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SCRIPPS

THE WOMEN'S COLLEGE
• CLAREMONT •

A Gender and Race Theoretical and
Probabilistic Analysis of the Recent
Title IX Policy Changes

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Submitted to Scripps College in Partial Fulfillment
of the Degree of Bachelor of Arts

March 6, 2021

Department of Mathematics and Department of Feminist, Gender, and Sexuality Studies

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Abstract

On May 6th, 2020, after extensive public comment and review, the Department of Education published the final rule for the new Title IX regulations, which took effect in schools on August 14th. Title IX is the nearly fifty year old piece of the Education Amendments that prohibits sexual discrimination in federally funded schools. Several of these changes, such as the inclusion of live hearings and cross examination of witnesses, have been widely criticized by victims' rights advocates for potentially retraumatizing victims of sexual assault and discouraging students from pursuing a Title IX claim. While the impact of the new regulations will not be known for certain any time soon, some of the consequences can be predicted using existing data and probability theory. This thesis discusses some of the common policy debates within Title IX as well as the racial dynamics of Title IX in order to frame an evaluation of these recent changes. We analyze some of the important issues in Title IX through both theoretical discussion as well as data based probability theory. We find that Title IX still centers the needs of accused students above victims of sexual violence, as demonstrated in some of the recent changes.

The later parts of this thesis include an introduction to Bayesian networks, as well as an analysis of a Title IX data set through a Bayesian network we created. Finally, we hypothesize on what data is needed to properly analyze the recent changes to Title IX, and what the future of Title IX may look like under President Biden.

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Title IX Definitions

- Respondent: The person accused of a Title IX violation
- Complainant: The person who brings forward a Title IX complaint
- Parties: The two parties are the complainant and the respondent
- Found responsible: the Title IX specific terminology for when a Title IX investigation determines that the respondent did commit a violation
- Found not responsible: The Title IX specific terminology for when a Title IX investigation determines that there is not sufficient evidence to show that the respondent did commit a violation
- Sexual harassment, violence, assault, and rape: Title IX has been interpreted to include sexual harassment and sexual violence as a form of sex discrimination. Technically, the term 'sexual harassment' can be used in Title IX to include sexual violence or assault as well. However, this thesis generally explicitly refers to sexual violence or sexual assault, as using the blanket term sexual harassment risks undermining the severity of sexual violence. Sexual harassment and sexual misconduct are often used to refer to general violations of Title IX. Sexual violence

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and sexual assault are used synonymously in this paper, and rape is only used as the specific subset of forms of sexual assault, not as a general term for sexual violence.

- Department of Education (DOE): The Department of Education is the branch of the federal government that is in charge of Title IX. Under Trump, the DOE was headed by Betsy DeVos.
- The Office of Civil Rights (OCR) : The Office of Civil Rights is a part of the DOE. The OCR receives Title IX complaints from students who feel their school inappropriately handled a Title IX issue and investigates the schools. These complaints are referred to as OCR complaints, which are notably different from a general Title IX complaint. A Title IX complaint goes to a school, and is about sexual misconduct. An OCR complaint goes to the OCR, and is a complaint about how the school addressed or did not address a reported Title IX complaint.
- Clery Act : A federal law that requires schools to publish campus crime statistics in Annual Security Reports, warn the community when there are public safety concerns on campus, and disclose information about sexual violence rights and procedures on campus.
- Annual Security Report (ASR) : Reports of campus crime statistics from each school every year. ASR's are required by the Clery Act, and while they do provide some information, the data schools must report in ASRs is just a fraction of the incidents reported to Title IX offices.
- Preponderance of the Evidence (PotE) : Preponderance of the Evidence

is an evidence standard defined as being more likely than not, or fifty percent plus a feather. Preponderance of the Evidence is typically used in civil court, and is the standard of evidence that the Obama DOE required schools use in Title IX proceedings.

- Clear and Convincing (CaC) : Clear and Convincing is a standard of proof in between Preponderance of the Evidence and Beyond Reasonable Doubt. It is used at times in both civil and criminal courts in the US, and in this paper is given the numerical value of 70 percent, i.e. a tribunal would need to be at least 70 percent sure a complainant is responsible to find them responsible.
- Beyond Reasonable Doubt (BRD) : Beyond Reasonable Doubt is the highest standard of proof used, is typically used in criminal proceedings. It is given a numerical confidence value of 90 percent, so a tribunal would need to be at least 90 percent confident a complainant is responsible to find them responsible under a Beyond Reasonable Doubt standard.
- IHE: Institution of Higher Education

Chapter 1

Introduction to Title IX and Common Discussions

1.1 Introduction

This thesis is an analysis of Title IX through a dual approach from the departments of Mathematics and Feminist, Gender, and Sexuality Studies. Throughout this paper we consider parts of the current Title IX policy through critical race and gender theory, as well as through probability and statistics based analyses of relevant data.¹ The goal of this project was to explore the literature surrounding Title IX, evaluate the recent changes to Title IX policy, and study a new branch of mathematical theory to be used in our data analysis. The first three chapters discuss Title IX from a gender and race theory perspective, and the following two chapters cover the

¹This thesis uses the plural first-person as that is the accepted standard for mathematics papers.

majority of the mathematical material and data analysis. Chapter 1 covers the history of Title IX, as well as some common debates within the literature. Chapter 2 focuses specifically on the issue of race within current Title IX policies. Chapter 3 introduces the recent changes to Title IX under the Trump administration, and gives an in depth analysis of several of the new policies. Chapter 4 is a brief introduction to Bayesian networks, the mathematical material we studied as part of this thesis. In Chapter 5 we create a Bayesian network using a Title IX data set and analyze the findings. Finally, Chapter 6 summarizes the chapters and goes over general conclusions and further research.

1.2 History and Purpose of Title IX

Title IX, a federal civil rights law passed as part of the Education Amendments of 1972, states that “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.”⁽³⁾ Title IX was originally used primarily to address discrimination within academics and athletics, both of which are still common uses today. Over time, and through a series of court cases, Title IX was interpreted to extend to sexual harassment and sexual violence,² which are the focus of this thesis. Understanding Title IX’s origin as a civil rights law around gender equality is a key part of considering what the ultimate goals and responsibilities of Title IX ought to be, which are important to

²Within Title IX, the term ‘sexual harassment’ is used to refer to all forms of sexual misconduct, including harassment as we generally think of it, but also sexual violence.

keep in mind as we consider the current Title IX policy.

The goal of Title IX is to ensure equal access to education regardless of gender, and sexual violence has been recognized as a considerable barrier to accessing education. For many schools, Title IX acts as the section of their code of conduct policy that addresses sexual violence and gender inequality, though it of course has more specific requirements and processes which are enforced by the federal government. Unfortunately, as Title IX has been expanded to address sexual violence, the perception and conversation around Title IX has shifted to treat Title IX as a disciplinary system similar to the criminal court system. This interpretation of Title IX is harmful in a number of ways, and to the majority of students. Fixating on Title IX as a punitive system both creates a high risk environment for students who are accused of violating Title IX policy, and takes the focus away from students who have been harmed by sexual violence. Title IX provides an opportunity to address gendered violence through a less punitive and more victim-centered approach than the criminal court can provide. Recognizing that Title IX was created to prevent gender discrimination in schools opens up the conversation around what effective Title IX policy should look like to include a discussion of what steps schools should be taking to prevent violence before it occurs, how to support survivors of sexual violence so they do not continue to lose access to their education, and generally how to foster environments that lead to cultural shifts in gender dynamics and violence. This paper encourages discussion of how Title IX policies could be changed to become a regulation that cultivates a community-based approach to preventing gender violence, rather than an oppositional framework of complainants

versus respondents, students versus school liability, and schools versus the Department of Education.

However, as it currently exists, Title IX largely functions as a disciplinary system, one that is increasingly modeled after the criminal justice system. Later in this section will be a larger discussion of the problems of Title IX mirroring criminal procedures for both accused and complaining students,³ but for now we will just mention the issue that punitive systems naturally must focus around the person at risk of being punished much more than the person who has been harmed already.⁴ Partly due to this, a great deal of the debate around Title IX centers around protecting the rights of accused students from a number of potential threats, such as: arbitrary disciplinary processes, false accusations, adjudicator bias, etc. This prioritization of the rights of accused students often is to the detriment of the complaining party. Throughout the following sections we aim to push back against this generally overt, though at times subtle, prioritization of the needs of accused students demonstrated in the general discussion and literature around Title IX, as well as in the recent Trump DOE changes. To do this we attempt to view

³Complaining party, or the complainant, is the term used for the student bringing forward the Title IX incident, or complaint.

⁴Punitive systems address harm through disciplining the perpetrator of the injustice, rather than centering the needs of the person who has experienced harm. While this in and of itself is often misguided, it also creates a situation where it is crucial to be certain of the truthfulness of the accusation, as we risk punishing an innocent person otherwise. Beyond just the truthfulness of the accusation, we also have to be confident in our understanding of the intentions and knowledge of the perpetrator, which again takes the focus away from the victim. In non punitive resolutions, such as restorative justice, we do not run the risk of punishing someone who either did not commit the violation they are accused of, or had a different understanding of the situation. Especially in cases of sexual misconduct, it is often close to impossible to truly know the intentions of the accused person. Non punitive responses enable us to center the lived experiences and needs of the victim in an attempt to move forwards, while punitive resolutions necessitate prioritizing the accused.

sexual violence on campuses in a more inclusive manner and discuss the societal and cultural norms surrounding Title IX, as well as to keep in mind the ultimate goal of Title IX of preventing gender discrimination.

