understood the student-institutional relationship (Dannells, 1997). With a lower age of majority, courts began recognizing students and institutions as contractual parties (Olivas & Baez, 2011).

Simultaneously operating to undermine institutional control were the changing backgrounds of those attending college. For example, soldiers returning from war were disinterested in following comparatively trivial rules that had been key features associated with managing student behavior (Gehring, 2006). Arguably veteran students, having lived a highly disciplined and regimented life while preparing for war and fighting were less in need of rules and regulations from college or the university.

Statutory regulation of education and higher education was another important aspect of the traditional responses associated with discussing why institutions manage student behavior. With reference to the regulatory schemes found in the Higher Education Amendments Act of 1972 (which included the commonly recognized "Title IX" prohibiting discrimination in education on the basis of gender); the Family Educational Rights and Privacy Act of 1974; and the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act of 1990, the Federal government has required that institutions regulate student behavior. For example, Clery requires that institutions publish statements regarding programs aimed at prevention of sex offenses. Cleary also requires publication of procedures the campus will follow once a sex offense has occurred. Title IX imposes upon institutions a duty to protect students from gender-based harassment, which includes sexual assault. SCA processes fulfill these regulatory obligations. Thus, whether by design or by accident colleges and universities are now required by federal regulation to promulgate and enforce rules for student behavior.

1.3 Justification of Research Questions

> Gone are the days when student conduct can anecdotally suggest that students are learning through the disciplinary process. Survival of student conduct as a profession depends upon competent student conduct professionals who attach

> importance to and possess a skill set that will capture learning outcomes. (Waryold, 2013, p. 13)

Sympathetically, was there ever a day that anecdotal evidence alone was, or should have been, sufficient to believe that student disciplinary processes are educational or developmental? With regard to SCA processes, a review of the literature reveals two unanswered questions. There is no clear answer in the existing literature as to (a) whether students learn from SCA processes or (b) what students should learn from participating in SCA processes. Despite no clear answers to these questions, SCA professionals and the student affairs community at large have assumed, for decades, that participating in SCA processes is an educational experience. Somewhat dramatically are that trends in the field have risen and fallen in the name of promoting a better educational experience but without evidence regarding the capacity, ability, or opportunity for education. Dannels (1990; 1978) provides a detailed longitudinal analysis of the field's trends. Others have also discussed the topic of trends in the field to various extents (Bostic & Gonzalez, 1999; Lake, 2009; Lancaster, 1993; Taylor, Thrasher, & Wilfong, 2012).

Administrators of SCA have demonstrated and expressed conscientious efforts at designing SCA processes that produce educational or developmental student outcomes (Bruckner, 2014; Goldstein & Stimpson, 2013). Such has been true for decades (Yardley & Whitehead, 1968, p. 252), "for as long as students have been coming to college" (Stimpson & Stimpson, 2008, p. 15). A high proportion of SCA professionals (91.3%) report operating with an educational mission in mind (Goldstein & Stimpson, 2013). However, a low proportion (33%) reported having identified what the outcomes should be, while only a slightly higher proportion (49%) reported engaging in assessment of learning (Goldstein & Stimpson, 2013).

The literature's only direct study of student learning was qualitative and provides results that indicate students may not always learn, but "some learning does occur" (Howell, 2005, p. 391). Howell concluded, "Judicial officers [SCA professionals] can feel confident that in most cases, some kind of learning does occur for students in the process and behaviors generally change" (2005, p. 389).

Therefore given these gaps, which are discussed further in Chapter 2, the first research question asks: Is participating in SCA processes an educational experience?

To investigate what students might learn from SCA, this study utilizes a measure developed and refined specifically for purposes of measuring learning that might result from participating in SCA processes. Chapter 3 provides additional detail regarding this measure.

The third research question is of the sort commonly associated with reporting the educational effect of a purported educational treatment. In this study, participating in an SCA process is the educational treatment.

Chapter 2 Literature Review & Theoretical Framework

2.1 Review of The Literature

Previously published literature does not answer the three research questions proposed in Chapter 1. This review suggests that perhaps the only meaningful point of agreement in the literature is that students should learn something from SCA, students should refrain from future misbehavior as a result of SCA, and that some learning probably does happen. There is sparse agreement on what they should learn, how best to support that learning, or how to measure that learning.

Chapter 2 first details the methods used to select items for review. Second is a discussion of this review's two major findings. The first major finding is that there is no clear consensus on how to define the learning that should result from disciplinary processes. In essence, whether students should acquire additional skills, broader intellect, more advanced developmental states, or something else. The second major finding is that the study of this topic thus far has primarily utilized correlational methods and descriptive analyses but that it has yet to prove disciplinary processes in higher education cause an educational effect. Also important to note is studies utilizing comparison groups has been non-experimental and non-quasi-experimental.

2.1.1 Search Strategies & Review Methods

To identify relevant items for review the terms *college, university, student conduct, student discipline, student misconduct, academic honesty, academic dishonesty,* and *academic integrity,* in various permutations (and word forms), were used to search computer databases available to faculty and staff at The University of Wisconsin - Madison and in Google Scholar. Also included were items related to student discipline from a recent on-topic dissertation (Zerulik, 2012) and three

recent on-topic peer-reviewed journal articles (Karp & Sacks, 2014; Lancaster, 2012; Stimpson & Janosik, 2015).

Each abstract and title were examined to select items that empirically studied learning as a result of student disciplinary processes. Also selected for reviews were scholarly but not necessarily empirical discussions related to the learning that might result from student disciplinary processes. To match natural divisions in the literature and to provide sufficient depth of analysis, this review further excluded items that examined learning that may occur as a result of the closure phase as described above. Review of learning that may result from closure is an important area of inquiry. However, this exclusion is the result of a feature of SCA that means only students who were marked responsible for the underlying policy violation will participate in the closure phase. Therefore, limiting the scope of this review allows the inquiry to include those who participated in an SCA process but who were not marked responsible. An additional feature is that the study of learning associated with closure presents an opportunity for direct assessment of learning. When students submit original work often in the form of written assignments, the learning that might occur may be assessed directly from artifacts produced by students. Examples of such artifacts include written educational essays or quizzes associated with required educational workshops, or similar. The intervention and evaluation stages do not produce such artifacts. Therefore instead of directly assessing learning the researcher must measure learning indirectly. This fundamental methodological contrast (direct assessment versus indirect assessment) supports study of closure separately from the earlier intervention and evaluation phases of SCA.

Also matching a natural division in the literature, this review excludes items related to the study of learning associated with discipline of academic misconduct. Without exception, the

literature pertaining to SCA treats academic honesty and integrity separate from non-academic honesty and integrity. A clear example of this divide can be found in the model codes. These model codes tend to explicitly limit their scope to either academic or non-academic conduct. Pavela, for example, offered one of each (Pavela, 2005a; 2005b).

A final noteworthy aspect of this review's method is the decision to produce a traditional literature review and not to conduct a formal meta-analysis. The first step in conducting a meta-analysis is to index results from multiple studies, typically expressed in terms of experimental or quasi-experimental effect sizes. Unfortunately, the body of literature thus far is not sufficiently aligned in method or outcome to support such a meta-analytical approach. As discussed below, the available studies proceeded with dissimilar constructs, measures, and operational definitions. Also, as explained above no previous study has employed experimental or quasi-experimental methods. For these reasons, meta-analysis is not yet a viable option.

The methods as outlined above revealed eight quantitative studies empirically investigating the learning that results from the SCA processes (Allen, 1994; Cooper & Schwartz, 2007; Karp & Sacks, 2014; King, 2012; Mullane, 1999; Stimpson & Janosik, 2011, 2015; Zerulik, 2012). Also retrieved via the methods above was one qualitative study (Howell, 2005). Additionally there were seven relevant scholarly, but not empirical, articles (Boots, 1987; Baldizan, 1998; Emmanuel & Miser, 1987; Gehring, 2001; Lancaster, 2012; Pavela, 1996; Zacker, 1996). Lastly, there were six books (Dannells, 1997; Hoekema, 1994; Lake, 2009; Lancaster, 2006; Lancaster & Waryold, 2008; Waryold & Lancaster, 2013) discussing, at least in part, what it is that students should theoretically learn from SCA processes.

2.1.2 What Students Should Learn

This review's first major finding is that there is no clear consensus on how to define the learning that should result from SCA processes. The second major finding is that published evidence has yet to prove that students learn as a result of SCA processes. Awkwardly, the literature assumes that learning happens and proceeds to study that learning with a series of correlational analyses.

Despite lack of evidence, there is a well-discussed desire for SCA to produce educational results. This review's first major finding is that, despite having been well discussed, the discussion is not yet complete. There is a lack of consensus as to what it is that students should learn. The pressure to produce educational outcomes without clear guidance on how to define those outcomes is frustrating as a practitioner. As a researcher, the lack of clarity is also problematic. The existing literature at times seems to equivocate. For example, Lancaster (2012) explained, "Historically, those responsible for administration of student conduct resolution in U.S. higher education have sought some manner of moral development for students, *whether labeled as such or not* [emphasis added]" (p. 51).

Both demonstrating and adding to the lack of clarity are the varied and inconsistent word choices associated with learning in SCA. Hoekema (1994) simply articulates the desired outcomes of SCA as the "goals of institutional policies concerning student conduct" (p. xiii). Allen (1994) labeled the outcomes of SCA as "educational dimensions" (p. 49). Boots (1987) used words including and related to "change" and "development" when describing the desired outcomes of SCA (pp. 53–64). Gehring (2001) also articulated the desired outcomes of SCA in developmental terms with extensive reference to Boyer's (1990) principles of campus life and community. Gehring (2001) is not alone in discussing that community-related outcomes might

result from SCA processes (Pavela, 1996). A handful have centered their discussions on moral and ethical development of students with reference to Rest's Defining Issues Test (DIT), which measures moral development (Baldizan, 1998; Cooper & Schwartz 2007; Mullane 1999). Also frequently referenced has been Kolberg's moral reasoning theory (Baldizan, 1998; Boots, 1987; Lancaster, 2006). Boots (1987) also referenced Perry's (1970) forms of intellectual development. Student engagement models as presented by Kuh (2001), Kuh et. al. (2006), and Kuh et. al. (2010) have also been discussed (Emmanuel & Miser, 1987; Schuck, 2016; Zacker, 1996).

Relying on "a broader literature" that "has identified learning goals specific to the developmental stage of traditional-aged (18–22) college students," (Karp & Sacks, 2014, p. 157) outlined six pertinent learning outcomes including "just community / self-authorship," "active accountability," "interpersonal competence," "social ties to the institution," "procedural fairness," and "closure" (pp. 157-60).

Drawing on developmental learning theory, Boots (1987) provided a detailed description of how developmentalists approach SCA. A developmentalist views learning as a developmental process often consisting of phases, stages, or steps through which students move. One scholar concluded "that student conduct practitioners almost always use student development theory. . . and believe it is very important to do so" (Bruckner, 2014, p. iv).

In discussing the purpose of SCA processes, another prominent scholar of SCA articulated the search for community along with defining values and virtues as important outcomes (Pavela, 1996). Another team of scholars narrowed the conceptual focus to "community expectations for behavior," "accepting responsibility for. . . behavior," and comprehension of the "consequences of their behavior" (Stimpson & Janosik, 2011, p. 22). The

Janosik and Stimpson (2011) team also emphasized a reduced likelihood of future misbehavior as an important SCA outcome.

Even though many have attempted to articulate what students should learn from SCA, there are those who express uncertainty. In contrast to those listed above who offer specific ideas for what educational outcomes should be, Lake (2009) characterized understanding "the core mission of a discipline system" as a "simple but elusive question [that] perplexes the modern university" (p. 17).

The reason for the uncertainty relates to how mid-twentieth-century legal developments reconceptualized the institution's responsibility for students. As discussed in Chapter 1, the loss of its *in loco parentis* designation, the adjusted age of majority, legal development, and civil rights movement has forced institutions to adopt formal and legalistic approaches which may undermine the opportunity for promoting student development. Gehring (2001) also acknowledged the uncertainty as to whether formal legalistic processes might undermine the prospect for an educational result. But many seem to concur with the literature's broader sentiment arguing that SCA processes continue to have, or should continue to have, an educational role (Baldizan, 1998; Gehring, 2001).

Plainly, another choice of word is merely "learning" (Howell, 2005; Stimpson & Janosik, 2011; 2015; Zerulik, 2012). Overall however, what may be elusive or generally perplexing is a concerted effort to devise a set of measurable goals that practitioners can assess or that researchers can study.

2.1.3 Descriptive Approaches

Correlational and descriptive study does not typically provide strong causal evidence of learning. This review's second major finding is that, having primarily relied on correlational

analyses, no published evidence has proven that students learn anything as a result of SCA processes. The primary approach, in the course of previous study, has been to devise or utilize measures that were intended to measure "fairness" (Allen, 1994; King, 2012; Mullane, 1999), "educational value" (King, 2012; Mullane, 1999), "moral development" (Mullane, 1999), "reported student learning" (Stimpson & Janosik, 2011), "readiness to change" (Zerulik, 2012), or "influence on student learning" (Stimpson & Janosik, 2015). In summary, they sought to quantify some measure of educational value. Generally, previous scholars configured these instruments to indicate that those with higher scores learned more than those with lower scores.

The instruments have strengths. Especially when taken together, there is a strong case for their validity. Regarding facial validity, many of the items plausibly measure some aspect of student development relevant to SCA. For example, "I have made changes to my behavior" and "I have learned to better control myself" (Zerulik, 2012, p. 110). Also, "I have given more thought to what is right and wrong" (Allen, 1994, p. 167). Comparing those questions to statements from the literature supports the view that these items are facially valid. For example, "Ideally, the discipline process constructively confronts students with their inappropriate behavior and offers them motivation to change their actions" (Boots, 1987 pp. 63-4). Boots continued her discussion with mention of "self-control," and "responsibility" (p. 64). With the words or concepts such as "changes to behavior," self-control, thoughtfulness, "right and wrong," etc., the items from Allen, and then later Zerulik, reference the notions discussed by their predecessor, Boots.

Regarding construct validity, these previous instruments were developed with the input of expert panels and by researchers who themselves have worked in SCA (Janosik & Stimpson, 2015). Additional evidence in support of construct validity is that previous studies repetitively

demonstrate relationships between outcomes on the DIT (morality), perception of educational value, perception of fairness, and perception of efficacy (Cooper & Schwartz, 2007; Mullane, 1999).

Previous studies also included questionnaires designed to capture demographic, or otherwise categorical, and quantifiable information about the respondent. Then, by regression or correlation analysis researchers investigated whether those categorical and quantifiable factors may relate to or predict scores on the study's measure of learning. From these correlational approaches researchers and practitioners gained an understanding of what populations might learn the most from SCA. For example, it would seem that, men score lower than women on outcome measures related to perception of educational value (Allen, 1994; King, 2012; Mullane, 1999; Stimpson & Janosik, 2011& 2025; Zerulik, 2012).

Table 2.1 itemizes selected categorical and quantifiable factors that previous scholars have studied. These factors include gender (*gender*), class standing/credit hours completed (*class*), grade point average (*gpa*), race/ethnicity (*race*), residential status (*res*), nature of the violation (*violation*), time since the process (*time*), and number of times through the process (*number*). The studies identified in Table 2.1 each attempted to measure perception of educational value or another closely related measure. The table outlines factors each study found to predict the student's perception of educational value. Some studies utilized similar procedures to measure constructs labeled as, or closely related, to perception of fairness (Allen, 19; King, 19; Mullane, 19). Table 2.2 itemizes selected categorical and quantifiable factors included in the studies of perception of fairness.

When the categorical and quantifiable factors demonstrate a statistically significant relationship with these study's measures the explanatory power is not great (King, 2012;

Stimpson & Janosik, 2011). Regarding categorical independent variables, King (2012) explains, "GPA, gender, and the number of times through the discipline process—each contributed less than 1.0% to the model" (p. 575). Thus, existing research leaves the effect of many tangible factors uncertain.

One example of the uncertainty is gender, the most extensively investigated variable. Table 2.1 shows that five out of six studies demonstrated perception of educational value varies between men and women. Table 2.2 also shows that perception of fairness may correlate with gender. However, that correlation is subject to interpretation. Despite the documented influence of some demographic characteristics on learning, whether perceived or otherwise, the correlations might result from participating in SCA processes. The fact that men score lower than women, for example, is not evidence that SCA processes somehow cause women to learn more than they can cause men to learn. It is perhaps interesting and important to recognize that the scores seem to differ by gender, race, or other demographic categories; yet the fact that different groups of students score differently on these instruments is not evidence of learning.

Without more rigorous study design it not possible to know if those differences are statistical accidents. The Stimpson and Janosik (2015) team generated results that that seem to refute their earlier findings that race was a statistically significant factor (Stimpson & Janosik, 2011). Conversely, another study has also shown that scores do not differ by race (King, 2012). An alternative interpretation is that these results merely support the notion that students are capable of perceiving and articulating an educational value. Perhaps disappointingly, another interpretation is that students are perceptive enough to understand educational aspirations of SCA and in turn those students are savvy enough to satisfy SCAs aspirations by reporting a

perception of educational value. In other words, students might know how their school or the researchers would hope for them to respond and do so accordingly.

A final note is due before moving to a broader discussion of the literature. There have been two studies of SCA educational outcomes that analyzed results with reference to a comparison group (Cooper & Schwartz, 2007; Mullane, 1999). Cooper and Schwartz utilized Rest's DIT (Rest & Narvaez, 1998) to collect data from participants and non-participants. The group of participants included students who were marked responsible for a policy violation by that school's SCA processes. The comparison group of non-participants was randomly selected from a list of residence hall students. Cooper & Schwartz (2007) did not provide evidence that SCA results in learning or development for two reasons. First, it collected data from participants before the process began and second it excluded from analysis responses from participants who were ultimately marked not responsible.

Mullane (1999) also collected data using Rest's DIT. Mullane collected data from SCA participants but not from a comparison group. Despite this, in his discussion he made extensive reference to data gathered in the course of other studies from other comparison groups as provided by Rest (1993) in *Guide for the Defining Issues Test*. The work of Mullane (1999) and Cooper and Schwartz (2007) both provided useful evidence that participants seem to score differently than non-participants. However, consistent with other studies discussed above the methods and findings do not support causal inference.

Table 2.1

Studies Showing Demographic Relationship with Educational Value

	Allen 1994	Mullane 1999	Stimpson 2011	King 2012	Zerulik 2012	Stimpson 2015
gender*	S	S	S	S	NS	S
class*	NS		NS	S		NS
gpa*			NS	S		NS
race*			S	NS		NS
res*				NS		S
violation*				S	NS	
time				S	S	
age†			NS	NS	NS	
number				S		

Note. NS = Not Significant. S = Significant. * Indicates items disputed. † Indicates item not disputed not to relate to perception of educational value. For updated results see also Table 5.3.

Table 2.2

Studies Showing Demographic Relationship With Perception of Fairness

	Allen 1994	Mullane 1999	King 2012
gender	S	S	S
class			S
gpa			NS
race			NS
res			S
time			S
age			S
number			S

Note. NS = Not Significant. S = Significant.

2.1.4 Discussion of The Literature

As outlined above it is not clear what students ought to learn from participating in an SCA process. Students probably learn something, develop in some manner, and refrain from future misbehavior as a result of participating in an SCA processes. This vague assumption that students should and do learn as a result of participating in an SCA process is stated throughout the literature. There is no empirical evidence that refutes this belief. Yet the evidence that supports this belief is limited. The qualitative evidence provides results that indicate students may sometimes learn (Howell, 2005). Howell (2005) concluded that SCA professionals "can feel confident that in most cases, some kind of learning does occur for students in the process and behaviors generally change" (p. 389). Howell however, also indicated, "The qualitative nature of this study should make practitioners cautious about applying or anticipating these findings on their own campuses" (p. 390).

Perhaps the best purpose of the existing descriptive and correlational analyses is that it convincingly removes from consideration the influence of demographic information as a significant explanation for the learning that results from SCA. Removing demographic influences permits a more educated guess as to what other factors may be more important. Correlational studies suggest that the most meaningful factors tend to surround more abstract and intangible notions of relationships, readiness, morality, and fairness. Variables that had been designed to represent more qualitative constructs, such as the quality of relationships, or interactions between students and SCA administrators tend to predict educational outcomes more often and with greater explanatory power. For example, Allen (1994) concluded, "Students… identified their relationship with the disciplinary officer or board as one of the strongest aspects of the disciplinary experience" (p. 112). King (2012) found perceived value

"their of meeting with a university hearing officer" to be one of the strongest predictors of student's perceived educational value (p. 574). Another related example is from Dollar (1969), who found that a "sound and fair" perception of SCA correlated with overall positive and favorable perception of conduct staff (p. 220). Using the DIT, Mullane (1999) found a strong correlation between a student's moral development and the student's perception of educational value. Another researcher, Zerulik (2012), found a basis to believe that readiness to change correlates positively with perception of educational value.

Those writing about the study of learning resulting from SCA have not always been kind to others conducting similar work. They have written the following, in order of appearance. "We have only a meager body of educational research on student discipline" (Brady & Snoxell, 1965, p. 2).

> Both informal and formal evaluations of judicial programs are necessary to ensure the credibility and the integrity of college and university judicial systems… By developing and implementing a carefully planned set of activities for the purposes of research and evaluation, the quality of the judicial system can be refined and improved. The weaknesses and strengths may be identified. (Emmanuel & Miser, 1987, p. 85)

"The field of student disciplinary scholarship is in… relative infancy, and the scholarship ranges both wide and thin, making a weak foundation upon which to build" (Swinton, 2008, p. 46). According to Stimpson & Stimpson (2008), "There are a few studies that focus on outcomes, but these are not terribly sophisticated" (p. 47). More recently it has been stated that "researchers disagree on the adequacy of this literature" (Janosik & Stimpson, 2017, p 28).

Responsibility for improving this scholarship goes to researchers and to practitioners. Despite notable efforts, and candid assessments of those efforts (Brady & Snoxell, 1965;

Emmanuel & Miser, 1987; Stimpson & Stimpson, 2008; Swinton, 2008), it seems neither researchers nor practitioners have overcome the challenges that have foil empirical demonstrations of SCA as an educational experience. For example, one survey's results show that the practices of SCAs may be inconsistent with the desire to demonstrate educational results (Goldstein & Stimpson, 2013). A high proportion of SCAs report operating pursuant to an educational mission (91.3%), but a low proportion (approximately 33%) reported having identified what the outcomes should be. Only a slightly higher proportion (49%) reported engaging in assessment of learning (Goldstein & Stimpson, 2013). These figures support the notion that the study of learning which results from participating in SCA needs improvement.

A lack of counterfactual evidence combined with no clear definition of what students should learn is a critical gap in the study and practice of SCA. By filling this gap scholars and practitioners will be better positioned to implement policy decisions that will ensure we can answer in the affirmative whether student discipline is educational.

2.2 Theoretical Framework & Outcomes Selected for this Study

This research is simultaneously functional, interpretive, and constructive. The functionalist goal is to investigate cause and effect. The primary means for investigating cause and effect is by collecting data in a manner that permits sorting study participants into plausible quasi-experimental comparison groups. To do such sorting this study leverages the presence of a natural experiment in which some students at college participate in an SCA process while others do not. After collecting that data this study applies a set of statistical procedures designed to interrogate the data for indications that participating in the SCA process produced an educational effect.

The interpretive and constructive goals are to contribute knowledge by further illuminating the explanatory, descriptive, and correlational study that has been made previously available related to SCA. The objective quantitative, psychometric, and econometric methods aside, this study holds true to a constructivist worldview by leaving room in the analysis, interpretations, and discussions for alternate explanations.

This study openly acknowledges that multiple conflicting truths may occupy the same space at the same time. This study is an opportunity to quantitatively examine notions for which there are no known natural and direct tangible or physical measures. Learning, for example, is not measured by mass, length, or quantity. Instead of using a scale to weigh for mass, a ruler to measure length, or integers to measure quantity, the process of measuring whether a student learns requires use of psychometric measures. Devising such a measure requires rigorous testing and examination of draft instruments and test items. But as explained above and as celebrated in the course of this study there are multiple equally valid approaches to measuring learning and development. The celebration of that multiplicity is most apparent in the processes used to devise the measure of learning, described below.

A hallmark of this study's interpretive approach occurred during the development of the measurement instrument. The educational outcomes were devised using methods that resemble a constant comparative method, which aims to make discovery through a grounded theory approach. These inductive methods have been described by Conrad (1982):

> Grounded theory may be defined as a theory generated from data systematically obtained through the constant comparative method. An inductive method of discovering theory. . . The constant comparative method is a multi-faceted approach to research designed to maximize flexibility and aid in the creative generation of theory. The method combines systematic data collection, coding,

> and analysis with theoretical sampling in order to generate theory that is integrated, close to the data, and expressed in a form clear enough for further testing. (Conrad, 1982, p. 256)

When implemented with the best intentions, the best methods, and under the best circumstances studies such as this one will merely provide indications that suggest. To make full use of this study's results the audience must combine these findings with its own experiences to form new knowledge. In this manner, the knower and the known are not distinct.

The theoretical outcomes selected for this study derive from previous statements related to learning and development. To conceptualize what learning is, this study first turned to Anderson, Krathwohl, & Bloom's (2001) *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. To refine and focus the conceptualization of what learning is this study next turned to Kohlberg (1963), Perry (1970), and Perry Jr. (1999) as suggested by Boots (1987). To operationalize learning, this study tested over 106 items designed to measure learning that might conceptually relate to Bloom, Kohlberg, or Perry and which might also result from participating in SCA processes. Also referenced in the formation of test items were statements in the literature of SCA related to learning outcomes. The literature review above provided a discussion of such statements in SCA literature related to learning outcomes. Specifically for developing the instrument items, the search to select outcomes for this study included a review of publications in two separate strands of literature. The first strand included empirical quantitative and qualitative study of the development thought to be associated with SCA (Allen, 1994; Howell, 2005; Karp & Sacks, 2014; King, 2012; Mullane, 1999; Stimpson & Janosik, 2011, 2015; Zerulik, 2012). The second strand included peer reviewed, but not empirical, publications that also sought to examine the development thought to be associated with SCA (Baldizan, 1998; Boots, 1987; Emmanuel & Miser, 1987; Gehring,

2001; Goldstein & Stimpson, 2013; Lancaster, 2012; Pavela, 1996; Zacker, 1996). This review found no consistently stated conception of development that researchers can measure or that practitioners can assess. At best, it can be explained that students should develop by changing in some manner and that they should refrain from future misbehavior.

Ultimately, through the constant comparative grounded theory method and factor analysis, this study inductively produced a 31 item questionnaire believed to measure six factors. That measure, for this study is named the Multi Factor Quasi-Experimental Student Conduct Assessment of Learning & Evaluation (MFQE-SCALE), which is discussed in further detail in Chapter 3. Because decades of previous scholarship has not succeeded in doing so, this lone study did not hope to identify and devise a measure of every possible developmental outcome thought or hoped to be associated with SCA processes. Choices were made that reduced the project to manageable proportions. Three developmental constructs served as conceptual guides.

> The first conceptual guide was the manner in which students evaluate the rules.
>
> The second conceptual guide was the manner in which students evaluate how to behave.
>
> The third conceptual guide was the manner in which students think about the risks associated with alcohol consumption.

Given the high rates of high-risk alcohol consumption among college students it is important to measure one or more aspects of alcohol-related behavior. The high proportion of cases in SCA processes that involve alcohol consumption is further reason to examine alcohol-related behavior.

Figures 2.1 and 2.2 provide separate schematic diagrams that are useful in communicating and understanding these three constructs and how they relate with the MFQE-SCALE's first four factors. Figure 2.1 places the name of each MFQE-SCALE factor on a Venn diagram intended to demonstrate how the factor relates to one or more of the conceptual guides listed above. Figure 2.2 lists each MFQE-SCALE factor in an ordered cascading scheme intended to demonstrate how each of the four factors interrelate.

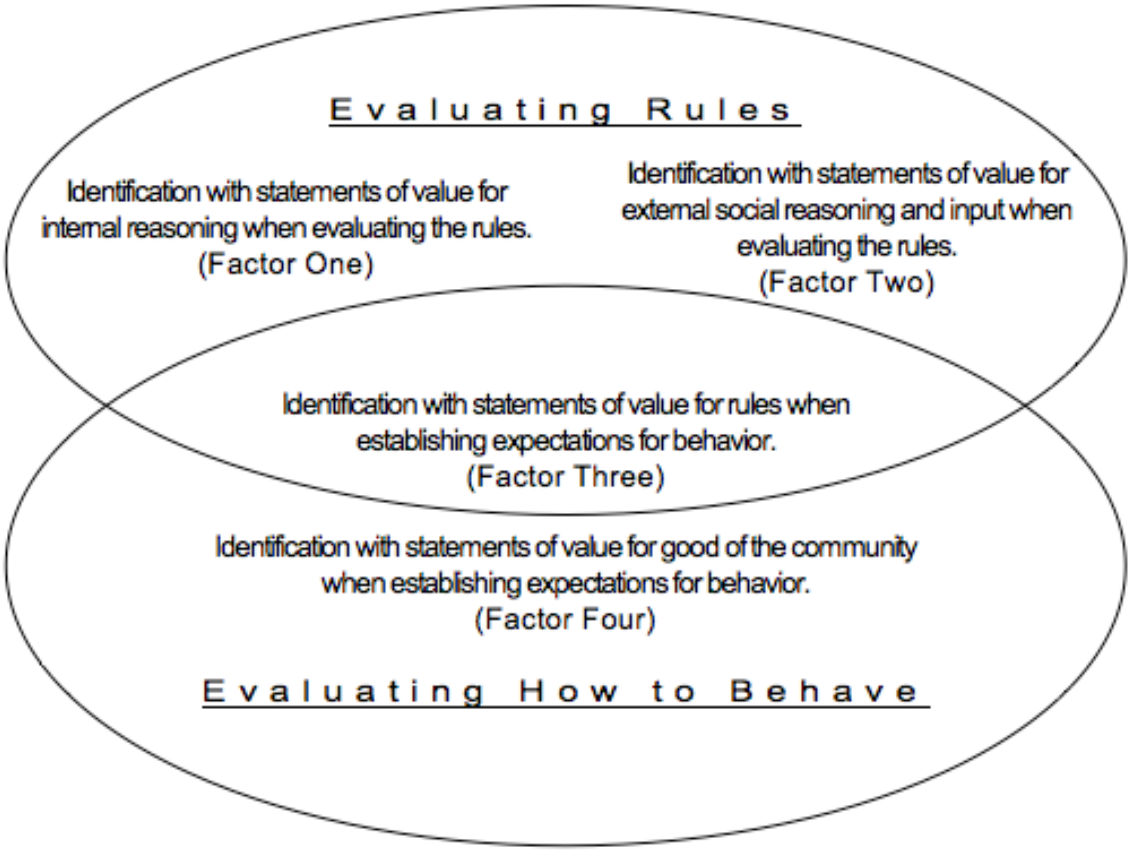

Figure 2.1. Venn-style conceptual map of developmental factors as measured by the Multi Factor Quasi-Experimental Student Conduct Assessment of Learning and Education (MFQE-SCALE). Upper region represents aspects of how respondents evaluate rules. The lower region represents aspects of how respondents determine expectations for their behavior. Also shown are where each of the four factors fit within this conceptual diagram.

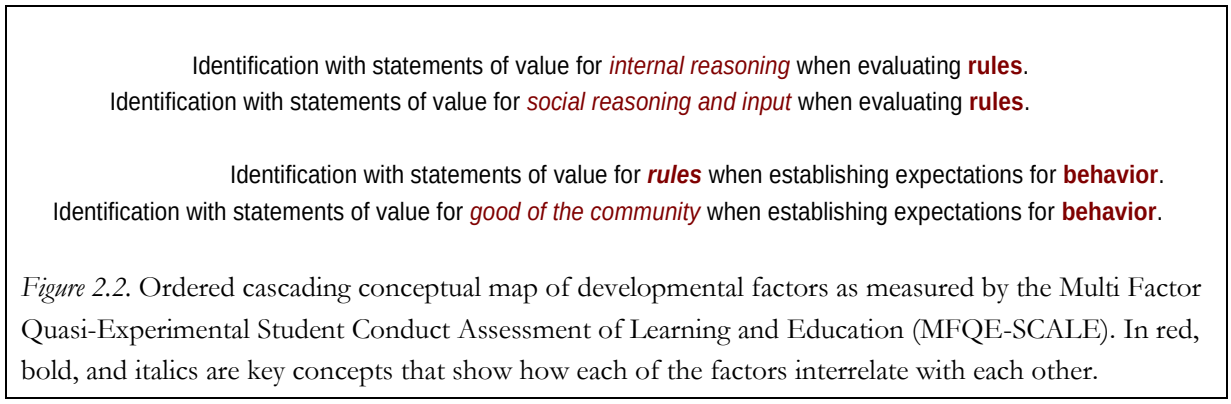

Figure 2.2. Ordered cascading conceptual map of developmental factors as measured by the Multi Factor Quasi-Experimental Student Conduct Assessment of Learning and Education (MFQE-SCALE). In red, bold, and italics are key concepts that show how each of the factors interrelate with each other.

