Condoms and Consent:
Exploring the Relationship Between Sexual Health and Sexual Violence on College Campuses

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Abstract

College campuses are ripe for investigation about sexual health and sexual violence: students know very little about sexual health and routinely engage in risky sexual behaviors, and one in four women will experience sexual violence while a student. However, if better sexual health leads to increased women's agency and self-determination, and if sexual violence stems from socialized power dynamics that diminish self-determination, then it follows that increased sexual health should at least correlate with, if not cause, reduced levels of sexual violence. Fittingly, this thesis questions if increased sexual health associates with reduced sexual violence on college campuses.

To investigate this connection, I analyze 59 members of the American Association of Universities by compiling data about their sexual health promotion, sexual violence prevention, and medical resources, as well as their Clery Act Compliant reported rates of sexual violence. I use a statistical approach to draw correlations and posit relationships between indicators of a campus's sexual health and its reported rates of sexual violence, which I discuss alongside the phenomenon of underreporting sexual violence. This thesis will culminate by providing policy recommendations to universities on how to better their sexual health promotion and sexual violence prevention efforts, as well as to the federal government on how to reform the Clery Act sex crime reporting process to make Clery reports a stronger gauge of campus sexual violence.

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Working Definitions

Throughout this thesis, I refer to several key concepts relating to sexual health and sexual violence. In this chapter, I lay out my working definitions for these terms.

Gender and sexual violence: Gender violence includes any instance in which individuals are subjugated to verbal, emotional, psychological, or physical violence, coercion, or manipulation on the basis of their gender identity or expression. Sexual violence is a narrower term: it is a form of gender violence that focuses on individuals experiencing instances or patterns of sexual violation. In this context, I use sexual violence as a response variable – an empirical way of measuring gender violence. Specifically, I use rates of sexual violence reported via the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act as a proxy for sexual violence as a whole. The Clery Act requires colleges and universities that engage in federal financial aid programs to publicly report information about campus crime (Brinn and List 2016). These reports include sex offenses as defined by the Violence Against Women Act. According to the Act, sex offenses are broken into two classes – forcible sex acts including rape, fondling, incest, and statutory rape, and non-forcible sex acts including stalking, domestic violence, and dating violence. Individual states define each sex act independently, and the federal government sets the classifications as forcible or non-forcible. In this case, the term "forcible" refers to an act that definitively involves physical interaction, and "non-forcible" refers to one that may or may not be physical in nature. While not totally inclusive, the Clery reported rate of sexual violence is standardized among universities, allowing the metric to be useful and act as the response variable through my statistical analysis.

One in four: A randomly sampled survey of students from the Association of American Universities found that one in four students reported experiencing sexual violence – as defined above – while attending college (Cantor et al 2015). This one in four statistic is what I consider as the "real" or "expected" rate of sexual violence: what we actually expect to occur on college campuses, in contrast to what is reported as occurring. If all incidents of sexual violence were reported, there would be 250 total adjusted Clery reported sex crimes per 1,00 students per university over a four-year period.

Sexual health: A catchall public health term, sexual health refers to bodily integrity, consensual sexual experiences, sexual intercourse safety, and sexual pleasure, as well as wellbeing in regard to gender, sexual orientation, and reproduction (WHO 2006). Sexual health is not simply about avoiding sexually transmitted diseases or deterring pregnancy; it is about a holistic acceptance of sexuality and dedication to sexual freedom. I discuss sexual health generally in relation to "women," a word that I use to represent a more convoluted phrase: "people with the capacity to become pregnant or who were assigned female at birth." Importantly, sexual health is a right conferred to people of all bodies, gender identities, and gender expressions, and my use of the words "women" or "students" when referring to sexual health should not be taken to exclude others who are also due this human right. Moreover, in the context of this thesis, I use the phrase "sexual health" to refer to *sexual health resources:* campus resources that promote this notion of holistic mental, emotional, and physical sexual health, or are related to gender and sexuality more broadly, including online resources, outreach programs, identity centers, and counseling services.

Sexual violence prevention: efforts undertaken by a university to prevent sexual violence through education, policy, and resource availability, as well as a university's preparedness to respond to allegations of sexual violence. This category of variables includes campus sexual misconduct policy and enforcement, definitions of consent, presence of Title IX coordinators, and various education and resource provisions.

Medical resources: a university's dedicated student health services, contraceptive availability and access, and sexually transmitted infection testing availability and access.

Sexual climate: A university's sexual climate refers to its campus's general culture surrounding sex, stigma related to sexuality-related issues, and overall sexual wellbeing or healthfulness. A university with a healthy sexual climate is "sex positive" – it does not disparage students who engage in sexual activity and instead provides resources to students to have safe and consensual sex. An unhealthy sexual climate does the opposite: resource-barren, the university ignores issues of sex and sexuality.

Introduction

One in four women in college experience sexual violence (Cantor et al 2015): it is a statistic so notorious that it verges on cliché. In an era of blaming victims and absolving perpetrators, of normalizing predatory activity and negating sexual agency, we expect recurring instances of gender violence at the university level. However, we do not discuss sexual health, which has the potential to increase women's bodily autonomy and self-determination. In turn, sexual health can combat the socialized power dynamics that generate sexual violence on campus. But the scope of United States' sex education is inconsistent and lackluster, rendering even the most elite university students ignorant about sexual health, faced with limited contraceptive accessibility and rampant method misuse. College students may not know enough about sexual health to link it to sexual violence – they may not be equipped to actualize how increased sexual health can reduce sexual violence. So when sexual health and sexual violence policies continue to be challenged in the political realm – as policymakers heatedly contest access to contraceptives, as case law changes every day – the issues of sexual violence and sexual health emerge carrying critical and intimate importance with immense policy implications.

The contemporary pertinence of sexual health and sexual violence is undeniable. The two fields are cornerstones for the advancement of gender equity and reproductive justice – and they drive this thesis. By collecting my own data and conducting statistical analysis, my research will examine the relationship between sexual health promotion, sexual violence prevention, and medical resources and reported rates of sexual violence on college campuses.

In order to contextualize the relationship geographically, I analyze 59 members of the Association of American Universities (AAU), a group of 61 private and public research universities through the United States and Canada. An AAU study first suggested that approximately one quarter of undergraduates will experience sexual assault – but the same study found wide variation among institutions (Cantor et al 2015). As a result, this thesis will analyze data surrounding the sexual climate at AAU member schools. Drawing on human rights theory and a public health perspective, my research will consider campus sexual health resources to illustrate how sexual violence relates to sexual health.

Moreover, understanding the relationship between sexual health and sexual violence can inform university and public policy of best practices for gender violence prevention. Because several of the resources I study are concretely changeable components of a university, my research will provide immediate insight for campus policymakers to make college environments safer and more sex-positive. For instance, if stronger online sexual health resources correlate with and predict lower Clery Act Compliant reported rates of sexual violence, I will recommend that universities take on the low-cost and quick initiative to publish more resources online. More broadly, empirically observing correlations between sexual health and sexual violence can provide insight into how universities can better combat gender violence. By informing and illuminating this narrative, my research will provide academic backing to efforts for gender equity.

A Theory of Sexual Health and Sexual Violence

Theoretical Framework

In this chapter, I develop and discuss a theoretical relationship between sexual health and sexual violence in which increased sexual health – specifically, increased contraception access and information about sex – yields lowered rates of sexual violence. I analyze previous literature about each concept through a public health and human rights perspective. I then discuss why I center my research on college campuses, paying particular attention to their high rates of gender violence and low overall knowledge of sexual health.

Sexual health is a core component of reproductive freedom: the ability to control if, when, and how to start a family. A broad and holistic public health concept, sexual health refers to how wellness and sexuality coincide: sex ought to be a meaningful and safe part of life, allowing individuals to engage in pleasure and intimacy without disease, adverse power dynamics and coercion, or unhealthful consequence (WHO 2006). Sexual health links to identity, information, and wellness: it is a component of reproductive justice, and cares about if, when, and how an individual may choose to start a family. Sexual health also links to overall physical health and mental health: a sexually healthy individual is free from sexually transmitted infections, has access to gynecological or urological services, and maintains a generally positive quality of life. There is great benefit to investing in sexual and reproductive health: sexual health is "indivisible" from other rights (Petchesky 2000, 13), and directly influences an individual's ability to work or go to school. A person's livelihood is inextricably dependent on their ability to control their reproduction, avoid disease, and maintain healthfulness.

Scholars emphasize that contraception access is critical for women's agency and human rights (Uberoi and de Bruyn 2013, 161-174; Ibañez et al 2010, 5-37; Callahan-Rodriguez 2014, 2-6; Siegel 2015, 350; Kabeer, 1999; Malhotra and Schuler, 2005; Bailey 2012). While women often choose to use certain forms of contraception for health benefits like hormonal regulation, contraceptive access is primarily a means of delaying or preventing pregnancy, providing for family planning and reproductive agency (Jones 2011, 3; *Guttmacher* 2011, 13). Thus, contraceptive access intrinsically ties to human rights of decision-making and autonomy that must be protected and defended by the state, which has an obligation to support developmental measures related to sexual or reproductive health (Uberoi and de Bruyn 2013, 164; Malhotra and Sidnet 2002, 15).

Moreover, sexual health in itself is a human right designated by the United Nations, as it applies to rights to life, health, privacy, family planning, information, equality, and non-discrimination (Ibañez et al 2010, 25; WHO 2006; Callahan-Rodriguez 2014, 2-6). In the United States, contraceptive access is a particular sexual health right first made clear in 1965's *Griswold v. Connecticut,* in which the Supreme Court granted access to birth control to married couples, but one that did not fully transfer agency to women until later (Siegel 2015, 350). Unmarried women were ultimately guaranteed the right to undeterred contraceptive use in 1971 in *Eisenstadt v. Baird,* allowing them the self-determination that international law guarantees.

Research also suggests that self-determination through sexual health can amplify other notions of egalitarianism and rights (Bailey et al 2012, 225-254; Goldin and Katz 2002, 730 – 770; Sonfield et al 2013, 2 - 48). For example, sexual health increases economic mobility and access: contraceptive access has been shown to lessen tax burdens for women and to decrease the cost of obtaining work (Goldin and Katz 2002, 766). Likewise, the birth control pill accounted for closing 10 percent of the gender wage gap in 1980s and 30 percent in the 1990s, and about one-third of annual earnings increases over the same timespan (Bailey et al 2012, 237; Sonfield et al 2013, 14). The closing of such a gap is correlated with women's enhanced ability to enter the workforce because of delayed pregnancy. Contraceptives provide social benefits, as well: several scholars state that increased access to hormonal contraceptive pills generated increased college enrollment rates for women immediately, as well as demonstrated the increase of women's education levels and career investment over time (Bailey et al 2012, 251; Goldin and Katz 2002, 752). Access to contraceptives is also correlated with acquiring advanced degrees, and a wide range of safe contraceptive choices can reduce unintended pregnancies for both sexually experienced and inexperienced individuals (Sonfield et al 2013, 9; Callahan-Rodriguez 2014, 5; Jones 2011, 3).

Simply put, "denying women control over the timing of childbearing denies them equal citizenship" (Siegel 2015, 350). But denying reproductive self-determination by blocking contraceptive access is only one form of right violation: sexual violence is a public health epidemic and recurring breach of state and federal law. Additionally, understanding sexual violence as a public health epidemic includes the mental and physical wellbeing of survivors of assault and abuse (Heise et al 1994, 17). The public health perspective understands that gender violence does not just include visible injury; that instances of sexual violence are linked with increases in rates of sexually transmitted infections, unsafe abortions, unhealthy infants, depression, and suicide (García-Moreno and Pallitto 2013, 49). The public health perspective is more expansive than a criminal justice framework, as it encompasses issues of neglect, psychological trauma, and ongoing health concerns – issues that pervade college campuses and have stronger ties to intimate relationships when violence is not necessarily reported or directly litigated (Tjaden 2005, 4; Dahlberg and Mercy 2009, 167-172; Warshaw, Brashler, and Gil 2009, 147-171).

The human rights perspective expands on this notion of sexual violence, encompassing women's broader experiences and cultural or ideological stratification and inequality (Heise et al 1994; Coker 2016; DeKeseredy and Schwartz 2011; Merry 2009; Perilla 1999; Bunch and Carrillo 1991; Okin 1998; Binion 1995). Gender and sexual violence easily cross socioeconomic, sexuality, racial, and national lines, while reinforcing universal social hierarchies of male dominance. It ignores women's experiences and subjugates women (Binion 1995, 513). Consequently, the overlapping of "gender, power, and patriarchy" is clear when it comes to sexual violence (DeKeseredy and Schwartz 2011, 12). Though popular media reduces both gender and sexual violence to existing only as sexual assault or rape, this is not the case.

The true – more expansive, more nuanced – meaning is that violence is rooted in structural inequality and patriarchal systems (Heise et al 1994, 2; Coker 2016, 1; DeKeseredy and Schwartz 2011, 14). Understanding sexual violence breaks down a "boys will be boys" excuse-driven mentality and replaces it with concern for greater social power dynamics (Emmers-Sommer 2015, 280). These dynamics are particularly pervasive as young girls are socialized to accept male dominance, while boys are socialized to dominate (Heise et al 1994, 1). Fittingly, aggressive individuals are statistically more likely to perpetrate sexual violence (Emmers-Sommer 2015, 282) – though this violence is not likely to result in injury (Dobash 2003, 339). Moreover, gender violence makes women "learn to restrict their behaviors" to what will be considered appropriate to masculine partners or societies (Heise et al 1994, 25) – meaning that women's other rights to autonomy and self are compromised.

But sexual health can expand that very sense of autonomy and agency. In particular, contraceptive access enhances a woman's freedom: women who have access to oral birth control or who use barrier methods – women with the ability to determine when and how to become pregnant – have greater control over their lives and increased ability to pursue other human rights, such as education and health status. Because better sexual health is linked with enhancing freedoms and because sexual violence violates freedoms, it follows that enhancing sexual health can be a means of reducing sexual violence.

In the United States, this potential connection seems to be most apparent for young women, particularly those in co-educational higher education institutions. For one, "rates of partner violence, sexual violence, and sexual harassment are highest among young women" (Black et al 2011, 12), and the Bureau of Justice Statistics says that women between ages 16-24 are at greatest risk for rape

(Gross 2006, 288). These women are most likely to be subject to man-on-woman violence (Dobash 2004, 344), particularly in the form of sexual assault. This is seen in large-scale studies, as well: according to an AAU randomly sampled survey of students from its member universities, one in four students reported experiencing sexual violence while attending college (Cantor et al 2015).

Importantly, college campuses are hotbeds for contemporary debate and policy change regarding gender violence, particularly as complex political and legal processes underlie sexual assault prevention and litigation on college campuses. Title IX of the 1972 Education Amendments to the Civil Rights Act is the underlying legal support for such gender violence prevention and intervention: the policy prohibits gender discrimination in education. According to the "Dear Colleague" letter issued by the Office for Civil Rights in 2003, sexual misconduct counts as discrimination; and cases on campuses must be tried, as protected rights are violated (see "Dear Colleague" 2003). Moreover, as previously mentioned, the Clery Act requires universities receiving federal financing for aid are required to report rates of sex crimes on campus, with such sex acts defined by the Violence Against Women Act (Brinn and List 2016).

The introduction of sexual violence as a category of discrimination has yielded policy change, yet scholars have demonstrated that rates of campus sexual assault remain undeniably high (see Littleton and Axsom 2003; Botta and Pingree 1997; Finley and Corty 1993; Koss 1988). For instance, 27% of women surveyed ten years ago reported unwanted sexual contact of some sort (Gross 2006, 288) – and those numbers show no sign of slowing. Though studies have yielded statistically insignificant differences in rates of sexual assault between women in college and not in college (Coker et al. 2015, 8), we need to be cognizant of the social and cultural expectations that follow women in college and create an unsafe sexual environment (Emmers-Sommer 2015, 281). As such, Title IX can be understood "as a symbol" in addition to being a law (Brodsky and Deutsch 2015, 139): Title IX illuminates the symbolic connection between gender violence and gender equity.

Moreover, considering Title IX in the context of sexual violence is contemporary, meaning action and activism are still occurring on college campuses, rendering them fascinating for research.