The following subsections address a number of common issues that come up in the literature surrounding Title IX in recent years, as well as more general debates that are at play. Many of these issues are demonstrated in the recent DOE changes, which will be discussed in a later chapter.

1.3 Due Process Arguments

In 2011 and 2014 the Obama administration Department of Education released two Dear Colleague Letters (DCL) clarifying and expanding on the federal government's expectations of schools' duties under Title IX.^(5; 4) The DCLs were a less formal process for updating the responsibilities of schools, though they still carried a great deal of weight as the Department of Education has the right to rescind federal funding from schools they find to be in violation of Title IX. However, because DCLs do not include a formal comment and response period, they are both easier for an administration to pass but also can be easily overturned by the following administration, as was the case when Trump became president. In this way the DCLs were similar to an executive order: unilaterally instituted but promptly rescinded just a few years later. Supporters of progressive Title IX policy were pleased to see changes occurring under Obama and opponents argued that the Letters were an overreach of power, too demanding of schools, and violated the due process rights of the accused students.⁽⁵³⁾ The argument that the

DCLs were beyond the proper reach of the DOE is a weak one; the DOE was fully within its rights to put forward the Letter, though the issue with not going through a less easily reversible process was certainly demonstrated quickly.

It is the argument about due process rights that is of most interest in this thesis, as that is the justification behind much of the debate against victim centered changes to Title IX. As Title IX changed to address sexual violence more and more, the claim that the rights of accused students, primarily men, were being threatened was raised increasingly. The arguments about the ways in which these rights have been violated vary. A number of frequent issues include: the risk of schools being too susceptible to false accusations,(53; 31; 30) the potential inability of schools to conduct impartial investigations,(53) and a perception of anti-male bias in Title IX.(53)

While we will address the numerous issues with these claims directly in this chapter, first let us consider an ongoing problem with most of the claims of due process violations. The risk of false accusations, unfair trials, biased jurors, and other possible failures of judicial processes are in no way unique to defendants accused of sexual violence, and yet there is a clear history of demands for special protections for this particular category of accused parties. In her piece “Campus Sexual Assault Adjudication and Resistance to Reform,” Michelle Anderson brings forward the long history in the US of rape laws that provide unique protections for those accused of sexual violence. These protections included a requirement of corroboration of an assault by a separate party, a warning given to jurors to be skeptical of the testimony of complainants, the Prompt Complaint law which dismissed

cases where the victim had not immediately gone to someone to tell them of their assault, as well as a general social belief that women lie about rape. Though these rape laws have changed, (concerningly recently for some) their legacy remains. Criminal courtrooms are still generally unsafe environments for survivors of sexual violence, many people still believe women tend to lie about rape, and people accused of sexual violence still believe they are entitled to special protections. To show the extremely problematic nature of these arguments, consider the fact that students can also risk serious consequences, including expulsion, for other violations such as academic dishonesty or non sexual violence. Though someone could falsely accuse another student for one of these violations, no one brings up the need to protect students accused of regular code of conduct violations from angry ex girlfriends or biased adjudicators. The immediate lack of trust in the complainant is only a regular occurrence in reports of sexual misconduct. The point is that due process rights do not entitle some accused people more rights than others, especially when the potential consequences are of similar severity and there is not clear evidence that they are facing an unfair system to begin with. Beyond this general critique, we now look at some of the specific claims made, starting with the most common issue of false accusations.

1.4 False Accusations: Has Title IX Swung Too Far In Favor of Complainants?

Ultimately, the recent changes to Title IX are a reflection of the beliefs of the Trump DOE that the former policies of Title IX were overly dedicated to protecting complainants, to the detriment of respondents. The claims that due process was violated and Title IX needed to change to better protect accused students speak to a concern - held by people outside the DOE as well - that Title IX is too susceptible to false accusations. For example, one of the recent DOE changes to Title IX allows for cross examination of witnesses by a representative of each party, is a clear example of a move towards protecting the rights of the accused at the risk of further traumatizing victims and preventing students from pursuing Title IX investigations. The idea is that having cross examinations, even though they run a high risk of being traumatic for the complainant, is necessary to better protect defendants against false claims. The fact that this type of change was implemented demonstrates a concerning belief that accused students are likely to have their rights violated by Title IX processes brought against them through false allegations. While the idea of being punished for an offense that you did not commit is undoubtedly an alarming one, so is the thought of being assaulted and then being aggressively questioned by your attacker's attorney and then seeing them face no consequences for harming you.

Additionally, we should note that the consequence of a guilty student being wrongfully found innocent is not only a lack of justice and safety for the reporting student, but also contributes to a campus culture that alerts both

potential future perpetrators as well as potential future reporting students, that students are not likely to be held accountable for acts of sexual violence. Notably, college rapists are likely to be serial perpetrators, making a wrongful Title IX finding of innocence for a guilty student even more dangerous to other students.(10; 11) This is all to say that there are serious consequences for both a wrongful finding of responsibility but also for a wrongful finding of innocence. Accordingly, moves to prioritize preventing wrongful findings of innocence because of the perceived risk of false accusations ought to only come after a thorough examination of how realistic that threat is. Here we attempt to estimate ⁵ the likelihood of different experiences with false accusations and put them into context.

Typically, when we discuss this balancing of addressing sexual violence versus addressing false accusations, there are a few common statistics that come up. First, about 20 percent of college women are sexually assaulted while in school.(10) Of course, Title IX addresses more than just sexual assault, so the number of women who are sexually assaulted or harassed in college is much higher. We also talk about the proportion of false accusations of assault, which is estimated to be 5 percent (or between 2 to 8 percent based on different studies.)(42; 41)⁶ However, comparing these numbers paints a

⁵The following analysis is, of course, an estimate. The statistics used come from reliable sources, but are still sample data. Additionally, we point out that the studies on false accusations study reports of sexual violence in general. This research has not been conducted specifically within Title IX reporting, so if the likelihood of a false accusation is substantially higher or lower in the case of Title IX it is not currently known. Nevertheless, we find the imperfect nature of the data to be excusable, as the dramatic nature of the results demonstrates that even if the data is a bit off, the conclusions still follow.

⁶Students who make a false accusation in a Title IX investigation do not necessarily face consequences. If they have lied to a police officer or in court, they may face legal charges of a false report or perjury, but dishonesty only within the Title IX process naturally does not carry legal weight. Schools may have their own code of conduct policy in place for this, but

flawed picture. The 20 percent statistic claims that if you are a woman in college, you have a 20 percent chance of being sexually assaulted at some point in your undergraduate career, which is devastatingly high. The 5 percent statistic describes a very different situation; it is the likelihood that someone who has been accused of sexual assault has been wrongly accused. More importantly, it is not the probability that a college student, generally a man, will be falsely accused of sexual violence. In order to actually consider the question of whether Title IX ought to be prioritizing taking steps to protect complainants versus respondents, we need to compare the likelihood of being assaulted to being wrongly found responsible of sexual violence under Title IX. Naturally, there is more to the issue than just that, as the actual impact of being assaulted and found responsible under Title IX are quite different, but for now let us just address the question of whether false accusations are a reasonable concern under Title IX.

The following data, unless otherwise stated, all comes from Tara Richards' research on Title IX in an unnamed state through a state commission, as this is one of the most extensive data sets on Title IX, and the only data set we have found that has enough variables to allow for the following analysis. According to the Richards data, in State X in 2015 there were 1054 complaints of sexual misconduct reported to the Title IX offices across the 42 public 4 year Institutions of Higher Education (IHE), community colleges, and independent IHEs. Most complaints do not turn into a Title IX investigation for different reasons, primarily when a student is assaulted by someone who

it would be hard to prove. The burden of proof would switch from proving that an assault occurred, to proving that it did not and the complaining student lied.

is not a member of their school, or situations where students report to Title IX so they can access accommodations, but do not want to proceed with a formal investigation. Of the 1054 complaints, there were 258 formal cases. We will only concern ourselves with these cases, as those are the only cases where a student was formally accused and risked any disciplinary action.

Across the schools, there were a total of 357,591 students, 53.31 percent of whom were female. Using this data, there were approximately 159,807 male students. For this analysis, we assume that only men are accused of or are perpetrators of sexual violence. This is obviously not true, but the typical argument about false accusations is a concern that men are likely to be falsely accused by women. Given this, if we can show that even in the case where all of the accusations made were against men, men still face a low rate of being wrongly accused, then we will have clearly shown that in reality, where some of the accusations are also against women and non-binary students, men must have an even lower rate of being wrongly accused than the number we come up with. Based on this, we find that a male student in State X has a chance of $258/159,807 = .00161445$, or 0.16 percent likelihood of being formally investigated for sexual misconduct under Title IX. Notice that this is the likelihood of a formal accusation generally, so it includes both wrongful and legitimate accusations. Now we take into account the rate of false accusations; if 5 percent of these 258 accusations are statistically expected to be false, then $258 * .05 = 12.9$, so we expect to see 12.9 cases of someone being wrongly formally accused under Title IX. This is 12.9 out of the 159,807 men, so $12.9/159807 = .00008072$, or a 0.008 percent chance of being falsely accused under Title IX. This number in itself is both relieving

and horrifying. Of course it is a good thing that men are highly unlikely to be wrongfully accused of assault, no one wants to live in a society where they have a legitimate reason to worry about being wrongly accused of any crime. However, understanding that we live in a society where men face less than one in 10,000 chance of being wrongly accused under Title IX while one in five college women will be assaulted, and yet there are many people, our recent federal government included, who are arguing that Title IX does too much to protect victims, is abominable.