Chapter 3 Research Design & Methods

3.1 Key Terms & Phrases

Age. For this study, age was collected from respondents by asking "What is your age as of today's date?" and "In what month were you born?"

Credits earned (class standing). By asking respondents "How many college level credits have you completed?" this study intended to collect the number of credits a student reported as having completed prior to fall semester of 2016.

Consequences. The consequential outcomes associated with SCA processes such as fines, warnings, reprimands, probation, suspension, or expulsion. Also sometimes students receive educational tasks or assignments such as workshops, seminars, writing assignments, community service, or restitution. Some model codes or institutions more legalistically refer to these as sanctions. Another option is to refer to these as educational assignments or educational tasks.

Educational outcome, in concept. An educational outcome is one that evidences learning, growth, or development.

Educational outcome, as applied. An educational outcome is inferred when students change their response to the survey instrument and when a rational analysis permits a plausible inference that participating in an SCA process may have been a causal factor in that change.

Gender. "Refers to role, not biological sex, and is cultural" (Publication manual of the American Psychological Association (6th ed.), 2010, p. 73). A social conceptualization of male, female, or otherwise. Participants self identified by providing open-ended text in response to the question "What is your gender?" A computer algorithm recoded text responses.

Grade point average (GPA). A measure of academic performance. This study collected self-reported measures of GPA as the student anticipates it to be and as the student aspires for it to be at the conclusion of the present semester.

Magnitude. This study calculates and reports magnitude in terms of standard deviations.

Participating in SCA processes. The student's experiences associated with SCA process as outlined by Figures 1.1 and 1.2.

Race. A socially constructed identity that relates to the ethnic, cultural, familial, national, other personal identities, or attributes of heritage, phenotype, and community. Given that "preferences for terms referring to racial and ethic groups change often," (Publication manual of the American Psychological Association (6th ed.), 2010, 75), this study asked students to self-identify (or not identify) via a demographic questionnaire. In operationalizing race, this study carefully considered a variety of categorical labels. To avoid reinforcing the notion that white constitutes a default racial category, this study elected to frame white students as non-students of color. Relatedly students who have been minoritized by previous research and society at large, in this study, are labeled as students of color.

Residential status. Whether the student lives on-campus in a residence hall or off-campus. The instrument asked "Which option best describes your current living and residential accommodations?" The options were "on-campus," "off-campus," "off-campus with family," "Greek org/affiliated housing," and "other."

Additionally, respondents were asked "How many others share a bedroom with you?" with the option to respond with a number from zero to ten or more.

Students who indicated not living "on-campus" were asked "How many others live with you at your entire place of residence?" The options ranged from zero to 21 or more.

Sanctions. See, "Consequences."

Student conduct administration (SCA). The processes and procedures associated with managing or regulating student behavior.

Student code of conduct. The written manifestations of SCA. The document at a college or university that outlines what behavior may be required or prohibited. The processes and procedures for evaluating potential policy violations along with assigning consequences for any violations. Documentation of the range of potential consequences colleges and universities may assign students along with any options to appeal if or when the student disagrees with an outcome.

3.2 Instrument Design, Generally

Because "surveys on the Internet [sic] are comparatively new" and "the dynamics and challenges [of internet surveys] seem likely to closely parallel those for [postal] mail surveys" (Fowler, 2014, p 53) this study referenced sources offering advice for conducting research via both modes. In planning survey items and survey delivery this study generally referenced five sources including Dillman (1991), Dillman, Smyth, & Christian (2014), Fowler (2014), Fowler and Cosenza (2009), and Heinrich (2005). Dillman (1991) as well as Dillman, et. al., (2014) provided information used to ensure the best possible response rates. A key strategy used in this study specifically with reference to Dillman (1991) as well as Dillman, et. al., (2014) was to arrange for host site institutions to email respondents with a pre-notification. The pre-notification informed students they should expect an invitation to participate in the study. These pre-notifications accomplished two goals. First, it may have reduced non-response

associated with sending surveys from an unknown source. Second, pre-notifications on their own have been shown to increase response rates.

Fowler (2014) as well as Fowler and Consenza (2009) provide extensive advice in designing individual items. Attention went to ensuring the intended audience would understand the items with consistency and be willing to respond (Fowler & Cosenza, 2009). This study devised items so that respondents would have "an appropriate way to report what they have to say" (Fowler & Cosenza, 2009, p. 376). This study also afforded attention to the prospect that items would "be consistently understood" and that respondents would be "willing to provide the answers called for" (Fowler & Cosenza, 2009, p. 376). For example, Dillman et. al., (2014) indicates that questions asking for demographic characteristics should use simple and complete sentences such as "What is your age as of today's date?" instead of mere "Age?" Using complete, but simple questions, can reduce error by diminishing the potential for causing confusion for the respondent. Another strategy adopted from Dillman et. al., (2014) was to ensure categories were mutually exclusive. The highest GPA categories for example, could have been "3.50 - 3.75" and "3.75 to 4.00." The disadvantage to that presentation is that individuals with a "3.75" GPA may grow frustrated by not knowing which option applies. Therefore this study, were appropriate, ensured categories did not overlap such as "3.51 - 3.75" and "3.76 - 4.00."

Fowler (2014) and Heinrich (2005) documented the methodological strengths and weaknesses associated with open-ended survey items. Of course, no study could hope to perfectly synthesize every recommendation ever offered. A key example of a strategy often recommended in the literature that was not implemented in this study was to offer respondents an incentive to respond. Due to objections from the IRB, which are discussed in greater detail

below, this study elected to proceed without incentives. The remainder of Chapter 3 discusses in greater detail the development of instrument items and other choices made in the course of planning for this study.

3.3 Demographic Instrument Design

As revealed in Chapter 2, it seems clear that demographic variables do not predict or explain outcomes in the study of SCA with great reliability or magnitude. However, the use of demographic information as control variables in the course of statistical analysis is a best practice is both experimental (with randomly assigned participants) and quasi-experimental (without randomly assigned participants) research. Including such variables can "reduce variation, decrease standard errors, and increase statistical power" (Murnane & Willett, p. 60). This study aimed to collect a variety of information about respondents. The demographic instrument consisted of fourteen items that asked for a range of personal information. All questions were optional.

Residential Status. The first question asked, "Which option best describes your current living and residential accommodations?" and provided five possible responses including "on-campus," "off-campus," "off-campus with family," "Greek org/affiliated housing," and "other." Second, students were also asked, "How many others share a bedroom with you" and provided the option to select a number ranging from zero to nine with the additional option to indicate "10 or more." Third, for those that reported not living on-campus, this study also asked "How many others live with you at your entire place of residence?" with the option to choose a number ranging from zero to 20 with an additional option of "21 or more." For analysis, number at the entire place of residence variable was collapsed to four categories including zero, one, two or more, and not reported.

If the respondent did not indicate living on-campus but did indicate sharing a bedroom with one or more others the instrument also asked, "How many others live with you at your entire place of residence?" The options available ranged from zero to "21 or more." This study imputed a response of "21 or more" for those indicating they lived on-campus. For analysis this study collapsed the number living in the respondent's entire place of residence to the following categories zero, one to two, three to four, five to six, seven or more, and not reported.

Gender. The fourth question asked "What is your gender?" and provided an open text box for a response. A computer algorithm decoded text responses. The majority of respondents wrote "m," "male," "boy," "man," "masculine," or similar and were recoded as male. Likewise, "f," "female," "girl," "woman," or similar were recoded as female. Multiple respondents provided creative or erroneous but reasonably unambiguous responses including, for example, "xy" "malw," "males," (or similar, coded as male), "fenale," "females," femalr," "cis gender female," "she," "her," (or similar, coded as female).

Some students provided gender-neutral responses such as "cis," "non-binary," "gender fluid," "agender," etc., which were coded as other. Responses that reasonably indicated a respondent identified as transgender such as "trans," "transgender ftm," "trans male," etc., were coded as other. Truly ambiguous or un-interpretable responses such as "shoe," "attack helicopter," or "prefer not to answer," were coded as other. Non-responders were coded as not reported.

Race. The fifth question gathered information about race. This study collected information consistent with racial categories as reported by the University of Wisconsin System in its annual *Factbook* publication (University of Wisconsin System, 2015 & 2014) with the addition of an option to indicate "other." The categories were "African American,"

"Hispanic/Latino(a)," "American Indian," "Asian Southeast," "Hawaiian/Pacific Islander," "Asian Pacific American," "White/Caucasian," "International," and "Two or More Races." Non-responses were recoded as "not reported." Thirty-two respondents selected the option "Asian Pacific American" which is not a commonly tracked racial category and was included by error. Only one respondent selected "Hawaiian / Pacific Islander." Due to the error regarding "Asian Pacific American" and the low response rate for "Hawaiian/Pacific Islander" these responses were recoded as other. However, due to extremely low variation in the data, race was later further collapsed to three categories consisting of "students of color," "non-students of color," and "other or not reported" for tabulation and analysis. With reference to (Winkle-Wagner & Locks, 2014) and (Gillborn, 2005) this study elected to frame the two racial categories as "students of color" and "non-students of color" to avoid more traditional designations that reinforce oppressive notions that white is a default or normative racial category.

State. Sixth, the demographic questionnaire asked "In which state, district, or territory did you graduate high school?" with the option to select any of the United States, its territories, or the option "I did not graduate in the United States." For analysis this variable was recoded to indicate if the student was attending college in the state they also graduated high school. A categorical variable indicated whether the student attended college in the same state they graduated high school or not reported.

Class Standing. Seventh, the study asked "How many college level credits have you completed?" with the option to select a number ranging from zero to sixty, in addition to the option to select "not sure." This study analyzed credits as a categorical imputation of class standing which separately included "not sure" and "not reported" categories. Students that

reported zero to 30 credits were categorized as first-year students. Those that reported 31 to 60 credits were categorized as second year students.

Grade Point Average. Next the demographic instrument asked two questions about students' grade point averages. The eighth question asked students, "Please indicate your grade point average (GPA) as you aspire for it to be at the end of the next full academic semester or term." The ninth question asked, "Please indicate your grade point average (GPA) as you anticipate for it to be at the end of the next full academic semester or term." The available options were 2.00 or under, 2.10 - 2.25, 2.26 - 2.50, 2.51 - 2.75, 2.76 - 3.00, 3.01 - 3.25, 3.26 - 3.50, 3.51 - 3.75, 3.76 - 4.00, as well as an option to indicate "not sure." The second lowest option displayed a typographical error reading "2.10 - 2.25" instead of "2.01 to 2.25." Due to this typographical error and also due to very few respondents selecting the lowest options, the lowest four categories (2.00 or under, 2.10 - 2.25, 2.26 - 2.50, 2.51 - 2.75) were combined for tabulation and analysis.

Level of involvement. The instrument also gathered information about the student's level of involvement in student organizations. Question ten asked, "In how many student organizations are you involved with on a weekly basis?" and offered a range of options from zero to ten with the option to select "eleven or more." Question eleven asked, "How many hours do you spend with involvement in student organizations on a weekly basis?" and offered a range of options from zero to fifteen with the option to select "16 or more." For tabulation and analysis these were recoded as uninvolved, moderately involved, highly involved, or not reported. Students providing no answer for either question were coded as not reported. Those reporting involvement in zero organizations or zero hours of involvement were coded

uninvolved, those reporting greater than the median for each variable were coded as highly involved, and all others were coded as moderately involved.

Age. To collect information about age, the twelfth question asked "In what month were you born?" with the option to select any of the twelve calendar months. Question thirteen asked, "What is your age as of today's date?" with the option to select a number ranging from eighteen to thirty as well as option to select "17 or under" and "31 and over." Consistent with this study's protocol as approved by the Institutional Review Board, if a respondent selected "17 and under" the software discontinued collecting data from that respondent. Also, prior to analysis or tabulation thirty observations from respondents who indicated an age of "17 or under" were dropped from the data set. From this information it was possible to calculate respondent age in months and years. To manage non-response, this study analyzed age as a categorical variable including either under 21 years, over 21 years, or not reported.

3.4 Confidentiality

This study required an opportunity to individually identify respondents so that pre-assessment responses could be linked with post-assessment responses. To provide confidentiality, this study utilized a mechanism that assigned each respondent a random study identification number. The Qualtrics software invisibly passed that random study identification number into the survey responses but without passing other personally identifiable data. By passing the same random identification number through to the data in both the pre- and post-assessment responses, it was possible to maintain panel associations but without ever storing personally identifiable data in the same location as the study data. After data collection was complete, the original random study identifications were destroyed leaving it impossible to associate individual responses with specific respondents. During data collection, data was stored

in Qualtrics software, which may not be accessed without University of Wisconsin - Madison netid credentials. After collection, the data was deleted from the Qualtrics software. During collection and analysis the data was stored on a USB flash drives, which were kept in locked containers when not in use.

3.5 MFQE-SCALE Instrumentation Design & Testing

The Multi Factor Quasi-Experimental Student Conduct Assessment of Learning & Education (MFQE-SCALE) was developed iteratively in two separate phases. The methods for this dissertation required an instrument that would be suitable for gathering data from untreated students (students who had yet to participate in SCA processes and students who would not ever participate in SCA processes). The primary goal in developing this instrument was to devise an instrument that is compatible for use in studies that will collect data from comparison groups. For reasons discussed throughout this dissertation, items were drafted with language that did not assume the student had violated a policy, participated an SCA process, or both.

Described in greater detail below the first phase conducted a test administration of 97 items in 2015. Subsequently, the second phase utilized the fall 2016 pre-assessment survey results as an opportunity for further testing and development. Through the course of both phases the researcher and a panel of experts drafted, reviewed, revised, and considered a total of 106 items. The use of an expert panel review is consistent with past study of SCA (Stimpson & Janosik, 2015) and assists in producing items that are likely trustworthy for their facial and content validity.

Previous efforts utilized statements as items that were designed for use with a scale of agreement. This study framed items in a manner that would allow students to respond by selecting one of the following five ordinal statements:

1 - "Describes me greatly."

2 - "Describes me well."

3 - "Describes me somewhat."

4 - "Describes me very little."

5 - "Does not describe me at all."

This identity scale was intended to measure developmental changes in self-identification. As was the case for the demographic questionnaire above, all MFQE-SCALE items are optional.

3.5.1 Iterative Expert Panel Review, Exploratory Factor Analysis

In the fall of 2015, the researcher first produced and administered a set of 97 items. By electronic mail, the study invited all 2,352 students enrolled at a private liberal arts college located in the American southwest. Approximately twelve and a half percent (12.5%) provided 293 complete responses. The researcher analyzed the 293 responses using utilizing Stata/SE 14.2 exploratory factor analysis (EFA) functions with oblique promax and orthogonal varimax rotations to aid interpretation. The oblique and orthogonal rotations produced similar results. The fall 2015 administration produced sixteen factors with an eigenvalue greater than 1.0. To refine the instrument by clarifying and reducing the number of items, the researcher sought input from a panel of experts consisting of eight members. The panel consisted of current or former SCA professionals and research scholars of law in higher education. The panel provided suggestions for additional items that were thought to add validity and robustness. As a part of the review, if panel members had questions about specific items the researcher was able to provide information about how students responded. The panel's review resulted in a second iteration of the instrument consisting of 38 items.

To gather the data for this dissertation, these 38 items were administered via electronic mail in the fall of 2016. During the second phase of MFQE-SCALE development, the August

and September of 2016 responses were further examined to establish a factor solution to be used in this dissertation's analysis.

Using Stata/SE 14.2 this study again executed EFA. As had been the case during the first phase, both orthogonal and oblique rotations produced similar results. Because it was not assumed the factors would correlate, the second phase relied on the orthogonally rotated results. Five items with a factor loading score greater than .30 on multiple factors were eliminated. This study executed factor analysis on the remaining 33 items.

The process of selecting the final factor solution began by referencing the scree plot, the eigenvalues, and the cumulative proportion of variation explained. With no clear elbow, the scree plot provided inconclusive results but suggested between five and seven factors. There were four factors with an eigenvalue greater than 1.0. The first five factors explained 95% of the cumulative variation.

3.5.2 Factor Solution Selection

The six-factor solution produced the highest quality results that most closely matched the factors as proposed by the panel of experts. Limiting the six factor solution to items achieving a factor loading score greater than .30 eliminated two additional items. Table 3.1 provides the composite score summary statistics along with each factor's Cronbach alpha scale reliability coefficient. Table 3.2 outlines each of the 31 items along with their mean, standard deviation, and factor loading scores. Throughout all of the factors, all items intra-correlated with each other with statistically significant p-values of less than 0.000.

The first factor is a set of items that relate to this study's first developmental construct: the manner in which students evaluate the rules. Purportedly this factor's items measure how strongly the respondent identifies with statements of value for internal reasoning when

evaluating rules. For example, the item "to realize a greater good, I sometimes disregard the rules" may offer insight into the weight a respondent gives internal moral senses when it is not obvious that obeying a rule will be for a greater good.

The second factor also relates to this study's first developmental construct and purports to measure how strongly the respondent identifies with statements of value for the rules in establishing expectations for behavior.

The third factor simultaneously relates to the first two of this study's developmental constructs. This factor purports to measure how strongly the respondent identifies with statements of value for the rules in establishing expectations for behavior.

Table 3.1

MFQE Composite Score Summary With Cronbach Reliability Coefficient

Factor	Obs.	Mean	Standard Deviation	Items	Cronbach Alpha
1) Identification with statements of value for internal reasoning when evaluating the rules.	1,423	12.35	3.62	4	.8140
2) Identification with statements of value for external social reasoning and input when evaluating the rules.	1,398	6.61	2.60	4	.8240
3) Identification with statements of value for rules when establishing expectations for behavior.	1,385	28.34	3.97	7	.8082
4) Identification with statements of value for good of the community when establishing expectations for behavior.	1,389	20.68	3.21	5	.8221
5) Identification with statements of value for considering the benefits of alcohol use.	1,459	12.10	2.40	4	.7495
6) Identification with statements of value for considering the drawbacks of alcohol use.	1,454	26.51	4.47	7	.7195

Note. Generated using data from the 2016 August and September administration of the MFQE-SCALE and utilizes composite scores calculated when complete sets of all factor items were available.

The first three factors touch on outcomes commonly described by existing SCA literature in at least two ways. First, mere knowledge of the rules has been identified as an outcome that is or should be associated with participating in SCA processes (Howell, 2005; Stimpson & Janosik, 2011). Second, ideas related to interpersonal relations and community are consistently among the key terms and phrases used in the literature to describe SCA's developmental outcomes. For example, Gehring (2001) discussed the objectives of SCA with extensive reference to Boyer's (1990) *Campus Life: In Search of Community*. Boyer emphasizes the feelings of connectedness students have for each other and their institution.

The fourth factor relates to this study's second developmental construct, the manner in which students evaluate how to behave. Purportedly, this measures how strongly the respondent identifies with statements of value for good of the community when establishing expectations for behavior. Like the previous two factors, this factor further examines interpersonal relations and community. For example, the item "I do things that will have a positive effect on others, even if it inconveniences me," explicitly cross-references consideration for personal behavior with how that behavior might affect the community.

The fifth and sixth factors relate to this study's third construct, the manner in which students evaluate the risks and benefits associated with alcohol consumption. The fifth factor examines how strongly the respondent's identity values consideration for the benefits of alcohol consumption. Conversely, the sixth factor examines how strongly the respondent's identity values consideration for the drawbacks of alcohol consumption. By measuring how developed student identity is regarding the benefits and risks of alcohol consumption, these two items fit well with risk reduction and cost benefit approaches that are often referenced by campus educators across functional areas, including those working in SCA. Such approaches are embedded in motivational interviewing as well as in brief alcohol screening and intervention for college students (BASICS) (Brancom & Scharma, 2010).

No instrument is without limitation. By using online survey methods, which produced a modest response rate, the generalizability of this instrument may be limited. Attempts were made to boost response rates such as pre-notification, personally addressed invitations, institution specific references (i.e., mascot), clear explanations as to the purpose of the survey, opportunity to opt out, three reminders, friendly prose, expressions of gratitude, and a phone number to call if there were questions. Future study should include additional methods that will

induce higher participation rates. Another limitation is that while most students who participate in SCA processes are male (Dannells, 1997; Harper et. al, 2005; Janosik, Davis & Spencer, 1985; Traey, Foster, Perkins, & Hillman., 1979), the greatest proportion of respondents in this study were female which creates a threat to validity. Aside from the methodological limitations, a conceptual limitation is that this instrument does not purport to be a comprehensively exhaustive measure of development. To constrain the project to manageable proportions, choices were made to focus on the developmental constructs described above. Further study will be necessary to serve the interests of researchers and practitioners who are interested in other conceptualizations of learning, development, education, and similar concepts.

Scoring this instrument involves producing composite scores that, at first glance, are highly abstract. Despite being abstract, and perhaps because of that abstraction, the measures are also agnostic and neutral. The neutrality means that it is not clear as to whether either an increase or decrease is better or worse than the other. Setting aside the impulse to assume a higher score (more) is better permits the opportunity for a more subtle analysis. Instead of asking if knowledge advances or if development progresses, the MFQE-SCALE and this study are designed to discover if students change or progress in any direction. Additionally, this neutrality removes any assumption that the rules are an ultimate indicator of right or wrong and good or bad. Importantly, expected behavior as required by the rules may not always hold as inherently or objectively good by other measures

The best frame for interpreting the MFQE-SCALE factor scores is to interpret them with reference to the name of the factor. Below is a primer on how best to interpret the outcome scores. Later, Chapter 4 offers a more complete discussion as to how and why these interpretive guidelines work for these composited factor scores.

1) As a score on factor one (identification with statements of value for internal reasoning when evaluating the rules) increases, the extent that that respondent's identity is one that values internal reasoning when evaluating the rules also increases.

2) As a score on factor two (identification with statements of value for external social reasoning and input when evaluating the rules) increases, the extent that that respondent's identity is one that values external social reasoning and input when evaluating the rules also increases.

3) As a score on factor three (identification with statements of value for the rules when establishing expectations for behavior) increases, the extent that that respondent's identity is one that values the rules when establishing expectations for behavior also increases.

4) As a score on factor four (identification with statements of value for good of the community when establishing expectations for behavior) increases, the extent that that respondent's identity is one that values good of the community when establishing expectations for behavior also increases.

5) As a score on factor five (identification with statements of value for considering the benefits of alcohol use) increases, the extent that that respondent's identity is one that values consideration for the benefits of alcohol use also increases.

6) As a score on factor six (identification with statements of value for considering the drawbacks of alcohol use) increases, the extent that that respondent's identity is one that values consideration for the drawbacks of alcohol use also increases.

Table 3.2

MFQE-SCALE Item Factor Loading Scores With Mean and Standard Deviation

Item	Mean	S.D.	Factor Loading Scores					
			One	Two	Three	Four	Five	Six
Factor 1) Identification with statements of value for internal reasoning when evaluating the rules.								
I believe a rule only matters to me if there is a reason for the rule.	2.81	1.15	**0.575**	0.155	-0.218	0.026	0.050	-0.033
To realize a greater good, I sometimes disregard the rules.	2.91	1.11	**0.670**	0.136	-0.255	0.041	0.130	0.071
I don't follow rules that conflict with my own personal value system.	2.94	1.12	**0.680**	0.046	-0.222	-0.012	0.072	0.027
I will break the rules when it feels right for me to do so.	2.99	1.16	**0.688**	0.139	-0.224	0.016	0.154	0.040
Factor 2) Identification with statements of value for external social reasoning and input when evaluating the rules.								
In my opinion, being popular is more important than doing the right thing.	4.52	0.65	0.002	**0.675**	0.022	-0.135	0.069	-0.091
I would break the rules if it helped me make friends.	4.35	0.79	0.112	**0.775**	-0.109	-0.035	0.130	-0.007
I sometimes have to break the rules to keep my friends.	4.47	0.75	0.089	**0.779**	-0.052	-0.042	0.093	-0.007
It is harder for me to follow the rules when I am with my friends.	4.04	0.98	0.163	**0.627**	-0.100	-0.051	0.132	0.042
Factor 3) Identification with statements of value for the rules when establishing expectations for behavior.								
I try to follow the rules.	1.70	0.72	-0.235	-0.085	**0.689**	0.138	-0.156	0.078
It is my responsibility to follow the rules.	1.75	0.80	-0.243	-0.064	**0.759**	0.151	-0.102	0.063
I believe following the rules can avoid causing trouble.	1.68	0.77	-0.215	-0.028	**0.634**	0.157	-0.102	0.121
I expect others to follow the rules.	2.11	0.94	-0.195	-0.072	**0.615**	0.147	-0.103	0.048
If I violate the rules I would be honest about it.	2.17	0.89	-0.131	-0.188	**0.415**	0.212	-0.081	0.073
I have an understanding of what the rules are at my school.	2.03	0.83	-0.070	-0.078	**0.342**	0.166	0.022	0.144
I know how to communicate with others about the rules.	2.23	0.86	0.022	-0.139	**0.399**	0.274	0.030	0.197

Table 3.2 (Continued)

MFQE-SCALE Item Factor Loading Scores With Mean and Standard Deviation

Item	Mean	S.D.	Factor Loading Scores					
			One	Two	Three	Four	Five	Six
Factor 4) Identification with statements of value for good of the community when establishing expectations for behavior.								
I think about how my actions affect others.	1.74	0.81	0.006	-0.091	0.173	**0.609**	0.000	0.202
I manage my behavior to avoid harming others.	1.60	0.73	0.020	-0.081	0.194	**0.616**	-0.048	0.132
I do things that will have a positive effect on others, even if it inconveniences me.	1.99	0.88	0.045	-0.021	0.036	**0.680**	0.071	0.084
I consider others in my community when making decisions about my behavior.	1.98	0.86	-0.004	-0.098	0.156	**0.758**	0.014	0.108
I feel living in a community means sometimes putting aside what I might want for the benefit of others.	2.02	0.91	-0.011	-0.014	0.152	**0.657**	0.025	0.094
Factor 5) Identification with statements of value for considering the benefits of alcohol use.								
I don't drink alcohol.	2.91	1.55	-0.094	-0.081	0.151	0.019	**-0.639**	0.165
I drink to get drunk.	3.99	1.20	0.155	0.173	-0.103	-0.061	**0.540**	-0.106
I have thought about the benefits of alcohol consumption.	3.39	1.12	0.149	0.184	-0.128	0.050	**0.691**	0.091
I have discussed with others the benefits of alcohol consumption.	3.59	1.22	0.076	0.160	-0.125	0.074	**0.651**	0.222
Factor 6) Identification with statements of value for considering the drawbacks of alcohol use.								
I think it is important to have a plan that reduces alcohol related risk.	2.24	1.10	0.023	-0.087	0.290	0.213	-0.204	**0.379**
I have a role in reducing alcohol related risks.	2.92	1.21	0.173	0.002	0.208	0.192	0.181	**0.347**
I am knowledgeable regarding strategies that can reduce alcohol related risk.	2.10	1.00	0.214	-0.024	0.219	0.148	0.243	**0.312**
I rarely think about negative consequences of drinking.	3.96	1.01	0.109	0.167	-0.114	-0.155	0.198	**-0.341**
I have thought about the drawbacks of alcohol consumption.	1.99	0.95	0.016	-0.006	0.069	0.196	-0.014	**0.655**
I have discussed with others the drawbacks of alcohol consumption.	2.42	1.15	0.045	-0.016	0.075	0.157	0.123	**0.700**
I believe alcohol consumption involves some measure of risk.	1.78	0.82	0.047	-0.015	0.166	0.156	-0.034	**0.525**

Note. Copyrights reserved: These items may be used for further assessment or research with advanced permission of the author.

3.6 Pre-screening & Informed Consent

Pre-screening. As shown in the appendix, this study sought to exclude a range of students who participated in the SCA process, but not necessarily as a student accused of a policy violation. These exclusion attempts to remove a possible confounding factor that could explain the learning as detected by this study. Thus this study excluded students who self-identified as a "resident advisor," "house fellow," or "in another role which require[d] the respondent to document and report potential policy violations." Also excluded were those who self-reported being "involved in the student conduct processes as an advisor, evaluator, board member, decision maker, or similar capacity."

Another important exclusion accomplished via the pre-screening instrument shown in the appendix, were students who were either complainants or respondents in "a student conduct case involving sexual harassment, sexual assault, or gender-based discrimination." This exclusion reduced IRB's level of scrutiny and further served to simplify the study by limiting its scope to matters that are typically less contentions than those involving sexual harassment, sexual assault, or gender-based discrimination.

Informed Consent. Shown in the appendix is the instrument used to achieve informed consent. This form is a standard form developed in consultation with the Wisconsin's Institutional Review Board (IRB), which provides a point and click online tool that assists in developing informed consent documentation. For more information on the tool used to develop initial drafts of this informed consent instrument see (https://rcr.gradsch.wisc.edu/cfwizard/start.asp?wisc).

To improve confidence that parents, legal guardians, or other family members were not responding to the study instruments on behalf of their students this study also asked, "Who is

completing this survey?" with the option to indicate "I am a student completing this survey on behalf of myself;" "I am a parent completing this survey on behalf of my student;" "I am a legal guardian completing this survey on behalf of my student;" or "I am another person completing this survey on behalf of a student." Four respondents indicated something other than "I am a student completing this survey on behalf of myself" and were dropped from the data prior to analysis and tabulation.

3.7 Participant Screening Instrument Design

This study developed and utilized a set of questions which were designed to determine if the respondent had participated in the SCA process and if so to gather additional information about that experience. These participant screening instrument questions were also optional. To ascertain if the student had participated in the SCA process, the instrument explained:

> Student conduct processes are the processes and procedures related to governing student behavior. If a student might have violated a rule, getting caught or documented for that rule violation will likely result in participating in a student conduct process. To help understand the learning that may have resulted from the student conduct process, we need to ask if you have participated in the process and how. To be successful this study will need responses from students who have participated in student conduct processes as well as from other non-participants. Regardless of whether you were responsible, not responsible, guilty, or not guilty of a policy violation, could you please indicate if you ever participated in a student conduct process?

The options to respond included "Yes - I have participated in a student conduct process;" "No - I have not participated in a student conduct process;" or "Not sure whether I have participated in a student conduct process." Students who indicated "Yes - I have participated in a student conduct process" were asked to respond to a series of up to fourteen

questions designed to gather information about that student's experience before also being asked to answer the MFQE-SCALE questions. However all other respondents were merely asked to complete the items in the MFQE-SCALE.

Initially, for those who indicated, "Yes - I have participated in a student conduct process" the remainder of the participant screening questionnaire included up to twelve additional questions. First, the instrument asked, "You have indicated 'Yes - I have participated in a student conduct process.' Have you received a decision indicating whether you were responsible, not responsible, guilty, or not guilty of one more policy violations?" with the option to indicate "Yes - I have received a decision," "No - I have not received a decision," or "Not sure if have received a decision."

Second the instrument also asked "How many times have you participated in the student conduct process" with the option to select a number ranging from one to ten as well as the option to indicate "11 or more," "not sure," or "I do not wish to say." Following this question regarding the number of times the student participated, the instrument provided those that responded with a number grater than one with the following instructions "You indicated <<*insert number of times*>> for the number of times you participated in the student conduct process. Unless otherwise directed below, please reference your most recent participation experience in answering the remaining questions."

The third question asked, "Please help us understand how you experienced the student conduct process. Did you experience any of the following?" with the following options "One or more meetings with residence hall staff to discuss a potential policy violation," "One or more meetings with dean of students staff to discuss a potential policy violation," "One or more meetings with other university staff to discuss a potential policy violation," "I met one or more

times with a combination of the individual types described above to discuss a potential policy violation," "I experienced more than one of the above," "Not sure," "None of these responses apply to me," or "I do not wish to provide that information."

Fourth, to understand the nature of the student's potential policy violation the instrument asked students to respond to the following statement "My involvement in the student conduct process related to or involved (select all that may apply)" with the following options "Alcoholic beverage(s)," "Drug(s)," "Academic integrity," "Noise," "Visitation," "Vandalism," "Theft," "Off-campus behavior," or "Other."

Only students who indicated they received a decision in response to the second question were asked the fifth question. The fifth question was "Were you marked or found responsible, not responsible, guilty, or not guilty of one or more violations?" and provided the options, "Yes - I was marked or found responsible (guilty) for one or more policy violations," "No - I was only marked or found not responsible (not guilty) for any policy violations," "Not sure," "I do not recall," or "I do not wish to provide that information."

The sixth and seventh question asked about incident and decision dates. The sixth question asked for the date of the incident "that resulted in your involvement in the student conduct process." For students who indicated they participated in SCA multiple times the sixth question asked the incident date for the students' earliest incident. The seventh question asked for the decision date related to the student's most recent incident. To address potential uncertainty the questions explained "If you are not sure, please approximate. Even approximate responses will be very helpful."

Eighth, to understand the consequences students may have been assigned to complete as the result of being responsible for a policy violation, the instrument asked, "Were you

assigned any of the following consequences as a result of the decision you received? (Select all that apply - leave blank if you do not wish to provide this information)" with the option "A warning," "Probation," "An educational task (paper, reflective writing)," "Community service," Fine or a fee," "Restitution," "Counseling," and "Other."