In particular, several scholars have explored unhealthy collegiate sexual environments (Emmers-Sommer 2015, 280-289; Fielder and Cary 2010, 346- 389; Littleton and Axsom 2003, 465 – 475; McClain 2013; Downing-Matibag and Geisenger 2009, 1193 – 1209). Unsafe and uninformed sex among college students is particularly evident in "hook-up culture," wherein students engage in casual sex, sometimes ignoring consent, contraception, and infection prevention and often drinking unsafely (Fielder and Cary 2010, 2). In fact, a survey of 118 first-semester female college students, though small in sample size, demonstrated that 64% of women cited alcohol use prior to recent sexual interactions (Fielder and Cary 2010, 4). This "hook-up culture" breeds sexual violence, as alcohol increases aggression and prevents consent—which is a clear and confident mutual agreement to a sexual activity. Nonetheless, a relatively small, multiethnic study demonstrated that college women differentiate between "bad hook-ups" and rape (Littleton and Axsom 2003, 468). Likewise, students could not articulate that partially nonconsensual sex, regardless of one party consenting, is rape (Emmers-Sommer 2015, 283). This implies that collegiate women do not know what qualifies as sexual assault or gender violence and what does not, and thus would not necessarily be able to recognize incidents to officially report them.

This gap in knowledge has dangerous consequences: college students' "staggeringly low" knowledge about consensual sexual activity translates to the idea that students have an inadequate knowledge of sexual health more broadly. Armed with weak sexual education from prior schooling, college students have demonstrated that they do not know, for instance, the causes and effects of sexually transmitted infections (McClain 2013, 10).

Scholars have also shown that sexual health ignorance is correlated with behavioral consequences (Reel and Hellstrom 2013, 1; McClain 2013, 54) – and that inadequate knowledge often translates into more risky or unsafe behavior. Twenty-three percent of women report not using contraceptives while being sexually active (Brunner Huber and Ersek 2009, 1065); no women reported using a condom during oral sex with a male-bodied partner (Fiedler and Cary 2010, 17). College students' lack of sexual health knowledge has societal consequences, as well: college-aged females experience the highest rate of unintended pregnancies in the United States (National Campaign 2015, 1).

Moreover, college students maintain decisively low knowledge about what contraceptives are available to them and why contraceptives protected from sexually transmitted infections; and they exhibit the misunderstanding that contraceptives interfere with pleasure (Downing-Matibad and Geisinger 2009, 1197-1201). Ignorance regarding sexual health is, again, seen in a study in which 93.7% of women who reported contraceptive use intended to prevent pregnancy, while only 22.8% used them to block sexually transmitted infections (Brunner Huber and Ersek 2009, 1065). Finally, as demonstrated by a 2008 mid-sized study of undergraduates, college students – both male and female – lacked significant knowledge about emergency contraception (Miller 2011, 71); other studies have shown that only 65% of women had even heard of emergency contraception (Brunner Huber and Ersek 2009, 1069).

There remains hope for college campuses, though: according to recent research, more and more universities are exploring sexual health resource implementation (McClain 2013, 61; Reel and Hellstrom 2013, 211 - 213), and access to contraceptives at student health centers has yielded 50% increases in their usage (Brunner Huber and Ersek 2009, 1068). Additionally, several universities now offer inclusive resources that educate students about gender, sexuality, identity, and health. Such access and provisions are imperative for repairing collegiate public health (Reel and Hellstrom 2013, 212). Easy access to contraceptive and sexual health education is particularly important given the widespread nature of a spontaneous and alcohol-driven "hook-up culture" (Fielder and Cary

2010, 17). Increased access and information transmission should yield a healthier sexual climate as a result – and such a climate of safe and consensual, informed sex should naturally provide for a diminishing of sexual violence and increase women's agency over their reproductive self-determination.

If better sexual health leads to increased women's agency, and if gender violence stems from socialized power dynamics, then it follows that better sexual health in a population should at least correlate, if not cause, reduced levels of sexual violence. And to flesh out this theory, isolating on sexual violence incident-heavy college campuses logically fits: using sexual health promotion, sexual violence prevention, and medical resources as proxy for a sexually healthy campus climate and measuring their correlation with reported rates of sexual violence should demonstrate this pattern. A college campus is the ideal setting to find an observable correlation – yet there is a disappointing amount of literature available on the intersection of such topics.

Finally, there is a lack of exploration of the connection between sexual health and sexual violence. The shallow amount of research based in the United States is perhaps a consequence of "deeply embedded attitudes about male-female relations [and] social taboos against discussing 'private matters' in public" (Heise et al 1994, 1). While there is fairly extensive research into either sexual health *or* sexual violence based in collegiate populations, there is very little overlap between the two concepts (see Brenner et al 1999 and Heinrich 1993 for examples of minimal overlap). Additionally, though college-based studies of either sexual health or sexual violence in the United States are extensive to the degree of being oversampled, they also tend to be regionally focused or centered at one university, limited by small sample sizes and a lack of representativeness (see Miller 2011, Reel and Hellstrom 2013).

Such limitations lead to my research, in which I focus on simplified variables serving as proxies for broader ideas of "sexual health" and "sexual violence" so I can examine the relationship geographically and consider whether or not the two mesh in practice as they do in theory. Rather than centering on in-depth surveying or interviews to gauge a base level of collegiate perceptions of gender violence and contraceptive access, I use a statistical approach to draw correlations and hypothesize causation between indicators of a campus's sexual health and its reported rates of sexual violence.

Research Questions

Do increased sexual health resources correlate with reduced sexual violence on college campuses? Which resources have the most influence on reported rates of sexual violence? What are best practices and resource investments for universities that want to address sexual violence?

Hypotheses and Observable Implications

1. There is a relationship between increased sexual health resources and reduced reported rates of sexual violence.

If this hypothesis is correct, there will be lower rates of sexual assault or misconduct on campuses where there are more sexual health resources and options for contraceptive access. Campuses would have strong sexual misconduct policies, extensive counseling or education resources, and open discourse about issues of sexual health and misconduct. In this context, sexual health and gender violence prevention education would foster a collective campus understanding and responsibility for promoting sexual health and discouraging risky or dangerous sexual behavior. Alternatively, it could mean that the abundance of sexual health resources lowers the cost of unsafe sexual experiences (by, for example, reducing the risk of pregnancy when condoms are freely available), and the unsafe sexual climate makes students less likely to report their experiences with sexual violence. Either way, we would see a strong, negative, linear correlation between sexual health-oriented variables and reported Clery rates.

This hypothesis would also predict high rates of sexual violence on campuses where there are fewer resources and contraceptive access is limited. These schools would have fewer sexual health promotion, sexual violence prevention, and medical resources, while maintaining high reported rates of sexual violence. A potential explanation for such findings could be that these campuses are under-resourced or have under-funded women's centers. Regardless, this hypothesis outcome is the "ideal" for positive policy implications.

2. There is a relationship between increased sexual health resources and increased reported rates of sexual violence.

In this model, higher rates of sexual violence on campuses will be coincident with an abundance of sexual health promotion, sexual violence prevention, and medical resources. We would see a strong, positive, linear correlation between contraceptive access and rates of gender violence. If this hypothesis were correct, then we can analyze the possibility of an unhealthy "hook-up" culture at universities alongside the presence and access to resources and high reported rates of sexual violence. Rather than sexual health education and resources serving to advance rights and awareness about sex, it could serve to reduce the risks of sex for students and inadvertently allow for more sexual violence, which would drive incidents of sexual violence up.

Alternatively, this outcome could also indicate that having more resources on campus makes the campus feel safer, or allows students to feel more supported, which encourages reporting instances of sexual violence. This interpretation of the outcome may be subject to further investigation and interpretation depending on which variables prove to be most significant. Contrastingly, if this hypothesis were true we could also see low rates of assault correlated with low resource accessibility. In that case, unexplored variables like mistrust in campus officials, mistrust in judicial system, or lack of overall knowledge of sexual health and violence could play a large role in explaining the hypothesis. For example, if an assaulted student does not believe that university administrators will support them through the disciplinary process, they would be less likely to report a sexual assault, yielding lower discernable rates of sexual violence.

3. There is not a relationship between sexual health resources and reported rates of sexual violence.

If this hypothesis were correct, I would be unable to ascertain any linear correlation between sexual health resources and rates of sexual violence. In this case, sexual health resources could not explain the variance in rates of sexual violence: schools may have strong resources yet have the same rates of sexual violence as schools with weak ones. This outcome could imply that immeasurable factors of campus climate, student demographics, and community difference explain variation between universities. Moreover, this outcome would pose the most questions for future research. This seems to be a likely outcome, as prior literature reveals unhealthy activity on college campuses regardless of resource accessibility.

Methodology

To test my theory of a relationship between sexual health and gender violence, I focus my research on college campuses for study and comparison. As I discussed in my theoretical background, college campuses are notorious for low levels of sexual health and knowledge and high rates of sexual violence. However, college campuses are also central to research about these sexuality issues, as prior scholarship has largely centered on campus climate surveys or studies with undergraduate respondents. Much of this blames both gender violence and sexual health ignorance on lack of sex education in high school or alcohol use (McClain 2013, 10), not campus circumstance or institutional barriers like a lackluster misconduct policy or underfunded contraceptive access.

As a result, I conduct my analysis by collecting information about these campus resources, using Internet research and phone calls to gather data about sexual health promotion, sexual violence prevention, and medical resources on college campuses. By primarily using the Internet to "dig deep" into university websites, I mimic how my peers – current college students – attempt to locate resources available to them, and include the availability of online resources as an important variable. The total compiled data offers a comparative analysis of which schools have or lack certain resources, and my deeper statistical inquiry involves assessing these resources' associations with Clery reported rates of sexual violence. Using R software, I perform correlation analyses to see if a relationship between sexual health and sexual assault can be determined in line with my hypotheses, conduct regression analysis to figure out which factors are most significant, and explain potential findings within a broader context of campus and federal policy.

I assess 59 members of the Association of American Universities (AAU), a group of 61 universities – including public and private research institutions – of varying endowment size and educational missions.[1] AAU also commissioned the most recent comparative campus climate survey in 2014. The AAU schools do not serve as a representative selection of American universities, but they are relatively geographically and institutionally diverse (see Appendix A for list of universities). Because Canadian universities do not report rates of sexual violence through the Clery Act mechanism, I did not include the two AAU Canadian schools in my data collection.

Additionally, the timeframe for my analysis is January 1, 2014 – December 31, 2014, with the block chosen for its recentness and salience, but also because the most recent public data for each school are from 2014. Such data include both Department of Education reported crime rates and the AAU aggregate campus climate survey data available from its 2014 – 2015 survey. Fittingly, I only include data accurate during this timeframe, using statuses as of the 2014 – 2015 school year (e.g., if a university opened a women's center during the 2015 – 2016 school year, it would be counted as "not present"). While this may include sexual health resources that were not present on the campus while the Clery Act reports were filed in 2014, using the academic year 2014 – 2015 rather than calendar year 2014 facilitates more accurate data collection from the universities, which operate in academic years. Exceptions are noted in Table 1, which displays the data sources I use, variables I analyze, and year data was originally reported, dividing the different data points by broader themes of sexual violence, sexual health promotion, sexual health prevention, and medical resources:

Table 1: Data Sources

Data Category	Data Source	Variables Included	Year Data Reported
Sexual violence	Clery Act Compliant Federal Reports, accessed online	Clery Reported rates of: rape, fondling, incest, statutory rape, domestic violence, dating violence,	2014

[1] AAU membership is selective and by invitation only. While there are no set criteria for AAU membership, non-member institutions with highly credited academic and research profiles that are on par with or exceed current member institutions are considered.

		stalking; total Clery reports; Clery reports adjusted per 1,000 students	
Sexual violence	Status of Title IX Investigation	Status of Title IX Investigation, to be used for background information	Status as of January 2015
Sexual health promotion	Availability of campus counseling resources	Counseling center; availability of walk-in appointments	Assessed availability for 2014-2015 school year
Sexual health promotion	Presence of related campus offices and services	Women's center; LGBTQ center; sexual health center or institutionally organized group	Assessed for 2014-2015 school year
Sexual health promotion	Education	Online sexual health resources; sexual health outreach programs	Assessed availability for 2014-2015 school year
Sexual violence prevention	Education	Mandatory consent or sexual assault prevention training; online sexual assault response and prevention resources	Assessed availability for 2014-2015 school year
Sexual violence prevention	Penalty and enforcement	Dedicated full-time Title IX coordinator; strength of sexual misconduct policy; definition of consent	Some information only available for most recent school year, 2015-2016 or 2016-2017.
Medical services	Student Health services	Student health hours; availability of walk-in appointments; mandatory health insurance	Assessed for 2014-2015 school year
Medical services	Contraceptives	Condoms (free or paid), IUD, Pill, other contraceptive	Assessed availability for 2014-2015 school year
Medical services	Sexually transmitted infection testing	STI testing on campus (free or paid), HIV testing on campus (free or paid)	Assessed availability for 2014-2015 school year

Additionally, I use the following coding formulae to convert my data into numerical variables for my regression analysis, as seen in Table 2:

Table 2: Data Conversion and Coding

Data Collected	Qualitative or Quantitative	Coding Formula
Clery reported incidents (for each sex crime parameter as well as aggregate adjusted number of sex crimes)	Quantitative	Raw number for each category of offense and raw number of total reports adjusted per 1,000 students
Campus resources: women's center, LGBT center, sexual health centers, counseling centers	Qualitative	0 – no 1 – yes for each chosen resource data point
Counseling center drop-in	Qualitative	0 – drop-in allowed 1 – drop in not allowed
Presence of full-time Title IX coordinator	Qualitative	0 – no 1 – yes
Mandatory sexual assault or consent education	Qualitative	0 – no 1 – yes
Mandatory sex education	Qualitative	0 – no 1 – yes
Access to condoms on campus	Qualitative	0 – no 1 – paid 2 – free
Access to IUDs on campus	Qualitative	0 – no 1 – yes
Access to the pill on campus	Qualitative	0 – no 1 – yes
Access to other contraceptives on campus	Qualitative	0 – no 1 – yes
Student health hours of operations	Quantitative	Raw number
Drop-ins or required appointments	Qualitative	0 – drop in allowed 1 – drop in not allowed
Mandatory health insurance	Qualitative	0 – no 1 – yes
Strength of online sexual assault prevention information and resources	Qualitative	Rating between 1 – 5
Strength of online sexual health information and resources	Qualitative	Rating between 1 – 5
STI testing on campus	Qualitative	0 – no 1 – yes
HIV testing on campus	Qualitative	0 – no 1 – yes
Outreach programs for sexual health	Qualitative	0 – no 1 – yes
Strength of sexual misconduct policy	Qualitative	Rating between 1 – 5
Definition of consent	Qualitative	By name in R

Importantly, for several qualitative variables, I consider not just the presence of the resource, but also its quality. As such, I assign categorical rankings to these variables between one and five, with one representing the worst quality and five representing the best quality resource. For example, I ranked each individual university's sexual misconduct policy. Because Clery reports are created when an individual reports an incident of sexual violence to the police or when an individual is actually found responsible by a university judicial board for sexual assault, many of the AAU member schools have delineated sexual misconduct policies which spell out standards of evidence, judicial proceedings, and recommended sanctions in line with the previously mentioned "Dear Colleague" letter. I ranked the quality of sexual misconduct policies through a process influenced both by my stronger valuing of survivor-complainant rights than alleged assailant-defendant rights and by my previous experience analyzing sexual misconduct policies at Duke – higher rankings reflect more thorough policies that sanction violations of the policy with expulsion, provide opportunities for appeals, offer concrete scenarios that constitute misconduct, and provide thorough and explicit definitions of sex crimes. Lower rankings reflect a lack of comprehensive policy.

Findings

Through this chapter, I detail the statistical results of this study. Broadly speaking, I found wide variation throughout the AAU schools – no two schools are exactly alike, even among the same classes of universities (such as the Ivy League or Big 10). The landscape of sexual health on college campuses was strong, as well: resources were generally abundant and in line with reproductive freedom principles. However, very few variables had significant correlations with reported rates sexual violence; even fewer predict different rates of reported sexual violence.

Notably, the sexual violence response variable I use to conduct correlations is the total adjusted number of Clery reports: that is, the total number of all Clery reported sex crimes per 1,000 students, including rape, fondling, statutory rape, domestic violence, dating violence, and stalking. This calculation accounts for differences in university population while maintaining the integrity of the Clery reported rates. Table 3 displays summary statistics of my findings.