We also need to consider that this number is simply the likelihood of being wrongly accused, not actually being found responsible or facing any consequences. Using the Richards data we can calculate these probabilities as well. The Richards data shows a rate of a finding of responsibility of 46.12 percent across all 258 cases. Presumably, if a student is guilty they will be more likely to be found responsible than the overall finding of responsibility rate as the evidence is more likely to be against them, and if a student is innocent they will be somewhat less likely to be found responsible. So we can assume that 46.12 percent is the maximum likelihood of an innocent student being found responsible, with the true likelihood being lower than that. So of the predicted 12.9 cases where someone was wrongly accused, $12.9 * .4612 = 5.94948$ students will be wrongly found responsible. Out of the 159,807 males, this is a $5.94948/159807 = .00003723$, or 0.0037 percent chance of being wrongly found responsible. Depending on the case, a finding of responsibility can lead to varying degrees of disciplinary action. Because people like to claim that false accusations can ruin lives, it seems that we should only consider cases where there was a serious consequence,

such as suspension or expulsion. The likelihood of an expulsion was 18.49 percent, and the rate of suspension was 28.57 percent, so the combined likelihood is a 47.06 percent likelihood of a serious consequence out of all the students who were found responsible. Of the 5.94948 students wrongfully found responsible, we expect $5.94948 * .4706 = 2.79982529$ cases of students wrongfully facing a serious consequence. Out of the male students, there is a probability of $2.79982529/159807 = .00001752$, or 0.0018 percent chance of a male student being wrongly accused, found responsible, and then facing serious consequences through Title IX.

To contextualize this number, which is so small it is hard to make sense of, we can compare it to the predicted violence against women on these campuses. We know that of 159,807 college men, we predict less than three of them to be wrongly accused and face serious consequences. Put in terms of wrongful consequences per 100,000 men, $0.00001752 * 100000 = 1.752$ men will be wrongfully punished with suspension or expulsion through Title IX. Of the approximately 197,783 women on these campuses, we can expect that 20 percent will be sexually assaulted. So $197783 * .2 = 39,556.6$ women will likely be assaulted. How can we argue that the system unfairly protects complainants, when for every 100,000 male or female students we expect to see 1.7 men wrongfully punished and 20,000 women sexually assaulted, very few of whom will see their attacker face any consequences. Given this understanding of both false accusations, but also the low rate of findings of responsibility generally even though the statistics lead us to believe most claims are legitimate, claims of widespread anti male bias in Title IX seem far fetched. In fact, might it be that we are so used to seeing men prioritized

in situations of sexual violence that a system that favors men slightly less than institutions such as the criminal justice system has been mistaken for being biased against men?

In addition to comparing the likelihood of a college male being wrongly accused to the probability that a woman in college will be assaulted, it's important to talk about men who are victims of sexual violence. 6.8 percent of men in undergraduate programs are sexually assaulted, making it much more likely that a male student will be assaulted than that they will be wrongly accused of assault.⁽¹¹⁾ In fact, according to the above calculations, a male student is 842 times more likely to be sexually assaulted than wrongly accused under Title IX, and 3,881 times more likely to be sexually assaulted than to be wrongly accused and face serious consequences under Title IX.

We owe survivors of sexual violence better odds than these. Claiming that the risk of false accusations and convictions is so high as to justify legal changes that work against victims of sexual violence, while the probabilities of each event remain as they are, is offensively misguided and suggests a deep lack of trust in the stories of survivors.

1.5 Why Criminal Court Is Not A Good Alternative for Victims of Sexual Violence

While Title IX is surely not a perfect system, it is still an important tool to keep available, especially while going to the police and through the criminal justice system remain unacceptable options for many survivors of sexual violence. We will focus on three main reasons why Title IX is a necessary

Why Criminal Court Is Not A Good Alternative for Victims of Sexual Violence

alternative: 1) Title IX addresses forms of sexual harassment that are not considered severe enough to be addressed by criminal court, 2) involving the police is dangerous to many people, in particular people of color and queer people who face sexual violence at higher rates than others, and we should not be depending on the police or the Prison Industrial Complex as a solution to sexual harm, and 3) sexual violence is consistently mishandled by the police and courts, and reporting can easily cause more trauma rather than reaching a resolution.

The first issue we raise, that there are forms of sexual misconduct prohibited by Title IX but not considered severe enough to be addressed in criminal court, is straightforward and hard to dispute. Repeated inappropriate comments made by a classmate could be addressed by Title IX, but are not enough to get anyone arrested. Other sexual misconduct that would be dismissed by the police but is still harmful needs to be addressed, and Title IX is one of the few existing avenues for dealing with it. In this way Title IX is comparable to laws preventing sexual discrimination and harassment in employment: it acknowledges that misconduct can prevent people from doing their job or going to school, and aims to address this injustice.

The second reason, the dangerous and problematic nature of the police and PIC's responses towards people of color and queer people,⁷ is a deep and complicated issue.^(33; 13) The violence that has been demonstrated by the police towards black people in the US makes calling the police completely

⁷According to Know Your IX, "Gay and bisexual men are over ten times more likely to experience sexual assault than heterosexual men. (2005) In addition, 46% of bisexual women have been sexually assaulted as compared to 13% of lesbian women and 17% of heterosexual women. (2013)"(10)

untenable for many people. In particular, women of color and queer people risk physical and sexual violence from the police. Additionally, victims of sexual violence who do not want to contribute to mass incarceration are left without many options. Title IX, though a disciplinary system, does not involve imprisonment or armed police, making it a less carceral option.

The last point we bring up is the repeated mishandling of sexual violence cases and victim blaming demonstrated by the police and courts. As mentioned above, Michelle Anderson delves into the problematic history of rape laws and shows how not enough has changed. For example, many states still have a force requirement for a rape charge. We know that in many rape cases explicit physical force is not used, but the sexual act is still clearly unwanted. Force requirements ignore the fact that in most cases the victim and perpetrator know each other or are even dating, as well as the point that the threat of physical violence is often just as restrictive.⁽¹⁶⁾ Survivors should not have to prove that they physically fought their attacker to have their experience legally considered rape. Anderson also references research done on police, who are the first step in seeking justice through the criminal justice system. She writes,

For example, over the past couple of decades in cities across the country, police have refused to take complaints, recoded rape complaints as noncrimes, and labeled legitimate complaints as unfounded. From Philadelphia—where police demoted one-third of reported sex crimes to non-crimes that they did not investigate—to Cleveland, Baltimore, New York, St. Louis, and

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Milwaukee, law enforcement officers disbelieved victims, blamed them for their assaults, and refused to act on complaints. The U.S. Department of Justice's Civil Rights Division has found discriminatory law enforcement responses to sexual violence in places as diverse as New Orleans, Louisiana; Missoula, Montana; and Maricopa County, Arizona. Even a completed rape kit does not ensure that police will take a report seriously. Law enforcement have failed to process hundreds of thousands of medical forensic sexual assault examination kits, left untested in police storage rooms, crime labs, and hospitals across the country.

In 2014, an inspector general found that a group of New Orleans detectives buried more than a thousand rape cases in three years, ignored or misrepresented DNA findings, and covered up their actions by backdating reports. After more than ten thousand untested kits were discovered in Detroit, a Justice Department study identified victim-blaming attitudes as the reason the kits were not tested, noting, "Rape survivors were often assumed to be prostitutes and therefore what happened to them was considered their fault."

Anderson also notes this seemingly rational concern of not being helped by reporting to the criminal justice system as one of the reasons why 95 percent of the survivors of campus sexual violence will not report to the police.⁽¹⁶⁾ Know Your IX, an organization that informs students about their

Title IX rights, brings up other concerning issues about the police and sexual violence, claiming that “A plurality of law enforcement officers believe rape myths, which refer to the stereotypical and empirically incorrect beliefs that an individual holds concerning rape, rapists, and the victims of rape.”(10) Clearly there is ample evidence to doubt the viability of the criminal justice system as a means to seek protection or justice for many people, making Title IX an important alternative. Additionally, as was brought up earlier in this chapter, Title IX comes with an entirely different origin and purpose than the criminal justice system. Title IX has the potential to change campus environments and prevent harm, rather than being a system designed to punish without much consideration for the people who have been harmed.

1.6 Other Common Title IX Issues

In this section we go over a few of the remaining common debates within Title IX, a combination of respondent and complainant centered arguments. The more conservative arguments generally aim to make Title IX more like criminal proceeding by using a higher standard of evidence, introducing live cross examination of witnesses, and sending more serious complaints straight to criminal court. Arguments for a more progressive understanding of consent are also brought up here.