3.8 Project Timeline & Related Logistics

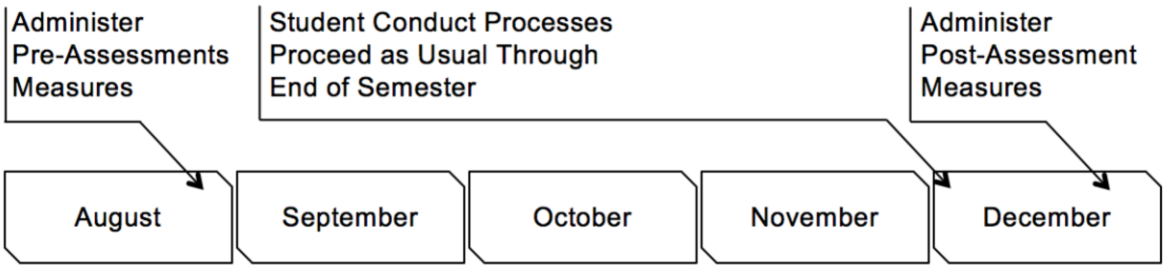

Figure 3.1 Project Timeline

Below is a step-by-step description of the major steps required for this study.

1. Spring & Summer 2016
    a. Recruit host institutions and initiate Wisconsin IRB review.
    b. Secure approval from host institution IRB's authorizing Wisconsin's IRB to oversee this study.
2. August & September 2016
    a. Obtain lists of student email addresses and first names from host institution.
    b. Enter email addresses and first names in University of Wisconsin's survey research software, Qualtrics.
    c. Send invitations to students. First invitations arrive to students before school starts. Reminders scheduled in consultation with host

institutions. Final reminder and deadline to participate in pre-assessment within first few weeks of class.

3. Fall Semester 2016. Host institution SCA process proceeds as usual.
4. Late November and/or December 2016.
    a. Schedule and send invitations for post assessment in consultation with host institutions.
    b. Reminders scheduled in consultation with host institutions.
5. Spring Semester 2017. Analyze results report results.

This timeline is informed by previous research that suggests the learning, which may result from participating in SCA processes diminishes with time. King's (2012) results show that students who reported having experienced the SCA process "six months to one year ago" scored .328 standard deviations lower than those who reported experiencing the process "1 to 5 months ago" (p. 572). Therefore a one-semester timeframe provided both an appropriately demarcated administrative, academic, social, and cultural window. This timeline is also informed by previous evidence that suggests waiting as long as "six months" could spoil the opportunity for detecting an educational effect.

A limitation of this timeline is that there is insufficient data to establish that the treatment group (participants in SCA processes) would develop along a trend that is parallel with the plausible counterfactual (those that did not participate in in an SCA process). Chapter 5 discusses the reasons for this limitation in greater depth. Also offered in Chapter 5 are suggestions for future study that may afford researchers and audiences more confidence in the assumption that non-participants constitute a meaningful counterfactual including an attempt

by this study to establish a secondary control group consisting of students who had violated one ore more policies but who had not participated in the SCA process.

3.9 Host Site Recruiting & Student Sampling Strategies

This study provided open invitation to institutions that may wish to host. Initially SCA staff at six institutions had expressed interest in participating. The researcher kept a log of conversations and discussions with potential host sites. The recruitment process involved detailed conversations with nine institutions. Eventually, four institutions participated.

The primary recruiting strategy was social in nature. The researcher circulated an animated video among professional colleagues and associates. To supplement the social recruiting strategy the researcher cold-contacted institutions that met specific criteria, as described below, that were thought to improve the sample.

The following strategies were intended to optimize the sample size and proportion of those from treatment and control conditions. First, previous research suggests that first and second year students are more likely to participate in SCA processes than upper class students (Dannells, 1997; Janosik et al., 1985; Tracey et. al., 1979). This study limited participation to those who have completed sixty or fewer college or university credits. The sixty credit limitation is an arbitrary choice informed by general standards and practices that, in order to graduate in four years, most students should or do complete an average of fifteen credits per semester. This strategy will limit the sample to first and second year students who are more likely to participate in the SCA process, which will increase the proportion of treated students participating in the study.

Conducting this study in the fall semester instead of the spring is another strategic decision designed to improve the sample. Based on professional experiences, more than half of

an institution's caseloads occur through the first semester. There is a concentration of cases occurring in the first portion of the fall semester. The early part of a school year is when students are testing limits and boundaries or are merely ignorant of the rules. Therefore, these conditions and circumstances result in a concentrated caseload during the fall semester.

A third strategy was to issue reminders only to students who had not previously completed the survey. In theory, clearly explaining to students they will not receive additional reminders after responding to the survey will motivate students to respond.

The fourth strategy was to target additional marketing and recruiting efforts toward a random draw of institutions whose Clery data indicated liquor, drug, and weapon-related disciplinary referral case loads exceeding .045 cases per undergraduate full-time degree seeking student. This .045 delimiter is based on an ad hoc analysis of Clery-reported liquor, drug, and weapon-related disciplinary referrals in the 2014-15 academic year at University of Wisconsin System institutions. The median case rate among this group of institutions was .045. Relatedly, additional marketing and recruiting efforts were directed toward a random draw of institutions with on-campus residence hall capacities higher than .32 beds per undergraduate full-time degree seeking student. The capacity of and nature of residence halls has been linked with increased rates of student misconduct (Janosik, et. al., 1985; Kern & Rentz, 1991; Tracey et. al., 1979). This .32 delimiter is based on an ad hoc analysis of data from the Integrated Postsecondary Education Data System. Among University of Wisconsin System institutions the median on-campus residence hall capacity was .32 beds per undergraduate full-time degree seeking student in 2014-15. This procedure resulted in a list of 51 institutions that received via U.S. postal mail the letter shown in the appendix.

Two additional strategies were planned but not implemented. First, the IRB disallowed the offer of an incentive for respondents to participate. Via Wisconsin's research review and tracking software the IRB explained, the "school cannot offer an incentive unless the school is engaged." Upon request for clarification the IRB elaborated by electronic mail, "If a site is providing incentives-- they are engaged in the research." In personal conversations, the IRB communicated that if a host institution is engaged in the research, that engagement would have required each school's IRB to conduct a full review. Wisconsin's IRB indicated that if each school's IRB conducted full review that would preclude the ability of host site IRBs to allow Wisconsin's IRB to oversee the study which would result in a more complicated review process. When speaking with host sites it became apparent that among the various decision makers (researchers, SCA administrators, IRBs, etc.,) there was a difference of opinion on whether the provision of an incentive by the host institution would require full review by each institution's IRB. Multiple host sites wished to offer the incentive. Simultaneously, multiple host sites reported they were willing and able to allow Wisconsin's IRB to oversee the study despite plans for the host site to offer an incentive for participation.

An alternative option, according to Wisconsin's IRB, was for the researcher to provide the incentives. Having the researcher provide incentives instead of host sites would avoid triggering the requirement that each host site individually review the study. To reduce costs and to simplify the review process this study proceeded without offering an incentive to participate.

The second planned for but unimplemented strategy was to afford a preference to host sites willing to enforce a requirement that students respond. It is a common practice for institutions to require that students participate in commercial or extracurricular educational products, which include a series of assessment surveys and questionnaires. The most common

mechanism to enforce this requirement is that institutions will prevent students from accessing class registration in the spring semester until the student has completed the educational product and all included assessment surveys or questionnaires. One prominent example is a program known as *AlcoholEdu* (http://everfi.com/higher-education-old/alcoholedu). Multiple participating institutions indicated they were able and interested in requiring that students respond because there were similar requirements for other programs they had mechanisms in place to accomplish this objective. However, by the time host site recruiting occurred in the spring and summer of 2016 it was too late to plan for applying a requirement in this study.

All four institutions recruited as host sites for this study were public, state supported four-year degree granting institutions with residence hall systems. Institution A enrolled just over 5,000 undergraduate students of which about one third were part-time. Despite having a residence hall program the majority of students at Institution A commuted to campus. The academic offerings at Institution A emphasized professional skills including accounting, business, criminal justice, health, teaching, and nursing, but also included offerings in history, philosophy, chemistry, theater, etc. Institution B enrolled almost 30,000 undergraduate students. At Institution B there is a large residence hall program but a high proportion of students also live off-campus. Institution B is self-described as being a prolific research institution. The largest of this study's four institutions, Institution B boasts offering nearly 5,000 courses and over 200 undergraduate majors and certificates. Additionally, at Institution B there is a popular Greek-letter organizational program (serving fraternities and sororities), which also houses many students. Institution C enrolled just over 4,000 undergraduate students at a highly residential campus. The curriculum at Institution C emphasized art, science, communications, and humanities. Institution D enrolled almost 10,000 undergraduate students. The course

offerings at Institution D number more than 120 programs in nearly 50 majors spread across four colleges.

Three institutions were located in a Midwestern state and one was located in an Northeastern state. The admission rates at these four institutions ranged from 41% to as high as 89%. Institution C was the most selective while Institution D was the least selective. The 2015 release of data from the U.S. Department of Education's Integrated Postsecondary Education Data System indicates that the Institution A was situated in a suburban midsized community, Institution B was situated in a midsized city community, Institution C was situated in a suburban large community, and that Institution D was situated in a distant town community. The students at these four institutions were predominantly white. Again according to the 2015 release of Integrated Postsecondary Education Data the percentage of white students ranged from as low as 54% to as high as 88%. The majority of students at each institution were female. The percentage of women at each institution ranged from as low as 51% to as high as 55%.

3.10 Analytical Plans

Conforming to the highest research ideal would involve randomly assigning students to participate in SCA or not to participate: to either break the rules or not. Unless researchers were to produce a mock SCA process, such experimental approaches that include random assignment would not be logical or ethical. Thus "the path to random assignment is blocked" which requires a "look for alternate routes" (Angrist & Pischke, 2015, p. 47). This study applied a quasi-experimental method known as differences-in-differences (DID) estimation, "a simple panel data method applied in situations when certain groups are exposed to a treatment and others are not" (Schlotter, Schwerdt, & Woessmann, 2011, p. 124). Each academic year, some students participate in the SCA process while others do not. By tracking student responses to

this instrument over time and then applying a differencing procedure, this method is one that can add rigor and sophistication to the study of SCA. The differencing procedure compares the change (if any) in responses among those that did not participate, to the change (if any) in responses among those that did participate. Thus the DID method asserts as a treatment effect the difference between the two group differences. On the assumption that the treatment group's trend would have been parallel to the control group's trend, this method controls for what would have happened absent any treatment.

No known study of SCA has utilized this method. Despite the novelty of using quasi-experimental design (QED) in general, or DID in specific, to study SCA, the instrument proposed by this study is an important step toward an attempt at adding new knowledge regarding the effects of SCA processes. Alone, QED study would not definitively answer questions related to whether students develop because of SCA processes. However thus far, approaches that include rigorous examination of plausible counterfactual comparison groups, such as the approach accomplished through DID, are lacking. Such comparative approaches will offer more sophisticated evidence as to whether students indeed develop as a result of participating in SCA processes.

3.10.1 DID Estimation By Group Mean Calculations

This subsection explains the DID estimation strategy, why it permits causal inference, and the precise statistical model used in analyzing the data collected for this study. The DID strategy involves comparing pre- and post-treatment measures. However, DID is more than merely asserting as a treatment effect (TE) the difference between baseline outcomes and treated outcomes for the same group of subjects which would be accomplished in Equation 3.1.

In Equation 3.1, $\bar{Y}_{t2}$ is the mean outcome following treatment and $\bar{Y}_{t1}$ is the mean outcome prior to treatment.

$$TE = \bar{Y}_{t2} - \bar{Y}_{t1} \quad (3.1)$$

The DID strategy also involves comparing performance between a group of treated students and untreated students. However, DID is also more than merely asserting as the TE the difference between a baseline comparison group's performance and the treatment group's performance (Equation 3.2). In Equation 3.2, $\bar{Y}_{t2}$ is again the mean outcome following treatment while $\bar{Y}_{c2}$ is the mean outcome of an untreated comparison group.

$$TE = \bar{Y}_{t2} - \bar{Y}_{c2} \quad (3.2)$$

To add a modicum of rigor to the analysis a *t-test* would ascertain if the result of either ($\bar{Y}_{t2}$ - $\bar{Y}_{t1}$) or ($\bar{Y}_{t2}$ - $\bar{Y}_{c2}$) is statistically significant. However, despite the opportunity to conduct a t-test these methods are insufficient for causal inference. The methods as demonstrated by Equations 3.1 and 3.2 leave the effect of confounding factors unexamined. From Equation 3.1 there is no opportunity to know if $\bar{Y}_{t2}$ is different from $\bar{Y}_{t1}$ for reasons other than the treatment. Likewise from Equation 3.2 there is no opportunity to know if $\bar{Y}_{t2}$ is different from $\bar{Y}_{c2}$ for reasons other than the treatment.

Conceptually, the DID estimation strategy works by conducting an additional observation of the untreated group $\bar{Y}_{c1}$. A conceptual (not mathematical) merger of Equations 3.1 and 3.2 with the addition of $\bar{Y}_{c1}$ illustrates the DID estimation strategy (Equation 3.3).

$$DID\ Estimator\ (DIDe) = (\bar{Y}_{t2} - \bar{Y}_{t1}) - (\bar{Y}_{c2} - \bar{Y}_{c1}) \quad (3.3)$$

Thus, the DID method generates an estimation of the TE, which is the difference between the two group differences. The formula subtracts the control group's change in mean from the treatment group's change in mean. On the assumption that the treatment group's trend would have been parallel to the control group's trend, this method successfully controls for what would have happened absent any treatment.

Schlotter, et al. describe the intuition associated with this method.

> Group-specific means might differ in the absence of treatment. However, as long as this difference is constant over time (in the absence of treatment), it can be differenced out by deducting group-specific means of the outcome of interest. The remaining difference between these group-specific differences must then reflect the causal effect of interest. (Schlotter, Schwerdt, & Woessmann, 2011, p. 125)

Stock and Watson described the advantages of the DID estimation strategy. It "compare[s] not the outcomes Y, but the change in the outcomes pre- and post-treatment, thereby adjust[ing] for differences in pre-treatment values of Y in the [treatment and control] groups" (2011, p. 490).

No other study of SCA has utilized this method. However, DID has been useful in policy evaluation both for education and in other contexts (Angrist & Pischke, 2015; Hillman, Tandberg, & Fryar, 2015; Schlotter, Schwerdt, & Woessmann, 2011).

In the course of this study, $\bar{Y}_{t1}$ and $\bar{Y}_{c1}$ was collected near the beginning of the semester. At the time of collection, there was be no method of ascertaining which observations belong to either $\bar{Y}_{t1}$ or $\bar{Y}_{c1}$. At the end of the semester, this study administered the same outcome measures to all students with an additional set of questions that screened for participation in the

school's SCA process. Some of those students experienced an SCA process naturally as a part of being a college student before the second survey administration. Data from the SCA participation screening instrument in the second administration allowed the study to identify which respondents were in the treatment group.

3.10.2 DID Estimation By Ordinary Least Squares

Equation 3.3 from above is what Angrist and Pishkey characterized as the "four number DD [DID] recipe" (2015, p. 188). It is also possible to calculate a DID estimator utilizing an ordinary least squares regression which according to Angrist and Pischke is more "precise" and "reliable" (2015, p. 188). Equation 3.4 is the base statistical model that replicates the results from Equation 3.3. Equation 3.4 is used to produce an estimate of the main effects across all institutions. Equation 3.5 provides a more detailed understanding of the specific effects at each institution.

$$Y_{it} = \alpha + ß_1(Treat) + ß_2(Post) + ß_3(Treat \times Post) + Controls_{it} + \varepsilon_{it} \qquad (3.4)$$

Y_{it} = the outcome measure for the i^{th} student at the t^{th} time. The outcome measures will be the factor scores from the MFQE-SCALE.

α = *Alpha,* the constant and it representative of the mean outcome for the control group before treatment.

Treat = a dummy variable equal to 1 (true) for observations from students who participated in an SCA process. The coefficient on *Treat* ($ß_1$) corresponds with the value for $\bar{Y}_{t1} - \bar{Y}_{c1}$.

Post = a dummy variable equal to 1 (true) for observations from the end of the semester (following treatment). The coefficient on *Post* ($ß_2$) corresponds with the value for $\bar{Y}_{c2} - \bar{Y}_{c1}$.

Treat × *Post* = true for post-assessment observations from the treatment group (an

interaction of Treat and Post). The coefficient on $Treat \times Post$ ($ß_3$) is the DID estimator or also sometimes referred to as the coefficient of interest and its value corresponds with Equation 3.3.

$Controls_{it}$ = other variables collected from participants that can be utilized to add rigor to the analysis. When controlling for other variables the regression technique provides a DID estimator that represents a value which would result while holding the controlled for variables constant.

ε_{it} = the error and unobserved variation specific to each individual at each time.

$$Y_{itj} = \alpha(Inst_j) + ß_1(Treat_j) + ß_2(Post_j) + ß_3(Treat_j \times Post_j) + Controls_{itj} + \varepsilon_{itj} \quad (3.5)$$

Y_{itj} = the outcome measure for the i^{th} student at the t^{th} time attending the j^{th} institution. The outcome measures will be the factor scores from the MFQE-SCALE.

$Inst_j$ = a categorical array of dummy variables for each institution. The α coefficients on these array of dummy variables will provide the mean outcome for the control group specific to each j^{th} institution before treatment.

$Treat_j$ = a dummy variable equal to 1 (true) for observations from students who participated in an SCA process interacted with the array of dummy variables for each institution. The coefficient on $Treat_j$ ($ß_1$) corresponds with the value for $\bar{Y}_{t1} - \bar{Y}_{c1}$ at the j^{th} institution.

$Post_j$ = a dummy variable equal to 1 (true) for observations from the end of the semester (following treatment) interacted with the array of dummy variables for each institution. The coefficient on $Post_j$ ($ß_2$) corresponds with the value for $\bar{Y}_{c2} - \bar{Y}_{c1}$ at the j^{th} institution.

$Treat_j \times Post_j$ = true for post-assessment observations from the treatment group (an

interaction of Treat and Post and the array of dummy variables for each institution). The coefficient on $Treat_j \times Post_j$ ($ß_3$) is the DID estimator or also sometimes referred to as the coefficient of interest and its value corresponds with Equation 3.3. This ß3 estimator in this equation will provide the estimated DID effect specific to the j^{th} institution.

$Controls_{itj}$ = other variables collected from participants that can be utilized to add rigor to the analysis. When controlling for other variables the regression technique provides a DID estimator represents a value that would results while holding the controlled for variables constant.

ε_{itj} = the error and unobserved variation specific to each individual at each time at each institution.

3.10.3 Notable Item Analyses

The notable item analysis is a set exploratory techniques planned specifically for purposes of identifying which MFQE-SCALE items may be worthy of greatest attention. For this study the notable item analysis first involves calculating a DID estimator for each individual item in the MFQE-SCALE. By generating a DID estimator specifically for each individual item in the MFQE-SCALE it is possible to quickly tabulate and sort the items in order from highest DID estimator to lowest DID estimator. Those with the highest DID estimators may be worth closer evaluation as it may be reasonable to infer that student responses to those items changed the most as a result of SCA processes. Likewise the items with low DID estimators may be worth a closer evaluation as it may be reasonable to infer these changed the least as a result of SCA processes.

Technically, applying a DID estimation strategy assumes the outcome variable of interest is a continuous variable. In this notable item analysis strategy, the outcome variable is

categorical and ordinal. Disregarding the assumption that the outcome variable of interest should be continuous underscores the importance of labeling the results exploratory. Also, instead of relying on p-values and classic null hypothesis significance testing (which would be appropriate when using a continuous variable), this notable item analysis will focus on the magnitude in terms of standard deviation as well as the magnitude in terms the five pointed item scale.

The second part of the notable item analysis is a qualitative approach to selecting items or groups of items that when taken together imply a meaningful or important story about the respondents. As shown in Chapter 4 and discussed in Chapter 5, this subjectively interpretive approach to analyzing item responses is particularly useful in suggesting and supporting recommendations for future research.

3.10.4 Generalized Belief Measures

Previous studies have collected data that directly, indirectly, intentionally, or incidentally collected information about what those who participated in the SCA process believed about the process. As discussed in Chapter 2, a range of studies examined perception of educational value (Allen, 1994; King, 2012; Mullane, 1999; Zerulik, 2012; Stinpson & Janosik, 2011, & 2015). Another group has examined perception of fairness (Allen, 1994; King, 1999; Mullane, 1999). Also examined has been perception of efficacy, that is how or whether SCA participants perceive the SCA process as effective (Allen, 1994; Stimpson & Janosik, 2015).

This question is designed to gather information about your feelings of the student conduct process.

Using scales below please evaluate the statement below. Far left or right (1 or 7) indicate a very strong feeling. Second from left or right (2 or 6) indicate a strong feeling. Middle left and right (3 or 5) indicate a weak feeling. The very middle (4) indicates you are undecided.

Statement to evaluate: "My experience with the student conduct process was educational."

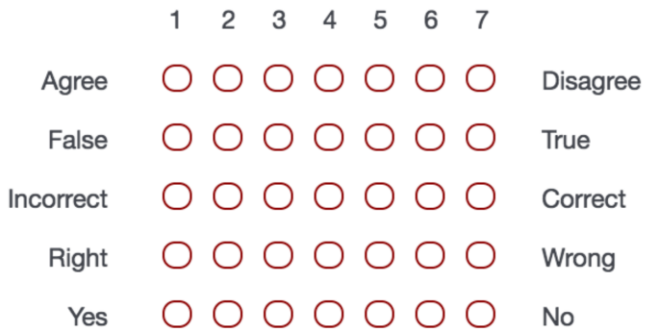

Figure 3.2. Instrument item used to measure belief regarding the educational value of the student conduct administrative process. Items 1, 4, and 5 are reversed scored. Then the total of all 5 items combine to form a composite score ranging between 5 and 35.

An alternate reading of the previous work on this topic shows the research could also have been characterized as measures of belief, attitude, and value. Previous studies utilized measures that purportedly measured perception of educational value, fairness, or efficacy utilizing instruments specific to that study or to the line of research supporting that study. Not previously used in measuring belief regarding educational value, fairness, or efficacy of the SCA process is an instrument developed for more general use. To add trustworthiness to the discussion associated with belief regarding educational value, fairness, or efficacy, this study utilized a measure known as the Generalized Belief Measure (GBM) designed by McCroskey and Richmond (1996). Using an instrument developed by another researcher is advantages as it

can bring the additional influences into the project. Furthermore, as a consequence of using previously developed measures, the results may be more recognizable by others. Using a previously developed and recognized measure can also assist in comparing results from multiple studies in a more generalizable frame.

Utilizing a previously developed measure may also assist in adding sophistication to the study. For example, McCroskey and Richmond (1996) explain that beliefs (as well as attitudes and values) consist of "three dimensions -- direction, intensity, and salience" (p. 129). Unlike previous measures used to measure how students perceive SCA processes, the McCroskey and Richmond measure was developed with the direction, intensity, and salience principles in mind; when assessing belief, attitude, and value, it is important to capture information about the direction, intensity, and salience. Previous study has not parsed their investigation apart among these three dimensions. The GBM is specifically designed to measure how strong a respondent believes in a given statement.

As shown in Figure 3.2, the GBM presents a respondent with a statement. After reading that statement participants are instructed to respond via a series of seven pointed ordinal scales. Each scale presents to a pair of antonyms. The instrument merges measures of agreement, truth, correctness, rightness, and yes or no into a composite score expressed as an integer between five and 35.

This study used the GBM to collect data related to belief about educational value, as shown in Figure 3.2, as well as for fairness and efficacy as shown in the appendix.

3.10.5 Open-Ended Responses

This study also collected information from students who indicated the participated in an SCA process via an open-ended response question. During end of semester data collection this

study sought and obtained IRB approval to ask students who had indicated they were participants in an SCA process:

> Because you indicated that you participated in the student conduct process, we would like to ask you to describe your experience. Do you feel it was educational? In your own words, could you describe any learning?

Open-ended questions are sometimes criticized for two reasons. First, when it is time to analyze data they are sometimes not as convenient as categorical or quantitative questions; closed-ended questions that provide a set of response options "are usually a more satisfactory way of creating data" (Fowler, 2014, p 88). Second, data from open-ended questions may be biased by education and level. Response length, quality, depth (including non-response) potentially varies based on educational attainment (Heinrich, 2005). Another possible source of bias is that the respondent's attitude and, in a similar manner, their interest regarding the question may influence the respondent's behavior. Response length, quality, depth (including non-response) potentially varies based on attitude and interest (Heinrich, 20015). Despite those disadvantages open-ended questions are helpful in testing a respondent's thoughts or ideas particularly in a manner that can aid revealing data that might not have otherwise been anticipated by the researcher (Fowler, 2014; Heinrich, 2005). Fowler (2014) asserts that open-ended questions "may more closely describe the real views of the respondents" (p. 88). Open-ended questions provide a meaningful courtesy to respondents who may appreciate the opportunity to "say what is on one's mind" (p. 88).

3.11 Missing Responses

Missing data can be a limitation when analyzing for generalizability or for inference. Presumptively, the main cause of missing data in this study was the decision to configure each question as optional. Forcing a response can also be problematic. Some items may not apply to

all respondents. Therefore allowing the option to not respond avoids forcing the respondent to provide a response for the sake avoiding missing data. Forcing responses might mean "the questionnaire is not missing any data" but that "the data might be intentionally inaccurate" (Bean, 2006, p. 361). Respondents might not wish to reveal sensitive or personal information, which could cause some respondents to provide false or otherwise misleading data. Allowing for optional responses also avoids forcing fatigued, disinterested, or confused respondents to provide any response with undue haste merely to complete the instrument (Bean, 2006). Consequently, this study utilized optional survey items and implemented two strategies intended to limit the effect of missing data while maximizing statistical power, rigor, robustness, and trustworthiness.

Incomplete or missing dependent outcome variables. A small proportion of responses provided data for a portion of one or more MFQE-SCALE factor but not an entire factor, i.e., the student responded to four of a factor's five items. Unless otherwise noted, while analyzing and reporting results, this study utilized outcome measures that were calculated with a missing data procedure that uses available items. This procedure often requires two steps. The first step is to transform the available items into z-scores, which ensures that each of the items are commonly scaled. For this study all items were already commonly scaled along five ordinal points. Therefore, this study only required use of the second step, which is to produce a composite outcome score by calculating the average of the available items.

According to McKnight et. al. (2007), this strategy is appropriate when items in each factor are correlated. Within each MFQE-SCALE factor, all items correlated with a statistically significant p-value of less than 0.000. This strategy modestly increased the number of observations with usable outcome scores. For factor one the available item strategy increased

the number of observations with usable outcomes from 2,457 to 2,472; for factor two the increase was from 2,419 to 2,430; for factor three the increase was from 2,397 to 2,475; for factor four the increase was from 2,403 to 2,427; for factor five the increase was from 2,512 to 2,541; and for factor Six the increase was from 2,504 to 2,540. However, to support a fully robust supplementary analysis, this study also conducted its analysis without relying on the available item missing data strategy. The results from both analyses were consistent with each other.

Inconsistent, incomplete, or missing demographic variables. In cases involving a respondent who answered both survey administrations but provided incomplete or inconsistent demographic responses, this study relied on the respondent's latest non-missing value. Also, a small proportion of respondents provided incomplete information by skipping one or more demographic questions. To avoid discarding responses due to missing demographic information, this study converted continuous demographic variables (age, credits eared, and similar) to categorical variables. For responses with missing data this study recoded missing as 'not reported.' Unless otherwise noted, when analyzing and reporting results this study proceeded with categorical variables including a "not reported" category.

3.12 Response Rate Analysis

"There is no controversy among methodologists about the importance of power analysis" (Cohen, 1992, p. 155). Statistical power is an indicator of precision and sensitivity. The results of a power analysis indicate the sample size necessary to avoid asserting there is an effect when, in fact, there is no actual effect.

Table 3.4 shown here and supplemented with Table 3.5 further below report information related to this study's response rate. In Table 3.4 column one indicates

approximately 16,342 study participants received an invitation to the pre-assessment survey while 16,301 received an invitation to the post-assessment survey. The survey software permits students to opt out of receiving future invitations, which resulted in a smaller number of post-assessment invitations.

Columns two and three report the results of the pre-screening question described above. Column two reports the number of students who were excluded from the study because of having responded yes to the pre-screening question. Column three reports the number of students that were not screened out of participation by the initial pre-screening question.

During the pre-assessment approximately 16,432 students were invited and there are approximately 1,400 responses for each of the study's outcome factor measures which equates to a response rate of approximately seven to eight percent. During the post-assessment, approximately 16,300 students were invited, and there are just over 1,000 responses for each of the study's outcome factor measures which equates to a response rate between six and seven percent. Another view is that over the course of the entire study approximately 16,342 students were invited to participate and that approximately 1,700 unique individuals provided at least one complete set responses to each item in each of the outcome factor measures (some of these 1,700 individuals provided two complete sets).

Columns four and five report the results of the informed consent described above. Column four reports the number of students choosing not to proceed following informed consent. Column five reports the number of students who proceeded following informed consent. Thirty-two respondents provided complete or nearly complete responses to the study instruments while also providing no response to the informed consent question; these students were deemed to have consented. This study also considered the risk associated with

inadvertently allowing the identification of individual respondents that is sometimes possible when cross-tabulations display few individuals in a specific cell or cells. Given the protocols in place to protect respondent confidentiality and anonymity, this study proceeded without masking the results in specific cells with few individuals.

Table 3.4

Invitations, Screening Question Responses, and Factor Responses

	(One) Estimated Qualifying Invitees	(Two) Respondents Answering Yes To Pre-screening Questions	(Three) Respondents Answering No to Pre-Screening Questions	(Four) Respondents Choosing Not To Proceeded After Informed Consent	(Five) Respondents Choosing To Proceed After Informed Consent	(Nine) Number of complete responses to each of the study's outcome measures when using available item missing data strategy. Factor Number 1	2	3	4	5	6
Total Pre	16,342	2,706	3,777	1,240	1,889	1432	1403	1434	1401	1475	1474
Inst A	1,503	61	300	90	164	133	131	133	131	140	140
Inst B	9,468	2,213	2,493	874	1,192	879	863	881	861	901	900
Inst C	1,453	100	175	38	87	56	54	56	54	62	62
Inst D	3,918	332	809	238	446	364	355	364	355	372	372
Total Post	16,300	1,481	2,093	466	1,339	1040	1027	1041	1026	1066	1066
Inst A	1,487	42	118	32	70	45	45	45	45	47	47
Inst B	9,468	1,161	1,430	296	919	713	701	714	700	729	729
Inst C	1,448	65	106	32	56	40	40	40	40	42	42
Inst D	3,897	213	439	106	295	242	241	242	241	248	248
Overall Total	32,643	4,187	5,870	1,706	3,228	2472	2430	2475	2427	2541	2540

Notes. The small sample size at Institutions A and C requires that this study decline the opportunity to analyze for inference the specific effects at those two institutions. For more information related to response rates see also Tables 3.5, 4.1, and 4.3. For extended notes regarding the production of this table see Appendix H.

Due to a mistake at one of the study sites, this study was provided a list of participants that inadvertently included some of that institution's graduate student population. Column one, therefore, provides a tally of estimated qualifying invitees. When calculating response rates this study utilized the numbers as displayed in column one as a denominator (as opposed to the actual number of invitees). For the institution that provided the partially overly inclusive list of invitees, that column provides a count, later obtained from the registrar, of the number of

students that should have been on the list. Because of the use of pre-screening instruments it is unlikely that many, if any, graduate students responded to this study's survey instruments. This study does not report at which institution this error occurred to afford discretion for the various participants.

Column nine reports the number of students with outcome scores as calculated using the available item strategy for each of the six outcome factor measures. Given the longitudinal nature of this study there are multiple calculations that could reasonably represent the response rate. To simplify the presentation of the information necessary for understanding the response rates, Table 3.5 provides a three-way tabulation of the group (control versus treatment), assessment period (pre- versus post-), and each factor. According to Table 3.5, there were between 85 and 95 post-treatment outcome measures from the treatment group and 41 pretreatment outcome measures from the treatment group. From the control group, there were between 941 and 971 post-treatment outcome measures from the control group and between 1,360 and 1,434 pretreatment outcome measures from the control group.

These response rates are modest but not un-interpretable. The importance of response rates when analyzing surveys of college students has recently been examined (Fosnacht, Sarraf, Howe, & Peck; 2017). According to Fosnacht, et. al., a high proportion of published research involves administration of survey instruments and that conventional wisdom has assumed a higher response rate is necessary in order to significantly reduce the potential for producing biased results. To test the assumption that higher response rates produce less biased results Fosnacht, et. al. produced results from data that simulated low response rates. After results from the data that simulated low response rates highly correlated with results from more complete data sets the Fosnacht team explained:

> With few exceptions we found estimates for several measures of college student engagement to be reliable under low response rate conditions (5% to 10%), providing the sampling frame included at least 500 students. For smaller administrations, the response rate required for an estimate to be reliable was higher, but we found estimates to be increasingly reliable after receiving responses from 50 to 75 students. (Fosnacht, et. al., 2017, pp. 257-258)

As shown in table 3.5 the number of responses in this study's control group exceeds 500 while likewise the number in this study's control group exceeds 75 students (for all six MFQE-SCALE factors). Nevertheless, this study's modest response rates taken together with its novel theoretical and methodological approaches promote a cautious approach when asserting these data are the basis for strong or conclusive inferential results.