Table 3: Summary Statistics of Findings

Data Collected	Summary Statistics
Institution Type	Private: 42.4% Public: 57.6%
Region	Mid-Atlantic: 22% Midwest: 27.12% Northeast: 13.56% Southeast: 11.86% Southwest: 5% West: 20.33%
Enrollment	Minimum: 2209 1st Quartile: 15476 Median: 29135 Mean: 29498 3rd Quartile: 42344 Maximum: 61642
Total Clery Reported Sex Crimes, adjusted per 1,000 students	Minimum: 0.4262 1st Quartile: 1.2999 Median: 1.8032 Mean: 2.2277 3rd Quartile: 2.6848 Maximum: 6.3377
Mandatory Consent/Sexual Assault Education	No: 22%

	Yes: 88%
Dedicated Full Time Title IX Coordinator	No: 33.9% Yes: 66.1%
Sexual Assault Response and Prevention Resources, online	Minimum: 1 1st Quartile: 3 Median: 4 Mean: 3.864 3rd Quartile: 5 Maximum: 5
Strength of Sexual Misconduct Policy	Minimum: 1 1st Quartile: 2.5 Median: 4 Mean: 3.644 3rd Quartile: 5 Maximum: 5
Definition of Consent	Affirmative: 89.8% Other: 10.2%
Women's Center	None: 30.5% Professional, standalone: 50.9% Professional, shared: 5% Student-run: 13.5%
LBGTQ Center	None: 8.47% Professional, standalone: 75.6% Professional, shared: 11.9% Student-run: 5%
Counseling Center	Through student health: 16.9% Standalone: 83.1%
Walk-in Counseling	No: 16.9% Urgent: 27.1% Yes: 45.8% N/A: 10.2%
Sexual Health Center	None: 69.5% Professional, standalone: 10.2% Student-run: 20.3%
Sexual Health Resources, online	Minimum: 1 1st Quartile: 1 Median: 4 Mean: 3.407 3rd Quartile: 5 Maximum: 5
Sexual Health Outreach	No: 20.3% Yes: 79.7%
Condoms	Free: 84.7% Paid: 5% Available: 3.4% None: 6.8%
IUDs	No: 27.1%

	Yes: 59.3% N/A: 13.6%
Pill	No: 13.6% Yes: 74.6% N/A: 11.9%
Other Contraceptive	No: 6.8% Yes: 86.4% N/A: 6.8% Most common *other*: emergency contraception
STI Testing	None: 1.7% Free: 18.6% Paid: 79.7%
HIV Testing	Free: 54.2% Paid: 44.1% N/A: 1.7%
Student Health Hours, weekday average	*Minimum: 7* *Mean: 9.17* *Maximum: 12* *Mode: 19*
Drop-in Student Health	No: 59.3% Yes: 40.7%
Mandatory Health Insurance	No: 22% Yes: 78%

Descriptive Statistics and Hypothesis Testing

In this section, I discuss the "lay of the land" of each resource – what proportion of universities have or lack various sexual health promotion, sexual violence prevention, and medical resources – and provide the results of significance testing for correlations between these resources and the total adjusted Clery reported rate of sexual violence per 1,000 students. While I offer some commentary about my findings, I delve deeply into the meaning of the variables' correlative significance, or lack thereof, in the next chapter.

Sexual health promotion

Perhaps the most interesting results fall under the category of sexual health promotion: the existence and institutionalization of women's centers, LGBT centers, sexual health centers, counseling offices and drop-in counseling availability, and online sexual health resources and in-person outreach. Few definitive patterns stand out among these offerings: more universities have dedicated structural support for queer students than for women, several universities depend on either student-run or student-staffed offices, and despite the relatively strong outlook, there are prominent outliers when it comes to quality and availability of resources.

Women's centers were of particular note: 30.5% of schools had no gender equity or women's support center on campus at all. 50.9% schools had professionally-run centers with at least one full-time employee, but 13.6% schools had student-run centers and 5.1% schools had centers that shared responsibility for other identity groups. Interestingly, institutions with student-run women's centers have the highest average rate of Clery reported violent sex crimes. However, the results of an ANOVA hypothesis test state that there is no significant difference in the mean sexual violence rate among universities with the four different categories of women's centers - none, student-run, professionally run, and joint professionally run (Appendix C). There is no evidence that having women's centers in different forms correlate with different reported rates of sexual violence.

Intriguingly, more universities had dedicated centers for queer and questioning students than women's centers: only 8.5% of schools had no form of an LGBTQ center on campus, with 74.6% of institutions having standalone professionally run centers, 11.86% having shared professional offices, and 5.1% having student-run centers. Despite these different forms, there is no statistically significant difference in reported rates of assault between different forms of – or lack of – LBGTQ centers.

Diverging from women's centers and LGBT centers' variability, I studied various universities, each of which has a counseling center of some sort: 83% have stand-alone counseling or psychological services offices, and 17% operate explicitly through the student health infrastructure at the university. Of these centers, 45.8% offer walk-in counseling anytime and 27.1% offer drop-in urgent care. 17% do not allow for walk-in visits, and 10.2% did not have this information available online or via phone operator. However, the universities' differences in appointment scheduling did not correlate with any statistically significant differences in Clery reports.

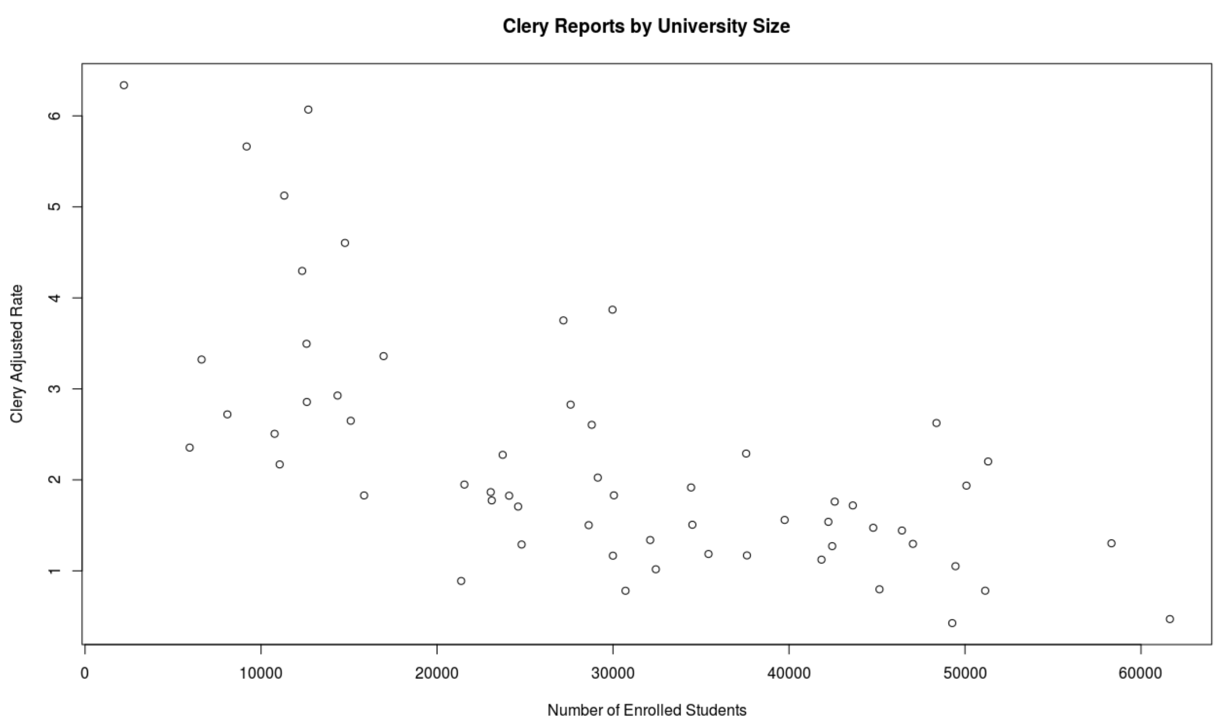
While women's centers, LGBTQ centers, and counseling services were largely plentiful among the studied universities; dedicated sexual health centers or institutional structures were not. 69.5% of schools had no form of sexual health infrastructure, while six had professional offices and 20.3% had student-run amenities. A t-test for means between the mean Clery reported rates for universities that have or lack sexual health resource centers was not statistically significant; there is no clear association between sexual health centers and rates of sexual violence. Sexual health online resources and sexual health outreach programs followed a similar pattern of insignificance. Despite their median level of four and mean of 3.4 indicating "average to good" quality resources, better sexual health online resources are not statistically significantly correlated with higher reported rates of Clery sexual violence crimes.

As for counseling centers, there is not a statistically significant difference between means of Cleary reported sexual violence rate for schools with stand-alone counseling centers versus schools that offer counseling services through student health offices. Whether or not walk-in or urgent counseling is available is also not significantly correlated with different rates of Clery reports. This finding is surprising: I assumed the availability of drop-in appointments would correlate with differences in reported rates of sexual violence – the ability to be counseled immediately after an instance of gender violence, I thought, would encourage students to seek help and report more. However, a t-test that investigated if the reported rate of sexual violence for universities with walk-in counseling centers was greater than the mean reported rate for universities without walk-in centers did not yield significant results. Accordingly, there is no evidence to imply any correlation between walk-in counseling availability and reported rates of sexual violence.

Sexual violence prevention

Gender violence prevention efforts and Title IX compliance and reporting varied greatly among the AAU universities. The average Clery-compliant reports for sexual violence were notably not nearly as high as literature and surveys have indicated: the average adjusted rate of Clery reported instances of sexual was just under 1.9 per 1,000 per year, which averages to approximately 7.5 over an individual's collegiate career – not nearly the 250 per 1,000 incidents in a collegiate career that the "one in four" statistic implies. This finding is striking: underreporting of sexual violence is rampant and extreme, eliciting several questions about the standards of reporting sexual violence and about the core legitimacy of Clery reported rates of sexual violence. Larger universities see even greater underreporting, with the AAU member universities with the largest student bodies also reporting some of the lowest rates of sexual violence. As seen in Figure 1, this is demonstrated by the strong, negative, linear correlation between size of university and total adjusted Clery reports of sexual violence (rates per 1,000 students, rather than raw numbers).

Figure 1: Total Enrollment vs. Total Clery Reports per 1,000 Students



Next, sexual misconduct policies at the 59 AAU universities varied widely (see Appendix D). With a mean value of 3.644 and a median value of 4.00, the average policy at a university can be described as "average to good." Echoing the pattern of sexual assault resources, the higher median than mean implies that a prominent set of outliers has bad policies or no policy available at all. However, unlike with campus sexual health resources, these results are statistically significant ($p<0.1$). Stronger sexual misconduct policies correlate with more adjusted total Clery reports of sexual violence at a statistically significant level; there is a statistically significant difference in mean adjusted total Clery reported rates of sexual violence between schools with different quality sexual misconduct policies. However, the graphical analysis of the variations in sexual misconduct policy do not illuminate any clear pattern as to which types of policies yield the highest rates of federal reporting. Perhaps clearer and better defined policies provide students with the tools they need to report federally, or maybe looser institutional regulations force students to report their accounts of gender violence to campus police rather than a Title IX office.

Despite variations in sexual misconduct policies and outlined procedures, the universities are remarkably similar when it comes to definitions of consent: 89.83% have defined need for affirmative consent in sexual interactions, and a handful of individual outliers use distinct definitions – voluntary, welcome, explicit – or lack definitions for consent altogether. There is a statistically significant difference in the adjusted Clery reported rates of sexual violence between universities with different definitions of consent. However, there was no clear pattern as to how definitions correlate with rates of sexual violence because the number of universities without affirmative consent policies is so small (see Appendix E). Because only one university uses voluntary consent, for instance, it cannot be accurately compared to the average of 51 universities that use affirmative consent. In fact, this means that the assumptions for proper hypothesis testing are not met due to the outlying nature of the definitions, and we cannot deduce what the impact of the divergent policies is without further investigation.

However, sexual misconduct policies do not exist in a vacuum. Online sexual violence prevention resources that reflect a university's educational and preventative efforts link to its handling of misconduct and federal reporting of sex crimes. I ranked this variable on a 1 – 5 scale, collapsing online information about reporting, consent, gender violence, supporting friends, and bystander intervention into a single variable for the purposes of easy analysis. I gave higher rankings to universities with easily navigable websites or "link farms" that consolidate all sexual violence-oriented resources. Some strong websites, seen at Northwestern, University of North Carolina at Chapel Hill, and Duke, among other universities, have clear labels for tabs about bystander intervention, victim support, and Title IX processes; others are simply lists of appropriate resources on campus filled with various links pertaining to sexual violence. A university with a low ranking, however, may not have had online sexual violence prevention resources at all or may have required using a site map search function to find information.

In summary, with a mean value of 3.86 and median value of 4.00, universities' sexual assault prevention or response online resources scored at a "good" level, indicating that the gender violence prevention information students have access to is clear and useful, as well as implying that this may be a priority for universities. However, as evidenced by the lower mean than median, outliers with categorically bad online resources are prominent. Schools with the worst available resources online tended to have higher reported rates of sexual assault. However, an ANOVA test for differences in total adjusted Clery reported rates of sexual violence for the different levels of online resources indicated that this observation is not statistically significant.

Another initiative undertaken by 66.1% of universities includes hiring a dedicated full-time Title IX coordinator who is responsible exclusively for overseeing policies, procedures, and prevention efforts surrounding issues of Title IX violations and gender violence on campus. While the presence of a Title IX coordinator could more heavily correlate with other issues of sex inequality (such as women in sports or employment discrimination), the variable is still one that may suggest sexual violence prevention. Nonetheless, a hypothesis test for means demonstrated that there is no statistical significance between having a full-time Title IX coordinator or not when observing rates of sexual violence reported through the Clery Act Compliance Process.

Medical resources

At an observational level, the overall availability of contraceptive access on campuses is strong and in line with scholarly recommendations to means of reproductive control. For instance, most universities offer free condoms, with no more than 8.5% requiring payment and 6.8% not offering condoms at all. Birth control pills were also readily available on campus: about 75% of schools both prescribed contraceptive pills and had a mechanism by which to acquire them on campus, whether through a student health clinic directly or through an on-campus pharmacy. The proportion number of universities offered IUD insertion on campus, and several universities offered other birth control options. Several universities – like Columbia and the University of California, San Diego – offer students free or reduced emergency contraception on campus even if they did not offer other forms of contraception. Another popular offering within the "other" category was Depo-Provera, a long-term hormonal injection. The overwhelming availability of contraceptives on campus at AAU member schools indicates that universities want to provide students with birth control options, particularly with long-term reversible contraceptive options.

Condom availability, while widespread, does not correlate with a university's report rates of sexual violence. A hypothesis test for means found no statistically significant difference in the number of Clery reports between different condom availability options, though universities with freely available condoms had, on average, lower Clery reported rates of sexual violence. Like condoms, availability of a birth control pill does not have a statistically significant impact on Clery reported rates of sexual violence; there is no meaningful difference between the mean Clery reported rate of schools that offers oral contraception versus schools that do not. Interestingly, the universities with oral contraceptive pills available on campus had a broader range of Clery reported rates of sexual violence as well as more high-reported rate outliers; however, the highest reported rate of sexual violence occurred at a university without birth control pills available. However, there is a statistically significant association ($p<.10$) between the availability of IUDs on campus and the university's reported rates of sexual violence. Universities that did not offer IUDs had higher Clery reported rates of sexual violence, while those that did have IUDs available for insertion on campus reported lower rates.

Overall, the scope of direct health services available at the universities I studied was consistent with my expectations: most universities offered some form of clinical testing for sexually transmitted infections, including HIV/AIDS, and many had student health clinic hours longer than a traditional business day. Only 40.8% of the schools allowed walk-in clinical services and over 75% of universities required health insurance from their students. Additionally, there is a significant association ($p<.01$) between mandatory health insurance and reported rates of sexual violence: mandatory health insurance correlates with higher reported rates of sexual violence than non-mandatory health insurance. Perhaps this correlation can be explained since a university may require health insurance because of institutional consideration for its students' health status. Doing so would also manifest in offering more sexual resources and support to its students, which might encourage them to seek help after experiencing sexual violence. This theme – flowing from public health, to sexual health, to sexual violence – matches my hypothesis that better sexual health resources correlates with higher rates of sexual violence, but the link between health insurance and sexual violence itself is tentative: the variables are fairly unrelated, and a third "lurking variable" –

particularly one like trust, or general satisfaction with health services – may be responsible for the statistically significant difference.

One particular health service – STI testing – was offered on nearly all campuses, with 18.7% of schools offering free testing, 79.7% offering tests for pay, and 1.7% - just one school – not offering tests at all. However, the availability of STI testing lacks a significant correlation with the number of sexual assaults reported: ANOVA hypothesis testing yielded results that say there is no statistically significant difference between the Clery adjusted reported rates by STI testing category: that is, having freely available STI tests has no correlation with federal sexual assault reports. Comparatively more schools offered free HIV testing, with 54.2% allowing students to be tested at no cost and 39% for pay, likely echoing international concern about the HIV/AIDS epidemic. However, the relationship between HIV testing availability and sexual violence rates is not statistically significant.