1.6.1 Adjudication of serious matters such as sexual violence should not be handled by schools

A common argument made by those aiming to pull back the reach of Title IX is that issues as serious as sexual violence should not be adjudicated by schools. We argue that there are two possible reasons that we should consider taking the more serious violations out of a school adjudication system, but that both of them fall short. The immediate concerns for a school adjudication system being used rather than a criminal court proceeding are: a) that schools cannot provide a fair system for both sides, and b) that schools cannot provide a non-traumatic Title IX process for both sides. For both of these issues we must note that a school's Title IX process does not need to be a perfect option to remain a viable avenue for justice, it only needs to not be more flawed than the legal system. For the first concern, there is no clear reason why schools would not be able to conduct a comparably fair process at this point. Schools have been conducting Title IX investigations for decades, as well as disciplinary processes for other violations for hundreds of years. Schools have also been conducting investigations of other serious violations without any arguments that this reaches beyond their capabilities. Title IX is founded on principles of fairness, and so Title IX processes demand a level of equality in treatment for both sides that does not exist in criminal court. According to the Office of Civil Rights, resources or information available to one side of a Title IX process must also be available to the other student. To be clear, there is nothing about Title IX that suggests schools are less capable or less responsible for a fair process than the criminal justice system.

It seems telling that this concern is only ever raised towards Title IX and not towards other code of conduct violations such as non sexual violence, which is similarly severe and runs the same potential consequences, however without the federally mandated due process protections of Title IX.

The second concern, whether schools can provide a non-traumatic Title IX process, has a simple, though disheartening response. Even as Title IX processes become less trauma-informed due to the recent Title IX changes by the DOE, the criminal court system is still a less trauma-informed system. Therefore, Title IX should remain an option for seeking redress. Title IX has a different aim than criminal court; it is more focused on the rights and experiences of victims than criminal courts are. Title IX allows for more resources and protections for complainants than criminal court, such as counseling, academic and housing accommodations, and hearings that allow for the two parties to remain separate. Up until the recent DOE changes, Title IX hearings did not include cross examination through the parties' advisors or attorneys, so survivors did not have to experience being cross examined by an advocate of their rapist. So, while Title IX, especially after the 2020 DOE changes, is not perfect and certainly not entirely trauma-informed, it is dramatically better at providing a safe environment than criminal proceedings, as it was designed to protect students.

Additionally, the argument that serious issues can only be decided by a traditional court seems somewhat mistaken. The 'seriousness' of a violation should not be the determining factor in who can handle it, but rather the 'seriousness' of the potential consequences. If Title IX investigators had the power to put students in prison or sentence them to death, then of course

we would all agree that a school is not an appropriate body to deal with accusations of sexual violence. In the same way, we have more extensive processes and higher standards of evidence in cases where the death penalty is being considered, not because the crime is so much more heinous, but because someone's life is on the line. However Title IX and criminal court are not comparable in this way because the absolute worst consequence a student can receive from a Title IX finding is expulsion, which is a far cry from incarceration.

Another potential argument that cases such as rape should not be investigated by a school is that that is the role of the legal system and not the business of a school. However, Title IX has been accepted for many years to include sexual harassment and violence as forms of sex discrimination that preclude students from having equal access to education. Essentially, the legally accepted role of Title IX is what makes cases of sexual harassment and violence the business and responsibility of a school as schools have an obligation to ensure all their students have equal access to their education.

1.6.2 Standard of Evidence and Live Cross Examination

Another common debate in Title IX literature and legal proceedings is the appropriate standard of evidence for Title IX investigations. This was also the subject of one of the Trump DOE changes to Title IX, so it will be more extensively discussed and examined in a later chapter. However, as it has been a central issue in the Title IX debate for years, not just in the recent changes, it is worth mentioning that there has been considerable disagreement over whether Title IX procedures ought to use Preponderance

of the Evidence, a lower standard of evidence typically used in civil court, or the higher Clear and Convincing standard.

Similarly, the introduction of live cross examination of all parties including victims and witnesses by the representatives of either side rather than questions from a neutral adjudicator will be discussed in the chapter on the recent DOE changes, but is mentioned here as it is such a clear example of the push to make Title IX more like a criminal procedure.

1.6.3 Affirmative Consent

Another issue raised generally in Title IX discussions,(16) though not in the Trump DOE changes, is the campus understanding of and policy for consent. In particular, we consider the switch some schools have made from No Means No policies to Affirmative Consent. No Means No policies punish sexual violence where one party said no and the other party continued, or when one party was not able to give consent for some reason, such as being intoxicated or unconscious, and the other party continued. Affirmative Consent is what it sounds like: a clear affirmative response is needed to proceed, not just the absence of a “no”. Though some people disagree with Affirmative Consent policies as being too demanding and potentially awkward for students, we would argue that the benefits far outweigh the harms. Clear-cut policies on consent that require affirmative, clear-headed, enthusiastic consent from both parties level the playing field. Regardless of what students previously thought consent meant or should look like, they are all held to the same standard of getting an active ‘yes’ from their partner. This takes a great deal of the concerns about miscommunications

and misunderstandings of body language off the table. The drawback of an Affirmative Consent policy is the potential for a slightly awkward moment, while the payoff is confidence that no one participated in intimacy they did not want.

Placing oneself in the position of someone engaging in sexual activity with a new partner, presumably one would want to be absolutely certain that this partner was equally enthusiastic, both from a moral stance – because the idea of being intimate with an unwilling partner is ethically wrong – and a self interest in not being accused of violating any rules. No Means No policies address the risk of getting in trouble; so long as neither party makes clear they do not want to engage in sexual activity, the other party cannot be held responsible. However, that leaves out the main reason people should want consensual interactions: because someone is harmed by non-consensual sexual acts. Taking a step back from the risks of being accused or found responsible under a Title IX or criminal violation, we should be focusing on creating a society in which people understand and care about their sexual partner's well being and bodily autonomy. Especially for young people, sex and relationships can be confusing experiences. Policies that clarify the ways we can and should respect each other's rights and prevent ourselves from becoming people who harm others are beneficial for all parties.

Understanding that the majority of sexual assaults do not fit the stereotypical notion that assaults are physically forcible or coerced experiences between strangers and are, in fact, most likely between partners and other people who know each other is critical to recognizing that most students do not want to be rapists or to cause someone else physical or emotional harm. For this

reason it is deeply important that schools facilitate education and discussion of sexual intimacy aimed beyond just what violates Title IX. When we frame these conversations solely around what not to do because that could get you in trouble, we promote the idea that sexual violence is wrong because it is against the rules, and we rely on students' fear of punishment to prevent misconduct. Schools need to be providing information and provoking thoughtfulness around why sexual violence is wrong regardless of if one gets caught and what the impact on survivors can look like. Schools have an obligation to work to create student bodies that are invested in having positive sexual experiences and protecting each other's bodily autonomy and personal rights.

Chapter 2

Race and Title IX

2.1 Introduction

Upon beginning this project, a primary concern we had about Title IX was the potential for racial bias within the system. As Title IX has a disciplinary component, which has recently been further adapted to model the criminal justice system to a greater extent than other school disciplinary processes, there is a natural worry that Title IX may also share the same horrifying racial biases of the criminal justice system. Our aim was to research whether Title IX demonstrates a comparable degree of racism to the criminal justice system, which would disqualify it as a viable alternative pathway for seeking justice. As a large portion of this thesis is an analysis of the recent Department of Education (DOE) changes, it is important to question whether Title IX is even a system worth trying to save or improve. On the other hand, Title IX could be a better option for students of color who have experienced sexual violence, for whom the criminal justice system is often not an option for a

number of reasons. Because of a lack of available Title IX data surrounding race, our exploration of this question was limited to an analysis of existing research and theory around race within Title IX.

There is a concerning small amount of research on the racial impacts of Title IX, though there is a considerable amount of discussion of race. Unfortunately, the majority of the literature that discusses race appears at best insincere, and at times actively racist as well. Multiple authors claim to be in defense of accused men of color; however, they use this position to advocate for conservative changes to Title IX that have little likelihood of helping accused students of color. Rather, these proposals are general due process changes that seem aimed at making it difficult to hold anyone responsible for sexual misconduct. As stated before, because of the racism present in our society and particularly in long standing privileged institutions such as colleges and universities, as well as the punitive nature of Title IX, it seems indisputable that there must be some degree of racial bias functioning within Title IX. We are interested in exploring the areas of the Title IX process that seem most vulnerable to racial discrimination, as well as discussing possible changes to ameliorate these issues.

Still, we are deeply skeptical of the authors that weaponize unsupported claims of racism in order to promote a conservative and anti-Title IX agenda. We have therefore decided to address the common arguments about race that are used to weaken Title IX protections, and then later discuss the more legitimate concerns. Of course there is some overlap; some concerns raised by more conservative authors are genuine issues with Title IX, even if the solutions proposed by these authors are clearly not actually aimed at

addressing racism.