Table 3.5

Responses Tallied Three Ways: Group (Control by Treatment), Period (Pre by Post), and Each Factor

	Post Treatment (Nt2)	Pre Treatment (Nt1)	Post Control (Nc2)	Pre Control Nc1
1) Identification with statements of value for internal reasoning when evaluating the rules.				
All Institutions	89	41	951	1391
Inst A	1	4	44	129
Inst B	61	23	652	856
Inst C	7	2	33	54
Inst D	20	12	222	352
2) Identification with statements of value for external social reasoning and input when evaluating the rules.				
All Institutions	85	41	942	1362
Inst A	1	4	44	127
Inst B	58	23	643	840
Inst C	7	2	33	52
Inst D	19	12	222	343
3) Identification with statements of value for rules when establishing expectations for behavior.				
All Institutions	90	41	951	1393
Inst A	1	4	44	129
Inst B	62	23	652	858
Inst C	7	2	33	54
Inst D	20	12	222	352
4) Identification with statements of value for good of the community when establishing expectations for behavior.				
All Institutions	85	41	941	1360
Inst A	1	4	44	127
Inst B	58	23	642	838
Inst C	7	2	33	52
Inst D	19	12	222	343
5) Identification with statements of value for considering the benefits of alcohol use.				
All Institutions	95	41	971	1434
Inst A	1	4	46	136
Inst B	64	23	665	878
Inst C	9	2	33	60
Inst D	21	12	227	360
6) Identification with statements of value for considering the drawbacks of alcohol use.				
All Institutions	95	41	971	1433
Inst A	1	4	46	136
Inst B	64	23	665	877
Inst C	9	2	33	60
Inst D	21	12	227	360

Note. The small sample size at Institutions A and C requires that this study to decline the opportunity to analyze for inference the specific effects at those two institutions. For more information related to response rates see also Tables 3.4, 4.1, and 4.3.

3.13 Hypotheses And Predictions

Null: The change in scores on the MFQE-SCALE factors from students who participated in an SCA process will equal the change in scores on the MFQE-SCALE factors from those who did not participate in an SCA process. Participating in an SCA process does not produce an educational effect as measured by the MFQE-SCALE and estimated by the DID strategy.

Alternate: The change in scores on the MFQE-SCALE factors from students who participated in an SCA process will not equal the change in scores on the MFQE-SCALE factors from those who did not participate in an SCA process. Participating in an SCA process produces an educational effect as measured by the MFQE-SCALE and estimated by the DID strategy.

Based on a careful review of the literature it is difficult to offer a prediction. It might not be true that SCA is capable of producing any learning. Or perhaps less disappointingly, SCA might not be capable of producing high quality learning.

The reason it is difficult to offer a prediction is that previous scholarship has generally:

Not documented a consensus on what it is that students should learn from SCA processes in a consistent and measurable way.

Limited its use of comparison groups.

Not used experimental study involving random assignment among comparison groups.

Not used quasi-experimental analysis among comparison groups.

Not analyzed change over time.

Any result will be an important reportable finding. If this study fails to provide evidence that supports professional assumptions that participating in SCA processes is an educational experience further examination will be necessary with other methods before the field can offer a more definite conclusion that SCA processes are educational. However, if this study does provide evidence that participating in SCA processes is an educational experience as suggested by the field, the field will then have a legitimate basis to assert itself as an educational aspect of American higher education. Building on this study's methods, the field can also begin the work of examining what aspects of SCA processes are the most educational and which are the least. With such evidence, the way toward evidence-based policy making becomes a more realistic opportunity.

Chapter 4 Results

> Judicial officers can feel confident that in most cases, some kind of learning does occur for students in the process and behaviors generally change. (Howell, 2005)

This study recorded responses from 308 students who indicated they participated in an SCA process one or more times. The purpose of this study was to examine whether those 308 students may have learned as a result of their participation in that process. Of those 308 students there were 133 who provided data that was intended to measure how strongly they believed in the statement "my experience with the student conduct process was educational" via the Generalized Belief Measure (GBM) as described in Chapter 3. The GBM assesses generalized belief regarding a given statement such as was in this case "my experience with the student conduct process was educational." The results of the GBM are expressed on a composite scale from 5 to 35. Tellingly, the 308 students who participated in an SCA process had a median GBM score for the aforementioned statement of 20 and the mean was 20.52. This result indicates that, on average, belief in the statement "my experience with the student conduct process was educational" lands at the middle of the scale. Perhaps if the SCA processes were educational, the expectation would have been that the measure of belief regarding this statement would have been above the scale's midpoint.

Another important observation regarding the GBM results is that they are not normally distributed, as shown in Figure 4.1. To echo the primary finding from Howell (2005), the students toward the right of Figure 4.1's distribution are likely among those who would report that some kind of learning might have occurred. However, the students toward the left of Figure 4.1's distribution are among those participants, by Howell's implication, who would not

report that some kind of learning occurred. The students toward the middle are perhaps the students with weak or conflicting beliefs regarding whether the process was educational.

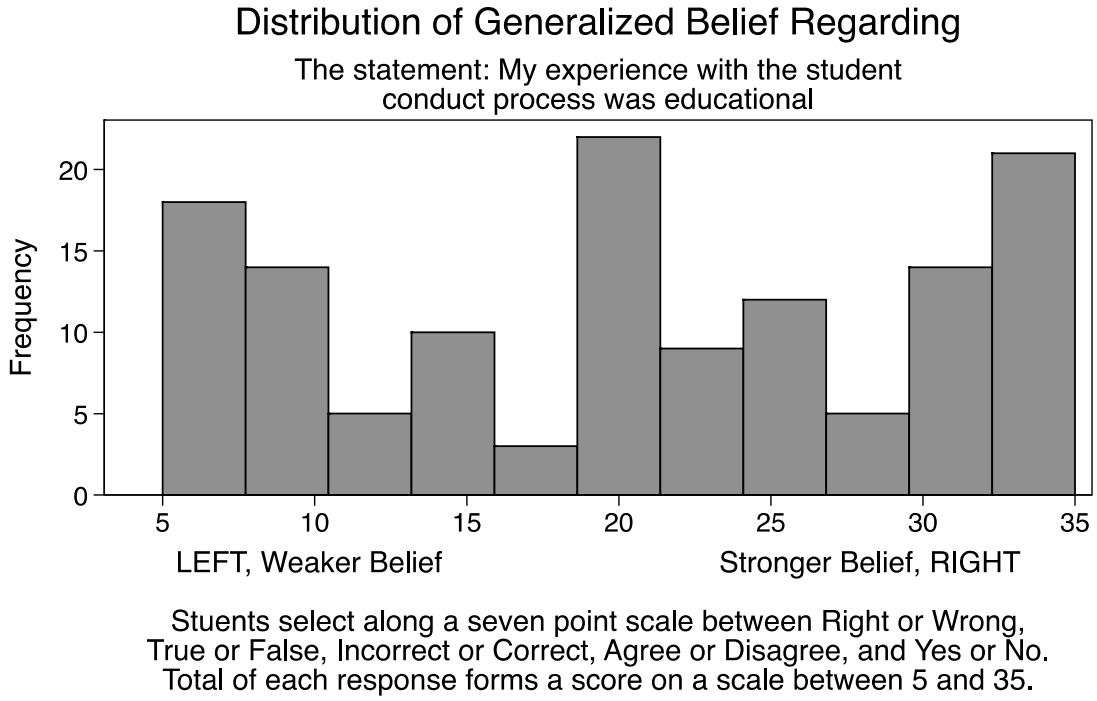

Figure 4.1. Histogram of generalized belief measure results regarding the statement "My experience with the student conduct process was educational." Available respondents (n) = 133.

Student belief regarding the process, however, was not this study's primary outcome measure. The aim of sharing this prefatory look at a secondary measure is to instill curiosity to know more of the results from this study.

4.1 Summaries of Responses

Figures 4.2 and 4.3 provide an indication of where the students who participated in this study live while at school and where they are from. These two figures also provide a basis for discussing the profile of this study's four institutional host sites. All four host site colleges and

universities were public state supported institutions. Three were located in a Midwestern state and one was located in the Northeast.

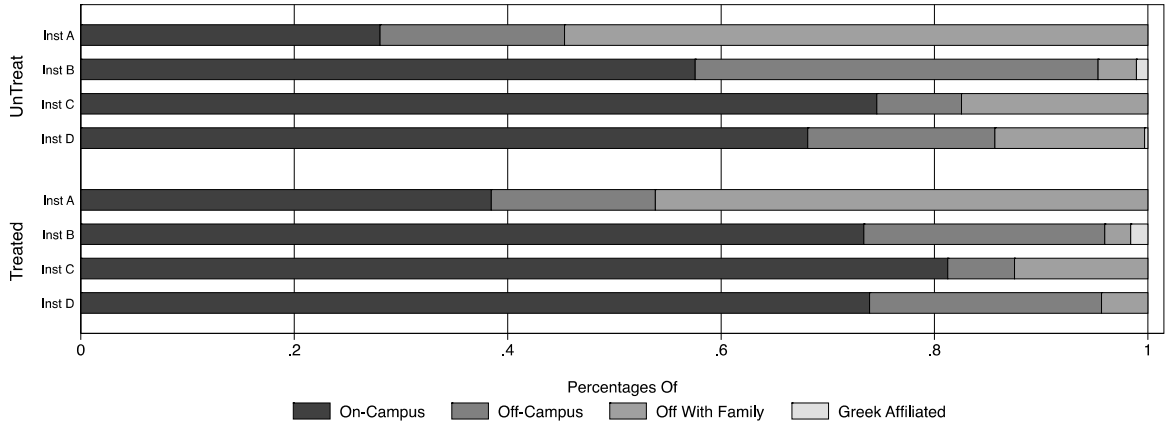

Figure 4.2. Housing status by treatment group reported at each institution. Excludes 55 (1.70%) students who did not report housing status or who marked "other." Respondents (n) = 3,228.

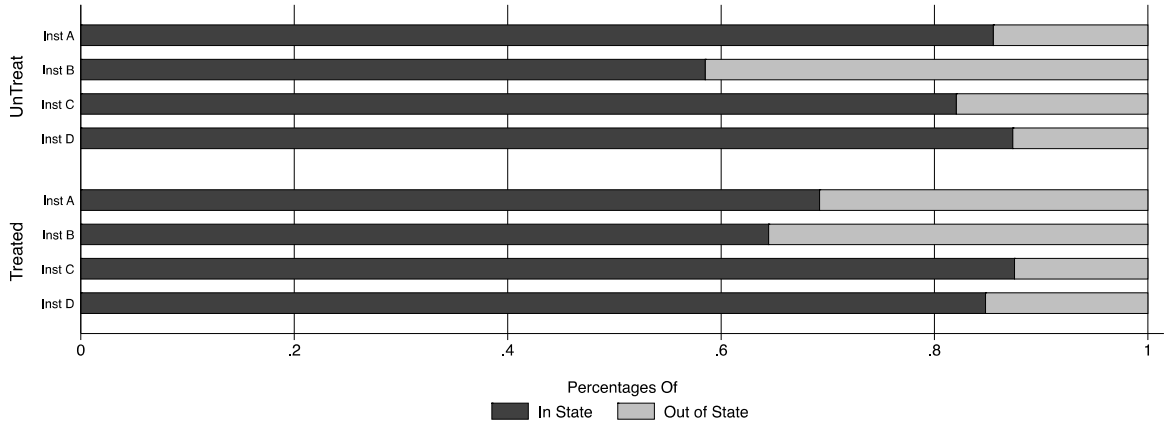

Figure 4.3. State residency status by treatment group reported at each institution. Excludes 279 (8.64%) students who did not report a state. Respondents (n) = 3,228.

Institution A enrolls just over 5,000 undergraduates, Institution B enrolls almost 30,000 undergraduate students, Institution C enrolls just over 4,000 undergraduate students, and Institution D enrolls almost 10,000 undergraduate students. The students at Institution A, where the majority reported living at home with family contrast sharply with the other

institutions regarding residential status. At other institutions, the majority of respondents reported living on-campus. Institution A was otherwise similar to the other institutions regarding age and state residency. An important note about Institution B is that it is host to a large set of fraternity and sorority organizations. Some of the Greek organizations provide housing to member and non-member students.

Table 4.1.

Overall Response Rates for Each Factor as a Percentage of Estimated Qualifying Invitees

	(One) Est. Qualifying Invitees	(Two through Seven) Factor Number 1	2	3	4	5	6
Total Pre	16,342	8.76%	8.59%	8.78%	8.57%	9.03%	9.02%
Inst A	1,503	8.85%	8.72%	8.85%	8.72%	9.31%	9.31%
Inst B	9,468	9.28%	9.11%	9.31%	9.09%	9.52%	9.51%
Inst C	1,453	3.85%	3.72%	3.85%	3.72%	4.27%	4.27%
Inst D	3,918	9.29%	9.06%	9.29%	9.06%	9.49%	9.49%
Total Post	16,300	6.38%	6.30%	6.39%	6.29%	6.54%	6.54%
Inst A	1,487	3.03%	3.03%	3.03%	3.03%	3.16%	3.16%
Inst B	9,468	7.53%	7.40%	7.54%	7.39%	7.70%	7.70%
Inst C	1,448	2.76%	2.76%	2.76%	2.76%	2.90%	2.90%
Inst D	3,897	6.21%	6.18%	6.21%	6.18%	6.36%	6.36%
Overall Total	32,642	7.57%	7.44%	7.58%	7.43%	7.78%	7.78%

Note. For more information related to response rates see also Tables 3.4, 3.5, and 4.3.

The response rates differed at each institution and for each outcome measure. Tables 3.4 and 3.5 above provide information related to the number of students responding. Subsequently, Table 4.1 provides response information as a percentage of estimated qualifying invitees. The lowest response rate was from Institution C while the highest response rates were from Institutions B and D. As discussed in Chapter 3, these response rates may cast doubt

upon this study's ability to offer strong inferences from the data, particularly regarding Institutions A and C.

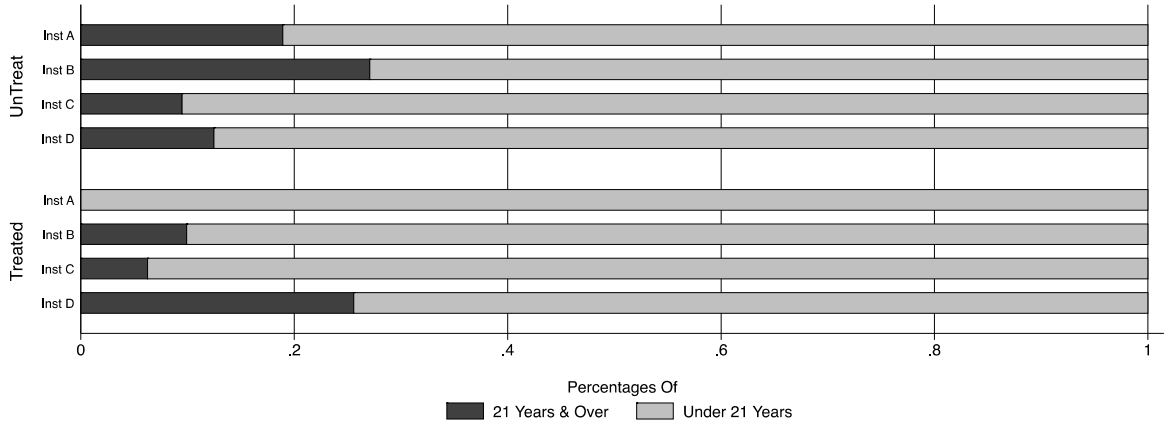

Figure 4.4. Minority status (age) by treatment group reported at each institution. Excludes 320 (9.91%) students who did not report an age. Respondents (n) = 3,228.

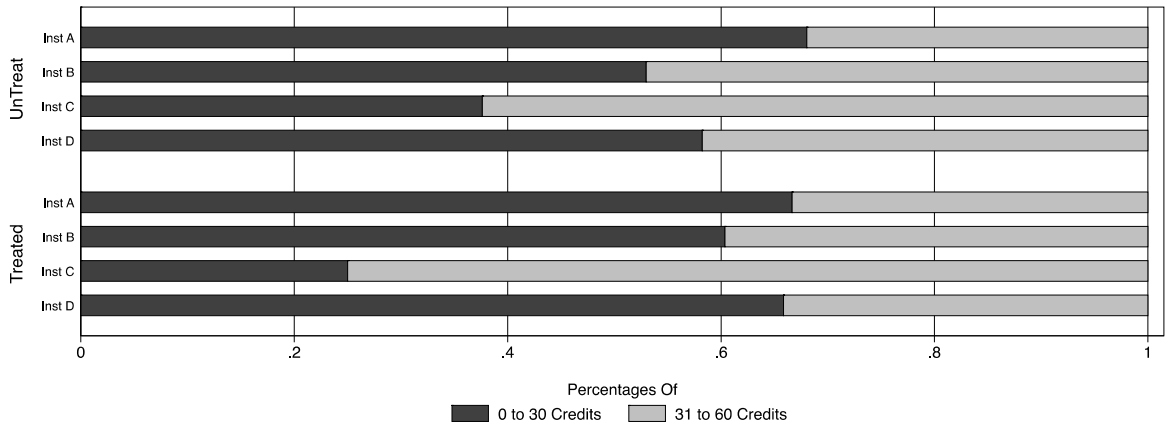

Figure 4.5. Class standing (credits earned) by treatment group at each institution. Excludes 607 (18.8%) students reporting "not sure" and 265 (8.21%) who did not report credits earned. Respondents (n) = 3,228.

As shown above in Figure 4.4 the majority of students responding in this study were under the age of 21. Correspondingly, Figure 4.5 shows that students were in their first and second year of college (as planned for in the sampling strategy described in Chapter 3). The age and class standing of these respondents are appropriate for this study because students involved

in SCA processes are typically younger and in their first or second year of college (Dannells, 1997; Janosik et al., 1985; Tracey et al., 1979).

Shown below in Figure 4.6, the majority of students responding to this survey did not identify as students of color. Due to the modest response rates that resulted in low variation, when including race in an analysis this study elected to analyze race as a binary (students of color and non-students of color). Particularly among the treatment group some racial categories were unrepresented.

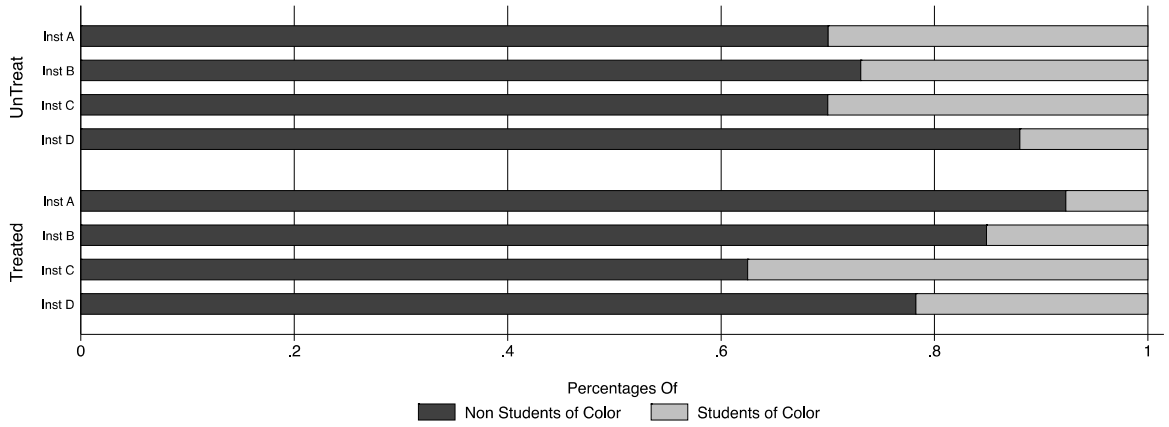

Figure 4.6. Race by treatment group reported at each institution. Excludes 341 (10.56%) who did not report race. Respondents (n) = 3,228.

Respondents in this study were also mostly female, as shown in Figure 4.7; this gender representation contrasts with observations that the majority of SCA participants tend to be male (Dannells, 1997; Harper et. al., 2010; Janosik et al., 1985; Tracey et al., 1979). Thus the respondents in this study represent an over-sampling of women.

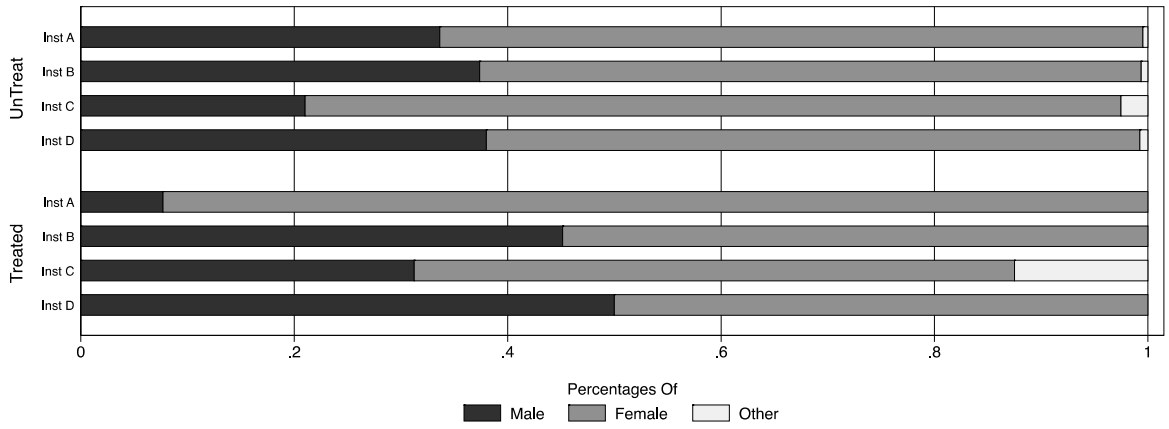

Figure 4.7. Gender by treatment group reported at each institution. Excludes 251 (7.780%) who did not report gender. Respondents (n) = 3,228.

4.2 MFQE-SCALE Interpretation, Revisited

The outcome measures devised for this study are somewhat abstract. The reason for this abstraction is the nature of the MFQE-SCALE instrument items. The MFQE-SCALE asks students to rate how strongly they identify with each statement on the following five pointed ordinal scale:

1 - "Describes me greatly."

2 - "Describes me well."

3 - "Describes me somewhat."

4 - "Describes me very little."

5 - "Does not describe me at all."

Use of this scale means that in all cases a lower score on an individual item would indicate a strong identification with that statement. The identify scale was intended to measure changes in how the student self-identifies as an indicator of developmental change.

In the case of two items from factor five, such as "I drink to get drunk" many practitioners would view a higher score as more desirable than a lower score. Conversely, for

another item from the same factor, "I don't drink alcohol," many practitioners would desire a lower score -- at least for those under the age of 21. When combining items into a composite score some items must be scored in reverse. To assist interpretation, scores were reversed so that an increase in score corresponds with an increase in the extent to which a respondent's identity is one that values the items in that factor.

Scale, another important nuance associated with interpreting the coefficients and estimates displayed here, has not yet been fully discussed. An added benefit of utilizing the available item strategy is that all of the coefficients and estimates are commonly scaled. By having utilized the available item method to increase the number of observations, as discussed above in Chapter 3, the outcome measure scores range from 1 to 5. Thus a coefficient or estimate of 1.0 (+/-) would correspond to a move or change along one quarter of the entire scale.

A review of Table 4.2 provides two additional important observations. First, when pooling all responses, the change from the beginning of the semester to the end of the semester is not great. Second, the standard deviations are small, an indication that small coefficients or estimates might represent great changes.

Table 4.2

Pre-assessment & Post-assessment MFQE-SCALE Factor Summary Statistics

Factor	Obs.	Mean	Standard Deviation
Pre Assessment Summary Statistics			
1) Identification with statements of value for internal reasoning when evaluating the rules.	1,432	3.08	0.91
2) Identification with statements of value for external social reasoning and input when evaluating the rules.	1,403	1.65	0.65
3) Identification with statements of value for rules when establishing expectations for behavior.	1,434	4.05	0.57
4) Identification with statements of value for good of the community when establishing expectations for behavior.	1,401	4.14	0.64
5) Identification with statements of value for considering the benefits of alcohol use.	1,475	3.03	0.61
6) Identification with statements of value for considering the drawbacks of alcohol use.	1,474	3.79	0.64
Post Assessment Summary Statistics			
1) Identification with statements of value for internal reasoning when evaluating the rules.	1,040	3.16	0.86
2) Identification with statements of value for external social reasoning and input when evaluating the rules.	1,027	1.67	0.65
3) Identification with statements of value for rules when establishing expectations for behavior.	1,041	3.99	0.55
4) Identification with statements of value for good of the community when establishing expectations for behavior.	1,026	4.11	0.63
5) Identification with statements of value for considering the benefits of alcohol use.	1,066	2.97	0.58
6) Identification with statements of value for considering the drawbacks of alcohol use.	1,066	3.75	0.64

Note. For pooled summary statistics see Table 3.1.

4.3 DID Estimation By Group Mean Calculations

Table 4.3 displays the DID estimations by group mean calculations. The eleventh column, which displays the DID estimator, is the primary point of interest. Columns one to four provide the number of respondents that were available in the analysis and are shown for informational purposes. These first four columns mirror the results as shown above in Table

3.5. Columns five to seven display the mean of the treatment group at the end of the semester ($\bar{Y}_{t2}$), from the beginning of the semester ($\bar{Y}_{t1}$), and the difference between the two ($\Delta\bar{Y}_{t}$). Columns eight to ten display the mean of the control group at the end of the semester ($\bar{Y}_{c2}$), from the beginning of the semester ($\bar{Y}_{c1}$), and the difference between the two ($\Delta\bar{Y}_{c}$). Column eleven displays the DID estimator ($\Delta\bar{Y}_{t}$)-($\Delta\ \bar{Y}_{c}$). Column twelve displays the pooled standard deviation used for calculating the effect size, which is shown in column thirteen.

Reading downward through Table 4.3 there are five rows for each factor. The first row displayed for each factor provides pooled results across all four institutions. Following the pooled results are four rows displaying the institutional-specific results.

The first important observation to be drawn from Table 4.3 is that the various DID estimates (shown in column eleven) were dissimilar and not often in agreement. For example, regarding the first factor (identification with statements of value for internal reasoning when evaluating the rules), the main effect is positive. However, at Institutions C and D the effect is negative while at Institution A and B the estimate is positive. Notwithstanding that some factor estimates do seem to agree across all institutions such as the second factor estimate, similar patterns of disagreement are apparent by reading through the remainder of column eleven. These dissimilar and disagreeing estimates suggest there is no discernible pattern that would be evidence of an educational effect.

Table 4.3

DID Estimation By Group Means

	(Cols. one to four)				(Cols. five to seven)			(Cols. eight to ten)			(Eleven)	(Twlv.)	(Thirteen)
	Observations (n)				Treatment Group (t)			Control Group (c)			D.I.D. Estimate	Pooled	Effect Size
	Nt2	Nt1	Nc2	Nc1	$\bar{Y}t2$	$\bar{Y}t1$	$\Delta\bar{Y}t$	$\bar{Y}c2$	$\bar{Y}c1$	$\Delta\bar{Y}c$	$(\Delta\bar{Y}t)-(\Delta\bar{Y}c)$	S.D.	$(\Delta\bar{Y}t)-(\Delta\bar{Y}c))/$ (Pooled S.D.)
	Factor 1) Identification with statements of value for internal reasoning when evaluating the rules.												
Pooled Effect	89	41	951	1391	3.348	3.238	0.110	3.144	3.079	0.065	0.045	0.910	0.049
Inst Specific A	1	4	44	129	2.750	2.438	0.312	2.898	2.672	0.226	0.086	0.834	0.103
Inst Specific B	61	23	652	856	3.459	3.391	0.068	3.174	3.151	0.023	0.045	0.886	0.051
Inst Specific C	7	2	33	54	3.286	3.750	-0.464	3.348	3.139	0.209	-0.673	1.011	-0.666
Inst Specific D	20	12	222	352	3.062	3.125	-0.063	3.074	3.044	0.030	-0.093	0.936	-0.099
	Factor 2) Identification with statements of value for external social reasoning and input when evaluating the rules.												
Pooled Effect	85	41	942	1362	1.959	2.037	-0.078	1.644	1.643	0.001	-0.079	0.649	-0.122
Inst Specific A	1	4	44	127	1.000	1.625	-0.625	1.455	1.506	-0.051	-0.574	0.628	-0.914
Inst Specific B	58	23	643	840	2.056	2.174	-0.118	1.681	1.685	-0.004	-0.114	0.643	-0.177
Inst Specific C	7	2	33	52	1.643	1.750	-0.107	1.523	1.466	0.057	-0.164	0.622	-0.264
Inst Specific D	19	12	222	343	1.829	1.958	-0.129	1.592	1.616	-0.024	-0.105	0.663	-0.158
	Factor Identification with statements of value for rules when establishing expectations for behavior.												
Pooled Effect	90	41	951	1393	3.894	3.972	-0.078	3.995	4.051	-0.056	-0.022	0.568	-0.039
Inst Specific A	1	4	44	129	3.714	4.321	-0.607	4.052	4.183	-0.131	-0.476	0.536	-0.888
Inst Specific B	62	23	652	858	3.862	4.025	-0.163	3.970	4.032	-0.062	-0.101	0.555	-0.182
Inst Specific C	7	2	33	54	3.755	2.714	1.041	3.827	3.663	0.164	0.877	0.735	1.193
Inst Specific D	20	12	222	352	4.049	3.964	0.085	4.084	4.107	-0.023	0.108	0.550	0.196
	Factor 4) Identification with statements of value for good of the community when establishing expectations for behavior.												
Pooled Effect	85	41	941	1360	4.136	4.063	0.073	4.113	4.137	-0.024	0.097	0.641	0.151
Inst Specific A	1	4	44	127	3.000	4.150	-1.150	4.027	4.157	-0.130	-1.020	0.675	-1.511
Inst Specific B	58	23	642	838	4.169	4.113	0.056	4.132	4.168	-0.036	0.092	0.628	0.146
Inst Specific C	7	2	33	52	4.000	3.600	0.400	4.012	4.054	-0.042	0.442	0.714	0.619
Inst Specific D	19	12	222	343	4.145	4.017	0.128	4.089	4.069	0.020	0.108	0.645	0.167
	Factor 5) Identification with statements of value for considering the benefits of alcohol use.												
Pooled Effect	95	41	971	1434	2.953	3.110	-0.157	2.968	3.026	-0.058	-0.099	0.607	-0.163
Inst Specific A	1	4	46	136	2.500	3.125	-0.625	3.226	3.115	0.111	-0.736	0.580	-1.269
Inst Specific B	64	23	665	878	2.957	3.022	-0.065	2.918	2.993	-0.075	0.010	0.615	0.016
Inst Specific C	9	2	33	60	2.500	2.875	-0.375	2.871	2.854	0.017	-0.392	0.612	-0.641
Inst Specific D	21	12	227	360	3.155	3.312	-0.157	3.074	3.101	-0.027	-0.130	0.583	-0.223
	Factor 6) Identification with statements of value for considering the drawbacks of alcohol use.												
Pooled Effect	95	41	971	1433	3.801	3.676	0.125	3.746	3.79	-0.044	0.169	0.643	0.263
Inst Specific A	1	4	46	136	3.429	3.214	0.215	3.466	3.722	-0.256	0.471	0.69	0.683
Inst Specific B	64	23	665	877	3.849	3.727	0.122	3.764	3.834	-0.07	0.192	0.629	0.305
Inst Specific C	9	2	33	60	3.471	3.5	-0.029	3.576	3.65	-0.074	0.045	0.674	0.067
Inst Specific D	21	12	227	360	3.812	3.762	0.05	3.777	3.73	0.047	0.003	0.646	0.005

Note. As with Tables 3.4, 3.5, and 4.1 this table also reports information from Institutions A and C. Because of the low response rates at Institutions A and C, this study does not analyze responses from those institutions for inferential purposes. The low responses at Institutions A and C render the data from their institutions un-interpretable. This study also considered the risk associated with inadvertently allowing the identification of individual respondents that is sometimes possible when cross-tabulations display few individuals in a specific cell or cells. Given the protocols in place to protect respondent confidentiality and anonymity this study proceeded without masking the results in specific cells with few individuals.

A second important observation to be drawn from Table 4.3 is that the institutionally pooled effect sizes (shown by column thirteen) are modest. At the institutions with the largest response rates (B and D) the effect sizes are relatively minimal. At institutions with very low response rates (A and C) the effect sizes are sometimes higher, but given their response rates, these results must be disregarded. The greatest effect size is observed in factor six (identification with statements of value for considering the drawbacks of alcohol use). With an estimate of 0.169 this estimate exceeds one quarter of a standard deviation.