Summary of Descriptive Statistics and Hypothesis Testing

In summary, the descriptive statistics of my data paint a landscape of sexual health resources on college campuses that is widely varied. While certain services and resources were prevalent on most campuses – like LGBTQ centers and the availability of STI testing in– others varied dramatically. Notably, I did not investigate the specific nuances among different schools, which could help explain the wide variation in resources among universities. Moreover, basic hypothesis testing of my data indicated that variations in the kinds of sexual misconduct policies and definitions of consent correlated with total adjusted Clery reported rates of sexual violence that varied from the AAU mean of 1.88 reports per university. The availability of IUD insertion on a campus correlated with lower total adjusted reported Clery rates of sexual violence, whereas mandatory health insurance correlated with higher reported rates.

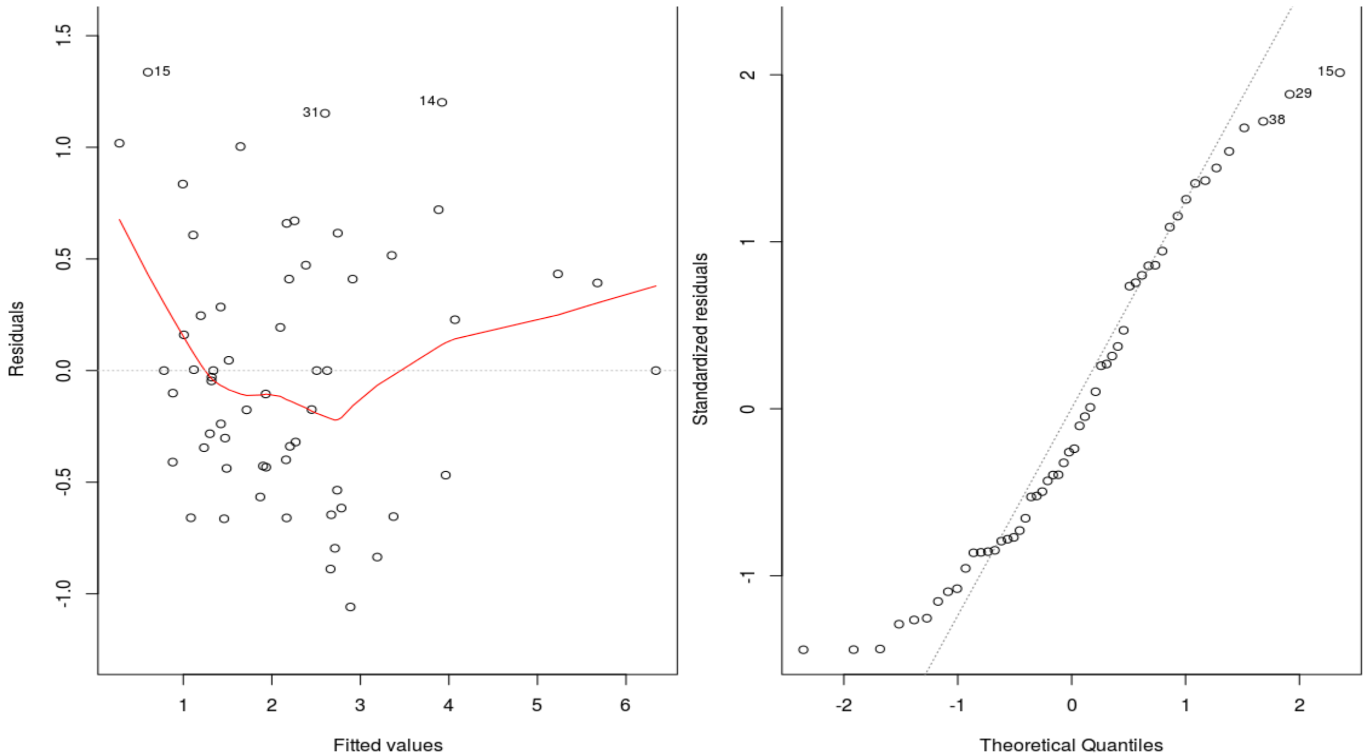
However, each of the other sexual health promotion, sexual violence prevention, and medical resources I studied does not present any significant correlation with total Clery reported rates of sexual violence adjusted per 1,000 students. Such variables with multiple levels demonstrated no difference in at least one mean rate of Clery reports, meaning that no single type of resource in a variable was evidently most associated with high or low Clery reports (for example, the four different forms of women's centers did not significantly correlate with different rates of Clery reports). Additionally, the remaining variables without multiple levels did not have any significant standard correlations with the Clery reported rates of sexual violence.

Regression Analysis

Understanding that only certain sexual health promotion, sexual violence prevention, and medical resources are meaningfully associated with Clery reported rates of sexual violence, I conduct a regression analysis to analyze possible causal implications between sexual health-related resources and sexual violence. Not only will a regression analysis indicate which independent variables are the best predictors of the dependent variable of sexual violence, but also its estimates of slope will indicate if these variables have a positive or negative impact on Clery reported rates of sexual violence, which will allow me to respond to my hypotheses. Importantly, I use a full multiple linear regression model and have not reduced it to only significant predictors: rather than creating a predictive model for the future, I am analyzing all existing sexual health promotion, sexual violence prevention, and medical resources on AAU's United States campuses.

As seen in Figure 2, my multiple linear regression results in relatively randomly scattered residuals that follow a line of best fit, indicating that the model fits the dataset well and will present meaningful results.

Figure 2: Multiple Linear Regression Models: the graph on the left shows a scatterplot comparing the residuals to fitted values of data, and the graph on the right shows the residuals against a best fit line.



However, the slight S-shape of the residual best-fit graph indicates that the tails of the distribution of residuals are long: the data is spread widely and less consolidated around a mean. The relative vertical symmetry in both graphs means that conditions for analysis are met – I can securely analyze indicators of causality with this regression. This is reinforced because outliers on the residuals-to-best fit plot match universities that seemed unusual during the data collection process. Moreover, the slight fanning in the residuals versus fitted values plot indicates no constant variance, with this being caused by several outlying influential points on the upper end of fitted Clery reported rate values. Overall, the randomness of the patterns with identifiable outliers is reassuring for my analysis because it indicates that the regression model is a good fit for my data.

The regression analysis indicates that the variables seen in Table 4 were the most significant predictors of Clery reported rates of sexual violence:

Table 4: Significant Predictors of Adjusted Clery Act Compliant reported rate of sexual violence

Predictor	Intercept	Std. Error	t-value	Pr(>|t|)
Sexual misconduct policy	-0.252408	0.145490	-1.735	0.098148
Women's center, professional	0.666900	0.259236	2.573	0.018148
Sexual health outreach	1.035318	0.538249	1.923	0.068771
Condoms, free	-0.965811	0.507904	-1.902	0.071733
Mandatory health insurance	1.017705	0.490683	2.074	0.051200
	Residual standard error: 0.9752 on 20 degrees of freedom Multiple R-squared: 0.8171, Adjusted R-squared: 0.4697			

The complete summary of my multiple linear regression (Appendix F) indicates that the model as a whole is significant ($p<0.05$): 81.7% of the variation within the adjusted aggregate Clery reported rates of sexual violence can be explained by a university's sexual health promotion, sexual violence prevention, and medical resources. This implies that reported rates of sexual violence are dependent on proxy indicators for a healthy sexual climate: we have some evidence to speculate causation because of the goodness of fit of the model. However, the model complicates as we consider the varying directions of the influence exerted by the most significant variables.

The first significant predictor is the strength of a university's sexual misconduct policy ($p<0.1$). All else held constant, for each increase in quality level of sexual misconduct policy, we can expect 0.25 fewer Clery reports than the average total adjusted reporting rate of 1.88 incidents. Women's centers were also significant predictors of Clery reported rates of sexual violence ($p<0.05$): all else equal, schools with women's centers have, on average, .67 more Clery reports. Similarly, sexual health outreach programs have a statistically significant impact on Clery reports ($p<0.1$). With all else held constant, schools with sexual health outreach programs had, on average, one more Clery reports than those that did not. Free condoms also prove to be statistically significant predictors

($p<0.1$); all else equal, schools with freely available condoms had, on average, one fewer Clery reports. Finally, mandatory health insurance is also a significant predictor of Clery reports ($p<0.1$) – schools with mandatory health insurance had, on average, one more reported instances of sexual violence.

With only these five variables being significant predictors of reported rates of sexual violence, and with the predictive trend going in both positive and negative directions, there is no way to determine a concise and consistent pattern of influence between sexual health promotion, sexual violence prevention, and medical resources when they are combined together. Rather, the results of the regression analysis indicate that some resources bear positive effects, while others carry negative implications; the inconsistency of results also begins to question the validity of using Clery reported rates as a response variable at all. Throughout the next chapter, I discuss the implications of varying directionality of influence of these resources; how different sexual health resources may have different effects on a student body; and how the Clery reported rates of sexual violence as a measurement mechanism is flawed and likely not a truly dependent variable.

Discussion

Generally speaking, it is difficult to definitively determine how sexual violence on college campuses associates with sexual health promotion, sexual violence prevention, and medical resources. Throughout this chapter, I elaborate on potential explanations behind the correlations and predictive links found in my data. I separate statistically insignificant and significant findings, offering commentary about the landscape of sexual health on college campuses and about the observed correlative and predictive links between sexual health and sexual violence.

Additionally, I discuss the validity of the Clery reporting process as a whole: using total adjusted Clery reported rates of sexual violence as a response variable yielded results with multiple interpretations. This impeded my ability to reconcile my findings with my hypotheses and provide an encompassing analysis of all campus resources. The AAU universities report an average of 7.5 Clery incidents of sexual violence over the course of four years, while the one in four statistic denotes that the universities should be reporting 250 incidents over that same time span. Following, only 3% of incidents of sexual violence are federally reported. This dramatic underreporting makes it difficult to determine whether a variable lowered actual rates of violence – a good thing, and the goal of several campus resource initiatives – or simply lowered *reported* rates of violence – something that is certifiably *bad*: a lack of reporting indicates that students may not trust their university to handle sexual violence and prevents universities from measuring and responding to sexual violence.

Statistically Insignificant Correlations

While some campus resources did not have significant correlations with Clery reported rates of sexual violence, several are still notable. Such resources were common practices throughout AAU campuses, presenting progressive ideologies that may still immeasurably impact a campus's sexual climate. These resources include offering an affirmative consent policy, mandatory consent or sexual assault prevention training, an independent counseling center, a professional LGBTQ center, sexual health outreach programs, free condoms, some sort of STI and HIV testing, and mandatory health insurance. Additionally, these commonalities indicate how there is ubiquity among practices and resources on AAU campuses, with some notable outliers.

The most striking statistically insignificant finding had to do with women's centers. Several universities housed student-run clubs but lacked professionally staffed student affairs centers (e.g., Brandeis University, Rice University), while other universities maintained women's sub-centers or individual staffers within broader offices. Student-run women's centers in particular were abundant and appeared to be successful staples of campus culture: for example, a student coalition at Boston University secured a physical office for a gender equity-focused student group (CGSA 2016). However, student-run centers were associated with the highest reported rates of Clery sexual violence. This generates divergent explanations: peer-to-peer education models regarding sexual assault may create a sense of community support empowers students to report, or student-run women's centers may not be equipped with the tools to prevent assault from occurring in the first place. Investigation into campus culture may illuminate this reasoning even more. Because women's centers predict higher reported Clery rates, I hypothesize that reports go up when women's centers are available because they provide concrete tools to file an official campus crime report or encourage survivors to go to the police. Moreover, schools lacking women's centers altogether also, in general, lacked other sexual health resources. This phenomenon points toward a broader theme: the importance of space, both physical and social, for women's agency, safety, and empowerment.

Another statistically insignificant yet interesting finding was the availability of condoms on campuses. Despite widespread availability of condoms overall, several universities require students to pay for condoms, and others place limits on the quantity available to students. Limiting access to condoms financially or otherwise astonished me: when bought and distributed in bulk, they are a cost-effective means of preventing unplanned pregnancy and sexually transmitted infection transmission. Free distribution seems like an obvious policy move for any institution interested in keeping public health crises from occurring. Fittingly, free condoms correlated with lower reported rates of sexual violence, though this correlation was not statistically significant.

However, this finding can be interpreted in two ways: first, that reports are low when condoms are freely available because their accessibility serves as a proxy for a liberal sexual culture in which sex is discussed and its implications understood, resulting in fewer incidents of sexual violence. This explanation matches the literature: women in particular are more empowered when contraceptives are available, so it would match my overarching hypothesis that better sexual health is linked with less sexual violence.

Contrastingly, the second interpretation is that free condoms correlate with lower reports of sexual violence because students neglect to use university or legal resources to address sexual violence. Through this perspective, providing free condoms on campus allows students to engage in sex while minimizing consequences like pregnancy or STI acquisition. Perhaps students then feel pressured to engage in sexual activities, or maybe students feel freer to sexually coerce, compel, or assault their peers because they face fewer consequences. This interpretation also holds that students may not report their experiences with sexual violence because they do not think they will be believed by authorities, who see providing condoms as a "quick fix" to lower rates of assault or see using condoms as implying that students may want to engage in all and constant sexual activities.

Only a deeper inquiry into campus cultures can explain this correlation and deduce if either of these interpretations actually fits a campus context. Importantly, different universities may present different interpretations – free condoms on one campus may represent its liberal and safe nature, while on another be a last-ditch effort to *seem* safe. I suspect that the availability of free condoms may be because of lower reported rates of sexual violence, rather than lower real rates.

Because free condoms were also a significant predictor of Clery reported rates, I discuss them further when addressing the results of my multiple linear regression.

Moreover, the student body size of universities maintained a strong negative linear correlation with total adjusted Clery reporting rates: larger schools had, on average, lower reported rates. Because each school is individually accounted for in this test, there is no way to determine a statistically significant difference in Clery reporting rate mean between schools of different sizes. However, the correlation alone is telling: the negative correlation suggests that students get lost in the shuffle of large schools and do not feel empowered as individuals to report. Additionally, they may lack access to resources that would inform them on how to report sexual violence. For instance, a university with a women's center of five staffers will better be able to serve a student body of 5,000 students than one of 50,000 students – greater accessibility and less competition for campus resources would then allow students on smaller campuses to report instances of sexual violence more easily.

Statistically Significant Correlations

Furthermore, a handful of campus resource variables did maintain significant correlations with adjusted total Clery reported rates of sexual violence.

For one, the availability of IUD insertion on campus correlated with lower adjusted total Clery reported rates of sexual violence. As was for condoms, two interpretations spur from this correlation: first, that the availability of IUDs on campus creates a healthier sexual climate that breeds lower rates of assault and thus lower rates of sexual violence reporting; second, that the reduced risk of pregnancy and STI transmission lowers the cost of sex, making students feel less empowered to report instances of sexual violence. I lean in favor of the first explanation, believing that that IUD availability correlates with *real* rates of sexual violence: obtaining long-acting reversible contraceptives require information gathering, direct counseling, and interaction with medical providers or sexual health counselors, which means that students engage with issues of sexual health and sexual violence; a woman with an IUD has long-term ownership of her sexuality and maintains reproductive control – two key components of sexual health (WHO 2006). While IUDs do prevent pregnancy and allow for spontaneous sexual encounters, they do not prevent against STI transmission, retaining that cost of a sexual experience.

Moreover, the process by which a person obtains an IUD is financially taxing and time consuming – IUDs are neither as pervasive nor easy to use as condoms and thus less likely to lower the costs of sex for a potential perpetrator. IUDs, then, represent how sexual health promotes empowerment to reduce instances of sexual violence. This is not to say that people with IUDs are not vulnerable to those who inflict sexual violence, but the correlation reflects on how IUDs are specialized tools of sexual health that can, fitting the literature, directly link with lower rates of sexual violence. As a whole, this finding means that the presence of IUDs correlates with lower real rates of sexual violence.

Next, mandatory health insurance correlated with higher rates of Clery reported sexual violence. However, this correlation may be irrelevant – mandatory health insurance might serve as a proxy for institutional investment in health, but the status of being mandatory or not does not directly interact with sexual violence, regardless of correlation. The proxy interpretation is valuable, though: mandatory health insurance signifies a university's concern for students, and may indicate that the school has an abundance of additional medical resources. The most forgiving explanation for the direct correlation between mandatory health insurance and sexual violence rates is that insurance might be more likely to cover an exam conducted by a sexual assault nurse examiner (SANE) post-sexual violence; those who take SANE exams are much more likely to report their experience to the police, generating a Clery report (Ledray 1999, 131). Nonetheless, the number of students receiving SANE exams is unlikely to be high enough to thoroughly explain the correlation, as SANE exams can be expensive even with insurance, take several hours, and require immediate action after being sexually assaulted (Ledray 1999). As a result, mandatory health insurance is much more likely to be coincidentally correlated with high rates of sexual violence.