2.2 Common Arguments Made to Weaken Title IX Using Race

2.2.1 Cultural Differences

A prime example of the way concerns for racial minorities are exploited is demonstrated in Janet Halley's essay "Trading the Megaphone for the Gavel in Title IX Enforcement." Halley is one of several professors of Harvard Law School who have criticized the school's adoption of Title IX policies, which they claim ignore due process and have moved too far in the direction of believing complainants. Halley raises several concerns for the experience of racial minorities accused under more victim-centered Title IX policies. In particular, she claims that there is an issue of racial bias in Title IX because adjudicators generally make decisions based on a white, middle-class understanding of consent and intimacy, which often works against respondents of different races and socio-economic classes. Essentially, Halley, and others, argue that there are substantial cultural differences in notions of consent.⁽³⁴⁾

In his essay, "Title IX Narratives, Intersectionality, and Male-Biased Conceptions of Racism," Antuan Johnson discusses the deeply problematic and racist nature of this supposedly anti-racist argument, writing, "The argument appears to show concern for cultural diversity, but it is actually mired in pernicious cultural stereotypes of women that support rape myths.

Such stereotypes have been used to characterize black and poor women as more promiscuous.” Johnson dives deeper into this claim, but essentially the issue is that Halley’s argument is not based in research, and is, in fact, founded on racist stereotyping of black people, dating back to the era of slavery in the US. Arguing that black people have a different understanding of consent perpetuates the violently racist belief that black people are animalistic, painting black men as rapists and black women as unrapeable.(38) The hypersexualization of black people is not just hurtful stereotyping; it has been used repeatedly throughout history as a defense of lynching black men and a justification to allow sexual assault of black women without consequences.(38; 33; 25)

Additionally, even if Halley’s argument of cultural differences in consent were legitimate, it would still not be an acceptable or appropriate argument for rolling back Title IX. A lack of understanding of consent or a different belief in what consent or other aspects of appropriate conduct ought to look like is not an excuse to not follow a clearly stated policy. If it were, one could simply argue they did not know about or do not agree with a law, and so they have the right to violate it, which clearly contradicts the American judicial system, as well as our general understanding of how rules work in a society. In particular, students do not have the right to use potentially traumatic sexual experiences with other students as a learning process of how consent works. Ensuring that this does not happen is the obligation of both students and institutions who have a responsibility to create safe, equitable environments. If anything, this argument highlights the importance of clearly stated policies and educational programs on consent

and sexual misconduct. We do not aim to legitimize Halley's claims of different race and class conceptions of consent, but rather to advocate for clarity as a general means to ensure that all students enter college with the same information and understanding of how not to harm each other, and what the policies of their institution demand from them.

Concerns about different understandings of consent can also be applied to advocate for more progressive forms of consent policies, such as affirmative consent or the welcomeness standard,(24) which provide clear guidelines on what is expected out of students, with little room for miscommunication.

2.2.2 Different Resources

Another argument raised briefly by multiple authors is the claim that students have different resources available to them, and that students of color are likely to have fewer options than their white counterparts, making Title IX an unfair process for them.(53; 57) Emily Yoffe specifically points to the potential experiences of international students, who may have fewer resources for assistance or understanding of an American school process. We do not dispute the claim that because of the racialization of poverty in the US, it is likely that on average students of color have fewer financial resources to put towards the Title IX process. This is a serious issue, as we have seen within the criminal justice system, where defendants of color are likely to be represented by overworked public defense attorneys, and this can easily impact the outcome of a case. However, concerns of access to an attorney throughout the Title IX process apply to both complainants and respondents, not just those accused of sexual misconduct.

Furthermore, Singleton and Yoffe, two authors who make this point, do not suggest any solutions that would protect all students who cannot afford an attorney. Rather, they just argue to make it harder to find anyone responsible under Title IX. A more logical solution to this issue would be to reject changes to Title IX that make the process more similar to criminal court. One of the recent DOE changes introduces into the process live cross examinations of all parties and witnesses by the representative of each party, rather than a questioning process done by the impartial adjudicator. As the cross examination is now done by the representatives of the students, both accused and complaining students are more likely to want an attorney present to represent them, but schools have no obligation to pay for an attorney. A change that makes paying for an attorney increasingly necessary clearly works against the interests of students with fewer financial resources, both complainants and respondents.

2.3 Women of Color and a Lack of Data

One of the concerning aspects of many of the papers that claim to want to roll back Title IX because of a concern about racism within the system is the lack of discussion of the experiences and needs of women of color. Antuan Johnson criticizes such papers as having a “male-biased conception of racism,” where they only take into account the way racism impacts men of color under Title IX, and ignore women. Not only do these arguments ignore women of color, but they also use race to advocate for weakening Title IX regardless of whether it harms women of color. This is not a new

strategy for opponents of sexual violence advocacy. Johnson writes, “There is a history of race being used as a political tool to shut down conversations about sexual assault, even when it directly affects black women.”(38) Women of color face higher than average rates of sexual harassment and misconduct, as well as additional factors that make reporting and accountability of their assailants less likely.(10; 22) Women of color are less likely to be believed when they bring forward claims of sexual misconduct. This can be at least partly attributed to the stereotyping of women of color as promiscuous and animalistic, which paints them as unrapeable subjects. This stereotyping dating back to the era of slavery is still being perpetuated today.(38; 33; 25) In fact, women of color’s own strength in dealing with acts of violence is at times then weaponized against them as an argument that they cannot be victims.(51) Women of color also risk social consequences both from the general population as well as their own racial communities as they are charged with perpetuating the idea that men of color, especially black men, are sexual predators.(51) Women of color then face a uniquely terrible experience of sexual violence: they are both more likely to experience sexual violence and less able to seek justice.

Taking into account the blatant racism of the prison industrial complex (PIC), as well as consistent pressure towards all women to stay silent on issues of gender violence, it is understandable that many women of color, in particular black women, would not want to report sexual violence to the police. In doing so, they risk contributing to the mass incarceration of men of color in the US, which could be both contrary to their own values and also put them at risk of being criticized by others who oppose the PIC. Many women

of color have good reason to be wary of police as state violence is leveled against women of color frequently as well.(42; 41) Additionally, the criminal justice system has historically been an unproductive and traumatizing avenue of addressing sexual violence for survivors, as discussed in Chapter 1 of this paper. For these reasons, Title IX, though not a perfect system, is generally a less punitive, less traumatic system for addressing sexual misconduct, making it a valuable option for women of color, especially in situations where white women may have more flexibility to seek justice through other means. White women are often prioritized in discussions about sexual violence; even in the midst of conversations about race and Title IX, many authors seem to only consider the dynamic between white women accusations against men of color, entirely leaving out women of color. There is an extensive history of black women's experiences with sexual violence, as well as their efforts to call out and address this behavior.(33; 40; 55) This is often ignored in order to frame white women as the original feminists and saviors of all women, in particular the saviors of women of color. This centering of white women is then used to evaluate policies by their impact on white women, under the guise of helping all women. Considering the unique experiences of women of color is an important part of improving Title IX.

Considering that women of color are already less likely than white women to have their experiences of sexual violence be believed,(25) conservative changes to Title IX, such as a higher standard of evidence and live cross examination of witnesses, though harmful to all complainants, seem likely to be more burdensome to women of color. The recent changes, which generally center around due process rights of the accused, work to further

criminalize the Title IX process. Based on the above arguments, a Title IX policy that mirrors criminal court will do little to protect women of color.

An intersectional lens of the impacts of Title IX and its reform are necessary for fully weighing the costs. Arguments for rolling back Title IX based purely on the needs of men of color not only forget about women of color, but actively advocate for policies that harm women of color, likely more so than white women. It is also important to note that these authors who claim to be concerned about discrimination towards men of color consistently advocate for changes to Title IX that seem more targeted towards helping privileged men and at times seem dangerous to men of color.(34; 53; 57) For example, advocating for a Title IX system with cross examination done by advisors rather than an impartial adjudicator makes the use of attorneys far more critical. However, as schools have no obligation to provide attorneys, this change favors wealthier accused students who can afford a fancy trial attorney, students who are more likely to be white. More generally, advocating for changes to Title IX that disadvantage complainants and further criminalize the process, as well as some less subtle arguments that Title IX should not be used to address complaints of sexual violence at all, pushes complainants away from Title IX and towards the police. It is hard to see a situation where accused students of color experience dramatically more fair treatment by the police and in criminal court than in a school adjudicatory process, especially when taking into account the number of reasons that schools have to want to protect accused students of color, in comparison to the criminal justice system. In the same piece discussed earlier, Antuan Johnson discusses some of these factors, using them to argue that

claims that Title IX will necessarily include the same amount of racial bias against accused students of color as the PIC are likely incorrect. Johnson has two main arguments against assuming that Title IX will necessarily imitate the criminal justice system. First, Johnson discusses the different nature of the relationship between students of color and universities as opposed to people of color and the American society generally.¹ While racism is still pervasive throughout the nation, in particular within the criminal justice system, universities have incentives to not appear as racist. Johnson writes, “Schools value racial diversity at an unprecedented level as compared to the history in which the myth of the black rapist developed.” He also argues that “Schools use the recruitment of racial minorities to leverage their respective appeal. Simply put, diversity sells.” Schools are increasingly concerned about appearing to be racist, and publicized complaints of racial bias within Title IX would certainly be considered bad publicity.⁽³⁸⁾ While of course diversity for the sake of financial gain to the school is not enough, it does point to a different relationship between students of color and their schools in comparison to the criminal justice system.