4.4 DID Estimation By Ordinary Least Squares

As expected, Equation 3.4 (reproduced in this chapter as Equation 4.1) and Equation 3.5 (reproduced in this chapter as Equation 4.2) returned results are identical to those in the eleventh column of Table 4.3.

$$Y_{it} = \alpha + \beta_1(Treat) + \beta_2(Post) + \beta_3(Treat \times Post) + Controls_{it} + \varepsilon_{it} \qquad (4.1)$$

Results provided by equation 4.1 match the results of the pooled effect rows in Table 4.3. The coefficients of interest (β_3) from of equation 4.1 are also reproduced below in Table 4.4 along with each estimate's p-value in parentheses.

$$Y_{itj} = \alpha(Inst_j) + \beta_1(Treat_j) + \beta_2(Post_j) + \beta_3(Treat_j \times Post_j) + Controls_{itj} + \varepsilon_{itj} \qquad (4.2)$$

Results provided by equation 4.2 match the results of the institution specific effect rows in Table 4.3. The coefficients of interest ($\beta_{3(\text{for each institution})}$) from equation 4.2 are also reproduced below in Table 4.5 along with each estimate's p-value in parentheses.

Table 4.4

DID Estimation OLS (Pooled Effects Model)

	Identification with statements of value for internal reasoning when evaluating the rules.	Identification with statements of value for external social reasoning and input when evaluating the rules.	Identification with statements of value for rules when establishing expectations for behavior.	Identification with statements of value for good of the community when establishing expectations for behavior.	Identification with statements of value for considering the benefits of alcohol use.	Identification with statements of value for considering the drawbacks of alcohol use.
DID Estimate	0.0458	-0.0793	-0.023	0.0971*	-0.0986	0.168
(p-value)	(0.575)	(0.110)	(0.804)	(0.025)	(0.357)	(0.137)

Note. * $p < 0.05$. To ensure a fully robust analysis these coefficients were estimated four ways. First, with standard errors clustered by institution (shown here). Second, with standard errors clustered by institution and with institutional level fixed effects (which produced nearly identical results except that the DID estimate for the second MFQE-SCALE factor was marginally significant at -0.0840 (p-value = 0.050)). Third, with robust standard errors (which produced results indicating that none of the DID estimate results were statistically significant). Fourth, with robust standard errors and with institutional level fixed effects (which also indicated that none of the DID estimate results were statistically significant).

An advantage of the DID estimation strategy is that a statistically significant coefficient of interest indicates the estimated DID results are significant. Table 4.4 displays the pooled effect results as produced by Equation 4.1 with standard errors clustered by institution. The DID estimator was statistically significant with a p-value of less than 0.050 on the fourth factor only (identification with statements of value for good of the community when establishing expectations for behavior). The result for factor four would seem to indicate that as a result of participating in the SCA process, student identity developed in a manner that more strongly valued good of the community when establishing expectations for behavior.

The choice to either use or not use institutional level fixed effects changes the results, but only slightly. When both clustering the standard errors by institution and including

institutional level fixed effects the coefficient on the fourth factor remained significant while all other coefficients remained statistically zero, except for the coefficient on the second factor (identification with statements of value for external social reasoning and input when evaluating the rules). The result for factor two would seem to indicate that as a result of participating in the SCA process, student identity developed in a manner that less strongly valued social reasoning and input when evaluating the rules.

The next step in the analytical process was to execute the model, as expressed in Equation 4.1, with standard errors clustered by institution including institutional level fixed effects and secondary demographic control variables. As with the base results discussed above, factors two and four were sometimes statistically significant and sometimes not. With estimates between -.0825 and -.123 when controlling for housing, in-state residency, class standing, and gender, factor two was statistically significant and negative. With estimates between .0965 and .107, when controlling for housing, in-state residency, age, class standing, race, and gender, factor four was statistically significant and positive. The only other statistically significant result was that the estimate for factor six (identification with statements of value for considering the drawbacks of alcohol use). When controlling for aspired for GPA factor six's result was .183. Otherwise all other estimates for factor six were statistically zero. Likewise all other estimates for factors one, three and five were consistently statistically zero across all model specifications.

Table 4.5

DID Estimation OLS (Institution Specific Effects Model)

	Identification with statements of value for internal reasoning when evaluating the rules.	Identification with statements of value for external social reasoning and input when evaluating the rules.	Identification with statements of value for rules when establishing expectations for behavior.	Identification with statements of value for good of the community when establishing expectations for behavior.	Identification with statements of value for considering the benefits of alcohol use.	Identification with statements of value for considering the drawbacks of alcohol use.
Inst A DID Estimate	0.0873	-0.574*	-0.477*	-1.020***	-0.736***	0.471
(p-value)	(0.634)	(0.020)	(0.047)	(0.000)	(0.000)	(0.230)
Inst B DID Estimate	0.0453	-0.114	-0.100	0.0914	0.0107	0.193
(p-value)	(0.834)	(0.541)	(0.467)	(0.531)	(0.942)	(0.181)
Inst C DID Estimate	-0.674	-0.164	0.877**	0.442	-0.392	0.0451
(p-value)	(0.286)	(0.670)	(0.005)	(0.385)	(0.238)	(0.943)
Inst D DID Estimate	-0.0933	-0.106	0.107	0.108	-0.131	0.00318
(p-value)	(0.762)	(0.705)	(0.606)	(0.577)	(0.495)	(0.986)

Note. * $p<0.05$. To ensure a fully robust analysis these coefficients were estimated two ways. First, with robust standard errors (shown here). Second, without robust standard errors (which produced results indicating none of the DID estimate results were statistically significant).

Table 4.5 displays the institution specific effect results as produced by Equation 4.2. As expected, the results displayed in Table 4.5 replicate the results displayed in the eleventh column of Table 4.3. These results, discussed further in Chapter 5 are varied in direction and significance. Notably, the estimators were sometimes statistically significant at Institutions A and C but never at Institutions B or D. However, for the reasons discussed above the specific results at Institutions A and C should be disregarded as un-interpretable due to low sample

sizes. Due to low response rates at institutions A and C and to simplify the discussion the remainder of this section discusses results from Institutions B and D only.

As with the results from above the next step in the analytical process was to execute the model, as expressed in Equation 4.2, with robust standard errors while including secondary demographic control variables. None of the DID estimates at Institutions B or D were statistically significant when controlling for any of the available demographic variables.

4.5 Notable Item Analyses

4.5.1 Item Specific DID Estimators

As discussed in Chapter 3 the notable item analysis began by applying the DID estimation strategy to each individual item. For two items in particular the notable item analysis calculated exceedingly high DID estimators. As shown in Table 4.6 students in the treatment group on the whole changed their responses to a lower score (toward a stronger identification) in response to the item, "One or more of my close friends has been involved in the student conduct process," and "I have knowingly violated a student conduct related policy." Intuitively the results from these two items are to be expected in the course of this study and thus serve as a strong indication that the methods as deployed by this study worked on a conceptual level.

Table 4.6

Two That Introduce Individual Item-By-Item DID Estimation

DID Estimate	Abs Value of DID Estimate	P-Value of DID Estimator	Text of Instrument Item
-1.412	1.412	0.0253	One or more of my close friends has been involved in the student conduct process.
-0.773	0.773	0.0109	I have knowingly violated a student conduct related policy.

Note. These estimates were produced using Equation 3.4 (also reproduced as Equation 4.1) where Y_{it} is the item response for the i^{th} student at the t^{th} time. The $ß_3$ coefficient produces the DID estimate.

Table 4.7 lists the items that produced the highest DID estimators (other than the two shown in Table 4.6). There are at least three important initial observations to be drawn from Table 4.7. First, three of the top five items reference alcohol; five of the top thirteen, reference alcohol, and all of the alcohol items moved in the same direction, toward a lower score. Second, the first non-alcohol related item, "I expect others to follow the rules," produced results suggesting that those who participated in the SCA process identified with that statement less strongly as a result of their participation. Third, the next two items, both with negative estimates, seem to reference the notions of rules, right versus wrong, and honesty. The relatively high and negative DID estimators on these two items suggest that students more strongly agree with those statements as a result of participating in SCA processes.

Three items produced potentially worrisome results as they seem to have moved in an undesirable direction. These items, "I drink to get drunk;" "I expect others to follow the rules;" and "I have respect for the rules at my school" are discussed further below.

Table 4.7

Sorted Item-By-Item DID Estimator Results (Highest Estimates)

DID Estimate	Abs Value of DID Est	P-Value of DID Estimate	Text of Instrument Item
-0.516	0.516	0.0290	I have a role in reducing alcohol related risks.
-0.495	0.495	0.1187	I drink to get drunk.
0.451	0.451	0.0478	I expect others to follow the rules.
-0.450	0.450	0.0019	What the rules say about right or wrong do not matter to me.
-0.430	0.430	0.1822	If I violate the rules I would be honest about it.
-0.371	0.371	0.0457	I am knowledgeable regarding strategies that can reduce alcohol related risk.
-0.303	0.303	0.0751	I do things that will have a positive effect on others, even if it inconveniences me.
-0.235	0.235	0.3053	I have discussed with others the benefits of alcohol consumption.
0.191	0.191	0.4723	Sometimes rules can confuse me.
-0.180	0.180	0.3972	I don't follow rules that conflict with my own personal value system.
-0.180	0.180	0.1800	I know how to communicate with others about the rules.
0.177	0.177	0.3122	I have respect for the rules at my school.
-0.177	0.177	0.5121	I have discussed with others the drawbacks of alcohol consumption.

Note. These estimates produced using Equation 3.4 (also reproduced as Equation 4.1) where Y_{it} is the item response for the i^{th} student at the t^{th} time. The $ß_3$ coefficient produces the DID estimate.

Table 4.8 lists the items that produced the lowest DID estimators. There are at least two important initial observations to be drawn from Table 4.8. First, two of the bottom five items reference alcohol. The next mention of alcohol is sixth from the bottom. The direction of change regarding these alcohol items varies. However, the changes are so small (statically and practically zero); that the direction is likely irrelevant for analytical purposes.

The second observation to draw from Table 4.8 is that some of its items facially address issues that are similar to the issues addressed by items appearing in Table 4.7. For example, from Table 4.8 the item "I feel living in a community means sometimes putting aside what I might want for the benefit of others," does not seem to be unlike another item from Table 4.7 "I do things that will have a positive effect on others, even if it inconveniences me." The presence of alcohol-related items occurring in both tables further illustrates the similarity between the items in both tables. Essentially, from these two tables alone, there are are not readily apparent generalizations to be made about the types of items that appear in one or the other.

Table 4.8

Sorted Item-By-Item DID Estimator Results (Lowest Estimates)

DID Estimator	Abs Value of DID Est	P-Value of DID Estimator	Text of Instrument Item
0.079	0.079	0.0374	I feel living in a community means sometimes putting aside what I might want for the benefit of others.
0.071	0.071	0.1391	I believe alcohol consumption involves some measure of risk.
-0.054	0.054	0.7177	I have turned in someone else's work as my own for academic credit.
-0.052	0.052	0.7421	I have cheated on an assignment or paper.
0.047	0.047	0.2074	In my opinion, being popular is more important than doing the right thing.
-0.046	0.046	0.6266	I make an effort to know the rules.
0.044	0.044	0.6731	I have cheated on an exam or quiz.
0.043	0.043	0.6986	Sometimes I have trouble understanding the difference between right and wrong.
-0.042	0.042	0.6311	I think it is important to have a plan that reduces alcohol related risk.
-0.042	0.042	0.8150	I think about how my actions affect others.
-0.041	0.041	0.7724	I have thought about the drawbacks of alcohol consumption.
0.040	0.040	0.8840	I have thought about the benefits of alcohol consumption.
0.023	0.023	0.8036	I sometimes have to break the rules to keep my friends.
-0.011	0.011	0.9078	I will break the rules when it feels right for me to do so.

Note. These estimates produced using Equation 3.4 (also reproduced as Equation 4.1) where Y_{it} is the item response for the i^{th} student at the t^{th} time. The $ß_3$ coefficient produces the DID estimate.

4.5.2 The Role of Parents

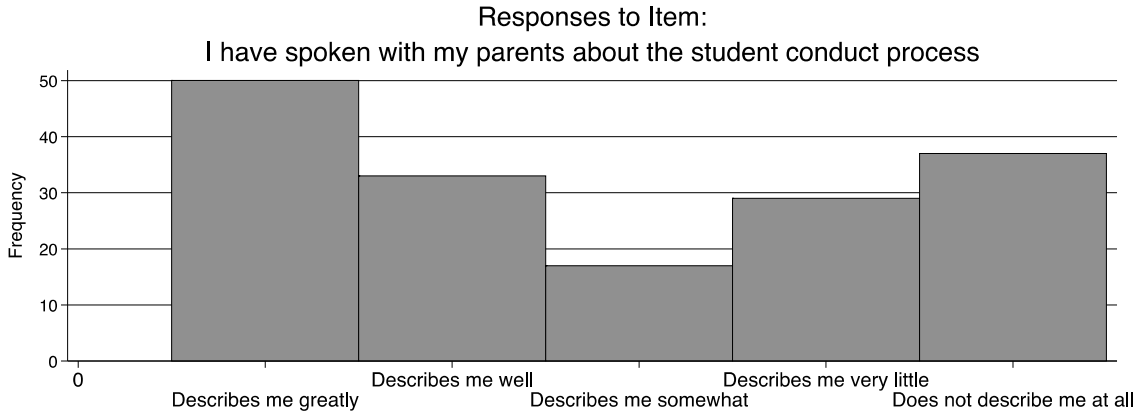

Figure 4.8. Histogram displaying results from the item "I have spoken with my parents about the student conduct process." Respondents (n) = 166.

Figure 4.8 indicates that there is a split among students regarding whether they spoke with parents about the SCA process. One possible interpretation of the responses to this item is that it is not clear whether, generally speaking, parents are either involved or uninvolved. The results of this item seem to counter conventional wisdom that parents are overly involved in every aspect of a student's collegiate life. Because many parents would seemingly not have been informed of their student's involvement in the SCA process, at least not from their student, those parents were likely not involved in the process. The item as graphed in Figure 4.8 can be analyzed more deeply by generating separate histograms for sub-groups. Figure 4.9 provides separate histograms for those that were marked responsible and those that were marked not responsible.

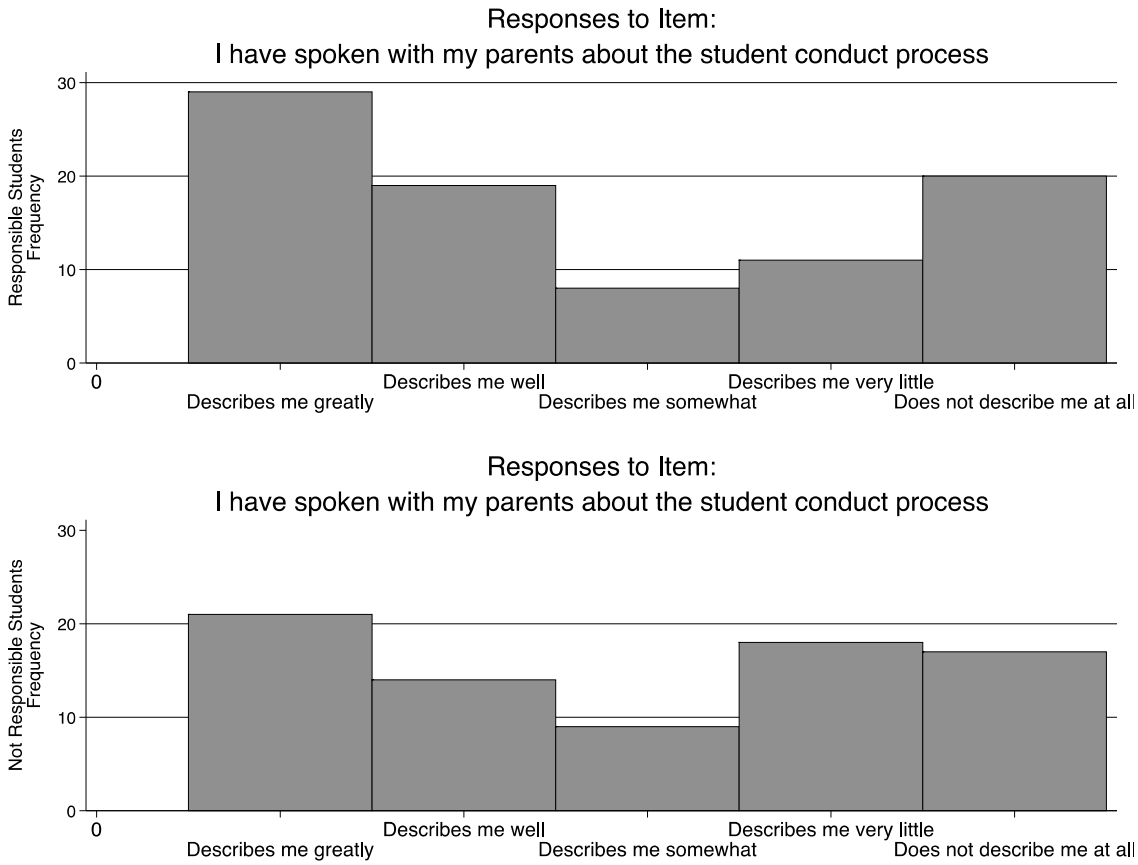

Figure 4.9. Histograms displaying results from the item "I have spoken with my parents about the student conduct process." Above, results from those who were marked responsible. Below, results from those who were marked not responsible. Marked responsible (n) = 87, marked not responsible (n) = 79.

From Figure 4.9, it seems apparent that marking a student responsible results in a higher probability that students will discuss the SCA process with parents. When comparing the results of this item by gender there were no sharp contrasts. However, when comparing the results of this item by race there was an unexpected and potentially interesting result. As shown in Figure 4.10, the distribution of responses to this item for students of color does not match the distribution from non-students of color.

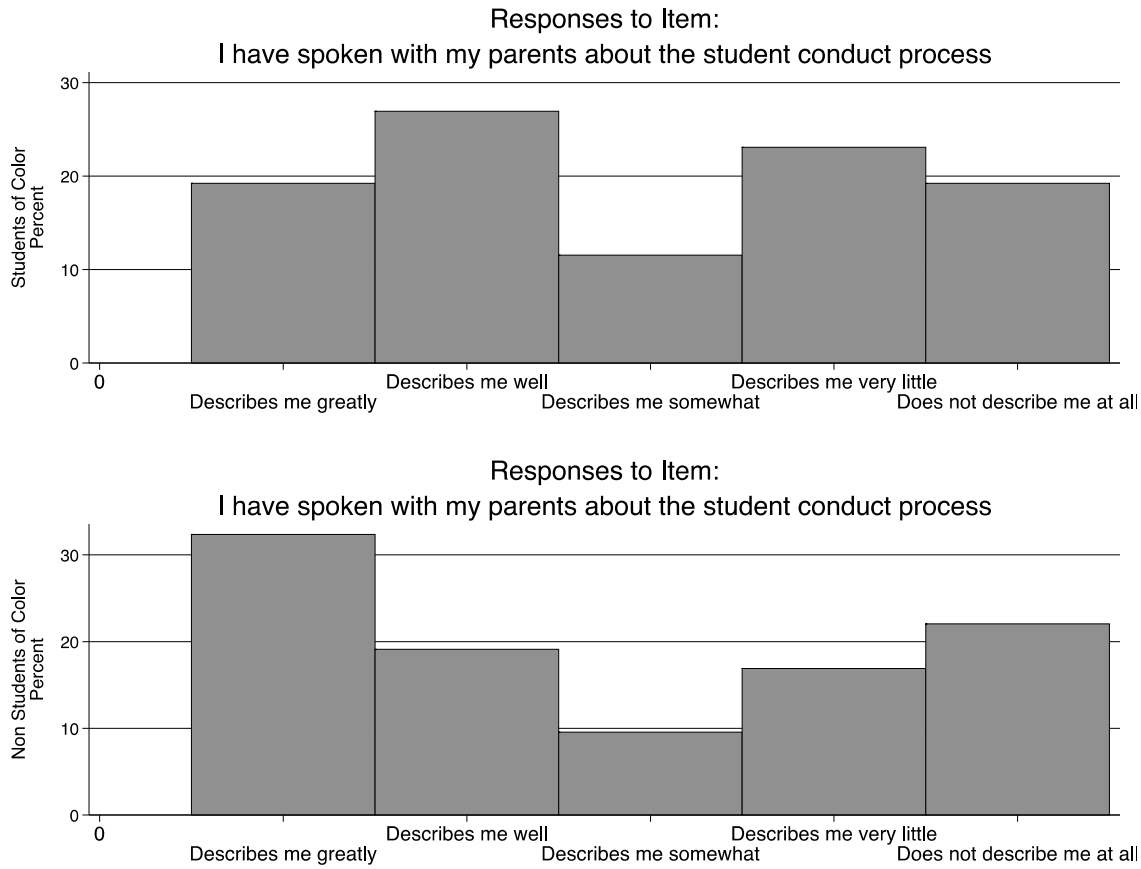

Figure 4.10. Histograms displaying results from the item "I have spoken with my parents about the student conduct process." Above are the results from those who reported being a student of color, below are results from those who reported being non-students of color. Students of color respondents (n) = 26, non-students of color (n) = 136.

4.5.3 Efforts To Know The Rules

A set of items which are notable as a pair seem to measure whether students want to know the rules ("I make an effort to know the rules") and whether they understand the rules ("Sometimes the rules can confuse me"). As shown in Tables 4.8 and 4.7 respectively, the DID estimate for responses to "I make an effort to know the rules" was relatively small (-0.046) while the DID estimate for the item "sometimes the rules can confuse me" was relatively high (0.191). Figure 4.11 displays the results of these two items as calculated from all responses. The

result for the first item ("I make an effort to know the rules") is relatively positively skewed, indicating that students generally tend to identify with that statement.

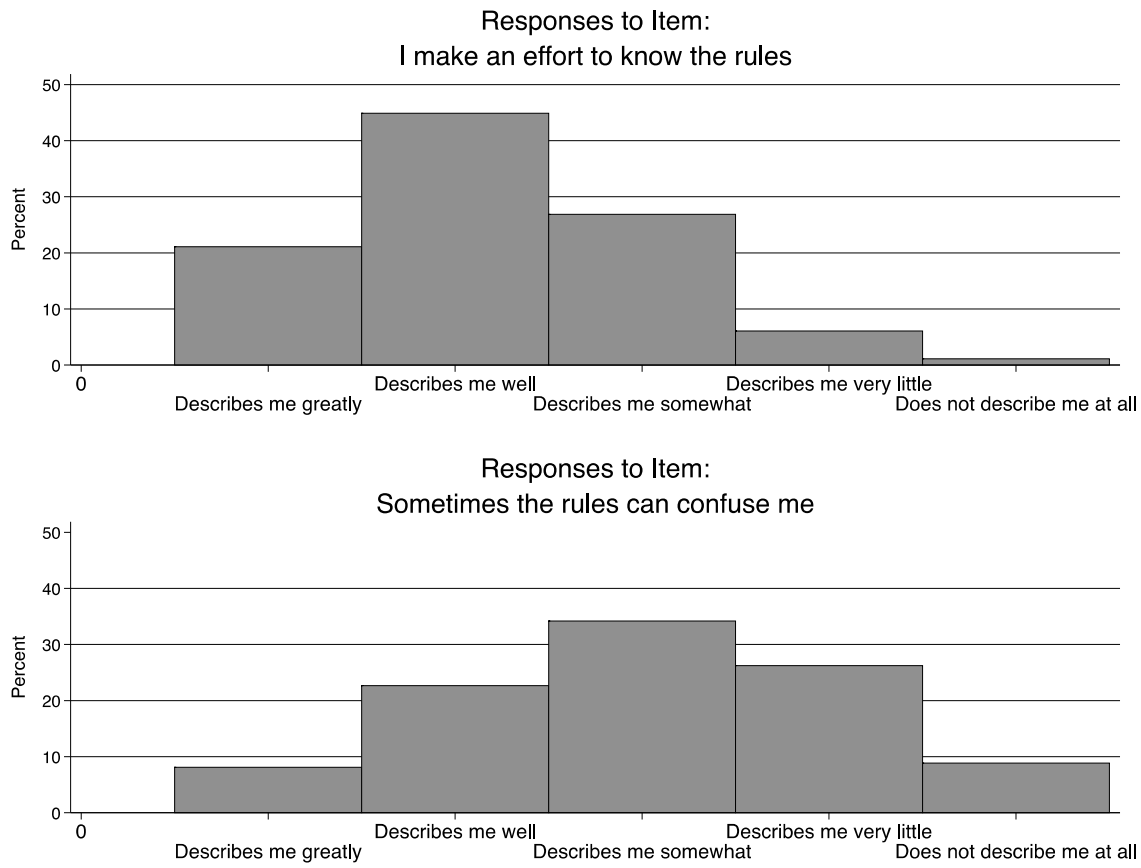

Figure 4.11. Histograms displaying results from the items "I make an effort to know the rules" (above) and "Sometimes the rules can confuse me" (below). This figure draws from all observations available in this study including both student conduct participants and non-participants. Respondents above (n) = 2,092. Respondents below (n) = 2,089).

However, the results from the second item ("Sometimes the rules can confuse me") are more diffuse, which possibly indicates students on the whole are generally less likely to identify with that statement. Together these items suggest that while students report making an effort to know the rules, it also seems that those rules are not as clear or easy to understand as they could be.

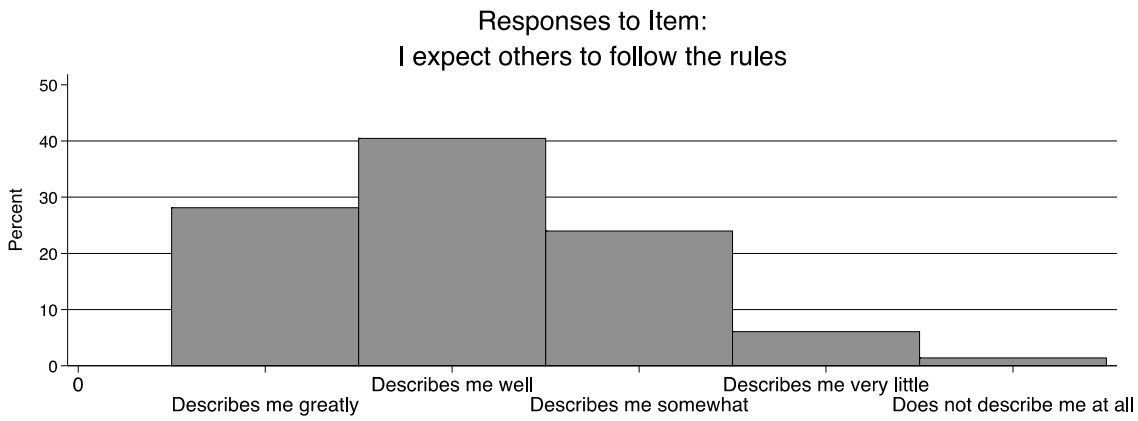

Figure 4.12. Histogram displaying the results from the item "I expect others to follow the rules." This figure draws from all observations available in this study including both student conduct participants and non-participants. Respondents (n) = 2,089.

Another item that adds to the narrative related to student efforts to know and understand the rules is "I expect others to follow the rules." Figure 4.12, with a skewed distribution, suggests that generally speaking students expect others to follow the rules. The results shown in Figure 4.11, taken together the results shown in Figure 4.12, underscore the importance of establishing and communicating simple, clear, and easy to understand rules. To the extent that institutions offer difficult to understand rules, efforts to revise for clarity would support students in their effort to know the rules and in meeting the expectations students hold for each other.

4.5.4 Alcohol Related Items

As explained above there were five alcohol related items in particular that students seemed to identify more strongly with as result of participating in the SCA process. Those statements were "I have a role in reducing alcohol related risk;" "I am knowledgeable regarding strategies that can reduce alcohol related risk;" "I have discussed with others the benefits of

alcohol consumption;" and "I have discussed with others the drawbacks of alcohol consumption." These outcomes would generally be regarded as desirable outcomes. An outlier, potentially indicative of an undesirable outcome, is that students also more strongly identified with the item "I drink to get drunk."

These items require more detailed contextual discussion with reference to the control groups. For example in response to the "I have a role in reducing alcohol related risk" item the control group remained relatively flat (from 2.909 to 2.942 changing .033). However for the treatment group there was a decrease (from 3.222 to 2.737 changing -.485).

For the item "I am knowledgeable regarding strategies that can reduce alcohol related risk" the control group remained relatively flat (from 2.103 to 2.149 changing .049) while the treatment group showed a decrease (from 2.049 to 1.723 changing -.326).

For the item "I have discussed with others the benefits of alcohol consumption" the control group was again relatively flat (from 3.606 to 3.554 changing -.0.050) while the treatment group showed a decrease (from 3.146 to 2.862 changing -.284).

For the item "I have discussed with others the drawbacks of alcohol consumption" the control group was relatively flat (from 2.422 to 2.496 changing .074) while the treatment group showed a decrease (from 2.415 to 2.312 changing -.103).

For the outlier item "I drink to get drunk" the control group showed a modest decrease (from 3.999 to 3.863 changing -.136). Similarly, the treatment group also showed a decrease, except that it was greater one (from 3.780 to 3.149 changing -.631).

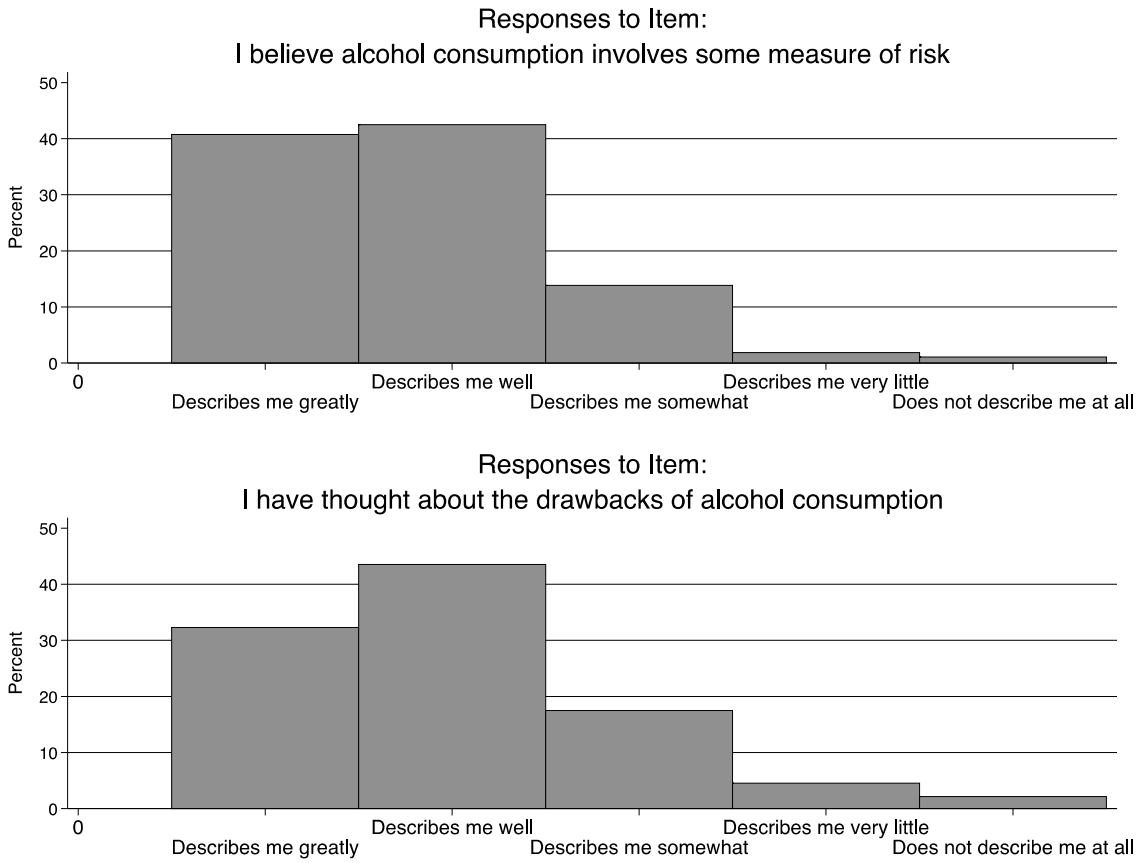

Figure 4.13. Histograms displaying the results from the items "I believe alcohol consumption involves some measure of risk" (above) and "I have thought about drawbacks of alcohol consumption" (below). This figure draws from all observations available in this study including both student conduct participants and non-participants. Respondents above (n) = 2,148. Respondents below (n) = 2,152).

These items also reveal another potentially interesting story when looking at patterns of responses from all study participants both those who participated an SCA process and those who did not. For example, a high proportion of students seem to believe alcohol consumption involves some measure of risk and that alcohol involves some drawbacks. Figure 4.13 supports this generalization of opinions of alcohol related risk by showing the results to the item "I believe alcohol consumption involves some measure of risk" and the item "I have thought about drawbacks of alcohol consumption."