Furthermore, different sexual misconduct policies correlated with different mean rates of Clery reported sexual violence, with the lowest Clery reporting rates correlating with the worst quality sexual misconduct policies. This makes sense: universities without the policy infrastructure to deal with sexual violence are unlikely to have the resources to allow students to safely and accurately report sexual violence. Moreover, the lowest quality sexual misconduct policies were nonexistent, inaccessible, or ignorant of dimensions of sexual violence. Students at universities with poor policies may not trust the university to adeptly handle a report of sexual violence.

The converse is also true: this finding implies that universities with better internal infrastructure to deal with sexual violence through student conduct procedures have stronger infrastructure to help survivors of sexual violence issue reports. Perhaps students at universities wherein sexual misconduct policies are clear, fair, and well explained may feel more empowered to report their experience to the police or pursue criminal investigations.

However, strong sexual misconduct policies themselves are suspect; particularly as the predictive relationship between sexual misconduct policies and rates of sexual violence is negative – stronger policies predict lower reported rates of violence. I address the connection between sexual misconduct policies and reporting again later in this chapter.

Finally, divergent definitions of consent correlated with different reported rates of sexual violence. However, there is no discernible pattern of which consent policies correlate with higher or lower Clery reported rates because the sample size of universities without affirmative consent policies is so small. I assumed, though, that universities with affirmative consent policies would have higher Clery reported rates than do universities with lax or non-comprehensive consent policies, largely because a university with a robust and high-quality consent definition accessible to students would make them more likely to recognize when sexual interactions did not involve consent. As a result, I re-ran a hypothesis test investigating differences in mean adjusted Clery reported rate of sexual violence by only considering two levels, affirmative or not affirmative consent, as opposed to using the seven levels with specific definition labels as I did before. While affirmative consent policies correlate with lower average Clery reported rates of sexual violence with affirmative consent policies correlating with 2.14 incidents and not affirmative policies correlating with 3 incidents, this two-level test is less significant than with multiple levels ($p=0.14$).

Even if it is less significant, we can still question as to why this correlation exists – why affirmative consent policies yield lower reported rates. The optimistic interpretation is that clearly defining consent as affirmative inspires more students to seek consent and thus reduces real rates of sexual violence. However, the correlation may indicate not lower real rates of sexual violence, but instead indicate less student seeking of help, resources, and litigation from a university. Accounting for 89.8% of definitions of consent, affirmative consent policies are the norm. Affirmative consent – "yes means yes" – is heeded as a gold standard for consent, the "slogan of choice for sexual assault prevention" (New 2014). And while it may read as better than other alternatives, the 53 universities with such policies still have immense variation in the rates of sexual violence reported, and likely in the real rates of sexual violence that occur. In fact, affirmative consent universities demonstrated a wider range of Clery reported rates of sexual violence than did the universities without affirmative consent. This leads me to doubt that an affirmative consent policy should really be the goal for student activists and institutional policymakers: the conflicting interpretations of what the correlation indicates implies that affirmative consent policies only represent symbolic dedication to sexual violence response.

Additionally, like sexual misconduct policies, the definitions of consent may have been altered in response to allegations of sexual violence, particularly in response to incidents that are not reported federally. This interpretation fits the several schools with affirmative consent policies and high reported rates of sexual violence, and generates more questions about the effectiveness of reported rates of sexual violence as a whole – a concern I address further throughout my discussion.

Significant Predictors of Clery Reported Rates of Sexual Violence

81.7% of the variance in total adjusted Clery reported rate of sexual violence can be explained by the set of studied sexual health promotion, sexual violence prevention, and medical resources. The variables assessed in this study do impact sexual violence; there is some form of a predictive relationship between sexual health and sexual violence. Despite the strong fit of the linear regression model, though, only a few variables were individual predictors of sexual violence, including the following: sexual misconduct policies, professional women's centers, sexual health outreach programs, free condoms, and mandatory health insurance.

As for sexual misconduct policies, the regression results suggested that better quality policies predict lower Clery reported rates of sexual violence at a statistically significant level. This association means that universities with stronger sexual misconduct policies – that recommend expulsion when a student is found responsible for sexual violence, that involve extensive definitions of forms of sexual violence, that include question-and-answer sections, that give detailed scenarios in which the policy is violated – see lower reported rates of sexual violence. The statistical significance provides evidence that the association between sexual misconduct policy and reported rates may be causal. This supports my first hypothesis: that more sexual health-related resources are associated with higher reported rates of sexual violence. We can assume that better policies yield lower Clery reported rates, which is contrary to the correlative finding that indicated that better policies were associated with higher Clery reported rates of sexual violence. This inconsistency is concerning, and presents the notion that the reported rates of sexual violence are not interchangeable with the real incidents of sexual violence. Perhaps better sexual misconduct policies associate with lower Clery reported rates because the policies reduce *real* rates of sexual violence – students better understand the consequences of committing a sex crime with stronger policies: if a student knows they will be expelled if they are found responsible of rape, they will be less likely to rape other students.

However, this predictive relationship is more likely to mean that stricter and more robust sexual misconduct policies actually discourage students from reporting their experiences with sexual violence. Students might consider a strong policy to be incomprehensible or overreaching, and choose to not report because they do not want to go through a rigorous sexual misconduct hearing or deal with potentially adverse consequences from the university or their alleged perpetrators. For instance, if a policy is incredibly detailed but leaves out one specific sexual interaction or scenario that a student experiences, and then the student checks the policy to see if what happened to them constitutes a violation and finds that their experience is not accounted for, they will lose faith in the policy the university and not report sexual violence.

The nature of my study did not consider individual campus cultures of trust or general "feelings" of sexual wellbeing. As a result, there is no conclusive evidence to determine which explanation is correct surrounding sexual misconduct policies' predicting lower Clery reported rates of sexual violence. However, this variable ties to how stronger sexual misconduct policies may have been introduced in response to rampant allegations of sexual violence that are not captured by the reporting process. If so, these newly robust sexual misconduct policies aim to raise the reporting rates, but have not yet successfully done so. The sexual misconduct policies may not actually influence behavior, then, but represent an institutional crisis response. That said, a university reacting at all to sexual violence suggests that students will develop trust in the institution and thus may choose to report sexual violence in the future.

Next, professional women's centers predict higher Clery reported rates of sexual violence. While any single type of women's center did not correlate with a particular level of Clery reported rate of sexual violence, this causal relationship is sensible. AAU member universities' women's centers largely focused on sexual violence prevention efforts and sexual violence intervention measures: they existed to offer programming that aimed at reducing rates of sexual violence and provide direct support to survivors through the reporting process. Women's centers better equip students with the tools and information needed to file a sexual violence report, making clear sense of the predictive relationship. Therefore, link between women's centers and higher reported rates of sexual violence supports my second hypothesis: that more sexual health-related resources are associated with higher reported rates of sexual violence.

Similarly, sexual health outreach programs predict higher Clery reported rates of sexual violence. When universities provide their students with more information about sexual health, they are empowering them with knowledge about their bodies, sexuality, and choices. As such, students may be emboldened to report sexual violence, trusting that if the university cares enough to teach them about sexual health, it will care enough to address sexual violence. Additionally, this variable may be collinear: sexual health outreach programs may very well contain information directly about sexual violence and how to report it, or overlap with mandatory consent education. Regardless, this predictive finding implies that offering sexual health programming makes a campus a safer space in which to report sexual violence, making students more comfortable coming forward through legal or official university channels. This result is also supportive of my second hypothesis.

Contrastingly, the availability of free condoms predicted lower Clery reported rates of sexual violence at a statistically significant level, supporting my first hypothesis. This finding aggravates the dichotomy between different interpretations of what lower reported rates of sexual violence actually mean. As previously discussed, that first interpretation is that condoms serve as proxy for a healthy sexual climate with lower real rates of sexual violence that are reflected in Clery reporting rates. This is in line with the theme that sexual health reduces sexual violence.

The second interpretation, though, reflects lower reported rates of sexual violence. In this case, condoms decrease barriers to all sexual interactions, both consensual and forcible. This may increase the pressure students feel to have sex and make them distrust the university for enhancing that pressure. Additionally, condoms are relatively easy to understand and use: there is no need to engage with a medical professional who could otherwise explain issues of sexual violence or sexual health. Consequently, students are left uninformed about sexual wellbeing, and do not grow empowered to report sexual violence – nor necessarily learn of the tools to do so.

As such, condoms are more likely to predict lower rates because people will not report their experiences with sexual violence on sexually liberal campuses. This would be rooted in fear of social stigma or retribution because of reporting, or wanting to avoid being labeled "sex-negative" simply for not having consented to a particular sexual experience. Thus, while condoms may still serve as a proxy variable representing that a university that is invested in the sexual wellbeing of the student body, the negative predictive relationship between free condoms and reported rates of sexual violence more strongly indicates that free condoms exacerbate sexual violence.

Lastly, mandatory health insurance predicted higher adjusted Clery reported rates of sexual violence. However, I remain dubious that mandatory health insurance actually has a relationship with rates of sexual violence. The relationship between the two variables is likely coincidental; having mandatory health insurance does not meaningfully associate with sexual violence, let alone cause that violence to be reported. The mandatory health insurance variable itself is collinear, aligned closely with other variables that are more related sexual health in particular: universities that mandate their students have health insurance are also more likely to offer a wide array of health services, including sexual health services. A generous interpretation of this finding is that universities that invest in health services to the degree of requiring students to have health insurance are also more likely to provide students with the pathways to reporting sexual violence, or give those students means of reporting sexual violence in a medical context (such as having a SANE exam covered by mandatory insurance). Consequently, if extrapolated, the predictive link between mandatory health insurance and reported rates of sexual violence is in line with my second hypothesis.

Overall Reflections

Exceedingly few sexual health resources are significant correlates or predictors of rates of sexual violence, and those bearing significance do not follow a consistent pattern of association with reporting rates. As such, I found evidence supporting each of my three hypotheses, which are mutually exclusive. The lower rates of sexual violence predicted by sexual misconduct policies and free condoms support my first hypothesis; the higher rates of violence predicted by women's centers, sexual health outreach, and mandatory health insurance support my second hypothesis; and the general lack of significant correlations and predictors support my third hypothesis. With evidence pointing in each direction, my research is inconclusive: this study neglects to demonstrate a clear or overarching relationship between sexual health to sexual violence.

Thus, the results of this study yield two broad explanations. First, that a university's increased investment in sexual health breeds a healthier sexual climate in which students are empowered by sexual health and have the tools to file reports. Additionally, offering sexual health resources allows students to trust the university and feel comfortable reporting incidents of sexual violence. This likely translates into higher reported rates of sexual violence because students will report their experiences. However, it theoretically could manifest in fewer reports as the actual rate of violence falls.

Second, it could mean that increased investment in sexual health reduces the costs of sex, increases pressure on students to engage in sexual activities, and breeds stigma against reporting or seeking help for sexual violence. This results in more incidents of sexual violence, but also likely generates fewer reports because students do not trust the university to handle the issue. While increased real rates of violence should generate more reports to accurately reflect real violence, underreporting is so rampant that this is unlikely.

These contradictory explanations do not indicate that no relationship exists between sexual health and sexual violence on college campuses. Rather, they have a complex and varied relationship – one that relies on unknown factors like trust, liberalism, and community norms. This links back to the linear regression model as a whole: because 81.7% of variation within Clery reporting rates can be explained by sexual health promotion, sexual violence prevention, and medical resources, such sexual health resources do matter. They accurately predict rates of sexual violence, even if those predictions are grounded in immeasurable indicators of a campus's sexual climate.

Moreover, sexual health variables explain variance in sexual violence because there is incredibly *little* variance. The range of adjusted total Clery reported rate of sexual violence only spans between 0.46 and 6.34 incidents per 1,000 students – an extremely small range. This is because not all incidents of sexual violence are federally reported; as aforementioned, if one in four women experiences sexual violence, then only 3% of incidents make it to the reporting stage. This finding is outstanding and statistically significant: the difference in proportions between the anticipated and actual reported rates of sexual violence is concerning, indicating that underreporting is epidemic among schools. It follows, then, that higher reported rates of sexual violence are actually a positive indication that a university is responding to allegations of assault and taking cases seriously enough to reach a judicial hearing or criminal investigation. More reports indicate that students trust in their universities to respond to sexual violence, in line with my second hypothesis.

The dramatic underreporting denoted by this study demonstrates how the mechanisms by which sexual violence on college campus is reported are broken. While reporting at an accurate level allows a university to maintain better records and address sexual violence at its proper magnitude, the small number of reports filed indicates that the system itself is highly suspect. Even if enhancements to sexual health do actually decrease the pervasiveness of sexual violence on college campuses, if the measuring tools we use to tally sexual violence are themselves flawed, then reported rates are poor determinants of sexual violence in general.

Nevertheless, the problem with reporting does not solely come from universities. Elements of the Clery Act point to why so few reports are filed. For one, the Clery Act only accounts for specifically outlined sex crimes, and requires that reports only be filed when sexual violence has been reported through official means, such as police investigation or student conduct litigation (Brinn and List 2016). Moreover, individual states determine what constitutes a sex crime, meaning that there is inconsistency and variation among universities in different locations. For example, North Carolina defines rape as an act that involves forcible vaginal penetration, while New York defines rape as involving any penetrative contact (Queens University 2016). As a result, students in North Carolina may not perceive forced oral penetration as rape and thus not report that type of incident, while students in New York would. This variation is harmful; it propagates misunderstanding of sexual violence and leads to geographic inconsistency of reporting rates. The lack of universal definitions does not make political sense, either: if reporting campus crime is federal law, then the federal government ought to be responsible for setting the standards for reporting, rather than relying on states to determine the details. Additionally, the Clery Act also neglects to account for sexual harassment, coercion, and other symptoms of a sexually unhealthy campus, meaning that experiences that subjugate women and violate sexual health may not be captured in the reporting process.

Furthermore, perhaps the Clery Act process of measuring sexual violence is wildly inaccurate not only because students do not trust their universities to handle cases or because the Act does not account for all types of sexual violence. Rather, we must question whether officially reporting sexual violence is empowering for a survivor of sexual violence, or if reporting does not embolden a survivor nor help her through her recovery. If reporting sexual violence does not equate with self-determination and overall wellbeing, then it makes sense why people would not report their experiences even if they are otherwise sexually healthy and do not feel a stigma against reporting. This would explain why certain sexual health resources predict lower rates of reporting: perhaps the empowerment gained by access to free condoms or knowledge of sexual misconduct policies translates not into a desire for institutional justice and reporting, but in other capacities.

Consequently, even though sexual health promotion, sexual violence prevention, and medical resources do not present a definitive "solution" to sexual violence, sexual health bears intrinsic value. Regardless of its effectiveness as a means to the end of sexual violence reduction, sexual health strengthens rights and promotes gender equity by allowing for reproductive and bodily autonomy (WHO 2006; Bailey et al 2012; Goldin and Katz 2002; Sonfield et al 2013). These outcomes alone are reason to invest in sexual health resources: reproductive freedom and justice are worthy and important goals for a society or an institution to pursue.

Limitations and Further Research

As a whole, my analysis is limited because I studied AAU member universities: a small sample size of highly specialized, elite schools. My results are accordingly not generalizable – though they may apply to other selective or research institutions, the campus cultures that my analysis discusses may be incredibly different from those of liberal arts institutions, historically black colleges and universities, community colleges, or professional schools. Moreover, the AAU member universities are not necessarily representative of the geographic landscape of higher education: they are not equally distributed geographically or by population density (Appendix G). In the future, an analysis similar to mine should be conducted with a broader and more diverse array of schools.

Additionally, using AAU member universities all together meant that my sampling was not random. This technically violates conditions to conduct hypothesis tests and multiple linear regression. However, because I considered at the entire population of United States AAU schools – using a full-population census, rather than simply using more than the traditionally appropriate ten percent of the population – my results are still valid.

Furthermore, the variables I studied represent a handful of potential predictors for campus sexual violence. For example, I did investigate the proportions of Greek students or athletes on campus, populations that are traditionally associated with higher rates of sexual assault (Cantor et al, 2015). Further analysis into predictors of sexual violence on campuses ought to consider a wide array of student policies – residential, alcohol, organizational, athletic – in order to paint a more vibrant landscape of which factors can contribute to mitigating campus sexual violence.