The other important, though delicate, point Johnson makes is that even if men of color are being accused at higher rates than white men (a concern that is being theorized, but has not been backed with data), this could likely be because white men are not being accused at a rate proportional to their acts of sexual misconduct, rather than because men of color face

¹It is worth noting the unique relationship between schools and the complaining and defending parties, in comparison to the criminal justice system. Students are essentially clients of the school, so schools have a financial incentive to have processes that at least appear to be unbiased.

many false allegations. Johnson writes, “If black men are accused of rape at a higher rate than white men, it might not say anything about the rate of false accusations. To the contrary, it might be the case that victims of sexual assault feel more comfortable bringing complaints against black men because they believe that something will actually be done about it.” If this is what is indeed happening, it means that any changes to Title IX need to work to support victims of sexual violence in bringing forward their experiences, especially against white male perpetrators who are particularly intimidating opponents in the Title IX process. Johnson brings up the earlier point that more victim-centered changes threaten the power of white male perpetrators. He writes, “For the perpetrators, the question becomes how one can most effectively defend against OCR’s enforcement. And here, we see the cynical manipulation of discussions about race to legitimize campus sexual assault—a phenomenon not unlike the invention of the myth of the black rapist to legitimize the lynching of African Americans. Because white men are challenged in this situation—not only because they are the ones who have gotten away with this for so long, but also because they continue to do so—they strategically use America’s history of racial injustice to bring the hammer down on gender equality.”(38)

To be clear, neither Johnson nor this thesis claim that Title IX is free of racial bias. Rather, we believe that Title IX undoubtedly has an issue with race, but that comparing the racism of the PIC to Title IX is not a very accurate comparison as there are fundamental differences between the two. Of course, what is really needed is the collection of racial data, as well as a general increase in data collection on Title IX, so that we can actually look at whether

students of color are reporting or being accused at rates disproportionate to their student population, as well as whether they are more or less likely to be believed than white students. This analysis obviously needs to look at both the experiences of accused and reporting students of color, not only the outcomes of cases of accused students of color. With data like that, which would not be hard for the DOE to collect, we could also look into important intersectional analyses, such as how the likelihood of reporting and a finding of responsibility vary depending on inter and intra-racial accusations.

It is concerning that the DOE does not already collect this data, as well as other non-race-specific data that would allow for a more thorough analysis of the trends and issues Title IX currently faces. In the Trump DOE's formal response to all of the concerns raised against their proposed changes, they attempted to do several impact analyses of the previous administration's changes as well as a prediction of the recent changes, but ultimately had to acknowledge that their own data set was less than ideal.⁽⁹⁾ The DOE analysis utilized Clery Act data,² which is not nearly as extensive as a Title IX data set ought to be. The Clery Act does not cover all of the situations that would lead to a Title IX complaint, and analysis of Clery Act data does not allow for looking at the actual likelihoods of different outcomes of cases. Consider the Richards data used in the analysis of false accusations in Chapter 1, which covers only one state and one year, and yet answers more questions than the DOE collection of Clery Act data and Annual Security Reports.⁽⁴⁸⁾ If the DOE demanded data like the Richards data, as well as additional variables

²The Clery Act is a federal law that requires schools to publish campus crime statistics in Annual Security Reports, warn the community when there are public safety concerns on campus, and disclose information about sexual violence rights and procedures on campus.

such as race, use of an attorney, length of investigation, and alternative resolutions, many of the issues in Title IX could be uncovered and proven, and then addressed. So long as the DOE does not collect this data, it is hard to understand how changes, such as the recent DOE changes, can be justified, and the DOE fails to demonstrate that they genuinely care about the experiences of students within Title IX.

Even without this data and given Johnson's critiques, it seems reasonable to assume that we should be wary of a system with the ability to punish students that has not proven to avoid racial bias. Later in this paper we discuss the recent Title IX changes in more depth. We are interested in progressive changes to Title IX, with a focus on changes that take into account potential racial bias towards complainants and respondents without making general changes that limit Title IX's ability to hold any students responsible.

Chapter 3

Evaluation of the Recent Title IX Changes

3.1 What Are the Trump Administration Changes

In 2017, the Department of Education under Trump began the process to make formal changes to Title IX by rescinding the Obama-era Dear Colleague Letter guidances. This was followed in late 2018 with the DOE's initial proposed changes to Title IX regulations. In contrast to the Obama guidances, the Trump changes were promulgated more formally so as to carry the full weight of regulations. They therefore had to go through a more extensive comment and response process. After the proposed changes were published, there was a 60-day period during which over one hundred thousand comments were submitted to the DOE, with a large number of them raising serious concerns about some of the proposed changes. Before the new rule could be finalized, the DOE had to respond to the numerous

comments, but the final rule was generally similar to the proposed rule. In May 2020 the changes were finalized, and the DOE gave schools a deadline of August 2020 to have instituted any necessary changes in order to be in compliance with the new rules. Many schools expressed frustration with the rushed implementation of these changes, as the time frame demanded by the DOE was less than half of the amount of time typically given to schools to enact changes such as these, as well as the added burden of doing so during an international pandemic and precarious financial situations. Compliance was not made easier by the procedural due process changes that required expanding the number of Title IX officials involved in every investigation, potentially requiring schools to hire more employees.(14)

If the Biden administration wants to change Title IX regulations again - a goal that has already been stated and is likely true as candidate Biden was one of the more vocal critics of the Trump changes(15; 7) - the process will not be nearly as easy as it was to rescind the Obama guidances. Because the Trump DOE used the formal rule-making process, the Biden DOE would have to go through a similar process to reverse the changes, which will likely take a few years. For the near future, the Trump Title IX changes are here to stay. This section is a brief introduction to the relevant changes made to campus responses to sexual violence and harassment, as well as a short discussion of the concerns surrounding some of the changes. The changes discussed here include both positive and negative policies, a few of which are addressed in more detail later in this chapter.

- Introduction of cross examination of witnesses and parties within live

hearings.

This is one of the most contentious changes, with proponents claiming that live cross examination is necessary to protect the due process rights of accused students, while opponents argue that live cross examination, especially when done by attorneys and other advisors who represent the respondent, can be very traumatic to survivors of sexual violence. The cross examination can be done by any advisor of the two parties, which includes attorneys, but not the parties themselves.

- Potential Change in the Standard of Evidence

The Obama guidelines mandated that all schools use Preponderance of the Evidence, a low standard of evidence, in Title IX cases. Most schools already used this standard, but some still used the Clear and Convincing standard.⁽⁴⁴⁾ The Trump rule allows schools to choose which standard of evidence to use, though whichever they choose must be the same standard they use in other non Title IX disciplinary procedures. Advocates of a change to Clear and Convincing again argue that this is necessary to protect the due process rights of accused students, while others maintain that Preponderance of the Evidence is a more appropriate standard, especially as it is used in civil litigation which is more similar to Title IX than criminal proceedings. The two sides debate the competing concerns of protecting accused students from false allegations while ensuring guilty students are likely to be found responsible.

- Release of responsibility over off-campus misconduct

A particularly concerning change in the context of the current pandemic is that schools are now only responsible for investigating incidents that occur on campus, at an off campus location with an official school organization, such as fraternities, sororities, or athletic housing, or an off-campus official club event. This, notably, does not include general off-campus housing or any of the different off-campus housing arrangements that many students have moved into as a result of the Covid-19 pandemic. Releasing schools from liability for investigating sexual misconduct that occurs in these off-campus venues denies protection to many students who live off campus, and it sends a message that schools may not be concerned with student conduct as long as misconduct remains off campus.

- Title IX officially includes: stalking, domestic violence, and dating violence

This is possibly the only change that victim advocates agree with and is generally considered uncontroversial. The former guidances did not explicitly state that this misconduct was covered, but many schools already included them under their Title IX policies.

- A narrower scope of what constitutes sexual harassment

The new standard for sexual harassment in violation of Title IX is “any unwelcome conduct that a reasonable person would find so severe, pervasive and objectively offensive that it denies a person equal educational access.”(9) The use of ‘and’ here marks a change from the prior standard, where conduct that was severe, pervasive,

or objectively offensive would be enough to justify a Title IX claim. This new definition will not apply to cases of sexual assault, dating violence, domestic violence, or stalking, but will be used for other sexual misconduct. This change raises the concern that forms of sexual harassment that are repetitive but not considered severe could be ignored by schools, or that severe harassment will not be properly addressed unless it continues to occur. As Title IX was created to enforce equal access to education, it is important that schools take proactive steps to prevent harm, rather than waiting until misconduct has become so severe and repetitive that a student's access to education has been seriously impeded.

- Schools are not liable for incidents that take place outside of the US
Similar to the off-campus change, schools are no longer expected to investigate events that occur outside of the US, including study abroad programs. Again, this implies that schools need not care about the actions and experiences of their students so long as they do not happen on campus. Added to this, the risk of sexual violence is known to be substantially higher in study abroad programs than on campus, with some research indicating that the likelihood of being raped during a semester abroad is five times higher than during a semester on campus.⁽⁴⁶⁾ Given this, releasing schools from the responsibility even to investigate misconduct abroad could be seriously detrimental to students.
- Schools can no longer use single investigator models

Schools were formerly allowed to use a single investigator model for Title IX, where one official did the entire investigation as well as making the finding. Now, schools are expected to have a three-person system with a Title IX coordinator, investigator, and decision maker. This change does not seem to work to the unfair advantage of complainants or respondents. The main concern with this change was that it could put a serious burden on schools to quickly hire or train new officials, a challenging task given both the short time frame given by the DOE, as well as the difficult financial position in which many schools have found themselves due to the pandemic.