Figure 4.13 is more interesting when taken together with the Figure 4.14, which displays the results from the item "I have a role in reducing alcohol related risk." The responses to the items in Figure 4.13 are more skewed in a direction many would consider desirable, while the responses to the item in Figure 4.14 are more diffuse. The skewed responses indicate that students seem to generally acknowledge that alcohol involves risk or that students appreciate at least some of the alcohol-related risks. However, the more diffused response pattern shown in Figure 4.14 seems to indicate that despite knowing that alcohol involves risks, students generally speaking, are not as sure about their role in reducing or managing that risk. Alternatively it might be stated that students do not understand or appreciate their agency on the topic of managing alcohol-related risk.

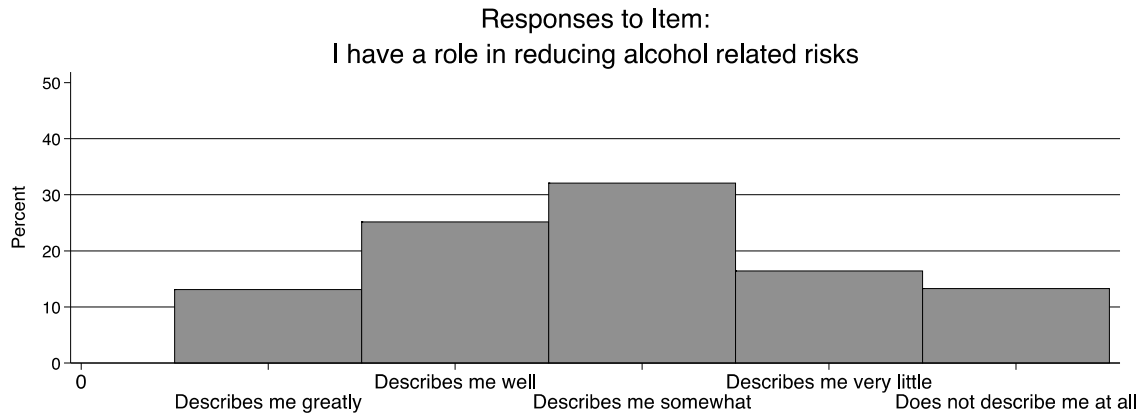

Figure 4.14. Histogram displaying the results from the items "I have a role in reducing alcohol related risk." This figure draws from all observations available in this study including both student conduct participants and non-participants. Respondents (n) = 2,152.

It is also important to note that even though students may not be sure of their agency in reducing and managing alcohol related risk, the single item that produced the highest DID

estimate in the course of the item-by-item DID analysis above was "I have a role in reducing alcohol related risk."

4.6 Generalized Belief Measures

Chapter 4 began with a discussion of the GBM as it was used to assess belief in the statement "My experience with the student conduct process was educational." This study also used the GBM to assess fairness and efficacy. Figure 4.15 provides a graphic correlation matrix of these three variables, which are discussed further in Chapter 5. This graphic correlation matrix shows that these three measures seem to correlate with each other, which is consistent with previous studies of SCA.

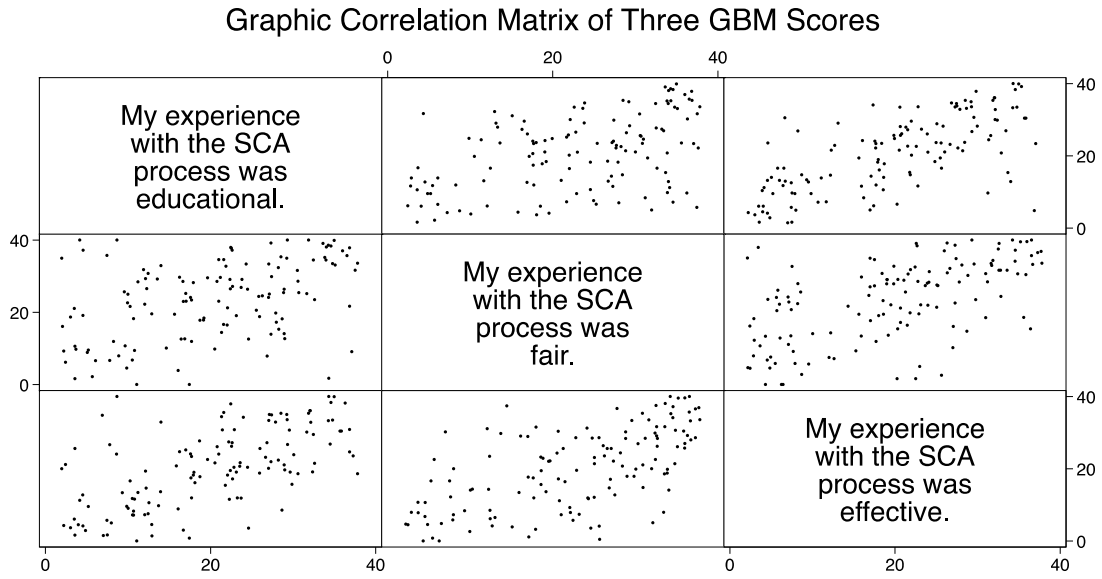

Figure 4.15. Graphic correlation matrix of the three generalized belief measure scores collected during this study.

4.7 Open Ended Responses

This study asked SCA participants to write responses to the prompt:

> Because you indicated that you participated in the student conduct process, we would like to ask you to describe your experience. Do you feel it was educational? In your own words, could you describe any learning?

There were 25 open-ended responses from students at Institutions B and D. No respondents at Institution A responded to the open-answer question. Three responses were inadvertently collected from students at Institution C. Institution C's responses were destroyed and discarded because the IRB protocol specific to Institution C did not include plans for collecting and analyzing open-ended responses.

As suggested by Heinrich (2005) the respondent's attitude or interest seems to have influenced length, depth, and quality of responses. The shortest response, consisting of three words, was "It was fine." Other positive responses were also short. The longest response, 269 words, wrote in part:

> I believe it is very harsh here. . . the student conduct process caused me a lot of emotional and mental harm. . . going through the conduct process made me consider transferring universities. . . constantly having to talk about my worst personal decisions over and over again constantly dragged down my self confidence, even to this day. This process has changed my actions, but it is mostly because I do not want to have to go through the very draining process that is the student conduct process.

In general, the longer responses were more critical of the SCA process than shorter responses were. Some students responded directly to the prompt by explaining, "It wasn't really educational;" "It wasn't educational to me;" "I felt it educational;" "It was educational;" or "The meeting with the person who worked for housing went well enough, and was

educational." Other responses provided information that did not clearly indicate whether the student felt the process was educational such as "the process was as good as it could have been, given my circumstances of being in trouble." Some responses were otherwise not responsive or expressed mixed opinions such as "I feel like certain parts of it were foolish and unneeded, and were very expensive for me to do if there wasn't a point to it. It was very fair, though, in some parts."

Because of the small number of responses and because there is no clear opportunity to categorize responses as either saying "yes I learned," or "no I didn't learn" it is difficult to make generalizations from these open-ended responses. The inability to generalize makes it difficult to say, for example, whether men were more likely than women to express an opinion that the SCA process was educational.

4.8 Results Summary

By a technical reading of these results with three exceptions this study fails to reject the null across all six MFQE-SCALE factor outcomes. The first exception is that for factor four (identification with statements of value for good of the community when establishing expectations for behavior) this study statistically rejects the null, as shown in Table 4.4. However, alternate statistical specifications produced more modest results. For factor four the coefficient was only statistically significant when clustering standard errors by the study site, with and without institutional level fixed effects. When using robust standard errors with and without institutional level fixed effects none of the DID estimates for any of the MFQE-SCALE factors were statistically significant. Casting further doubt on this study's ability to reject the null with confidence for factor four is that with a coefficient of .0971 the DID

estimate is exceedingly small, at less than three hundredths of the available scale. Also, factor four's coefficient was only sometimes significant when including demographic control variables.

The second exception was for factor two (identification with statements of value for external social reasoning and input when evaluating the rules). When clustering standard errors by institution and when including institutional level fixed effects the DID for the estimate from factor two was -.0840 with a marginally significant p-value = 0.050. However in all other specifications that estimate was never statistically significant. As was the case with factor four, the factor two estimate is also minuscule when compared to the available scale. Also, factor two's coefficient was only sometimes significant when including demographic control variables.

Additionally, when examining institution-specific effects none of the DID estimates for any of the MFQE-SCALE factors were statistically significant, with or without robust standard errors at institutions B and D. As explained above, the institution-specific effects for Institutions A and C must be disregarded due to having collected a number of observations that was too small to interpret. Also, none of the DID estimates at institutions B or D was statistically significant when controlling for any of the available demographic variables.

The third exception was the institutional pooled effects estimate for factor six (identification with statements of value for considering the drawbacks of alcohol use.). When including institutional level fixed effects, clustering standard errors by institution and while controlling for the aspired for GPA, factor six's estimate was a statistically significant .1830 with a statistically significant p-value < 0.050. Despite also rejecting the null hypothesis for factor six's DID estimation this study does return to a discussion of this factor's relatively high DID estimate which, the highest among the six factors. Although a technical reading of these results would potentially permit rejecting the null for factors two, four, and six a careful in depth

review of the results requires otherwise. Across all models executed in the course of its analysis, this study cannot confidently reject the null hypothesis.

Chapter 5 Discussion

This in-depth study has highlighted a number of assumptions inherent in the scheme of managing student behavior in American higher education. Some of those assumptions became apparent relatively early in the course of the research. One of the earliest assumptions identified by this study is that SCA processes have an ability to provide for students an educational experience. The rationale given for this assumption is that the process of holding students accountable for disobeying the rules, which typically includes many components such as those pictured in Figures 1.1 and 1.2, will act to produce an educational effect. This study sought to test the assumption that SCA processes have an ability to provide for students an educational experience by investigating whether SCA processes produce an educational result. This study is the latest in a line of scholarship that offers limited evidence related to the learning that students experience as a result of having participated in SCA processes.

This study's core analytical approach proposed as a null hypothesis that students do not learn or develop as a result of participating in SCA processes. To operationalize learning and development, this study built a measure that asks students to rank how strongly they identify with a series of statements. That instrument is known as the MFQE-SCALE. These statements are related to educational outcomes often thought to result from participating in SCA processes. An exploratory factor analysis indicated that many of the MFQE-SCALE items could be appropriately grouped to form composite factor scores. Using a quasi-experimental analysis this study compared changes in MFQE-SCALE factors between two groups: the treatment group included students who participated in the SCA process while a group of students who did not participate in an SCA process provides a plausible counterfactual. A technical version of the null hypothesis is as follows:

> The change in scores on the MFQE-SCALE factors from students who participated in an SCA process will equal the change in scores on the MFQE-SCALE factors from those who did not participate in an SCA process.

Less technically, participating in an SCA process does not produce an educational effect as measured by the MFQE-SCALE and as estimated by the DID strategy. As an alternative this study also proposed it may be possible that:

> The change in scores on the MFQE-SCALE factors from students who participated in an SCA process will not equal the change in scores on the MFQE-SCALE factors from those who did not participate in an SCA process.

In simpler terms, participating in an SCA process produces an educational effect as measured by the MFQE-SCALE and as estimated by the DID strategy. The core analytical approach offered no evidence that convincingly demonstrates MFQE-SCALE factor scores changed among those in the treatment group any differently than those in the control group.

5.1 Is Participating in SCA Processes an Educational Experience?

By not rejecting the null hypothesis this study does not refute that SCA processes provide an educational experience. Neither this study, nor any previous study, has produced evidence that may strongly refute the assertion that SCA processes can and does provide an educational experience for students who participate.

5.2 What Do Students Learn? What is the Magnitude of That Learning?

Having failed to answer this study's first question, whether SCA processes provide an educational experience in the affirmative, would seemingly render research questions two and three moot. Without evidence that students learn anything it might not seem sensible to answer what it is that students learn or what the magnitude of that learning is. Even though the primary analyses in this study do not provide evidence that SCA processes are educational, some of the

secondary exploratory analyses do suggest a range of more meaningful findings, discussed below. Despite having failed to reject the null hypothesis, this study proceeded with three supplemental exploratory analyses. The first supplemental exploratory analysis was to apply the primary analytical strategy, differences-in-differences estimation, to each individual MFQE-SCALE item. The second supplemental exploratory analysis was to examine participant beliefs in whether the process was educational. The third supplemental exploratory analysis was to review open-ended text responses. This study's major findings draw upon the supplemental exploratory analyses. This study offers ten substantive findings that add to, confirm, or refute existing knowledge. Likewise, this study offers six methodological findings and related suggestions for future research that will be important for future studies to consider.

5.3 Substantive Findings

Some of the learning that occurs as a result of SCA processes may be undesirable. When applying the DID estimation strategy to individual items there were some noticeable results that may suggest areas of learning as shown in Table 4.7. Here Table 5.1 presents again items from Table 4.7 but organized in two sets including items that produced estimates that would likely be understood as desirable (on the left) and items that produce estimates that would likely be understood as undesirable (on the right). By noting that some items changed in undesirable directions raises questions about the desirability of the learning students may experience as a result of participating in an SCA process. In some cases, and in some manner, it may be possible SCA processes may be partly responsible for producing undesirable learning outcomes.

Table 5.1

MFQE SCALE Items With High DID Estimators Categorized By "Desirability"

	Items producing estimates that would be understood as desirable results.	Items producing estimates that would be understood as undesirable results.
Alcohol Items	I have a role in reducing alcohol related risks. (-)	I drink to get drunk. (-)
	I am knowledgeable regarding strategies that can reduce alcohol related risk. (-)	
	I have discussed with others the benefits of alcohol consumption. (-)	
	I have discussed with others the drawbacks of alcohol consumption. (-)	
Non-Alcohol Items	If I violate the rules I would be honest about it. (-)	I expect others to follow the rules. (+)
	I do things that will have a positive effect on others, even if it inconveniences me. (-)	I have respect for the rules at my school. (+)
	Sometimes rules can confuse me. (+)	
	I know how to communicate with others about the rules. (-)	

Notes. (+) indicates DID estimate on the item produced a positive estimate meaning that SCA participants less strongly identified what that statement. (-) indicates DID estimate on the item produced a negative estimate meaning that SCA participants more strongly identified with that statement. Two items from Table 4.7 including "What the rules say about right or wrong do not matter to me," and "I don't follow rules that conflict with my own personal value system," both with negative DID estimates are not readily categorized as desirable or undesirable.

The prospect that SCA processes may be producing undesirable learning outcomes is a topic also previously discussed by Howell (2005). Additional evidence on this concern comes from King (2012) who produced results that indicate a student's scores on her instruments trend

downward as the number of times through an SCA processes increases. If the SCA process is educational, repeated exposure to the process should theoretically induce higher scores for repeated participants.

Ominously, the results as displayed in Table 5.1 might suggest that while students do absorb as a result of SCA processes knowledge and information related to reducing the risk of alcohol consumption they also potentially develop or adopt new behaviors that are more risky. Among the non-alcohol related items in the right-sided column of Table 5.1, there are two with positive DID estimates. These positive estimates suggest SCA participants may have less strongly identified with those items as a result of participating in the SCA process. The items were "I expect others to follow the rules," and "I have respect for the rules at my school." A reduction in respect for the rules and in the expectations that others follow the rules might be a sensible outcome when considered along side one of Howell's (2005) key conclusions. He indicated students may have practiced during the SCA process their abilities to feign honesty and remorse (in part by saying what they think "the judicial officer… wants to hear") in an attempt to manipulate procedural outcomes for the student's own benefit (p. 388). Howell's finding was about how SCA potentially afforded an opportunity in which students practice manipulation and deception. The related but not identical finding from this study is that the DID estimate for students who participated in SCA processes suggests that those students less strongly identified with the statements "I expect others to follow the rules," and "I have respect for the rules." Taking these findings together leads to a plausible, if speculative, conclusion. That conclusion might be that if a student were successful in escaping harsh punishment, they would then intuit the rules as less meaningful than previously understood. If students did so intuit along this reasoning, it could also be cause for the student to devalue the rules.

Students who participate in the SCA processes are socially connected to each other. An inference that participants in SCA processes are socially connected is permitted by the strikingly high DID estimate generated for the item "One or more of my close friends has been involved in the student conduct process" as shown in Table 4.6. With a DID estimate of 1.412 it was the only estimate produced in this study greater than 1.0 and it exceeds more than a third of the available scale.

This finding raises important questions about how SCA processes detect and document misbehavior. Perhaps there is a cohort effect associated with detecting and documenting misbehavior. It has been shown that students who live on-campus in residence halls are more likely to be involved in SCA processes than those living elsewhere (Janosik, et al., 1985; Kern & Rentz, 1991; Tracey et al., 1979). There is no evidence however that those living on-campus necessarily break the rules at higher rates than those living elsewhere. The misbehavior of those living elsewhere may be occurring un-detected. If the misbehavior of those living elsewhere is occurring un-detected then these studies are an indication that efforts to monitor students living on-campus may be more intense, pervasive, effective, and thorough than the detection efforts for off-campus students.

Logically students living amongst each other in the halls are more likely to know each other because they live (eat, sleep, study, recreate, and even bathe) in close quarters. Therefore this finding is phenomenological; even though these data suggest that students who participate in the SCA processes are socially connected it would not necessarily be reasonable to infer that peer effects cause students to break the rules or to get caught for breaking the rules. A question this finding may also raise is whether students provide each other with information about the SCA process to achieve more favorable and less harsh consequences.

Parental knowledge of student participation in SCA processes is not a given. This finding is primarily supported by Figures 4.8 through 4.10. Students seemed split as to whether they even discussed their participation with parents. This finding at least partially debunks the assertion that *helicopter parents*, sometimes termed *attack helicopter parents* (McDonald, 2008) or more recently *snow-plow parents* (Tallent, & Barnes, 2014), are so prevalent. A caveat associated with this finding is that the instrument item on which this finding is based was not designed to measure whether parents were involved but whether students discussed the SCA process with their parents. The bimodal results of the data from this item show that in SCA processes for every so-called helicopter parent hovering over their student's head there is potentially at least one other *no rescue* (Horn, 2014) parent. Relatedly however, being marked responsible increases the prospect that students will have spoken about the SCA process with parents. These data are not able to explain when, how soon, or how late, students speak with parents, but the inference might be that getting marked responsible is motivation for the student to discuss the incident with parents.

With the prevailing notion that parents are often over-involved in student lives, another interpretation of this item is that students take the opportunity to avoid encouraging parents to be so involved by withholding information about the SCA process from parents. Because parents sometimes tend to become overly involved in their student's affairs, students who may be mindful of avoiding parental involvement might take the opportunity to not discuss the matter with parents. If students do refrain from discussing SCA processes with their parents that would confound the earlier explanation that might partially debunk the topic of helicopter parents.

Another plausible explanation is that having been marked responsible may have triggered the opportunity for the institution to notify the parent of the policy violation. Pursuant to the Family Educational Rights and Privacy Act (FERPA) institutions are allowed to notify parents of a drug or alcohol related policy violation if and when the student is under the age of twenty-one at the time of notification. Of course, if the institution notified parents of the policy violation, that notification would likely result in a discussion between parents and the student. The last important observation regarding the tendency of students to discuss the SCA process with parents is that the distribution for students of color is also non-normal but tended more towards the middle than the distribution for non-students of color distribution did. These contrasting distributions indicate that there are nuances in the role of parental involvement that figure differently for students of color and non-students of color.

Students want to understand the rules but are sometimes confused by the rules. Perhaps the rules are not as easy to understand as they could be. This finding is supported by the results from the items "I make an effort to know the rules" and the item "Sometimes the rules can confuse me" as shown in Figure 4.11. This is an important finding because it shows that students generally care, at least in part, about following the rules. It also shows that practitioners who are responsible for drafting and communicating the rules should consider revising those rules for ease of understanding. Also worthy of consideration would be increasing or improving efforts at communicating the rules. Another interesting dynamic between these two items is that the first item "I make an effort to know the rules" seems to be relatively stable. This item appears in Table 4.8 among items for which the item-by-item DID analysis produced small estimates. Conversely, the item "Sometimes the rules can confuse me" was an item with a high DID estimator as it appears in Table 4.7. The DID estimate for the

item assessing whether students identify with a statement about being confused by the rules shows a move in a desirable direction, i.e., SCA participants grew less confused by the rules. This means that if that change can be attributed to student participation in SCA processes, those processes may have assisted students in their ability to better understand the rules. Relatedly, it seems that students expect others to follow the rules as shown by the results in Figure 4.12. Unfortunately, as shown in Tables 4.7 and 5.1, the DID estimate for that specific item shows a move in an undesirable direction, i.e., SCA participants less strongly identified with that statement regarding an expectation for others to follow the rules. Seeing this item regarding expectations for others move in an undesirable direction suggests for practitioners that it may be worthwhile to increase or improve efforts at helping students think about and establish positive social norms and expectations for each other.

Despite wanting to understand the rules, but being confused by the rules, in response to the item "Sometimes I have trouble understanding the difference between right and wrong" 87.61% of respondents indicated that the item "Sometimes I have trouble understanding the difference between right and wrong" describes me [themselves] very little or does not describe me [themselves] at all. Items explicitly referencing "right and wrong" have previously been utilized in the study of SCA (Allen, 1994, p. 167; Zerulik, 2012, p. 54). However, this study is the first to ask non-SCA participants as well as SCA participants an item referencing "right and wrong." One of the most extensive discussions regarding SCA's role in helping students understand the difference between right and wrong is from Boots (1987) with reference to Kohlberg (1963) and Perry (1970). It is notable that responses to items related to the understanding of right and wrong contrast with items related to understanding the rules. Given these contrasting response patterns and the importance researchers and practitioners have

expressed for SCA to help students understand right and wrong, this finding needs further evaluation in future research.

Even though students seem to understand and appreciate the risks of alcohol, these data also show that their behavior seems to be inconsistent with that understanding. The first indication from this study that supports this finding is the generally high, but not statistically significant, DID estimate for the sixth MFQE-SCALE factor (consideration for the drawbacks of alcohol use). In detail, over the course of the semester it appears that all students moved toward a stronger identification with the items in this factor. However, the high DID estimate suggests that identity for items in this factor changed among those who participated in SCA processes more significantly than for non-participants. Unfortunately, a negative DID estimate for the item "I drink to get drunk" also suggests that identity for this item changed among those who participated in SCA processes more significantly than for non-participants as well. These results indicate that despite the positive gains students may have experienced in their appreciation and understanding for alcohol there was an equally notable change in identity related to the risky behavior of drinking for the purposes of getting drunk.

The GBM, as a measure of whether students believe SCA processes are educational, produces non-normal trimodal results. This abnormality is curious and it has both methodological and substantive implications. First, methodologically it means that coefficients generated when analyzing this measure with correlation or regression techniques violates the normality assumption. Further, it means that traditional interpretation of central tendency via mean median and standard deviation calculations also violates the normal distribution assumption. Thus, even though the GBM results may be used in correlation or

regression analyses as shown below it is important to consider also analyzing the results with other analytical techniques. In addition to applying correlation and regression techniques to the analysis of GBM scores, this study also analyzes the results visually or categorically. Substantively, the multimodal nature of this distribution suggests that the data may represent separate and distinct underlying distributions. When parsed by gender, it appears there are two separate and distinct underlying bimodal distributions. As shown in Figure 5.1, it appears that gender at least partially explains the unique distribution of this variable's results.

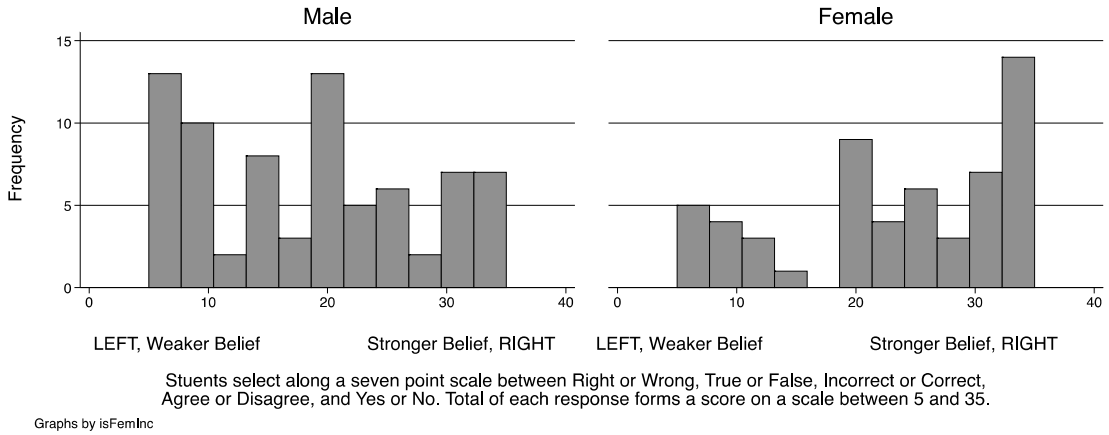

Figure 5.1. Histogram of generalized belief measure results regarding the statement "My experience with the student conduct process was educational" separated by gender. Available male respondents (n) = 76; available female respondents (n) = 56.

These data confirm results from previous study that gender, race, and residential status do seem to correlate with belief regarding the educational value of SCA processes. Multiple previous studies have demonstrated a relationship between gender and perception of educational value (Allen, 1994; Mullane, 1999; Stimpson, 2011; and Stimpson & Janosik 2011). At least one other study has also shown that scores do not differ by race (King, 2012).

The data from this study confirm gender is correlated with belief regarding educational value in at least two ways. First, the distributions of the GBM scores for men and women contrast sharply as shown in Figure 5.1. For men the distribution skews downward; whereas for women the distribution skews upward. Second, a categorical regression using a binary dummy variable for gender reveals that the mean GBM for women is 5.216 scale points higher than the score for men. This 5.216 difference is statistically significant with a p-value < 0.01. When controlling for housing status and race, the difference in GBM scores based on gender increases to 5.300 also with a p-value < 0.01.

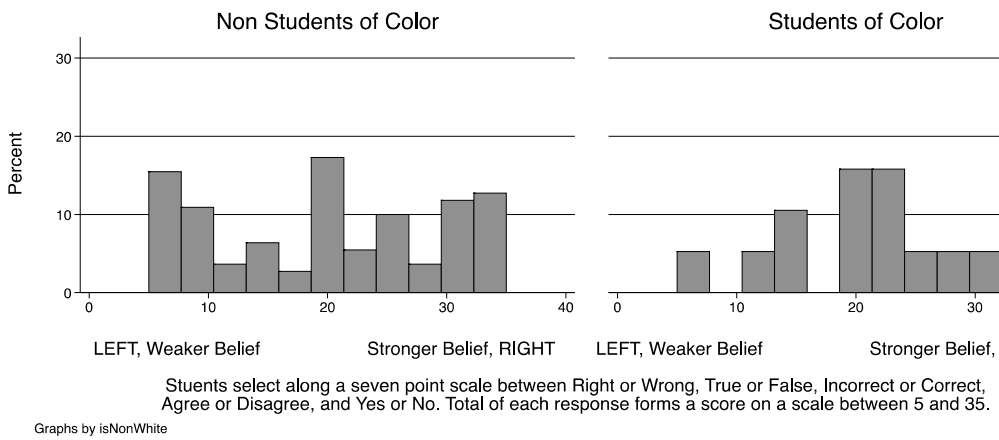

Figure 5.2. Histogram of generalized belief measure results regarding the statement "My experience with the student conduct process was educational" separated by students of color and non-students of color. Available non-students of color respondents (n) = 110; available students of color respondents (n) = 19.

This study also confirms that race is an important factor in analyzing belief regarding the educational value of SCA processes. Previous study has sometimes shown race to correlate with perception of educational value (Stimpson & Janosik, 2011) but sometimes not (King, 2012; Stimpson & Janosik, 2015). Data from this study indicate race might be correlated with belief regarding educational value for two reasons. First, the distributions of the GBM scores

for non-students of color and students of color contrast as shown in Figure 5.2. Second a categorical regression using a binary dummy for race reveals that the mean GBM for students of color is 4.738 scale points higher than it is for non-students of color. This 4.738 difference is statistically significant with a p-value < 0.05. When controlling for gender and residential status the difference in GBM scores based on race is 4.324 that is also statistically significant with a p-value < 0.050.

At least one previous study has demonstrated a relationship between residential status and perception of educational value (Stimpson & Janosik, 2015). These data suggest that housing status might correlate with belief regarding educational value in at least two ways. First the distribution of the GBM between on-campus and off-campus students appear to contrast and to skew in opposite directions as shown in Figure 5.3.

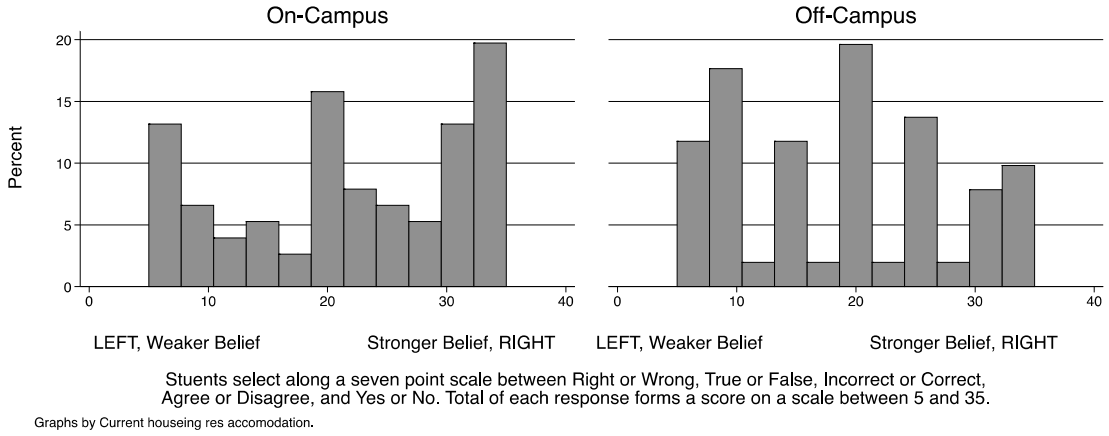

Figure 5.3. Histogram of generalized belief measure results regarding the statement "My experience with the student conduct process was educational" separated by on- and off-campus students. Available on-campus respondents (n) = 76; available off-campus respondents (n) = 51.

Secondly, a categorical regression using a binary dummy variable for housing reveals that the mean GBM score for those living off-campus is 3.320 scale points lower than the score for on-

campus students. This 3.320 difference is marginally significant with a p-value = 0.058. When controlling for gender, the difference between on and off-campus students is 3.803 scale points with a p-value < 0.050. However, when controlling for gender and age, the difference between on and off-campus students is 3.185 with a p-value > 0.050.

These data confirm results from previous studies that individually class standing, GPA, and age do not seem to be related to belief regarding educational value. Class standing has sometimes been shown to be statistically significant (King, 2012) and sometimes not (Allen, 1994; Stimpson & Janosik, 2011, 2015). Similarly GPA is in dispute. King's (2012) results suggest GPA may be significant but others produced conflicting results (Stimpson & Janosik, 2011 2015). Age has never been shown to be statistically significant (King, 2012; Stimpson & Janosik, 2011, 2015; Zerulik, 2012).

To test whether class standing, GPA, or age relate to GBM scores this study used a stepwise regression analysis. This stepwise regression analysis executed a series of regressions that included all permutations of class standing, GPA, and age as control variables. Similar stepwise techniques have been used in previous studies of similar data (King, 2012). This study's stepwise approach produced no models in which class standing, GPA, or age produced statistically significant results. Similarly, no visualization produced results that suggest class standing, GPA, or age (as individual factors) correlate with the GBM score in other than a random fashion.

Notably neither as a continuous nor categorical variable age alone was not statistically significant in any of the models evaluated during the analysis of these data. Thus, looking back to Table 2.1, it might seem that age is undisputedly not significant as a factor for predicting perception of educational value among SCA participants. That age does not seem to matter

counters the notion that the learning outcomes associated with SCA are developmental. Developmental processes logically and by by definition, occur with age as time progresses forward.

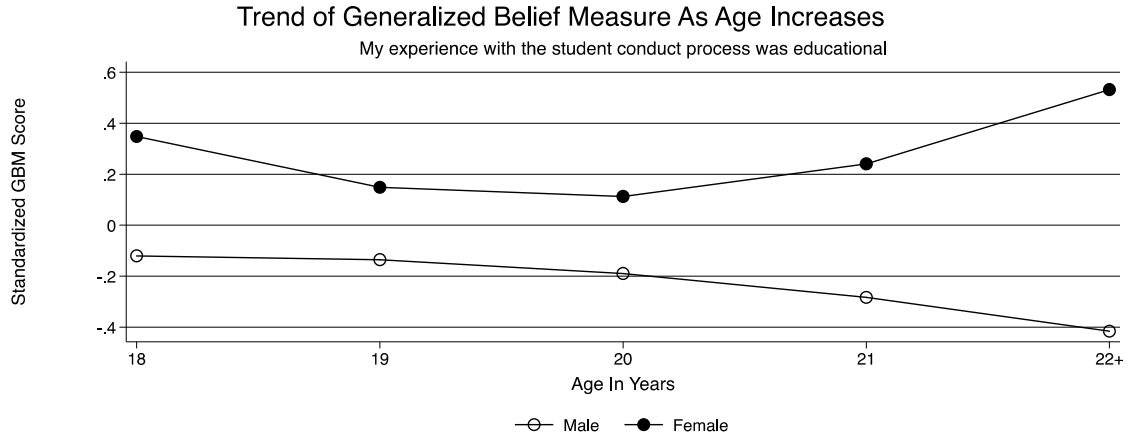

Figure 5.4. Generalized Belief Measure for the statement "My experience with the student conduct process was educational" as age increases. Showing two separate trends for both gender. Available male students solid line open circle markers (n) = 86; female students solid line closed circle markers (n) = 66. Total available respondents (n) = 152. This analysis utilized the available item missing data strategy. When not relying on the available item missing data strategy the total respondents (n) decreased to 132 and produce similar results.