This speaks to broader data collection issues: because I compiled my own dataset from variables that had not been collected together before, I had to create my own systems of ranking certain resources, parse through university websites for information specifically from 2014-2015, and deal with several missing variables. Schools without, for instance, published sexual misconduct policies or publicly accessible sexual health promotion resources not only were unaccounted for in some of my analysis, but also speak to how taboo sexuality is in the realm of higher education. The difficulty in discovering sexual health and violence information is conceivably a corollary of universities not wanting to provide such "controversial" information. The information barrier I encountered can be resolved by studying sexual health and sexual violence through alternative means: researchers may also want to investigate factors of sexual health alone, perhaps through a sexual climate survey. Additionally, using surveys, interviews, or campus newspaper article analysis on either sexual health or sexual violence can provide more individualized insight into a campus's sexual climate, as well as help illuminate which of my two overall data explanations may be correct on that campus.

Finally, my analysis was observational: though I studied correlations between indicators of sexual health and reported rates of sexual violence, I cannot draw any definitive causal conclusions. Though an experiment relating sexual health and sexual assault would have to occur at a smaller scale to be ethically responsible and empirically possible (perhaps by providing birth control to women in a study at a single university that historically has not offered free contraceptives and tracking their perception or experience of sexual violence against a control group without birth control), future scholarship should attempt to disclose these causal links to find the best means to promote sexual health, prevent sexual violence, and lead to gender equity.

Policy Implications

University Level

Higher education institutions should alter their attempts to reduce sexual violence not just through risk reduction and sexual violence prevention, but also through providing sexual health and medical resources that enhance the overall sexual wellbeing of their student bodies. While I found conflicting connections between reported rates of sexual violence and sexual health resources on college campuses, it remains worthwhile for universities to invest in these resources in order to build additional trust within and promote the general health of its student body. Over time, these increases in health and trust may reduce the *real* rates of sexual violence, while also raising reported rates and providing universities with full information to address sexual violence.

As sexual health alone is a key component of personal wellbeing (WHO 2006), if universities truly are invested in their students' health – or if they want to continue to be competitive with their peer institutions that offer expanded resources – it is in a school's best interest to provide its students with sexual health resources. Universities should begin by making resources currently available to students more easily accessible, like funding free STI and HIV tests and fleshing out existing bare-bones resource websites. New initiatives to provide enhanced sexual health and violence services and information to students can be low cost, as well.

For example, assembling working groups or task forces to discuss means of improving sexual misconduct policies is essentially free and can question why certain sexual misconduct policies actually predict fewer reports and not more. This form of internal research can investigate a campus's sexual climate, allowing a school to individually design programs to enhance the school's sexual wellbeing. Likewise, a university can purchase condoms in bulk for a reduced price and, in distribution, pair condoms with stickers or cards featuring descriptions of consensual encounters or important sexual health facts. This pairing mitigates concern that offering sexual health resources enhances stigma against reporting, or that condoms reduce the cost of sex by allowing for more violence to occur. This type of inexpensive effort provides students with their fundamental right to contraceptive access and grants them information to prevent sexual violence, using the link between sexual health and sexual violence to promote positive campus change.

Similarly, a university can follow the model of several AAU schools, including Duke University, Brown University, and Harvard University, and create peer-run sexual health resource organizations that offer free education, advising, and informational materials to students (see Appendix B). Combining sexual health outreach efforts – which predict higher reported acts of sexual violence – with contraceptive distribution or sexual violence prevention materials can thus be an effective means of spreading information about health, consent, and the reporting process.

Additionally, a university still ought to prioritize encouraging reporting and engagement with sexual violence beyond awareness. Reporting sexual violence allows the university not only to have full information about its student body, but to take actionable steps regarding the scope of sexual health promotion, sexual violence prevention, and medical resources it needs to provide. Knowing the true number of incidents of sexual violence that occur will allow universities to better tailor their existing policies and practices. For example, a school may choose to hire additional sexual health coordinators when their reported rates of sexual violence are very low because sexual health outreach predicts higher reported rates of violence. The additional staff member can spread positive messages and information about sex, which builds the number of incidents reported. More reports may demonstrate to the university that there is greater need for information and education about sexual health and violence than originally anticipated, perhaps probing the university to hire even more staff members or invest in more sexual health promotion, sexual violence prevention, and medical resources.

Federal Level

Because Clery reported rates of sexual violence are so low compared to the expected rates of sexual violence, the measure is a poor indicator of sexual violence that harms research efforts and university responses to sexual violence. To address this, the federal government – specifically, the Department of Education Office for Civil Rights and the Department of Justice Office on Violence Against Women – should reform Clery Act definitions and compliance standards for sexual violence.

Creating national definitions for sexual violence would remove the current dependence on states to be proactive in legislating sex crime standards; in the status quo, states have widely divergent definitions for sex crimes that allow for instances of sexual violence to not be perceived as being criminal. Universalizing definitions would make the Clery reporting rates more accurate reflections of sexual violence by encompassing sex acts that otherwise fall through policy cracks, making survivors better able to identify illegal activity in their unwanted sexual interactions and thus more likely to officially report sexual violence to their university. Additionally, using universal definitions would minimize state-by-state and school-by-school inconsistencies in reporting. Clearer and more expansive definitions of forcible and non-forcible sex crimes can compensate for variation between how various campuses define sexual assault differently or have different quality sexual misconduct policies. Markedly, this recommendation is particularly influenced by how the definition of consent was a predictor of sexual violence reporting rates changing – other clear definitions may also have positive effects on sexual violence.

Moreover, the agencies should consider requiring universities to report all allegations of sexual violence, not just experiences that are reported to campus police or adjudicated by administrators on campus. For instance, a university could report the number of students who seek gender violence counseling services or the number of students who file internal reports with student conduct offices. While still not an entirely accurate measure, this type of value is more likely to be in line with the true experiences of sexual violence on college campuses. Opponents to this expansive requirement may cite how some students will seek help or file internal complaints for false reports; however, only two to 10% of cases are falsely reported (NSVRC 2012) – meaning that reporting sexual violence rates with a confidence interval with a 10% margin of error could remain accurate.

Reforming the Clery Act Compliance process to require universities to report broader instances of sexual violence would be a significant step toward addressing issues relating to individual universities, as well. Students' potential lack of empowerment when officially reporting or lack of trust in university administration or police can be mitigated: reporting "unofficial" instances of sexual violence removes the stigma-laden barrier of going through a sexual misconduct hearing process, reaching out to police, or engaging beyond simply seeking help after experiencing sexual violence.

Conclusion

Sexual health and sexual violence are connected to one another, but this study indicates that connection is complex and immeasurable: certain sexual health promotion, sexual violence prevention, and medical resources found at AUU campuses are associated with higher reported rates of sexual violence, others link to lower reported rates of sexual violence, and a majority have no significant association with sexual violence at all. Consequently, there are two competing interpretations as to how sexual health impacts sexual violence:

1. Increased sexual health yields a healthier sexual climate of safe, consensual, and informed sex in which students trust the university and feel comfortable reporting incidents of sexual violence. This could translate into higher reported rates of sexual violence because students will report their experiences, but could also manifest in fewer reports as the actual rate of violence falls.

2. Increased sexual health reduces the costs of sex, increases pressure on students to engage in sexual activities, and breeds stigma against reporting sexual violence or seeking help after experiencing violence. This could result in more incidents of sexual violence, which could either generate more reports, accurately reflecting the real rates of violence, or fewer reports, because students do not trust the university to handle the issue.

Some universities may find that sexual health promotes wellbeing and encourages reporting sexual violence, while others may find that stigma dominates and prevents students from being empowered to seek justice. As there is no way to parse between real and reported rates of sexual violence in the status quo, the results of this study indicate that reported rates of sexual violence serves as a poor indicator of sexual wellbeing on a campus.

More broadly, the Clery Act reporting mechanism is broken: underreporting of sexual violence is a chronic theme on AAU campuses, with only 3% of incidents being reported. Regardless of any theoretical impact that sexual health has on sexual violence, it is impossible to fully determine if investing in sexual health has tangible correlations or effects on sexual violence without being able to accurately measure sexual violence. However, existing literature indicates that enhancing sexual health empowers individuals and still is able to reduce the gender disparities that manifest in sexual violence. Consequently, sexual health resources are still worth the investment – they simply must be paired with efforts to reduce stigma, enhance trust, and encourage reporting to more accurately assess how sexual violence operates on campus.

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Appendix A: Association of American Universities – List of members by institution type, including year joined

PUBLIC

Georgia Institute of Technology (2010)

Indiana University (1909)

Iowa State University (1958)

Michigan State University (1964)

The Ohio State University (1916)

The Pennsylvania State University (1958)

Purdue University (1958)

Rutgers University - New Brunswick (1989)

Stony Brook University - The State University of New York (2001)

Texas A&M University (2001)

University at Buffalo - The State University of New York (1989)

The University of Arizona (1985)

University of California, Davis (1966)

University of California, Berkeley (1900)

University of California, Irvine

University of California, Los Angeles (1974)

University of California, San Diego (1982)

PRIVATE

Boston University (2012)

Brandeis University (1985)

Brown University (1933)

California Institute of Technology (1934)

Carnegie Mellon University (1982)

Case Western Reserve University (1969)

Columbia University (1900)

Cornell University (1900)

Duke University (1938)

Emory University (1995)

Harvard University (1900)

The Johns Hopkins University (1900)

Massachusetts Institute of Technology (1934)

New York University (1950)

Northwestern University (1917)

Princeton University (1900)

Rice University (1985)

University of California, Santa Barbara (1995)

University of Colorado, Boulder (1966)

University of Florida (1985)

University of Illinois at Urbana-Champaign (1908)

The University of Iowa (1909)

The University of Kansas (1909)

University of Maryland at College Park (1969)

University of Michigan (1900)

University of Minnesota, Twin Cities (1908)

University of Missouri, Columbia (1908)

The University of North Carolina at Chapel Hill (1922)

University of Oregon (1969)

University of Pittsburgh (1974)

The University of Texas at Austin (1929)

University of Virginia (1904)

University of Washington (1950)

University of Wisconsin-Madison (1900)

Stanford University (1900)

Tulane University (1958)

The University of Chicago (1900)

University of Pennsylvania (1900)

University of Rochester (1941)

University of Southern California

Vanderbilt University (1950)

Washington University in St. Louis (1923)

Yale University (1900)

CANADIAN

McGill University (1926)

University of Toronto (1926)