- Schools must train all employees who are part of the Title IX process and post training material online

This change seems to be a positive one, especially the inclusion of bias training. Though many schools already did this, it's important to have federal mandates to ensure that all schools have proper training protocols.

- Schools must provide proper notice to all parties at least 10 days before any action is required

This is agreed to be best practice and is important for maintaining a fair process for both parties.

- No more gag orders

Students are allowed to speak about ongoing investigations, while in the past they were often not allowed to discuss current cases with

outside parties.

- No more required time frame for investigations

The Obama era guidances included a 60-day time frame for investigations to be completed. This was to ensure that schools acted quickly and did not draw out investigations. Lengthy investigations can be harmful to both parties. The recent changes removed the 60-day limit, and replaced it with an expectation that schools have 'reasonably prompt' responses. Removing the time limit risks schools prolonging experiences that are painful and challenging for both parties.

- Schools can use mediation even in very extreme misconduct cases

Some victim advocates are concerned about allowing schools to use alternative resolutions such as mediation processes in the most severe cases of sexual misconduct. Removing an investigation from the formal Title IX process may allow it to proceed without the guardrails of trauma-informed training and focus. Without appropriate training or oversight, mediation risks being very traumatic for survivors of sexual violence.¹ On the other hand, some students prefer alternative resolutions, and they can be a good option in the place of more punitive reactions.

- Religious schools can claim an exemption from Title IX policies without

¹Know Your IX writes of this change, "Mediation is allowed in cases of sexual assault, rape, dating violence, and domestic violence. Informal resolutions are allowed on a voluntary basis by both parties, a process that was not permitted under previous guidance. The lack of accountability in mediation will worsen the already imbalanced power dynamic between survivors and perpetrators. Career mediators agree that mediation should not be used in instances of gender-based violence as it has the potential to further traumatize survivors."(10)

informing their students

Though not an issue for most schools or discussed further in this thesis, allowing schools to take away Title IX protections, especially without informing their student body, is very concerning.

- Schools are no longer liable for Title IX misconduct unless they have been shown to be deliberately indifferent

Schools have less liability for addressing sexual misconduct, as the expectations for mandatory reporting and knowledge of misconduct have been changed. Releasing schools from liability in these cases allows schools to more easily avoid addressing misconduct without risking financial consequences. It is important to understand that schools may have disincentives to get involved in accusations of sexual misconduct when not mandated to do so by Title IX. The best interests of institutions and of their students are sometimes in tension, even in conflict. Title IX processes position students against each other, but also potentially against the school as the school may be sued for a mishandled reporting or investigation. Schools are financially incentivized to not get involved unless they are required to by the government because they risk being sued by a student unhappy with how their case was handled. Schools can also be reported to the Department of Education for poorly handling a Title IX report. This can lead to a DOE investigation of the school and potential bad publicity. Given this, releasing schools from liability for not addressing sexual misconduct in some situations takes away their motivation to act.

This summary of the recent changes and the potential consequences flowing from them provides a foundation for the concern that several of these policies benefit schools and respondents in Title IX cases, with less regard for the complaining parties.

While the majority of these changes are significant and interesting to discuss, due to the scope of this project and a lack of relevant data and research, this thesis focuses on a few of the changes. The changes examined in the remainder of this chapter are: the live cross examination, the standard of evidence, and the exclusion of liability for off campus incidents. This thesis combines arguments based on data analysis with logical and theory-based claims. A dual analysis is possible for these three policy changes.

3.2 Cross Examination

The introduction of live cross examination during Title IX investigations is one of the more notable departures from the previous policy as it risks moving Title IX investigations away from trauma-informed processes. The Trump DOE change mandates that schools allow for live cross examination of all involved parties and witnesses by a representative of each of the two parties. To be clear, the students themselves are not allowed to question each other; this must be done by their advisors or representatives, including legal counsel. Before this change, questioning during live hearings was done by the impartial adjudicator. Before a hearing, the parties could present questions they wanted asked to the adjudicator, who could determine which questions they thought were appropriate. The concern with the new model

is that being questioned by someone representing the other party would likely be a more adversarial and traumatic experience in comparison to being questioned by the adjudicator. This concern is heightened for the complainants of sexual assault. Being questioned about one's experience with sexual violence already runs a high risk of being difficult and painful even when done by someone with no bias. An advisor of the accused party necessarily has an interest in helping the accused party, otherwise they are not doing their job properly. Furthermore, personal attorneys are allowed to serve as the advisors for either student, though the school has no obligation to provide an attorney to either side. While attorneys were allowed to represent the parties before the recent changes, their ability to change the nature of a hearing was somewhat limited, as they could not do any of the questioning. The current structure fully allows for a situation where one party has an expensive and experienced trial attorney doing their cross examination, while the other student only has a school representative. This uneven dynamic would be difficult in either direction, but the traumatic nature of being aggressively cross-examined about a report of sexual violence is likely to be felt more intensely by the victim of sexual violence than the accused student and to be experienced cumulatively as part of the same aggression. Even if the complainant and respondent both opt in or out of using an attorney as an advisor, questioning by someone whose role it is to prove you are lying is much more likely to be traumatic than questioning done by an adjudicator, whose only role is to ascertain the truth.

Furthermore, the situation of one student having an attorney in an adversarial hearing while the other does not is in violation of a basic

principle of the American legal system. While the new rule shifts the Title IX process towards the legal system – by allowing for cross-examination by an attorney – it does not establish a mechanism or right for both parties to have access to legal representation. Students who cannot afford an attorney, both complainants and respondents, should not be disadvantaged by Title IX processes. As mentioned in the previous chapter, this would presumably work against low-income student who are more likely to be students of color. Any change that increases the need for an attorney risks making the Title IX process biased against students with fewer financial resources. This particular concern could be remedied by a mandate that schools pay for attorneys, thus making attorneys accessible to all students, or by a change that removes attorneys from Title IX investigations, or at least removes their ability to cross-examine. This second option is more consistent with the structure and purpose of Title IX as a process separate from the criminal justice system. Also, it would not impose a hefty financial burden on schools. Without lawyers, schools would still be motivated to ensure the rights of both parties are upheld, as any mishandled Title IX investigation can lead to an investigation by the Department of Education or a civil lawsuit brought by the purportedly wronged party.

Another issue brought up by this change is that adjudicators have to judge in live time whether questions asked by the representatives are appropriate. Before, they were given the desired questions by both sides ahead of time, giving the opportunity to reflect and review. Compare this to a courtroom, where lawyers can ask questions of witnesses, and the opposing attorney or the judge may step in when the questioning is improper. These attorneys and

judges are professionally trained to respond to inappropriate questioning and are likely to have extensive experience doing exactly that. Adjudicators and school representatives, though hopefully very good in their roles, simply do not have the same level of professional training and experience in this area. Hearings on incidents of sexual violence run a high risk of bumping into traumatizing or generally inappropriate questions, such as asking about the sexual history of an assaulted student. Given this, the previous model, where potentially offensive or objectionable questions were submitted in advance, should be used.

The question also arises: why did this change occur? Presumably, because questioning by a representative of a party will more effectively ferret out the truth and thus protect students who are falsely accused of sexual violence. However, as discussed in the first chapter, false accusations are uncommon. Thus changing the Title IX process to provide further protections to respondents is not warranted when it also gives rise to other adverse effects.

Data-based analysis of the effects of this change is currently not feasible due to a lack of data on the use of attorneys in Title IX proceedings both in the past and under the current rule. The rule change is simply too recent. However, a 2019 court case in California, *Doe v. Allee*, led to the same policy change a year earlier in California than the national changes.⁽⁶⁾ Additionally, this change occurred before the Covid-19 pandemic began, so there is some data from before the pandemic completely changed the student environment. Dr. Tara Richards - the source of the data used in the Chapter 1 discussion of false accusations as well as the additional data used in the Chapter 5

analysis - is currently researching the impact of the introduction of live cross examination in California as a result of the Allee decision.

3.3 Standard of Evidence

3.3.1 Discussion and General Use

A second significant change is the shift to allow schools to choose between using a lower or higher standard of evidence. The Obama era Dear Colleague Letters mandated use of a lower standard of evidence, Preponderance of the Evidence. This is the standard typically used in civil court, and is defined as being more likely than not, or greater than 50%. Under this standard, the respondent in a Title IX investigation is found responsible if the adjudicator finds it more likely than not that they did what they are accused of. Before the Obama letters, some schools used the Clear and Convincing standard, a higher standard loosely defined as being between Preponderance of the Evidence and Beyond Reasonable Doubt (the highest standard). The general percentage level for Clear and Convincing is about 75%,⁽⁴⁴⁾ so an adjudicator must conclude there is at least a 75% chance that the respondent did do what they are accused of to find them responsible. The Trump DOE rule change allows schools to choose between these two standards of evidence for their Title IX investigations, provided that they use the same standard throughout their other disciplinary procedures. This is a move in the wrong direction. First, Preponderance of the Evidence is the standard used in civil court, and the Title IX process is much closer to civil than criminal proceedings. Second, the number of guilty students who are found innocent by a Title IX

investigation is predicted to rise substantially with use of a higher standard of evidence.