This study analyzed age not only while controlling for other demographic variables but also while interacting that variable with other demographic variables. When interacted with gender, age did produce what seems to be a notable result as shown in Figure 5.4. For male students the GMB score trends downward with age; however, for female students GBM score initially appears to trend down but then trends upward with age. When using GBM scores calculated from complete observations the number of observations available for this analysis was 132. The available item missing data strategy increased the number of observations available for analysis to 152. Both analyses produced similar results. Accordingly, this study

concludes that age, when it is interacted with gender, may be an important factor in analyzing belief regarding educational value of the SCA process.

Data from this study confirms that belief regarding educational value, fairness, and efficacy of the SCA processes are strongly correlated. This finding confirms similar findings from previous studies that have investigated the relationship between these two constructs (King, 2012, Mullane, 1999). As introduced above in Figure 4.15 and as further demonstrated in Table 5.2, the weakest correlation was between the GBM's educational item and the fairness item $r = .4610$ (p-value < 0.000). However the educational item and the fairness item were both correlated with the effectiveness item with an $r > .6400$ (p-values < 0.000). Table 5.2 also displays an additional confirmation that age and credits (as continuous variables) do not seem to correlate with any of the beliefs regarding educational value, fairness or efficacy as measured by the GBM.

The now well-documented nature of these correlations provides an opportunity for qualitative research. If students express in qualitative comments that a process was fair or effective, it may then be reasonable to infer the student also perceived the process as educational even if the student's comments were not explicit in describing an educational effect or articulating a perception of an educational effect. A previous example of astute observations drawn from qualitative comments is Allen (1994) who observed that men raised the issue of fairness in open-ended comments more often than women. The number of respondents in this study is not great enough to replicate Allen's approach, however. Despite an inability to draw inferences related to gender or other demographics, the open-ended comments gathered in the course of this study mention concerns for fairness more often than concern for education or efficacy.

Table 5.2

GBM Correlation Matrix Including Age And Credits Earned

	GBM Educational Results	GBM Fairness Results	GBM Effective Results
GBM Educational Results: "My experience with the student conduct process was educational."	1.0000 *117*		
GBM Fairness Results: "My experience with the student conduct process was fair."	0.4698 (0.0000) *113*	1.0000 *120*	
GBM Effective Results: "My experience with the student conduct process was effective."	0.7329 (0.0000) *112*	0.6266 (0.0000) *119*	1.0000 *119*
Age	-0.0233 (0.6450) *117*	-0.0543 (0.5544) *120*	-0.0271 0.7026 *119*
Credits	-0.0556 (0.3879) *117*	-0.0343 (0.4297) *120*	-0.1033 (0.1455) *119*

Note. p-values in parentheses. Observations (n) in italics. Excludes observations that did not report age or credits. A correlation matrix of these data transformed by natural log (to normalize the distributions) produces similar results.

Additionally, researchers need not preserve the opportunity to leverage these correlations solely during qualitative data analysis; perhaps this information may also be useful during data collection. A qualitative study that aimed to understand the educational effects of the SCA process could plan a semi-structured interview protocol, that would includes follow-up questions for occasions in which students speak about fairness or efficacy.

Data from this study confirms that demographic variables explain very little regarding the belief that an SCA process is educational. Previous studies have explained that demographic variables tend to explain very little of the variation in variables that measure perception of educational value (King, 2012; Stimpson & Janosik, 2011). This study confirms that finding. Gender, race, and housing status explained 17.20% of the variation in belief that

the SCA processes were educational, 5.98% in the belief SCA processes were fair, and 8.26% in the belief that SCA processes were effective. When interacting those variables amongst each other and with age the explanation changed to 28%, 16%, and 19% respectively.

Since demographic variables tend to offer little in the way of explaining variation in belief regarding whether SCA processes are educational, fair, or effective the field needs to research what other factors may be more important. Some of the previous statements such as "Students… identified their relationship with the disciplinary officer or board as one of the strongest aspects of the disciplinary experience" (Allen, 1994, p. 112); "The independent variable measuring how valuable students perceived their meeting with a university hearing officer explained 39.6% of the variability in educational value scores" (King, 2012, p. 575); and that a "sound and fair" rating of the disciplinary processes related to feelings "that the hearing had been conducted in a courteous, understanding, and professional manner" (Dollar, 1969, p. 220) need further investigation.

It is possible that interactions between students and SCA administrators might predict educational outcomes more often and with greater explanatory power. Useful tools for investigating the effect of that relationship would be to utilize a measure such as McCroskey and Teven's (1999) source credibility measure, McCroskey & McCain's (1974) measure of interpersonal attraction, or McCroskey, Richmond, & Daly's (1975) homophily scale. Further investigation of how the relationship between students and SCA professionals influences the student in the SCA process is important because SCA professionals are often in the business of sending messages to students with which the students may disagree. Perception of a message's source is an important factor in interpreting that message. "Messages are interpreted through the receiver's impression of the source" (McCroskey & Richmond, 1996, p 104). McCroskey &

Richmond (1996), writing about communication theory in general, provide a narrative that is prescient for SCA professionals who, again, are in the business of challenging students and communicating ideas with which the student may disagree.

> When we hear someone we like say something we dislike, then we feel pressured to change our minds about the person, what he or she says, or both. The stronger our liking and respect for the person, the more difficult it is for us to disregard what he or she says or reject it as false or irrelevant. (McCroskey & Richmond, 1996, p 105).

Readiness to change, another non-demographic attribute of the student, is a construct that has been linked to a positive perception of educational value. Zerulik (2012) explained readiness to change, is a "construct that quantifies motivation" to change (p. 29). Zerulik's (2012) study produced evidence that readiness to change does coorelate with whether participants in SCA processes reported an educational outcome. Other non-demographic student attributes such as tolerance for disagreement (Teven, Richmond, & McCroskey, 1998) willingness to listen (Richmond & Hickson, 2001) or willingness to communicate (McCroskey, 1992) might also be worthy of examination but have not been studied among participations in SCA processes.

5.4 Substantive Findings, Tabulated

To partially summarize how this study's results confirm or disconfirm results from previous study, Table 5.3 is a version of Table 2.1 with an added column representing the results from this study.

Table 5.3

Studies Showing Demographic Relationship with Educational Value Including Nelson (2017) Results

	Allen 1994	Mullane 1999	Stimpson 2011	King 2012	Zerulik 2012	Stimpson 2015	Nelson 2017
gender	S	S	S	S	NS	S	S
class	NS		NS	S		NS	NS
gpa			NS	S		NS	NS
race			S	NS		NS	S
type				S			
res				NS		S	M
violation				S	NS		
time				S	S		
age			NS	NS	NS		I
number				S			

Note. NS = Not Significant. S = Significant. M = Marginal. I = Inconclusive.

5.5 Methodological Findings & Recommendations For Future Research

The DID approach to measuring change in responses to survey items among first and second-year college students in the course of a single semester works as anticipated by this study at a conceptual level. The best evidence that supports this methodological finding is that for the item "I have knowingly violated a student conduct related policy" the individual item specific DID result was negative at .773 which indicates those who participated in the SCA process trended nearly one fifth of the scale toward more strongly identifying with that statement. This outcome would be an expected result if the DID differencing technique were operating as intended.

Future studies could use other items more intentionally designed to operate as quality control questions such as "I have been to the dean of students office on my campus" and "I have been to the student conduct office on my campus." More directly and in addition to a

participation screening instrument, an item such as "I have been involved in the student conduct process on my campus" would likely be effective.

One item from this study that particularly strongly illustrates the value of gathering treated and untreated trend data in preparation for analysis with the DID method was "I drink to get drunk." Notably, all students in the study seemed to more strongly identify with this item by the end of the semester. The untreated trend was from 3.999 to 3.863 (changing -.136). While the treated trend was from 3.780 to 3.149 (changing -.631). Not gathering information that permits the assessment of both trends would have left important information unavailable for analysis.

Assuming there is an opportunity to adopt many or most of the recommendations that also follow below, future studies of learning as a result of SCA processes or learning as a result of other interventions in higher education should strongly consider utilizing DID methods.

An additional analytical strategy not implemented in this study could be the use of regression analyses, which account for data that has been censored by the available scale. An applicable example of data from this study that may have suffered from an artificial censor would be the distribution of responses to the item "I believe alcohol consumption involves some measure of risk" as shown in Figure 4.13. The distribution is so extensively skewed it gives rise to a wonder related to how students might have responded beyond the available scale. A Tobit statistical model could assist in modeling and examining how students might have responded if the instrument had provided a more extensive scale.

Even though the DID method seems to work at a conceptual level, such an approach would likely benefit from a sorting mechanism that is more reliable than a self-reported post-assessment participation screening. To partially investigate the effect of

this sorting mechanism, this study also executed the DID estimation strategy but while excluding observations who reported no data (n=325) or not sure (n=364) in response to the question "Have you participated in the student conduct process." The primary analysis categorized those that reported no data or not sure as students who did not participate in an SCA process. The results were unchanged. However, the prospect that there are students who misreported or did not report their involvement counts as a limitation of this study. It is especially likely that there are observations which have been categorized as untreated among the pre-assessment observations who were actually later participants in the SCA process. Of the 1,889 students who provided at least some pre-assessment data only 452 of them returned to provide post-assessment data. The low proportion of returners means the treatment status of 1,437 pre-assessment observations is uncertain. A better sorting mechanism, such as the use of administrative data, in future studies would be beneficial.

It can be cautiously stated that the available item missing data strategy, as applied to the dependent variables in this study did not seem to bias the results. In survey research, there are disadvantages associated with forcing respondents to provide a response to every question. This study's instrument questions were optional which avoided forcing respondents to answer when the respondent does not understand the question, does not feel the question applies, or does not want to respond. Optional responses also avoid fatiguing and frustrating respondents, which could result in hasty and inaccurate or unreliable responses (Bean, 2006). Despite the advantages of configuring each survey question as optional, the disadvantage is that there will be missing data. To manage that missing data this study utilized the available item missing data strategy as described by (MckNight, et. al., 2007). To partially investigate the effect of the available item missing data strategy this study executed the

DID estimation strategy without relying on the available item missing data strategy for outcome variables. The results were unchanged, which does not prove, but does serve as an indicator that if the available item missing data strategy ever introduces a source of bias in the course of a study, it is reasonably certain that in the course of this study that bias did not affect these results.

It can also be cautiously stated that transforming data from continuous to categorical variables as a missing data strategy applied to independent variables, did not seem to bias the results in the case of this study. As was the case for the dependent outcome variables described in discussing the previous finding, this study analyzed various models that included demographic data in their original form and as transformed. The primary analysis and results presented by this study relied on transformed categorical variables. The results from raw data in its original form were not different from the results produced with transformed data. If transforming the variables and including a "not reported" categorical as a method of preserving the number of observations available in an analysis ever introduces bias in the course of a study, it is reasonably certain that that bias did not effect these results.

Setting demographic questions as an optional response results in a relatively low proportion of not reported responses. As shown in the stacked bar charts throughout the first portion of Chapter 4 the rate of individuals not providing demographic information to demographic questions was low. Except for one outlier, the range was from 1.70% for housing status to 10.56% for race. The outlier was that 18.8% reported "not sure" in response to the question regarding the number of completed credits. This finding indicates that future researchers faced with the decision to strive for complete data at the expense of aggravating respondents with survey software error messages can afford to leave demographic questions

optional without hindering their ability to analyze for results. However, as with the recommendation above regarding sorting mechanisms, it would also be worth considering accessing administrative data as a source of demographic information. Use of administrative data would potentially be more reliable, more error free, more stable, and complete.

Open-ended responses collected a richer source of data from those who felt SCA processes were not educational. Those who seemed to believe the process was educational provided less information via open-ended responses. Sparse responses from those who believed the SCA process was educational is unfortunate given that open-ended questions have the potential to discover or "obtain answers that were unanticipated" (Fowler, 2014, p 88) "as well as… frames of reference unknown to the researcher… or the examination of thought processes" (Heinrich, 2005, p. 559). Thus, the value of open-ended questions is not insignificant.

It will be important to consider methods that may induce longer, more detailed, and more thoughtful responses from students who believed the process was educational or who for whatever reason were less interested the topic. This finding strongly suggests that asking students for their description of thoughts regarding educational outcomes solely via online survey tools is a sub-optimal method. It is likely that an in-person interaction (interviews, focus groups, telephone, or other two-way communication) would produce better results. Additionally, researchers could consider collecting quantitative, ordinal, and nominal data by survey but later collect qualitative open-ended responses via two-way communication.

An alternate approach would be to provide an incentive. Perhaps an incentive specific to the open-ended question would prove helpful in improving length, quality, depth, and

thoughtfulness. However, if the focus of research is to gather information from students who were upset or discontent, it appears survey methods may be an efficient and effective tool.

5.6 Limitations & Alternate Explanations

At the outset, this study brings a novel theoretical and methodological approach to studying whether participating in an SCA process is educational or developmental. No previous study has examined the educational effect of SCA processes with any method that is recognized for its ability to permit causal inference. Despite the notion that DID methods are recognized for their potential to produce estimates that permit causal inference, the several limitations associated with this study reduce its ability to provide causal evidence.

Many of this study's findings are subject to a series of limitations and assumptions. Primarily, where any of this study's findings are supported primarily by a DID estimation, especially regarding any of this study's item specific DID estimations, the results are exploratory and not sufficient to support causal inference. An inability to support causal inference is no reason to disregard these findings, however. In addition to leveraging a DID estimation strategy, this study also explored results from a measure designed to assess if SCA participants believed the SCA process was educational. To inform the field, this study also qualitatively examined notable response patterns to the many MFQE-SCALE items as well as open-ended text responses. Before proceeding to a final conclusion, there are eight limitations that must be addressed.

This study's first limitation is the use of an imperfect sorting mechanism. At the time of the pre-assessment, it was not possible to know which respondents were in the treatment group since the treatment had not yet happened. To effectively sort the pre-assessment responses into either the treatment or control group this study relied on post-assessment responses. There

were 1,437 pre-assessment respondents who did not participate in the post assessment. It is likely that some of those 1,437 respondents would have been sorted into the treatment group had they completed a post-assessment. Without a post-assessment response, those students remain tagged as untreated participants. This situation reduces precision of the control group outcomes before treatment.

At all stages of planning for this study the intention was to utilize a screening instrument that would ask participants to self-identify whether they had participated in the SCA process. To ameliorate the prospect that students could misunderstand the question "Could you please indicate if you ever participated in a student conduct process?" the item also explained what a student conduct process is. The drawback of providing this explanation however is that students who were less interested in the topic may have not invested the time necessary to fully understand the question before responding. Others with low interest may have resulted a decision to provide no response. To best categorize students as members of a treatment or control group this study and other similar studies would benefit from a better sorting mechanism such as the use of administrative data.

Another aspect of this study's sorting mechanism is less practical and more theoretical. In theory it is difficult to imagine how to best identify a group of students who have not participated in an SCA process and who can provide a meaningful counterfactual. It is not certain that the treatment group and comparison group are enough alike such that those who had not participated in an SCA process indeed provide a plausible counterfactual. An example of how this may have manifested during the course of this study is that while men are more likely to participate in an SCA process the majority of this study's participants were women.

As an attempt to build confidence that this study could designate one or more plausible control groups, this study collected data using items that were meant to help sort a sub-group of non-SCA participants into a supplemental control group. The theory is that students who participated in SCA processes would likely have identified with these statements but that there would also be a sufficient number of non-SCA participants who also identified with these statements. These items were:

I have turned in someone else's work as my own for academic credit.
I have cheated on an exam or quiz.
I have cheated on an assignment or paper.
I have knowingly violated a student conduct related policy.

Responses to these items turned out to be ineffective as filters. Only 44 students indicated one or more of these statements described themselves greatly. Just nine of those 44 were in the treatment group. Counting the number of respondents who indicated one or more of those statements described themselves well or greatly was 144. Just 24 of those 144 were in the treatment group. Using responses to these four questions as control variables in Equation 3.4 (also reproduced as Equation 4.1) did not conflict or change the results as discussed in Chapter 4.

A second limitation closely related to the imperfect sorting mechanism is that any students who lost their institutional email access due to suspension or expulsion (or for any other reason such as drop-out or stop-out) would not have received their post-assessment invitation. Fortunately there were few (if any) suspensions or expulsions during the course of the study. During the fall of 2016, there were zero suspensions or expulsions at Institutions A, B, and C. At Institution D, there was one suspension and one expulsion.

A third limitation is that the SCA processes, while similar, are not identical. In anticipation that the differences among the host institutions might produce different results, this study planned for and executed an estimation strategy that allowed for calculating institution-specific effects (see Equation 3.5 which was also reproduced as Equation 4.2). The results of this strategy are displayed in Table 4.3, which shows estimations among the various institutions sometimes moving in opposite directions.

A fourth limitation is that there are three key assumptions on which this study's methods rely. If any of these assumptions are untrue then the study's results are less certain. Some of these assumptions are testable to some extent. The first key assumption is that an individual's state of development, learning, or education can be measured via survey items. As revealed in Chapter 2, this study is not the first to rely on this particular assumption in the course of examining educational outcomes associated with SCA processes. This study does, however, potentially advance the field by re-situating the analysis of learning as a result of SCA processes. Where previous studies utilized instruments that operationalized learning by measuring self-reported perception of the SCA process's educational value, this study produced an instrument that is arguably a more direct assessment of learning. The MFQE-SCALE provides a measure of constructs not associated with the student's perception of the process. Rather, the MFQE-SCALE provides a measure of constructs related to the manner in which students evaluate the rules, the manner in which students evaluate how to behave, and the manner in which students think about the risks of alcohol consumption.

The second key assumption is that a change in survey item responses may provide a meaningful indication of learning or development, which is associated with this study's primary analytical strategy. The essential strategy was to subtract the change in how non-SCA

participants responded to the MFQE-SCALE items from the change in how SCA participants responded. No previous study of SCA has attempted this method of analysis.

The third key assumption is that the control group is sufficiently similar to the treatment group such that data from the control group provides a plausible counterfactual. Researchers using the DID method often test this assumption by examining the available data for the presence of a pre-treatment parallel trend. Examining for the pre-treatment parallel trend is often referred to as a falsification analysis. The most common method of conducting a falsification analysis is to produce DID estimators for time frames that pre-date the treatment, intervention, or policy change under examination. A statistically zero DID estimate in the course of a falsification analysis provides evidence that would support the parallel trend assumption. By having collected only one pre-treatment observation this study was unable to conduct a falsification analysis. This study is not the first to suffer this limitation. For example, a seminal DID study by Card and Krueger (1994) published results that also suffered this same limitation. In subsequent study there was an opportunity to collect additional data which did permit a falsification analysis (Card & Krueger, 2000). Another approach to falsification analysis could be to test for parallel trends in the semesters and years that followed treatment under investigation. This test would not definitively confirm the parallel treatment assumption, but it could be evidence that weighs in favor of accepting the assumption.

A fifth limitation is that the study may not have successfully isolated the effect of this study's independent variable of interest: participation in an SCA process. Other intervening factors may have caused the effects observed in these data. What both participants in SCA processes and non-participants have in common is that they were also attending college during the course of this study. Naturally by virtue of having attended college during the course of this

study all students should learn, grow, and develop. For purposes of this study, the DID method likely succeeded in statistically removing from its estimates some of the effects associated with attending college but potentially not all of that influence. Aside for differencing away the changes that may have occurred naturally as a result of attending college during the study period, there are other extraneous factors this study may not have been effective at accounting for. For example, students who participate in SCA processes also frequently experience a range of other interventions not specifically associated with the SCA processes. Some students may also have received state or municipal citations from law enforcement. Some may have been arrested. Students who were involved in SCA processes may also have experienced court appearances and costs. The data from this study show that many students also spoke with their parents about the SCA processes, as shown in Figures 4.8 through 4.10. All of these extraneous factors alone, or in concert, may have influenced the results of this study.

Perhaps however, it is reasonable to assume that students who did not participate in SCA processes also may have experienced similar extraneous factors such as citations, court appearances, or parental involvement. At many campuses there are students who violate campus rules or break state or local laws but who are not referred to the SCA process. If both groups, SCA participants and non-participants, experienced these extraneous factors at equal random proportions then it would be reasonable to accept the results of this study with a greater level of certainty. The extent that students who did not participate in an SCA process may have experienced these extraneous factors is difficult to test. These data do not offer the opportunity to conduct a rigorous test of whether students who did not participate in an SCA process may have experienced these extraneous factors.

Another extraneous factor that may have confounded the results of this study are the educational efforts that occur at or near the beginning of each school year. Many of these educational programs relate to learning outcomes also associated with SCA processes including alcohol, drugs, the rules, community, social development, etc. During orientation and at the beginning of the semester these dosage of educational programs can be intense. At many schools however, the dosage of these educational programs towards the end of the semester can be much more slight. It is conceivable that student responses to many of these MFQE-SCALE items may have been influenced by the high dose of educational programs occurring over the summer before school starts, at orientation, and at the beginning of the school year. Ultimately, the presence of these extraneous factors introduces a measure of uncertainty that will require further research to clarify.

A sixth limitation is that the sampling strategy and procedure produced a modest response rate. Recent research related to the validity and reliability of small samples and low response rates when surveying college student populations indicates that modest sample sizes and response rates are potentially more valid, reliable, and useful than had previously been thought (Fosnacht, et. al., 2017). As displayed in the bottom row of Table 3.4, for this study's primary analysis there were between 2,430 and 2,541 outcome measure observations. As displayed in the bottom row of Table 4.1, these numbers constitute a response rate ranging from as low as 7.43% to as high as 7.78%. Fosnacht, et. al., (2017) "found estimates for several measures of college student engagement to be reliable under low response rate conditions (5% to 10%) providing the sampling frame included at least 500 students" (p. 257). Additionally for "smaller administrations… estimates [were] increasingly reliable after receiving responses from 50 to 75 students" (p. 258).

During the planning stages, this study offered an open invitation to prospective host sites. There were detailed conversations with nine host sites and ultimately four were able to participate. Most of the host sites were highly residential with the exception of Institution A. Additionally, all four host sites were state supported institutions. To invite students to participate, this study invited all undergraduate students with less than 60 credits.

This study did however employ methods designed to maximize response rates. These efforts included pre-notification, personally addressed invitations, institution-specific references (i.e. mascot), clear explanations as to the purpose of the survey, opportunity to opt out, three reminders, friendly prose, expressions of gratitude, a phone number to call if there are questions, etc. As explained above, two strategies were planned but not implemented. First, Wisconsin's IRB objected to the use of incentives for reasons related to the nuances associated with conducting research at multiple institutions. Secondly, the initial plans called for enforcing a requirement that students respond to the study instruments. On many campuses it is presently a common practices to require that students participate in educational programs and respond to their related assessment surveys. A frequent example is known as AlcoholEdu (http://everfi.com/higher-education-old/alcoholedu). Typically, institutions will prevent students from registering for courses until the student has completed the program and its assessment instruments. However by the spring and summer of 2016 when recruiting occurred, it was too late to plan for applying a requirement that students respond in the course of this study.

Another sampling strategy not utilized in this study focuses on inviting a smaller group of individuals such as students enrolled in a specific set of course sections. By focusing invitations and recruitment for a smaller population it may be easier to produce higher response

rates. Another strategy that would reduce the population size could be to focus on inviting students living in a specific area of campus. A more focused sampling strategy could allow a study to improve the customization and timing of invitations in a manner more conducive to encouraging responses. Additional strategies such as in-class or otherwise in-person invitations and reminders may be helpful. Of course the drawback of studying a smaller population is that the ability to generalize study results to other populations may suffer.

The seventh potential limitation is due to one of this study's decision to judiciously employ the use of simple missing data strategies as described in Chapter 3. These missing data strategies were selected only after confirming that the assumptions associated with their use were appropriate for this use in this study. For example, the available item missing data strategy requires that missing items be highly correlated with the available items. The strong correlation permits using the average of the items that are available. The primary concerns associated with the available item missing data strategy is that the estimates are potentially less generalizable beyond the population because the available data points represent only a portion of the greater construct. When using the available item strategy, the resulting estimate is missing one or more dimensions which means that estimations are "sample specific" (McKnight et. al., 2007, 149). McKnight et. al., (2007) also explain that the available item strategy reduces variability, which could increase the chances for incorrectly rejecting the null hypothesis. As a source of potential bias, missing data strategies may also be another limitation of this study. The available item missing data strategy as applied in this study did assist in preserving the number of observations available for a complete analysis. However, because the available item missing data strategy as applied in this study provided only a modest increase in the number of observations available in the analysis and because this study does not reject the null it does not appear the use of missing

data is likely to have affected these results. Additionally, secondary analyses with and without relying on missing data strategies never produced conflicting results.

The eighth limitation is that this study was limited to a one-semester time frame. A limited time-frame was intentional for two main reasons. First, the limitation served to constrain the study to manageable proportions, which is appropriate in research that is investigating a new area with new methods. A more extensive exploratory study regarding a novel topic or utilizing novel methods risks imprudently allocating valuable resources when the substantive and methodological issues are not well understood. Secondly, previous results had indicated that as time passed, reported student learning seemed to diminish. According to King (2012) students who reported having experienced the SCA process "six months to one year ago" scored .328 standard deviations lower than those who reported experiencing the process "1 to 5 months ago" (p. 572). Future studies should consider gathering data from students for more than one semester at a time. An appropriate strategy may be to recruit a cohort of a few hundred students who can be surveyed multiple times over the course of their collegiate career. Such an approach would allow for more reliable sorting and for the study of trends in greater detail. By gathering trends from multiple students via multiple observations, the methods as employed in this study could have been improved for the opportunity to conduct a falsification analysis.

Another time-related limitation is that some of the learning students experience may not be immediate. It is conceivable that the learning many students experience as a result of SCA processes occurs slowly over time - perhaps in a manner that would make it difficult to measure or observe the learning until a period of years or decades have passed. A hypothesis that the learning SCA causes occurs over years or decades is not inconsistent with this study's findings.

With the possible exception of King (2012), who showed that perception of educational value may diminish in the short-term, a hypothesis that some measure of learning caused by participating in SCA would be measureable years or decades later is not inconsistent with any known study's findings.

5.7 Conclusion

Despite this study's many limitations there are also many successes. There are ten substantive findings that add to, confirm, or refute existing knowledge. As a result of this study the following can be stated with some measure of certainty: Some of the learning that occurs as a result of SCA processes may be undesirable. Students who participated in the SCA process are socially connected to each other. Parental knowledge of student participation in SCA processes is not a given. Relatedly, there are aspects of discussing SCA processes with parents that likely differs by race. Students want to understand the rules but are sometimes confused by the rules. Despite reporting that rules can be confusing, students also report they identify with statements that indicate they are confident in their ability to ascertain the differences between right and wrong. Even though students seem to understand and appreciate the risks of alcohol, their behavior seems to be inconsistent with that understanding. The GBM, as a measure of whether students believe SCA processes are educational, produces non-normal trimodal results, which are, at least partially explained by differences between men and women. The distribution for women is bimodal and skews positive while the distribution for men is bimodal but skewing negative. This study confirms that gender, race, and residential status do seem to correlate with belief regarding educational value of SCA processes. Individually class standing, GPA, and age do not seem to be related to belief regarding educational value. When interacted with gender, age might be related to belief regarding educational value. Belief regarding educational value,

fairness, and efficacy are strongly correlated. Demographic variables have limited value in statistically explaining belief regarding educational value, fairness, and efficacy.

Additionally, there are six methodological findings that will serve to inform the design and implementation of future research. This study confirms that DID methods worked as anticipated and intended with just one pre-assessment and one post-assessment observation of student learning in a college setting. This methodological finding should open the door for additional study of learning and development in colleges using similar methods. Despite that the DID method seems to work at a conceptual level, such an approach would likely benefit from a sorting mechanism that is more reliable than self-reported post-assessment participation screening. It can be cautiously stated that the available item missing data strategy, as applied to the dependent variables in this study, did not seem to bias the results. It can also be cautiously stated that transforming data from continuous to categorical variables as a missing data strategy applied to independent variables did not seem to bias the results in this study. Setting demographic questions as an optional response results in a relatively low proportion of not reported responses. And lastly, open-ended responses collected a richer source of data from those who felt the SCA process was not educational or who were otherwise discontented by the process.

Another successful accomplishment of this study is that it identified, and at least partially corrected, some of the field's methodological shortcomings. Specifically, the field has generally not documented a consensus on what it is that students should learn from SCA processes in a consistent and measurable way; limited its use of comparison groups; not used experimental study involving random assignment among comparison groups; not used quasi-experimental analysis among comparison groups; and not analyzed change over time.

Although this study did not aim to offer a definitive statement on what it is that students should learn from SCA, it has provided a meaningful contribution to that discussion. The MFQE-SCALE or other instruments with similar properties may eventually lead to the concise, consistent, and measurable conceptualization of learning the field needs. To define a manageable scope, this study elected to focus on three main conceptual guides. Those conceptual guides were first, the manner in which students evaluate the rules; second, the manner in which students evaluate how to behave; and third, the manner in which students think about the risks associated with alcohol consumption.

Perhaps the most significant and important advances offered by the MFQE-SCALE are both that it is suitable for gathering data from a comparison group and that it is suitable for gathering pre-treatment data. To permit the prospect of gathering pre-treatment and comparison group data, the MFQE-SCALE items, unlike previous examples, do not assume the respondent has either broken the rules nor that the respondent has participated in an SCA process.

By collecting data from students who have not participated in an SCA process, this study has advanced the use of comparison groups. Previous use of comparison groups was accomplished using Rest's DIT (Cooper & Schwartz, 2007; Mullane, 1999). The Cooper and Schwartz (2007) study, however, was not an examination of whether SCA processes result in moral development for participants because the data was collected at the beginning of the SCA process. Cooper and Schwartz (2007) also excluded data from respondents who were ultimately marked not responsible because the primary research question was whether those marked responsible for a policy violation scored differently on the DIT when compared to a randomly

selected group of residence hall students. Mullane's (1999) study compared DIT scores from data collected by other researchers.

By collecting data before and after the SCA process, both from students who participated in the SCA process and from those who did not, while also including data from those marked not responsible, this study brought new approaches to the use of comparison groups. This study has not used random assignment, but it has attempted an analysis that leverages circumstances that constitute a natural or quasi-experiment. In executing this quasi-experiment, this study also appears to have advanced the field by examining change over time in a manner no previous study of SCA has attempted.

American higher education's SCA processes, policies, procedures, and professionals are a collection of associated mechanisms designed to manage student behavior. One goal of SCA processes is to regulate student behavior through general and specific deterrence, which is a role that involves wielding great power. Another goal is to implement that power in a manner that will promote student learning or development. When an institution accuses a student of misconduct, SCA administrators typically meet with that student about the alleged misbehavior. After an evaluation, the institution will either mark the student responsible or not responsible. If responsible, the institution will assign consequences. Figures 1.1 and 1.2 illustrate and outline these processes.

Questions regarding SCA processes that have yet to be asked and fully answered are numerous. For students who are responsible for a policy violation, is it a lack of education or development that caused the student to break the rules? Will supportive educational and developmental interventions remediate that lack of education and work to prevent recidivism? Is a quasi-legalistic and pseudo-adversarial SCA process the best method for providing a

supportive educational and developmental intervention? If students break the rules because their education and development are at a deficit, how do students learn from the SCA process? What do students learn from that process? Does the student learn from that process? What are the roles of system characteristics in that learning? What are the roles of staff in that learning? What agency do students have in that learning? If the opportunity for learning is merely nominal, could the emphasis on learning and development be misguided? Could it be better for SCA professionals to focus on general and specific deterrence (campus safety) instead of striving for an educational outcome for which there is no truly meaningful opportunity? Instead of focusing on positive desirable learning outcomes, might it be more pragmatic to focus on reducing the prospect that the process will result in negative undesirable outcomes?

These questions dig below many of the assumptions associated with SCA as a field. In no uncertain terms this study began with a set of questions that doubted the assumption that SCA processes can and do provide an educational effect. A satisfying end might have been to provide evidence that either confirmed or refuted that assumption. This study cannot definitely confirm the assumption that SCA processes can and do provide an educational effect - at least not any that would be considered desirable. Likewise, this study cannot refute the assumption that SCA processes provide an educational effect either. Therefor based on these results it is possible that some students probably learn something. Also, it is likely that students develop in some manner. Additionally, student behavior probably changes in some measure.