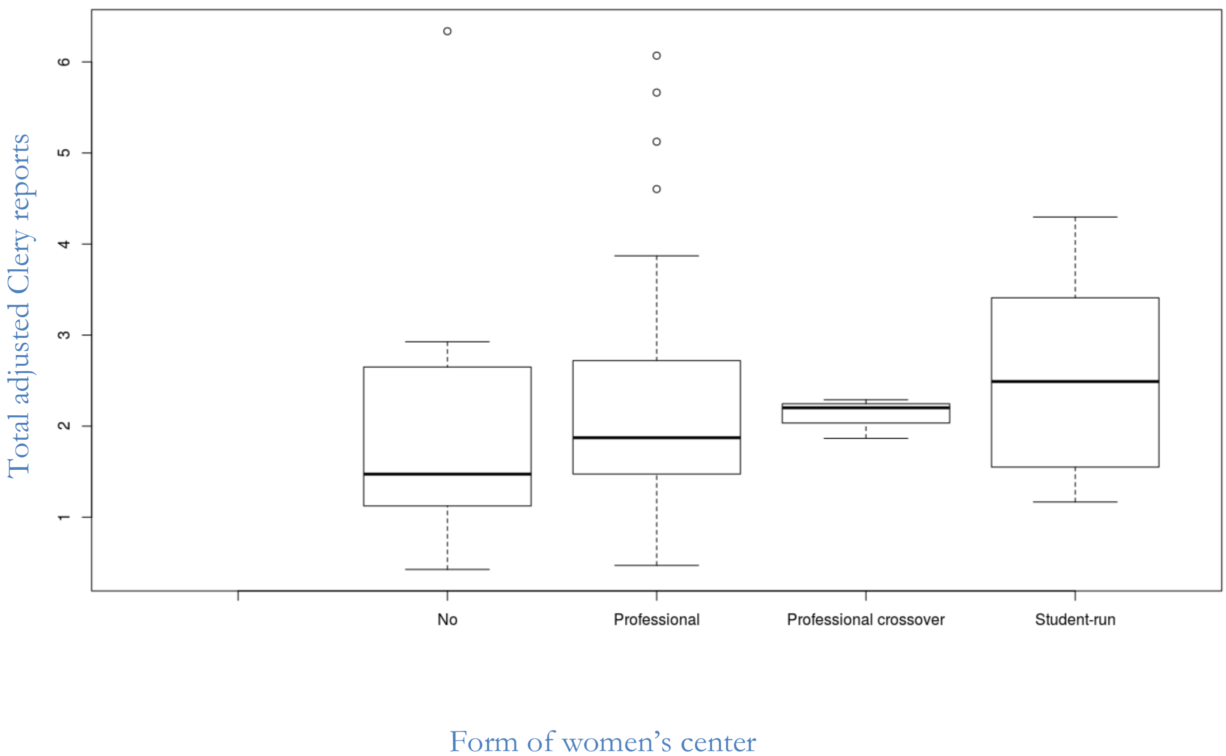
Appendix B: Entire Dataset

University	Public/P	Region	Total Enrollment	Title	Clery F	Clery Fon	Clery I	Clery	Clery D	Clery Dating Vi		Total Cle	Clery Adjusted (	Mandatory conse	Dedicated Full-time	Sexual assault (r
Boston University	Private	Northeast	32,112	Yes	5	8	0	0	3	8	19	43	1.339063279	No	No	3
Brandeis University	Private	Northeast	5,945	Yes	9	1	0	0	4	0	0	14	2.354920101	Yes	Yes	2
Brown University	Private	Northeast	9,181	Yes	44	0	0	0	4	0	4	52	5.663871038	Yes	Yes	5
California Institute of Techno	Private	West	2,209	No	3	5	0	0	0	1	5	14	6.337709371	No	Yes	2
Carnegie Mellon University	Private	Northeast	12,587	Yes	7	3	0	0	2	5	27	44	3.495670136	Yes	Yes	1
Case Western Reserve Unive	Private	Midwest	10,771	No	11	8	0	0	1	4	3	27	2.506731037	No	Yes	1
Columbia University	Private	Mid-Atlantic	27,589	Yes	19	8	0	0	8	16	27	78	2.827213745	Yes	Yes	4
Duke University	Private	Southeast	15,856	Yes	11	3	0	0	6	6	3	29	1.828960646	Yes	Yes	5
Emory University	Private	Southeast	14,769	Yes	27	7	0	0	9	10	15	68	4.604238608	Yes	Yes	4
Georgia Institute of Technolo	Public	Southeast	23,109	No	19	4	0	0	3	7	8	41	1.774200528	Yes	Yes	4
Harvard University	Private	Northeast	28,791	Yes	34	10	0	0	3	4	24	75	2.604980723	No	Yes	5
Indiana University	Public	Midwest	46,416	Yes	22	7	0	0	5	14	19	67	1.44346777	Yes	No	5
Iowa State University	Public	Midwest	34,435	Yes	15	2	0	0	11	9	29	66	1.916654567	No	No	2
Massachusetts Institute of Te	Private	Northeast	11,319	Yes	21	11	0	0	10	9	7	58	5.124127573	Yes	Yes	5
Michigan State University	Public	Midwest	50,081	Yes	15	8	0	0	14	28	32	97	1.936862283	No	Yes	4
New York University	Private	Mid-Atlantic	49,274	Yes	8	10	0	0	0	2	1	21	0.4261882534	Yes	No	4
Northwestern University	Private	Midwest	21,554	No	4	5	0	0	8	5	20	42	1.948594228	No	Yes	5
Princeton University	Private	Mid-Atlantic	8,088	Yes	8	5	0	0	7	0	2	22	2.72007913	No	No	4
Purdue University	Public	Midwest	39,752	No	15	13	0	0	7	18	9	62	1.559669954	Yes	No	3
Rice University	Private	Mid-Atlantic	6,621	No	8	6	0	0	6	2	0	22	3.322760912	No	Yes	4
Rutgers University - New Bru	Public	Mid-Atlantic	48,378	No	39	11	0	0	71	0	6	127	2.625160197	Yes	Yes	5
Stanford University	Private	West	16,963	Yes	26	4	0	0	13	0	14	57	3.360254672	Yes	Yes	5
Stony Brook University - The	Public	Mid-Atlantic	24,607	Yes	2	4	0	0	5	10	21	42	1.706831389	Yes	Yes	3
Texas A&M University	Public	Southwest	61,642	Yes	9	2	0	0	9	2	7	29	0.4704584537	Yes	Yes	2
The Johns Hopkins University	Private	Mid-Atlantic	21,372	Yes	4	3	0	0	8	0	4	19	0.8890136627	No	Yes	3
The Ohio State University	Public	Midwest	58,322	No	22	14	0	1	8	11	20	76	1.303110319	Yes	Yes	5
The Pennsylvania State Unive	Public	Mid-Atlantic	47,040	No	24	13	0	0	1	13	10	61	1.296768707	Yes	No	4
The University of Arizona	Public	Southwest	42,236	No	27	9	0	0	18	5	6	65	1.538971494	No	No	2
The University of Chicago	Private	Midwest	15,097	Yes	6	7	0	0	18	2	7	40	2.64953302	Yes	Yes	4
The University of Iowa	Public	Midwest	29,970	Yes	17	59	0	0	3	9	28	116	3.870537204	Yes	No	2
The University of Kansas	Public	Midwest	27,180	Yes	18	15	0	0	38	12	19	102	3.752759382	Yes	No	3
The University of North Caro	Public	Southeast	29,135	Yes	26	7	0	0	7	10	9	59	2.025055775	Yes	Yes	5
The University of Texas at Au	Public	Southwest	51,313	No	48	3	0	0	18	18	26	113	2.20217099	No	No	5
Tulane University	Private	Southeast	12,603	No	15	8	0	0	3	4	6	36	2.856462747	Yes	Yes	4
University at Buffalo - The St	Public	Mid-Atlantic	29,995	No	1	6	0	0	21	0	7	35	1.166861144	Yes	No	1
University of California Berke	Public	West	37,565	Yes	29	18	0	1	7	7	24	86	2.2893651	Yes	Yes	5
University of California Davis	Public	West	34,508	Yes	16	6	0	1	10	6	13	52	1.506896951	Yes	No	5
University of California Irvine	Public	West	30,051	No	11	8	0	0	12	11	13	55	1.830221956	Yes	No	5
University of California Los A	Public	West	41,845	Yes	25	14	0	0	6	1	1	47	1.123192735	Yes	Yes	5
University of California San D	Public	West	30,709	No	9	1	0	0	5	9	0	24	0.7815298447	Yes	No	5
University of California Santa	Public	West	23,051	No	28	1	0	0	5	5	4	43	1.865428832	Yes	Yes	5
University of Colorado Bould	Public	West	32,432	Yes	16	0	0	0	12	1	4	33	1.017513567	Yes	No	3
University of Florida	Public	Southeast	49,459	No	7	0	0	0	18	17	10	52	1.051375887	Yes	Yes	2
University of Illinois at Urbar	Public	Midwest	45,140	Yes	12	2	0	0	19	0	3	36	0.7975188303	Yes	Yes	5
University of Maryland at Co	Public	Mid-Atlantic	37,610	No	10	10	0	0	2	9	13	44	1.169901622	Yes	No	2
University of Michigan	Public	Midwest	43,625	Yes	21	13	0	0	11	12	18	75	1.719197708	Yes	Yes	5
University of Minnesota Twi	Public	Midwest	51,147	No	13	10	0	0	4	4	9	40	0.7820595538	Yes	Yes	5
University of Missouri Colum	Public	Midwest	35,425	No	18	8	0	0	8	0	8	42	1.185603387	Yes	Yes	5
University of Oregon	Public	West	24,096	No	13	7	0	0	7	5	12	44	1.826029216	Yes	Yes	4
University of Pennsylvania	Private	Mid-Atlantic	24,806	No	9	7	0	0	1	1	14	32	1.290010481	Yes	Yes	5
University of Pittsburgh	Public	Mid-Atlantic	28,617	No	21	9	0	0	2	5	6	43	1.502603348	Yes	Yes	5
University of Rochester	Private	Northeast	11,060	Yes	2	7	0	0	0	6	9	24	2.169981917	Yes	Yes	5
University of Southern Califo	Private	West	42,453	Yes	20	14	0	0	8	4	8	54	1.271994912	Yes	Yes	4
University of Virginia	Public	Mid-Atlantic	23,732	Yes	44	5	0	0	1	1	3	54	2.275408731	Yes	Yes	5
University of Washington	Public	West	44,784	Yes	17	2	0	0	22	1	24	66	1.473740622	Yes	No	5
University of Wisconsin-Mad	Public	Midwest	42,598	Yes	22	12	0	0	6	10	25	75	1.76064604	Yes	Yes	5
Vanderbilt University	Private	Southeast	12,686	Yes	19	6	0	0	11	17	24	77	6.069683115	Yes	No	1
Washington University in St.	Private	Midwest	14,348	No	23	0	0	0	5	9	5	42	2.927237246	No	Yes	2
Yale University	Private	Northeast	12,336	Yes	13	5	0	0	8	10	17	53	4.296368353	Yes	No	5

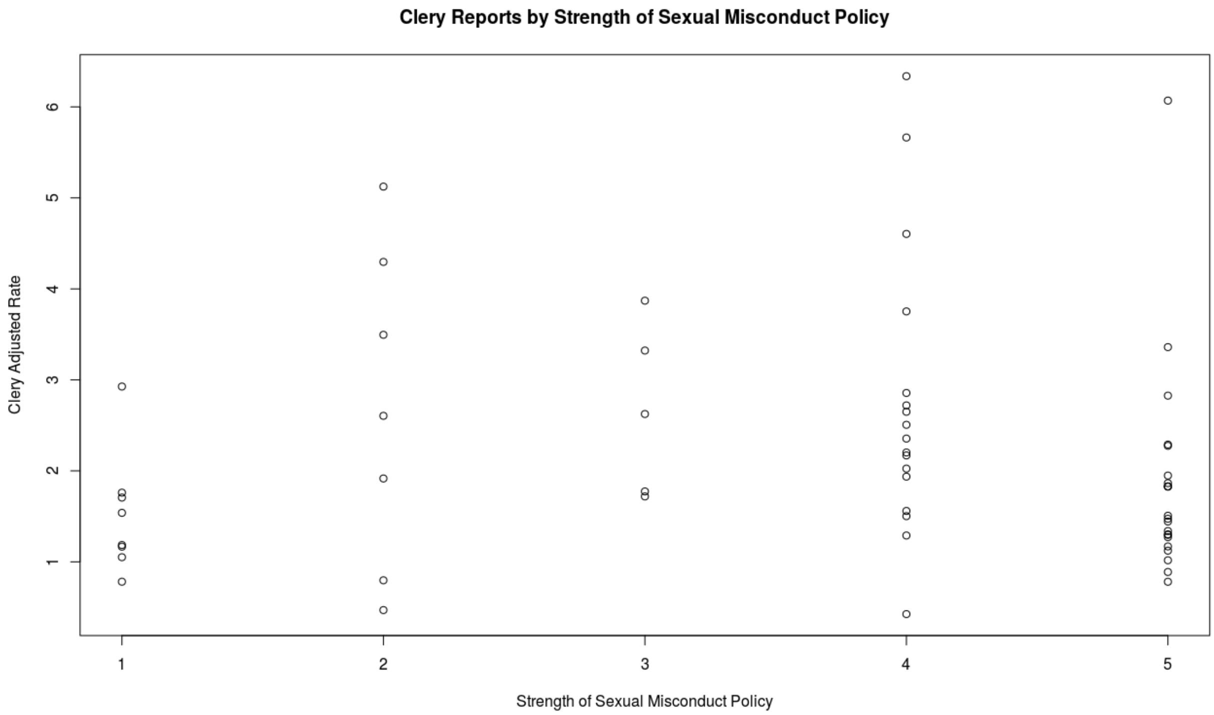
ual misconduct policy	Definition of consent	Women's center	Counseling center	Walk-in counseling	LGBTQ center	Sexual health center	Sexual health reso	Sex health outreach	Condoms	IU
5	Affirmative	Student-run	Through student health	No	Student-run	Student-run	4	Yes	Free	
4	Affirmative	Student-run	Yes	Urgent	Professional	Student-run	3	Yes	Free	
4	Affirmative	Professional	Yes	Urgent	Professional crossover	Student-run	5	Yes	Free	
4	Affirmative	No	Yes	Urgent	No	No	1	No	Free	
2	Voluntary	Student-run	Yes	Urgent	Professional	No	1	No	No	
4	Affirmative	Professional	Yes	n/a	Professional	No	4	Yes	Paid	
5	Affirmative	No	Yes	Yes	Professional	Student-run	5	Yes	Yes	
5	Affirmative	Professional	Yes	Yes	Professional	Student-run	5	Yes	Free	
4	Affirmative	Professional	Yes	n/a	Professional	No	5	Yes	Free	
3	Affirmative	Professional	Yes	Yes	Professional	No	1	Yes	Yes	
2	Welcome	Professional	Yes	Urgent	Professional	Student-run	4	Yes	Free	
5	Affirmative	No	Yes	No	Professional	No	5	Yes	Free	
2	Affirmative	Professional	Yes	Yes	Professional	No	1	No	Free	
2	Affirmative	Professional	Yes	Yes	Professional	No	5	Yes	Free	
4	Affirmative	Professional	Yes	Yes	Professional	No	4	Yes	Free	
4	Affirmative	No	Yes	Yes	Professional	No	5	Yes	Free	
5	Affirmative	Professional	Yes	Yes	Professional crossover	No	3	Yes	Free	
4	Affirmative	Professional	Yes	Yes	Professional	No	4	Yes	Free	
4	Affirmative	No	Through student health	n/a	Professional	No	1	Yes	Free	
3	Affirmative	Student-run	Yes	Urgent	Student-run	No	5	Yes	Free	
3	Affirmative	Student-run	Yes	Urgent	Professional	Student-run	5	Yes	No	
5	Affirmative	Professional	Through student health	No	Professional	Student-run	5	Yes	Free	
1	Affirmative	Professional	Yes	Yes	Professional	No	1	Yes	Free	
2	Affirmative	Professional	Yes	Urgent	Professional	No	1	No	Free	
5	Affirmative	Professional	Yes	Urgent	Professional	Professional	5	Yes	Free	
5	Affirmative	No	Yes	No	Professional crossover	Student-run	2	Yes	No	
5	Affirmative	Professional	Yes	Yes	Professional	No	3	No	Free	
1	Affirmative	Professional	Through student health	No	Professional	No	5	No	Free	
4	Affirmative	No	Through student health	Urgent	Professional	No	1	No	No	
3	Affirmative	Professional	Yes	Yes	Professional	No	1	No	Free	
4	Affirmative	Professional	Yes	No	Professional	No	1	Yes	Free	
4	Affirmative	Professional	Yes	Yes	Professional	No	4	Yes	Free	
4	Affirmative	Professional crossover	Yes	Yes	Professional crossover	No	5	Yes	Free	
4	Affirmative	No	Yes	Urgent	Professional	Professional	4	Yes	Free	
1	Affirmative	Student-run	Yes	No	Professional crossover	No	3	Yes	Free	
5	Affirmative	Professional crossover	Yes	Yes	Professional crossover	Professional	4	Yes	Free	
5	Affirmative	Professional	Through student health	No	Professional	No	5	Yes	Free	
5	Affirmative	No	Yes	Urgent	Professional	No	1	Yes	Free	
5	Affirmative	No	Yes	Yes	Professional	No	5	No	Free	
5	Affirmative	No	Through student health	Yes	No	No	5	Yes	Paid	
5	Affirmative	Professional crossover	Yes	No	Professional crossover	No	4	Yes	Free	
5	Affirmative	Professional	Through student health	Yes	Professional	No	5	Yes	Free	
1	Intelligent Permission	No	Yes	Yes	Professional	No	5	Yes	Free	
2	Affirmative	No	Yes	Urgent	Professional	Student-run	5	Yes	Free	
5	Affirmative	No	Yes	Yes	Professional	No	4	Yes	Free	
3	Affirmative	Professional	Yes	Yes	Professional	Professional	5	Yes	Free	
1	Affirmative	Professional	Yes	Yes	Professional	Professional	1	Yes	Free	
1	Affirmative	Professional	Yes	Urgent	Professional	Student-run	5	Yes	Free	
5	Explicit	Professional	Yes	n/a	Professional	Professional	5	Yes	Free	
4	Affirmative	Professional	Yes	Yes	Professional	No	1	No	Free	
4	Affirmative	No	Yes	No	No	No	1	Yes	Free	
4	Affirmative	No	Yes	n/a	No	No	1	No	Free	
5	Affirmative	No	Through student health	n/a	Professional	No	1	No	Free	
5	Affirmative	Professional	Yes	Urgent	Professional	No	3	Yes	Free	
5	Affirmative	Professional	Yes	Urgent	Student-run	No	5	Yes	Free	
1	Affirmative	Student-run	Through student health	Yes	Professional	Student-run	2	Yes	Free	
5	Effective	Professional	Yes	Yes	Professional	No	3	Yes	Paid	
1	None	No	Yes	Yes	No	No	3	Yes	Free	
2	Affirmative	Student-run	Yes	Yes	Professional	No	5	Yes	Free	