The lack of certainty is not only a matter of whether students learn. The lack of certainty is also a matter of whether the goals are truly educational, whether they are developmental, or whether they may be best labeled something else. Also the question as to how to articulate specific differences between educational and developmental in the context of

SCA remains unsettled. In Chapter 2 this study acknowledged the murky distinction between learning and development as it has been discussed by scholars and practitioners of SCA. As a result of that murkiness this study opted for an approach that concerned itself less with the philosophy and psychology of learning and development and more with the practical aspects of identifying an outcome and then devising a scheme that could detect whether SCA has an effect on that outcome. Chapter 2 also discussed that future study should endeavor to derive from the literature, or from additional research, a better philosophical and psychological understanding of the outcomes in this context.

This study's null results are somewhat reminiscent of the results from Arum and Roksa (2011) who also surveyed undergraduates early in their college career at multiple institutions in an attempt to study learning and development. Arum and Roksa asserted that as a general matter on average the learning students experience at college, seems to be limited. Thus, SCA is not alone for a lack of certainty as to whether there is sufficient evidence to confidently support the assertion that there is an educational or developmental effect.

Via a frequently asked questions webpage the Association for Student Conduct Administration (n.d.) writes:

> The ultimate goals of student conduct processes are student growth and development and the preservation of the educational environment. Student conduct professionals work to support institutional and educational missions. They engage and educate students to be better citizens by guiding them towards ethical decision making and accountability. ASCA stands by this unequivocally, and this stance is also clearly supported in the courts.

The lack of certainty is a serious matter. As recently as the month of this dissertation's defense a federal judge had occasion to discuss an SCA's characterization that the process is

educational and not punitive (*Doe v. University of Notre Dame*, unpublished U.S. District Court Northern District of Indiana South Bend Division, 2017) (issuing a temporary restraining order permitting Doe to complete semester coursework even though Notre Dame had marked Doe responsible for committing a sexual assault). The SCA offered this 'educationalness' rational as justification for excluding attorneys from participation in the SCA process. This judge attacked the premise that an SCA process is never punitive. For the time being this judge seems to have passed over the opportunity to question other assumptions expressed by the SCA in this case. Who is to say that attorneys are incapable of contributing to an educational process? Why should it be assumed that attorneys might inhibit the prospect of an educational outcome? Also, why should punishment and education be mutually exclusive? Rhetorically speaking, given the available evidence, if the issue of whether SCA processes provide an educational experience for students were ever litigated the SCA's case would potentially be unpersuasive.

Instead of answering its original research questions this study ends just as it began: by questioning assumptions associated with the field and practice of SCA. This study stands by the importance of future research that will ask whether SCA processes are educational, whether SCA processes have the ability to provide an educational effect, and what it is that students should or do learn. However, this study has also outlined reasons to consider asking a more rudimentary question of whether it was a lack of education or development that caused students to be involved in the SCA process. A related question is whether any form of educational or developmental intervention is the best hope for curing that educational or developmental deficit. And critically, if perhaps SCA processes provide no or mere token measures of education, what other rationale are there in support of SCA processes?

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Appendices

Appendix A: Host Site Invitation Form Letter

From The Desk Of

Adam Ross Nelson, JD

June 30, 2016

Dean of Students Office / Office of Student Conduct
At << Insert Institution Name>>
<<Institution Street Address>>
<<Institution City, State, Zip Code>>

Greetings,

From the University of Wisconsin - Madison I am conducting a study of learning that might result from a student's participation in student conduct processes. As it turns out the empirical and scholarly evidence relevant to knowing, *what or even if*, students learn from participating in student conduct processes is very limited. Professor Julie Mead is the study's P.I. and it has been both reviewed and approved by Wisconsin's I.R.B.

Through this study, I hope to add to the available evidence. Currently, there are multiple sites/schools participating in this study. These schools were recruited through regional and national professional networks.

In this episode: Dean Donna is asking important questions about the learning of her students.

http://[URL REDACTED]

Your school has been selected by random draw to receive an invitation to participate in this study. I hope you will consider participating. To learn about the study visit the explainer video shown here. On the video you will meet "Dean Donna" who is asking important questions about the learning her students experience.

Watch the short video. Give me a call if you have questions. I hope to speak with you.

Sincerely,

/s/

Adam Ross Nelson
University of Wisconsin - Madison
JD Class of 2008
PhD Anticipated 2017

608 [REDACTED] (Personal Mobile)
[REDACTED] @gmail.com (Preferred)
[REDACTED] @wisc.edu (Campus)

PS: In this short video you will meet "Dean Donna."
http://[URL REDACTED]

PPS: Space is limited. Call as early as possible for full consideration.
I cannot guarantee a space for all interested schools.

Appendix B: Sample Pre-Notification Email Templates

(Post assessment pre-notification not shown.)

Pre assessment pre-notification email template:

Note: some system attributes may result in slightly different appearance, format, font, spacing, etc.

To be sent from host institutions:

From: [To be determined by host institution administration]
Subject: Please consider offering your input
Date: [Date of email - to be decided based on academic calendars)
To: [Name of Student - emailofstudent@school.edu]

Dear [insert student name / or "Student"],

Greetings [insert school mascot name]! As we prepare for the year ahead we are working with researchers at the University of Wisconsin - Madison to gather input from students at [insert school name] about our [insert name of student conduct process].

Soon you will receive an invitation to participate in a survey. This survey will be offered to you both at the beginning of the semester and again at the end of the semester. Participation is optional. You may participate at either or both occasions. The level of your participation is up to you. However, to produce the most trustworthy results possible, we encourage as many to participate as possible.

To encourage participation, only researchers at UW-Madison will have access to your responses. We hope that you will consider responding to both surveys.

We hope that the remainder of your summer goes very well for you - we are very much looking forward to seeing you on campus soon - if we haven't yet already. Thanks so much in advance for your consideration. And most importantly GO [SCHOOL MASCOT]!

Sincerely,
[To be determined by host institution administration]
[XXX-XXX-XXXX, tbd by host institution]

- mfqs pre pre-notify -

Appendix C: Sample Invitation Emails

(Post assessment invitations not shown.)

Pre assessment invitation template 1 of 3:

Note: some system attributes may result in slightly different appearance, format, font, spacing, etc.

From: Adam Ross Nelson PhD Student At UW Madison
Subject: Please consider providing your input (Study Invitation 1 of 3)
Date: [Date of email - to be decided based on academic calendars)
To: [Name of Student - emailofstudent@school.edu]

Dear [insert student name / or "Student"],

With support from [insert name of campus office coordinating study] I am conducting a study of [insert school name's] [insert name of student conduct process]. This study is designed to find out if students learn from participating in this process. To be successful we need input from students who both have or haven't participated in the process.

Also, even though [insert name of campus office] is in charge of this process at [insert name of school] - that office will not have direct access to study data. Only members of the study team at UW-Madison will have access to the study data.

If you do participate we anticipate that the information you provide will help [insert school name's] potentially find options to improve its [insert name of student conduct process].

To participate utilize this link: [insert link to study].

If you respond we will stop sending further invitations. Otherwise we do plan 2 additional automated reminders, which will only go to students who have yet to respond. If you utilize the link above you'll have the opportunity to read more about the study and then to either participate in the study or to opt out of the study.

Thank you so much for your time and attention, already. On behalf of myself and [insert school name's] I sincerely hope you'll consider participating in this study.

Sincerely
Adam Ross Nelson, JD
University of Wisconsin-Madison PhD Candidate
608 REDACTED

- mfqe pre.1 -

(Post assessment invitations not shown.)

Pre assessment invitation template 2 of 3:

Note: some system attributes may result in slightly different appearance, format, font, spacing, etc.

From: Adam Ross Nelson PhD Student At UW Madison
Subject: Please consider providing your input (Study Invitation 2 of 3)
Date: [Date of email - to be decided based on academic calendars)
To: [Name of Student - emailofstudent@school.edu]

Dear [insert student name / or "Student"],

Earlier I wrote you with an invitation to participate in a study that is designed to find out if students learn from participating in [insert school name's] [insert name of student conduct process]. The [insert name of campus] has arranged for you to receive these invitations.

This invitation is being sent only to those who did not respond to the first invitation. If you respond we will stop sending further invitations. Otherwise we do plan 1 additional automated reminder.

If you utilize the link below you'll have the opportunity to read more about the study and then to either participate in the study or to opt out of the study.

To participate utilize this link: [insert link to study].

Thank you so much for your time and attention, already. On behalf of myself and [insert school name's] I sincerely hope you'll consider participating in this study.

Sincerely
Adam Ross Nelson, JD
University of Wisconsin-Madison PhD Candidate
608 REDACTED

- mfqe pre.2 -

(Post assessment invitations not shown.)

Pre assessment invitation template 3 of 3:

Note: some system attributes may result in slightly different appearance, format, font, spacing, etc.

From: Adam Ross Nelson PhD Student At UW Madison
Subject: Please consider providing your input (Final Invitation)
Date: [Date of email - to be decided based on academic calendars)
To: [Name of Student - emailofstudent@school.edu]

Greetings [insert student name / or "Student"],

Today I am writing with the final invitation to participate in a study of [insert school name's] [insert name of student conduct process] designed to find out if students learn from participating in that process.

If you utilize the link below you'll have the opportunity to read more about the study and then to either participate in the study or to opt out of the study.

To participate utilize this link: [insert link to study].

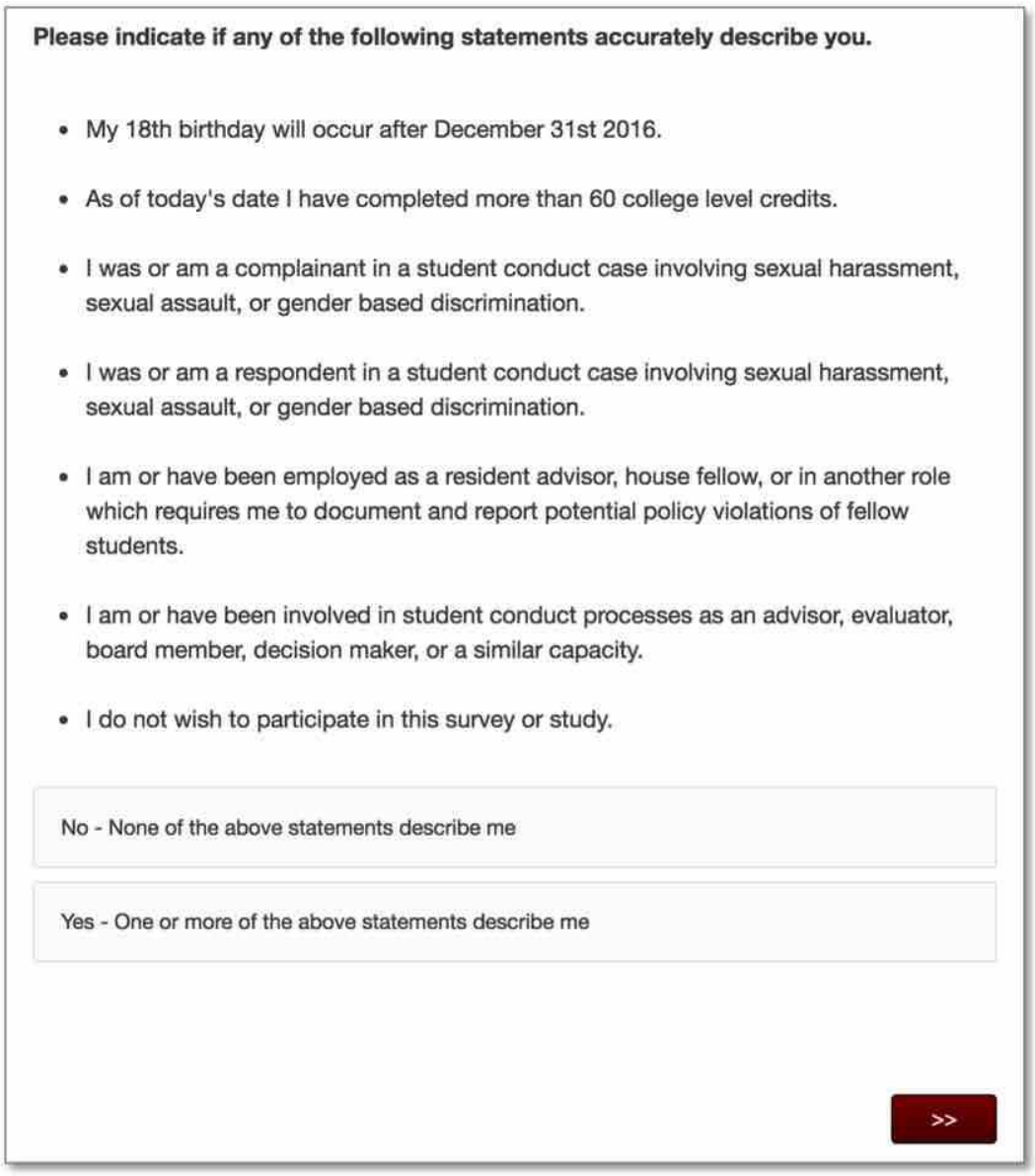
Your participation in this study is optional and voluntary. To maximize our ability to protect you as a research participant your responses will confidential. Also, even though [insert name of campus office] is in charge of this process at [insert name of school] - that office will not have direct access to study data. Only members of the study team at UW-Madison will have access to the study data.

Thank you so much for your time and attention, already. On behalf of myself and [insert school name's] I sincerely hope you'll consider participating in this study.

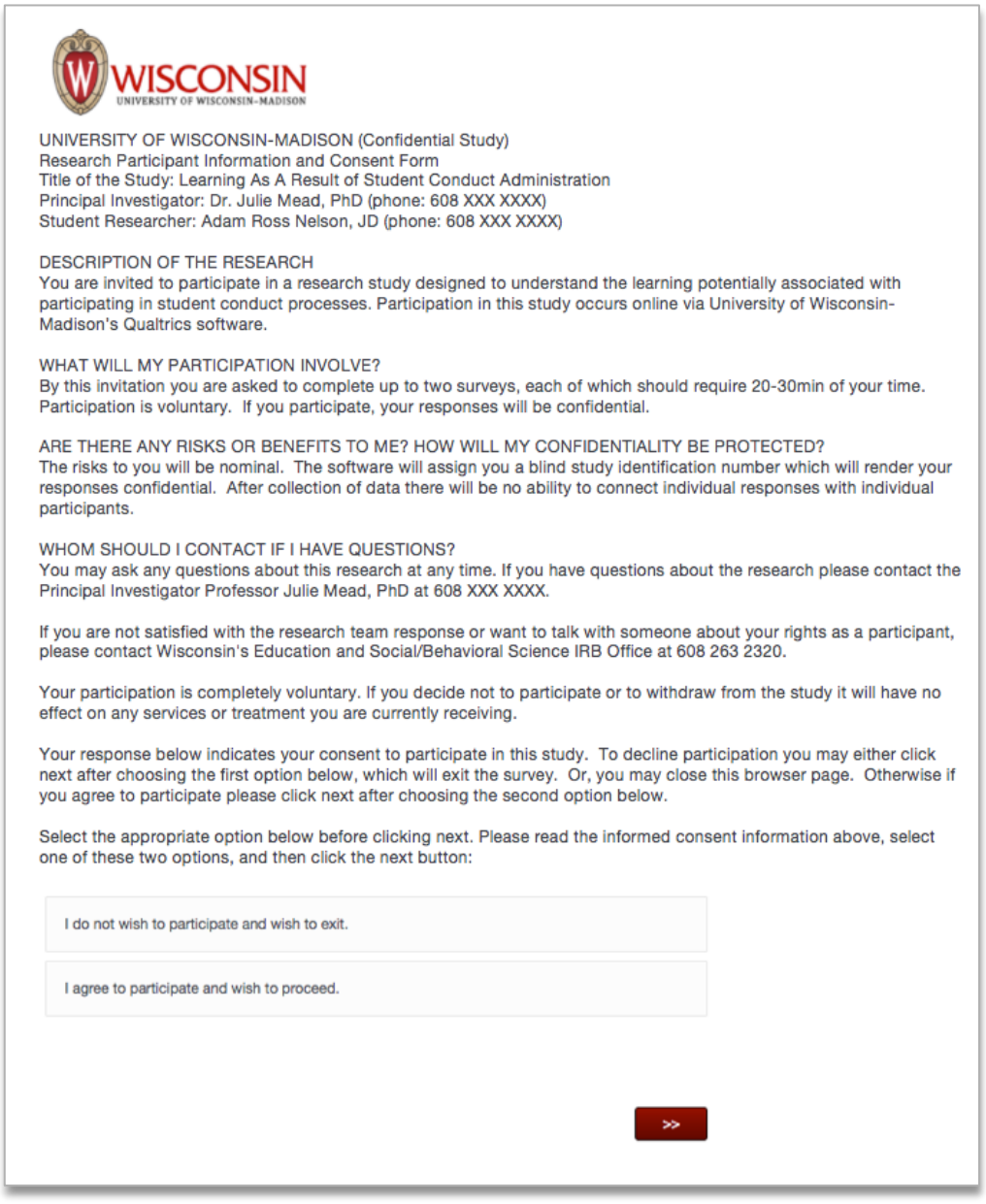
Sincerely
Adam Ross Nelson, JD
University of Wisconsin-Madison PhD Candidate
608 : REDACTED

- mfqe pre.3 -

Appendix D: Participant Pre-Screening Question



Appendix E: Informed Consent



WISCONSIN
UNIVERSITY OF WISCONSIN-MADISON

UNIVERSITY OF WISCONSIN-MADISON (Confidential Study)
Research Participant Information and Consent Form
Title of the Study: Learning As A Result of Student Conduct Administration
Principal Investigator: Dr. Julie Mead, PhD (phone: 608 XXX XXXX)
Student Researcher: Adam Ross Nelson, JD (phone: 608 XXX XXXX)

DESCRIPTION OF THE RESEARCH
You are invited to participate in a research study designed to understand the learning potentially associated with participating in student conduct processes. Participation in this study occurs online via University of Wisconsin-Madison's Qualtrics software.

WHAT WILL MY PARTICIPATION INVOLVE?
By this invitation you are asked to complete up to two surveys, each of which should require 20-30min of your time. Participation is voluntary. If you participate, your responses will be confidential.

ARE THERE ANY RISKS OR BENEFITS TO ME? HOW WILL MY CONFIDENTIALITY BE PROTECTED?
The risks to you will be nominal. The software will assign you a blind study identification number which will render your responses confidential. After collection of data there will be no ability to connect individual responses with individual participants.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?
You may ask any questions about this research at any time. If you have questions about the research please contact the Principal Investigator Professor Julie Mead, PhD at 608 XXX XXXX.

If you are not satisfied with the research team response or want to talk with someone about your rights as a participant, please contact Wisconsin's Education and Social/Behavioral Science IRB Office at 608 263 2320.

Your participation is completely voluntary. If you decide not to participate or to withdraw from the study it will have no effect on any services or treatment you are currently receiving.

Your response below indicates your consent to participate in this study. To decline participation you may either click next after choosing the first option below, which will exit the survey. Or, you may close this browser page. Otherwise if you agree to participate please click next after choosing the second option below.

Select the appropriate option below before clicking next. Please read the informed consent information above, select one of these two options, and then click the next button:

I do not wish to participate and wish to exit.

I agree to participate and wish to proceed.

>>

Appendix F: Demographic Questionnaire

D1 Which option best describes your current living and residential accommodations.
- On-campus (1)
- Off-campus (2)
- Off-campus with family (3)
- Greek org/affiliated housing (4)
- Other (5)

D2 How many others share a bedroom with you?
- 0 (0)
- 1 (1)
- . . .
- 9 (9)
- 10 or more (10)

Display This Question:
If Which option best describes your current living and residential accommodations. On-campus Is Not Selected

D3 How many others live with you at your entire place of residence?
- 0 (0)
- 1 (1)
- . . .
- 20 (20)
- 21 or more (21)

D4 What is your gender?

_____

D5 What is your race?
- African American (2)
- Hispanic/Latino(a) (3)
- American Indian (4)
- Asian Southeast (5)
- Hawaiian / Pacific Islander (6)
- Asian Pacific American (7)
- White/Caucasian (1)
- International (9)
- Two or More Races (10)
- Other (11)

D6 In which state, district, or territory did you graduate high school?
- Alabama (1)
- Alaska (2)
- . . .
- Wisconsin (51)
- Wyoming (52)
- I did not graduate in the United States (53)

D7 How many college level credits have you completed?
- Not Sure (99)
- 0 (0)
- 1 (1)
- . . .
- 59 (59)
- 60 (60)

D8 Please indicate your grade point average (GPA) as you aspire for it to be at the end of the next full academic semester or term.

- 3.76 - 4.00 (9)
- 3.51 - 3.75 (8)
- . . .
- 2.10 - 2.25 (2)
- 2.00 or under (1)
- Not Sure (99)

D9 Please indicate your grade point average (GPA) as you anticipate for it to be at the end of the next full academic semester or term.

- 3.76 - 4.00 (9)
- 3.51 - 3.75 (8)
- . . .
- 2.10 - 2.25 (2)
- 2.00 or under (1)
- Not Sure (99)

D10 In how many student organizations are you involved with on a weekly basis?

- 0 (0)
- 1 (1)
- . . .
- 9 (9)
- 10 (19)
- 11 or more (11)

D11 How many hours do you spend with involvement in student organizations on a weekly basis?

- 0 (0)
- 1 (1)
- . . .
- 15 (15)
- 16 or more (16)

D12 In what month were you born?

- January (1)
- February (2)
- . . .
- November (11)
- December (12)

D13 What is your age as of today's date?

- 17 or under (17)
- 18 (18)
- . . .
- 30 (30)
- 31 or over (31)

If 17 or under Is Selected, Then Skip To End of Survey

Appendix G: Fairness and Efficacy Generalized Belief Measure Items

This question is designed to gather information about your feelings of the student conduct process.

Using scales below please evaluate the statement below. Far left or right (1 or 7) indicate a very strong feeling. Second from left or right (2 or 6) indicate a strong feeling. Middle left and right (3 or 5) indicate a weak feeling. The very middle (4) indicates you are undecided.

Statement to evaluate: "My experience with the student conduct process was fair."

	1	2	3	4	5	6	7	
Agree	○	○	○	○	○	○	○	Disagree
False	○	○	○	○	○	○	○	True
Incorrect	○	○	○	○	○	○	○	Correct
Right	○	○	○	○	○	○	○	Wrong
Yes	○	○	○	○	○	○	○	No

Statement to evaluate: "My experience with the student conduct process was effective."

	1	2	3	4	5	6	7	
Agree	○	○	○	○	○	○	○	Disagree
False	○	○	○	○	○	○	○	True
Incorrect	○	○	○	○	○	○	○	Correct
Right	○	○	○	○	○	○	○	Wrong
Yes	○	○	○	○	○	○	○	No

Appendix H: Estimated Response Rates

Table H.1

Tabulation of invitations, screening question responses, and instrument completion.

	(One) Estimated Qualifying Invitees	(Two) Respondents Answering Yes To Pre-screening Questions	(Three) Respondents Answering No to Pre-Screening Questions	(Four) Respondents Choosing Not To Proceeded After Informed Consent	(Five) Respondents Choosing To Proceed After Informed Consent	(Nine) Number of complete responses to each of the study's outcome measures					
						Factor Number					
						1	2	3	4	5	6
Total Pre	16,342	2,706	3,777	1,240	1,889	1423	1398	1385	1389	1459	1454
Inst A	1,503	61	300	90	164	132	131	131	128	139	138
Inst B	9,468	2,213	2,493	874	1,192	876	858	853	856	890	890
Inst C	1,453	100	175	38	87	56	54	54	54	62	62
Inst D	3,918	332	809	238	446	359	355	347	351	368	364
Total Post	16,300	1,481	2,093	466	1,339	1034	1021	1012	1014	1053	1050
Inst A	1,487	42	118	32	70	45	45	45	45	46	47
Inst B	9,468	1,161	1,430	296	919	707	695	690	694	720	720
Inst C	1,448	65	106	32	56	40	40	40	40	41	41
Inst D	3,897	213	439	106	295	242	241	237	235	246	242
Overall Total	32,642	4,187	5,870	1,706	3,228	2,457	2,419	2,397	2,403	2,512	2,504

Notes: Due to a mistake at one of the study sites, this study was provided a list of participants that inadvertently included some of that institution's graduate student population. Column one, therefore, provides a tally of estimated qualifying invitees. When calculating response rates this study utilized the numbers as displayed on column one as a denominator (as opposed to the actual number of invitees). For the institution that provided the partially overly inclusive list of invitees, that column provides a count, later obtained from the registrar, of the number of students that should have been on the list. Because of the use of pre-screening instruments it is unlikely that many, if any, graduate students responded to this study's survey instruments. This study does not report at which institution this error occurred to afford discretion for the various participants. Thirty-two respondents provided complete or nearly complete responses to the study instruments while also providing no response to the informed consent question which read in part: "Your response below indicates your consent to participate in this study. To decline participation you may either click next after choosing the first option below, which will exit the survey. Or, you may close this browser page. Otherwise if you agree to participate please click next after choosing the second option below. Select the appropriate option below before clicking next." Those who did not respond to the consent but provided responses to the study instruments were deemed to have consented. As with Tables 3.4, 3.5, 4.1, and 4.3 this table also reports information from Institutions A and C. Because of the low response rates this at Institutions A and C, this study does not analyze responses from those institutions for inferential purposes. The low responses at Institutions A and C render the data from their institutions un-interpretable.

Appendix I: Open Text Responses

The following are student responses to the question:

> Because you indicated that you participated in the student conduct process, we would like to ask you to describe your experience. Do you feel it was educational? In your own words, could you describe any learning?

Also provided for each response is that respondent's generalized belief measure z-score. A z-score indicates how many standard deviations that respondent's GBM was above or below the mean GBM.

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G.B.M. Ed Exp z-score: -1.086471081

It wasn't really educational- my incident was mental health related so it really just felt like they needed to take care of any possible liability issues rather than actually doing what I said I needed. It wasn't BAD necessarily but just not what I needed.

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G.B.M. Ed Exp z-score: 1.485803127

I was reported for drinking alcohol in the dorms and for breaking quiet hours along with many other people from my floor last year. It was the last day of school so I actually never met with someone in person, but rather I had a phone conversation with a person and so she decided that I had to take an educational class as my consequence. The educational alcohol was pretty educational and put on well toward college students to teach them to drink responsibly rather than abstain from drinking. However, it didn't inspire me to change my behavior.

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G.B.M. Ed Exp z-score: -1.086471081

It wasn't educational to me because I did not do what I was accused of doing and the decision reflected that. I assume, however, that if I was found responsible for the allegations - the individual would have been helpful in where I would go from there in terms of punishment and understanding the rules more clearly for the future.

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G.B.M. Ed Exp z-score: -0.572016239

It was educational that I learned how phony, deceitful, and unjust residence hall staff is, to be quite honest.

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G.B.M. Ed Exp z-score: 1.280021191

It was a good way to learn where I went wrong, received disciplinary action, and reflective assignment to get back on the right track.

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G.B.M. Ed Exp z-score: 0.456893444

I attended [REDACTED NAME OF EDUCATIONAL WORKSHOP] after getting some noise complaints and being in a room with alcohol (but not consuming any). [REDACTED NAME OF EDUCATIONAL WORKSHOP] did not change my thoughts or behavior.

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G.B.M. Ed Exp z-score: -1.600925922

the process was far from educational. The meeting consisted of her describing that my actions of underage drinking were "that of a criminal." Her moral understandings were far from the general population and deepens a divide between student body and faculty/police. Her best form of advice was for any drinking to be done at house/frat parties, which was almost appalling to hear. That is a perfect example of a university disregarding student safety to appease a separate agenda. She claimed that university such as this one does not want a student body of criminals such as myself. She is part of what creates such a divide between young adults and authority, which is something that needs to be changed in this country.

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G.B.M. Ed Exp z-score: 0.456893444

Not really, since we are adults, I feel as though I should be able to make my own decisions without repercussions as long as my decisions only affect me. I also already view myself as having a strong sense of values, so I cannot say I was taught anything about how to live my life that was not already apparent to me before.
- - - - - - - - -- - - - - - - - -- - - - - - - - -- - - - - - - - -- - - - - - - - -- - - - - - - - -- - - - - - - - -- - - - - -
G.B.M. Ed Exp z-score: -0.057561379

I feel like certain parts of it were foolish and unneeded, and were very expensive for me to do if there wasn't a point to it. It was very fair, though, in some parts.

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G.B.M. Ed Exp z-score: -1.600925922

I believe my student conduct process, while fair, was unreasonable, in that my alcohol behavior did not fit the pattern of the students who abuse it. I had a small amount of alcohol in my room (possession, not consumption) when police officers responded to a marijuana violation by my roommate. When the officers came to the door, I was entirely honest and forthcoming with them, however, this cooperation apparently means nothing in the eyes of the university.

Since the decision process had been completed, I have felt less in touch with the University and less welcome here as a student, even though I hardly ever drink. Every time I see social media or hear about people going out to parties I become more depressed.

I at least had a hope for a little time that a first-time violation would not be as severe as a repeat offender, but then I found out that a second violation comes with fewer punishments than the first...

I'm not happy with the whole situation, and while I don't blame the University or any of it's employees for my punishment, I feel disconnected from this university and it is unlikely that I will contribute above and beyond to this university anymore.

Sincerely,
A responsible student forever marked with delinquent behavior

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G.B.M. Ed Exp z-score: -0.057561379

My roommate and I needed to be more conscientious of neighbors while playing music at night.

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G.B.M. Ed Exp z-score: 0.971348286

My experience was good, the person I met with was genuine and caring.

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G.B.M. Ed Exp z-score: -1.086471081

Hell no it wasn't educational

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G.B.M. Ed Exp z-score: 0.559784412

I felt it educational and very fair on my end, although for the other individual involved, not so much. Even my advisor from within university housing agreed, and was unaware of the consequences said individual almost faced.

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G.B.M. Ed Exp z-score:

I was written up for a noise complaint when I was a freshman and the RA's were convinced that I was drinking and demanded to enter the room. I was not drinking but I wouldn't let them enter so the wrote me up for a noise complaint and I saw a woman who worked for the student housing and I talked to her about binge drinking for about 10 minutes and how i was doing in school. She regurgitated facts about alcohol at me until i was able to leave, I think i was given a "warning". Overall terribly ineffective to change any behavior I had at the time

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G.B.M. Ed Exp z-score:

I was wrongly acussef but I am glad they understood that i was a wrong place at the wrong time

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G.B.M. Ed Exp z-score:

I felt that the the [INSTITUTION NAME REDACTED] process was unfair. The school claims all they need is a 50/50 chance to punish you and the punishment. In my case was a $263 underage ticket from a campus officer along with 2 drinking classes one that costs 100 and one that costs 150. They also now told me yesterday I am expected to move out of my dorm room in negative degree weather and move all my shit across campus. I was also told that they want a substance evaluation and that I should look for a professional on my insurance. I am a fully time student without a job and this entire thing is costing upwards of 600 I think it shows complete disregard for the well being of the students and is another way for the university to profit.

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G.B.M. Ed Exp z-score: -0.057561379

I was a bystander to a situation involving drugs and had to seek out medical attention. I was noted in the system as being involved for this purpose and did not have to go beyond one meeting with the "individual" since my role did not go beyond bystander.

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G.B.M. Ed Exp z-score: 0.456893444

It was educational on y oi with they processed so.

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G.B.M. Ed Exp z-score: -0.572016239

The meeting with the person who worked for housing went well enough, and was educational. I learned everything that would be going on and what could happen in the future. In the mandated counseling, I did not learn very much. It was a lot of the same stuff repeated and ut seemed rather pointless.

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G.B.M. Ed Exp z-score: 0.662675381

I think it was educational, but would have been more helpful before the fact. It shouldn't be used as punishment but be a right for all students

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G.B.M. Ed Exp z-score: 0.456893444

The process was as good as it could have been, given my circumstances of being in trouble.

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G.B.M. Ed Exp z-score: -1.600925922

There was absolutely no educational value or learning. If you break a rule, the rule isn't questioned; you are questioned.

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G.B.M. Ed Exp z-score: 0.559784412

Although I recognize the importance of having a student conduct process here at [INSTITUTION NAME REDACTED], I believe it is very harsh here ay [INSTITUTION NAME REDACTED]. Being involved in the student conduct process caused me a lot of emotional and mental harm. There was a large waiting time between my conduct meeting and the consequences I received. This caused me a lot of anxiety about what was going to happen to me. In addition to this anxiety, I suffered many emotional and mental problems. The way the conduct meeting was handled made me feel like I was a terrible person, and that I was not welcome at the University anymore. Going through the conduct process made me consider transferring universities, which would have caused me even more emotional strain to have to leave my friends and other things that I had become involved in on campus. Being involved in this process also negatively affected my grades. Having to schedule meetings to meet with the conduct staff, and counselors, and various other meetings decreased my study time, and left me emotionally drained. I had a hard time focusing on school work because I was constantly worried about what was going to happen to me, or because my self esteem was destroyed through the conduct process. Constantly having to talk about my worst personal decisions over and over again constantly dragged down my self confidence, even to this day. This process has changed my actions, but it is mostly because I do not want to have to go through the very draining process that is the student conduct process at [INSTITUTION NAME REDACTED].

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G.B.M. Ed Exp z-score: -1.395143986

It was fine