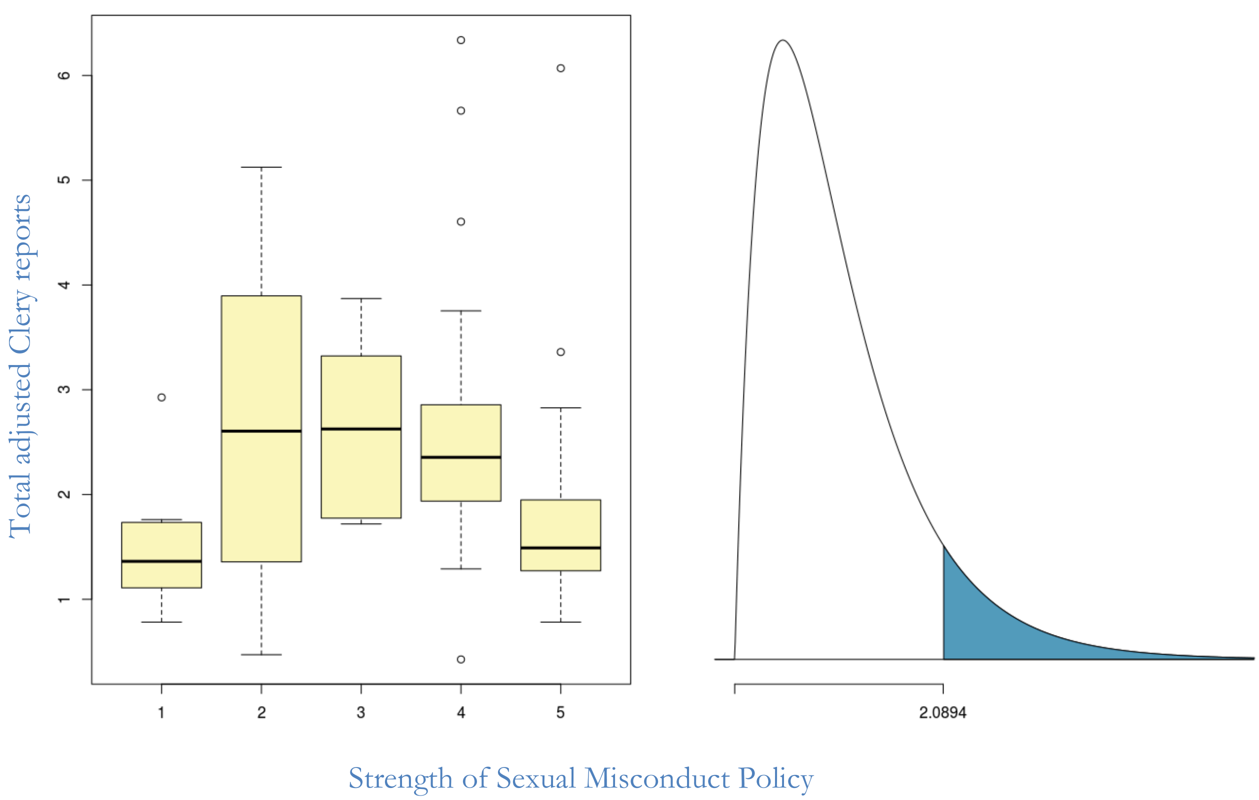
nter	Sexual health reso	Sex health outreach	Condoms	IUDs	Pill	Other	STI testing on campus	HIV testing on campus	Student health hours	Drop ins?	Mandatory health insurance
	4	Yes	Free	n/a	n/a	n/a	Paid	Paid	8.9	Yes	Yes
	3	Yes	Free	n/a	n/a	Yes	Paid	Paid	9	No	Yes
	5	Yes	Free	No	Yes	Yes	Paid	Free	10.5	Yes	Yes
	1	No	Free	No	No	No	Paid	Free	7.5	Yes	Yes
	1	No	No	No	Yes	Yes	Paid	Paid	10	Yes	Yes
	4	Yes	Paid	Yes	Yes	Yes	Paid	N/A	8	No	Yes
	5	Yes	Yes	Yes	Yes	Yes	Paid	Free	11	No	Yes
	5	Yes	Free	No	Yes	Yes	Paid	Free	8.5	Yes	Yes
	5	Yes	Free	Yes	Yes	Yes	Paid	Paid	9	Yes	Yes
	1	Yes	Yes	Yes	Yes	Yes	Free	Free	9	Yes	Yes
	4	Yes	Free	Yes	Yes	Yes	Free	Free	9.5	Yes	Yes
	5	Yes	Free	Yes	Yes	Yes	Paid	Paid	9.5	Yes	Yes
	1	No	Free	Yes	Yes	Yes	Paid	Paid	10	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Free	Free	8.5	Yes	Yes
	4	Yes	Free	Yes	Yes	Yes	Paid	Free	10	Yes	No
	5	Yes	Free	Yes	Yes	n/a	Paid	Free	11	Yes	Yes
	3	Yes	Free	No	Yes	Yes	Paid	Free	8.5	No	Yes
	4	Yes	Free	Yes	Yes	Yes	Paid	Paid	10	Yes	Yes
	1	Yes	Free	No	No	Yes	Paid	Paid	n/a	No	No
	5	Yes	Free	No	No	No	Paid	Paid	9	No	Yes
	5	Yes	No	No	Yes	No	Paid	Paid	7	No	Yes
	5	Yes	Free	No	Yes	Yes	Free	Free	12	No	Yes
	1	Yes	Free	No	Yes	Yes	Paid	Paid	8	Yes	Yes
	1	No	Free	No	No	No	Paid	Free	9	No	No
	5	Yes	Free	Yes	Yes	Yes	Paid	Free	9	No	Yes
	2	Yes	No	Yes	Yes	Yes	Free	Free	10	No	Yes
	3	No	Free	Yes	Yes	Yes	Paid	Free	9	No	No
	5	No	Free	n/a	n/a	n/a	No	Paid	8.5	Yes	No
	1	No	No	No	No	Yes	Paid	Paid	9	No	Yes
	1	No	Free	n/a	n/a	Yes	Paid	Paid	9	No	Yes
	1	Yes	Free	Yes	Yes	Yes	Paid	Paid	10	Yes	Yes
	4	Yes	Free	Yes	Yes	Yes	Paid	Free	10	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Paid	Paid	9	No	No
	4	Yes	Free	Yes	Yes	Yes	Free	Free	8.5	No	Yes
	3	Yes	Free	Yes	Yes	Yes	Paid	Paid	8	No	Yes
	4	Yes	Free	Yes	Yes	Yes	Paid	Free	9	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Paid	Free	9.5	No	Yes
	1	Yes	Free	n/a	n/a	n/a	Paid	Free	9	No	Yes
	5	No	Free	n/a	Yes	Yes	Paid	Free	9.5	Yes	Yes
	5	Yes	Paid	Yes	n/a	Yes	Paid	Paid	8	Yes	Yes
	4	Yes	Free	Yes	No	Yes	Paid	Paid	8.5	Yes	Yes
	5	Yes	Free	No	No	Yes	Free	Free	9	No	No
	5	Yes	Free	Yes	Yes	Yes	Paid	Free	9	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Free	Free	9	Yes	Yes
	4	Yes	Free	Yes	Yes	Yes	Free	Free	9	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Paid	Free	9	No	No
	1	Yes	Free	Yes	Yes	Yes	Paid	Free	8.75	No	Yes
	5	Yes	Free	n/a	n/a	Yes	Paid	Free	8	No	No
	5	Yes	Free	n/a	Yes	Yes	Paid	Free	8	No	No
	1	No	Free	No	Yes	Yes	Paid	Free	10	No	Yes
	1	Yes	Free	Yes	Yes	Yes	Paid	Paid	10.5	Yes	No
	1	No	Free	No	Yes	Yes	Paid	Paid	12	No	Yes
	1	No	Free	Yes	Yes	Yes	Paid	Paid	n/a	No	Yes
	3	Yes	Free	Yes	Yes	Yes	Paid	Paid	9	Yes	Yes
	5	Yes	Free	Yes	No	Yes	Paid	Paid	9	No	No
	2	Yes	Free	Yes	Yes	Yes	Free	Free	8.5	Yes	No
	3	Yes	Paid	No	Yes	Yes	Paid	Paid	8.5	No	Yes
	3	Yes	Free	Yes	Yes	Yes	Paid	Paid	10	No	Yes
	5	Yes	Free	Yes	Yes	Yes	Free	Free	8.5	Yes	Yes

Appendix C: Results of ANOVA hypothesis test: women's centers to total adjusted Clery reported rates of sexual violence

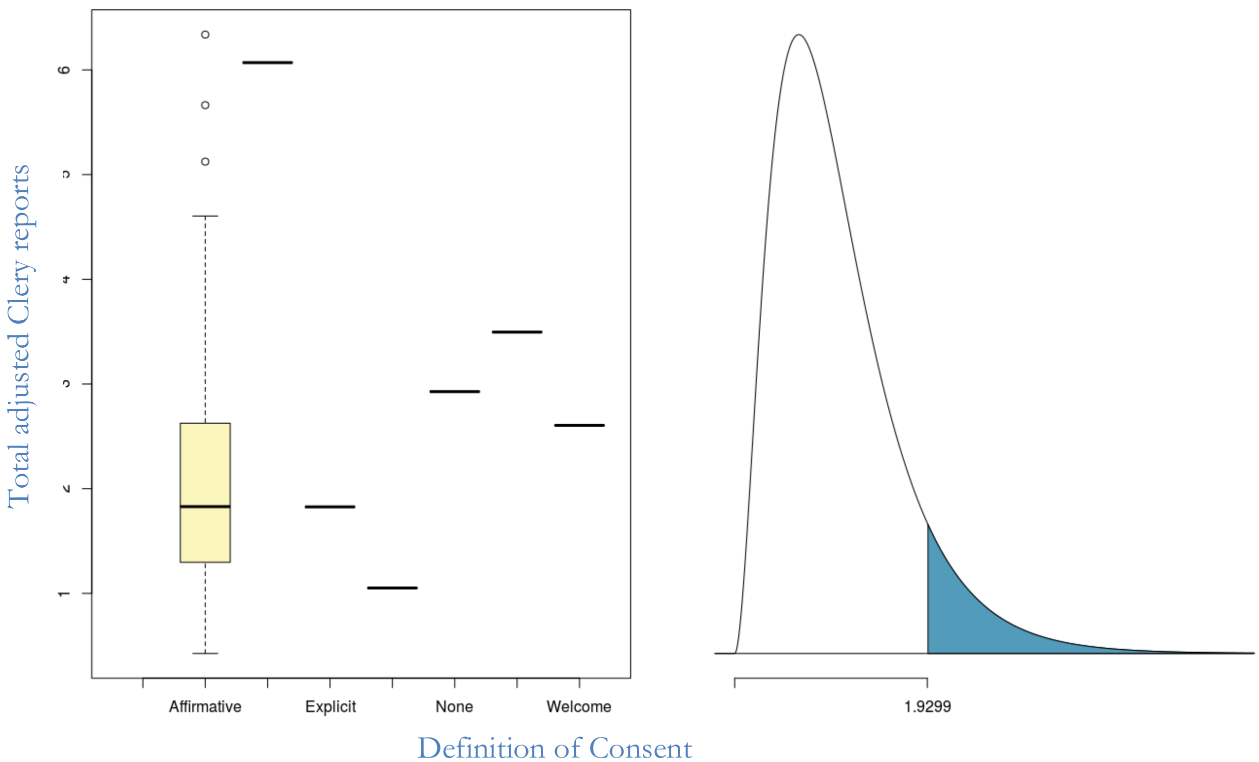


Appendix D: Landscape of sexual misconduct policy versus total adjusted Clery reported rates of sexual violence





Appendix E: Results of ANOVA hypothesis test: Definition of consent to total adjusted Clery reported rates of sexual violence



Appendix F: Multiple Linear Regression

```
Call:
lm(formula = Thesis.Dataset.Numerical$Clery.Adjusted..per.1000. ~
    Thesis.Dataset.Numerical$Mandatory.consent.sexual.assault.education.training +
        Thesis.Dataset.Numerical$Dedicated.Full.time.Title.IX.Coordinator +
        Thesis.Dataset.Numerical$Sexual.assault..reponse.and.prevention..resources..online. +
        Thesis.Dataset.Numerical$Sexual.misconduct.policy + Thesis.Dataset.Numerical$Definition.of.con
sent +
        Thesis.Dataset.Numerical$Women.s.center + Thesis.Dataset.Numerical$Counseling.center +
        Thesis.Dataset.Numerical$Walk.in.counseling + Thesis.Dataset.Numerical$LGBTQ.center +
        Thesis.Dataset.Numerical$Sexual.health.center.institutionally.organized.group +
        Thesis.Dataset.Numerical$Sexual.health.resources..online. +
        Thesis.Dataset.Numerical$Sex.health.outreach + Thesis.Dataset.Numerical$Condoms +
        Thesis.Dataset.Numerical$IUDs + Thesis.Dataset.Numerical$Pill +
        Thesis.Dataset.Numerical$Other + Thesis.Dataset.Numerical$STI.testing.on.campus +
        Thesis.Dataset.Numerical$HIV.testing.on.campus + Thesis.Dataset.Numerical$Student.health.hour
s..weekday.average. +
        Thesis.Dataset.Numerical$Drop.ins. + Thesis.Dataset.Numerical$Mandatory.health.insurance)

Residuals:
     Min       1Q   Median       3Q      Max
-1.05882 -0.43012 -0.02943  0.40996  1.33657
```

```
                                                                          Pr(>F)
Thesis.Dataset.Numerical$Mandatory.consent.sexual.assault.education.training       0.310473
Thesis.Dataset.Numerical$Dedicated.Full.time.Title.IX.Coordinator                  0.353520
Thesis.Dataset.Numerical$Sexual.assault..reponse.and.prevention..resources..online. 0.104996
Thesis.Dataset.Numerical$Sexual.misconduct.policy                                  0.418359
Thesis.Dataset.Numerical$Definition.of.consent                                     0.010330 *
Thesis.Dataset.Numerical$Women.s.center                                            0.381701
Thesis.Dataset.Numerical$Counseling.center                                         0.215343
Thesis.Dataset.Numerical$Walk.in.counseling                                        0.816072
Thesis.Dataset.Numerical$LGBTQ.center                                              0.171856
Thesis.Dataset.Numerical$Sexual.health.center.institutionally.organized.group      0.175271
Thesis.Dataset.Numerical$Sexual.health.resources..online.                          0.648054
Thesis.Dataset.Numerical$Sex.health.outreach                                       0.623710
Thesis.Dataset.Numerical$Condoms                                                   0.582113
Thesis.Dataset.Numerical$IUDs                                                      0.163094
Thesis.Dataset.Numerical$Pill                                                      0.631745
Thesis.Dataset.Numerical$Other                                                     0.402926
Thesis.Dataset.Numerical$STI.testing.on.campus                                     0.121204
Thesis.Dataset.Numerical$HIV.testing.on.campus                                     0.437745
Thesis.Dataset.Numerical$Student.health.hours..weekday.average.                    0.002159 **
Thesis.Dataset.Numerical$Drop.ins.                                                 0.295723
Thesis.Dataset.Numerical$Mandatory.health.insurance                                0.051200 .
Residuals
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```
                                                                                    F value
Thesis.Dataset.Numerical$Mandatory.consent.sexual.assault.education.training         1.0829
Thesis.Dataset.Numerical$Dedicated.Full.time.Title.IX.Coordinator                    0.9022
Thesis.Dataset.Numerical$Sexual.assault..reponse.and.prevention..resources..online.  2.8835
Thesis.Dataset.Numerical$Sexual.misconduct.policy                                    0.6828
Thesis.Dataset.Numerical$Definition.of.consent                                       8.0129
Thesis.Dataset.Numerical$Women.s.center                                              0.8001
Thesis.Dataset.Numerical$Counseling.center                                           1.6373
Thesis.Dataset.Numerical$Walk.in.counseling                                          0.3126
Thesis.Dataset.Numerical$LGBTQ.center                                                2.0081
Thesis.Dataset.Numerical$Sexual.health.center.institutionally.organized.group        1.9749
Thesis.Dataset.Numerical$Sexual.health.resources..online.                            0.2148
Thesis.Dataset.Numerical$Sex.health.outreach                                         0.2483
Thesis.Dataset.Numerical$Condoms                                                     0.3129
Thesis.Dataset.Numerical$IUDs                                                        1.9883
Thesis.Dataset.Numerical$Pill                                                        0.4700
Thesis.Dataset.Numerical$Other                                                       0.9516
Thesis.Dataset.Numerical$STI.testing.on.campus                                       2.6198
Thesis.Dataset.Numerical$HIV.testing.on.campus                                       0.8612
Thesis.Dataset.Numerical$Student.health.hours..weekday.average.                      4.2551
Thesis.Dataset.Numerical$Drop.ins.                                                   1.1529
Thesis.Dataset.Numerical$Mandatory.health.insurance                                  4.3017
Residuals
```

```
                                                                               Mean Sq
Thesis.Dataset.Numerical$Mandatory.consent.sexual.assault.education.training    1.0299
Thesis.Dataset.Numerical$Dedicated.Full.time.Title.IX.Coordinator               0.8581
Thesis.Dataset.Numerical$Sexual.assault..reponse.and.prevention..resources..online.  2.7425
Thesis.Dataset.Numerical$Sexual.misconduct.policy                               0.6495
Thesis.Dataset.Numerical$Definition.of.consent                                  7.6210
Thesis.Dataset.Numerical$Women.s.center                                         0.7610
Thesis.Dataset.Numerical$Counseling.center                                      1.5572
Thesis.Dataset.Numerical$Walk.in.counseling                                     0.2973
Thesis.Dataset.Numerical$LGBTQ.center                                           1.9099
Thesis.Dataset.Numerical$Sexual.health.center.institutionally.organized.group   1.8783
Thesis.Dataset.Numerical$Sexual.health.resources..online.                       0.2043
Thesis.Dataset.Numerical$Sex.health.outreach                                    0.2362
Thesis.Dataset.Numerical$Condoms                                                0.2976
Thesis.Dataset.Numerical$IUDs                                                   1.8910
Thesis.Dataset.Numerical$Pill                                                   0.4470
Thesis.Dataset.Numerical$Other                                                  0.9051
Thesis.Dataset.Numerical$STI.testing.on.campus                                  2.4917
Thesis.Dataset.Numerical$HIV.testing.on.campus                                  0.8191
Thesis.Dataset.Numerical$Student.health.hours..weekday.average.                 4.0470
Thesis.Dataset.Numerical$Drop.ins.                                              1.0965
Thesis.Dataset.Numerical$Mandatory.health.insurance                             4.0914
Residuals                                                                       0.9511
```

```
Response: Thesis.Dataset.Numerical$Clery.Adjusted..per.1000.
                                                                               Df Sum Sq
Thesis.Dataset.Numerical$Mandatory.consent.sexual.assault.education.training    1  1.030
Thesis.Dataset.Numerical$Dedicated.Full.time.Title.IX.Coordinator               1  0.858
Thesis.Dataset.Numerical$Sexual.assault..reponse.and.prevention..resources..online.  1  2.743
Thesis.Dataset.Numerical$Sexual.misconduct.policy                               1  0.649
Thesis.Dataset.Numerical$Definition.of.consent                                  1  7.621
Thesis.Dataset.Numerical$Women.s.center                                         1  0.761
Thesis.Dataset.Numerical$Counseling.center                                      1  1.557
Thesis.Dataset.Numerical$Walk.in.counseling                                     3  0.892
Thesis.Dataset.Numerical$LGBTQ.center                                           1  1.910
Thesis.Dataset.Numerical$Sexual.health.center.institutionally.organized.group   1  1.878
Thesis.Dataset.Numerical$Sexual.health.resources..online.                       1  0.204
Thesis.Dataset.Numerical$Sex.health.outreach                                    1  0.236
Thesis.Dataset.Numerical$Condoms                                                1  0.298
Thesis.Dataset.Numerical$IUDs                                                   2  3.782
Thesis.Dataset.Numerical$Pill                                                   2  0.894
Thesis.Dataset.Numerical$Other                                                  2  1.810
Thesis.Dataset.Numerical$STI.testing.on.campus                                  1  2.492
Thesis.Dataset.Numerical$HIV.testing.on.campus                                  2  1.638
Thesis.Dataset.Numerical$Student.health.hours..weekday.average.                12 48.564
Thesis.Dataset.Numerical$Drop.ins.                                              1  1.097
Thesis.Dataset.Numerical$Mandatory.health.insurance                             1  4.091
Residuals                                                                      20 19.022
```

Appendix G: Geographic Distribution of AAU Schools