Preponderance of the Evidence is the standard of evidence used in civil court for most purposes, including Title VI and Title VII litigation, which address race, ethnicity, and nationality in other federal funded programs, and discrimination based on race, religion, nationality, sex, etc., in employment.^(16; 1; 2) The nature of Title IX is much closer to that of civil proceedings and to Title VI and VII proceedings in particular, than criminal proceedings. The most severe consequence of a Title IX proceeding is expulsion which is primarily a financial loss. An expelled student may take longer to graduate, and future job prospects may suffer as well. However, there is absolutely no risk of incarceration in a Title IX process, which fundamentally separates it from criminal legal procedures, and therefore also from the due process and evidentiary standards used in criminal court. It is possible that the violent nature of some assaults presented in Title IX proceedings makes the whole system appear more similar to criminal proceedings as it adjudicates similar issues at times. However, as discussed in Chapter 1, it is the possible consequences of a finding of responsibility that determine the appropriate standard of evidence, not the intensity or character of the underlying misconduct. Additionally, it is worth pointing out that a student and authorities can simultaneously be pursuing separate remedies for the same underlying event through a school's Title IX process, civil litigation, and criminal proceedings . Though the underlying event is the same, the three systems are different and have different aims and risks, and therefore also varying types of due process. Under the US Constitution

and as a society we agree that a higher standard of evidence ought to be applied in situations when the possible consequences are more severe, in particular if there is a threat to life or liberty. The possible consequences are much more severe in criminal proceedings than in Title IX, and so by this logic it is appropriate to have a lower standard of evidence in Title IX .

Additionally, Preponderance of the Evidence is generally accepted as a proper standard of evidence in other school disciplinary processes. A student accused of plagiarism risks the same potential consequences from a school proceeding as a student accused of rape: they could both be expelled. Yet there are no claims that school disciplinary processes that use Preponderance of the Evidence in plagiarism hearings are violating the due process rights of accused students. It is hard to justify using a higher standard of evidence for cases of sexual harassment and violence than in a plagiarism case when the consequences are the same . This is especially true when we take into account that wrongly finding a guilty student not responsible could lead to students feeling unsafe on campus or being harmed, while the same error in a plagiarism case would have virtually no impact as plagiarism is a victimless crime.

3.3.2 Modeling the Change in Probability of a Guilty Student Being Found Not Responsible Under a Preponderance of the Evidence or Clear and Convincing Standard

A large part of the following analysis is based on a paper by John Villasenor entitled "A Probabilistic Framework for Modelling False Title IX 'Convictions'

Under the Preponderance of the Evidence Standard,” in which Villasenor models the potential outcomes of lowering the standard of evidence in response to the Obama era changes.⁽⁵⁶⁾ While we generally disagree with a number of his claims, his method of predicting the consequences of changing the standard of evidence is instructive. We discuss some of the flaws in his original claims, and then, informed by Villasenor’s methodology, conduct a new analysis based on the recent change to raise the standard of evidence.

Villasenor’s article was published in October 2016 after the Obama DOE had instructed that Preponderance of the Evidence be used and shortly before Trump won the election. His analysis compares the additional risks to accused students who are falsely accused by complainants who need meet only the lower standard. Throughout his paper, Villasenor primarily compares Preponderance of the Evidence (PotE) with Beyond Reasonable Doubt (BRD), an evidence standard used in criminal court with a numerical value of about 90 percent. This means that an adjudicator must believe that the likelihood of guilt is at least 90 percent, as compared to the probability threshold for PotE which is anything greater than 50 percent confidence of guilt. Villasenor’s concern is that when schools switched from BRD to PotE after the 2011 Obama guidance, the burden of proof for complainants became too low which, he argues, will lead to a troubling increase in the probability of wrongful convictions. However, before the 2011 guidance many schools already used PotE.⁽⁴⁴⁾ Further, those that did use a higher standard than PotE usually used the Clear and Convincing (CC) standard,⁽⁴⁴⁾ which has a probability threshold around 75 percent. Very few schools used BRD before the 2011 letter. These facts undermine the dramatic nature of Villasenor’s

claims. His analysis should have compared the potential for false convictions under a change from CC to PotE, not BRD to PotE, which would be a smaller impact.

Based on Villasenor's analysis of the increased probability of innocent students being found responsible under a Preponderance of the Evidence standard compared to Beyond Reasonable Doubt, we attempt to do a similar prediction on the effect of the new DOE rule. However, as the standard of evidence could be raised in some schools because of the recent DOE changes, we are interested in looking at how much the probability of a guilty student being found innocent will increase under a Clear and Convincing standard compared to Preponderance of the Evidence.²

3.3.3 Mathematical Analysis of the Evidence Change

The two distributions displayed in Figure 3.1 are an example of what we need to model, however we cannot actually know what the distribution looks like or exactly what the red and purple areas are. Like Villasenor, we can use a number of different distributions as well as testing several different possible values for the probability of a guilty student being found innocent under the current standard, Preponderance of the Evidence, represented graphically by the red area. We show that regardless of which of the distributions and exact value of the red area, the purple area grows substantially. The purple area represents the probability of a guilty student being found innocent

²The following section explains the process we used to draw predictions of the increase in guilty students being found innocent under the higher standard of evidence. For readers who do not wish to follow the mathematical analysis, this subsection can be skipped. The conclusions drawn from the analysis are summarized in the following subsection, Summary of Mathematical Analysis.

under the higher Clear and Convincing standard, so a substantially larger purple area means the probability of a guilty student being found innocent under Clear and Convincing is notably higher.

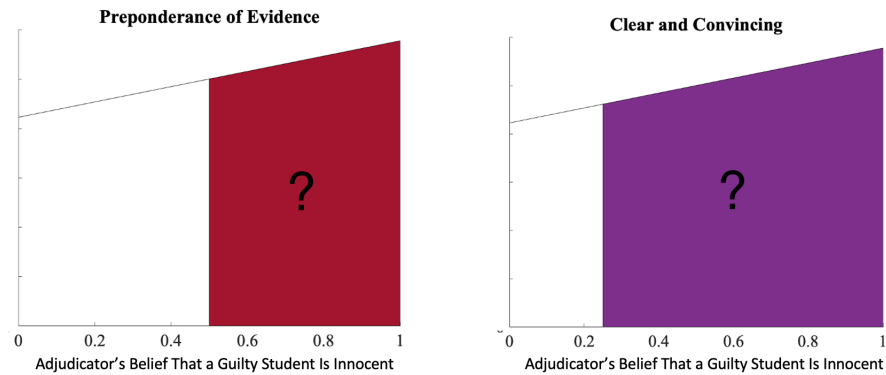


Figure 3.1 Comparative areas of probability of finding a guilty student innocent under the Preponderance of the Evidence standard and the Clear and Convincing standard

First, we find the red area, which is the probability of a guilty student being found innocent under PotE. From the Richards data used in Chapter 1, the general probability of a student being found guilty under PotE is 46.12%.⁽⁴⁸⁾ We also know from outside studies that approximately 5% of accusations are false.^(42; 41) We can use these two statistics to create a range of possible values for the probability of a guilty student being found innocent under PotE. First, let's assume that all of the innocent students who are accused are found guilty. Then, $(x+5)/100 = .4612$, where x is the number of guilty students found guilty out of every 100 accused students. The five comes from the assumed five innocent students, who will be found guilty. Solving for x gives us 41.12, which is again the probability that a guilty

student will be found guilty. So the probability that a guilty student will be found innocent, if there is a 100% rate of guilty finding for the innocent students, is $1 - .4112 = .5888$. So there is at most, a 58.88% chance of guilty students being found innocent under Title IX.

Now we do the same analysis but with the assumption that all of the 5 innocent students will be found innocent. So here we have $(x-5)/100 = .4612$, and x must be 51.12, which is the probability a guilty student will be found guilty. And so the probability that a guilty student will be found innocent, if there is a 0% rate of guilty finding for the innocent students, is $1 - .5112 = .4888$. So the minimum probability that a guilty student will be found innocent is 48.88%.

We now have a range of possible values for the red area, the probability of a guilty student being found innocent under PotE, of $[.4888, .5888]$, with an average of .5388. Before going on to discuss what this means for our model, we pause and consider the significance of this. A guilty student being found innocent is a serious concern. In fact, this is what Villasenor defines as a Type 2 error.³⁴ We can calculate the expected Type 2 error rate with this range. In 100 cases, we expect 95 to have guilty defendants. $95 \cdot .4888 = 46.436$, and $95 \cdot .5888 = 55.936$. So the minimum probability of a Type 2 error we expect under PotE, the lower standard of evidence, is 46.436%, and

³Within the context of this issue, a Type 1 error is when an innocent student is found responsible, and a Type 2 error is when a guilty student is found innocent. An ideal policy would find the best balance between the two, though of course both errors will always occur with some positive frequency.

⁴It is also important to note that many cases of misconduct will never be reported, so the students who commit those violations will always go unpunished, which raises the number of Type 2 violations immensely. Approximately 10% of assaults are believed to be reported,⁽²⁹⁾ so 90% of assaults automatically result in a Type 2 error.

the maximum is 55.936%. This is using Villasenor's conservative version of what should count as an error, not accounting for the 90% of assaults that go altogether unreported, and there is still an average Type 2 error rate of 51.186%. This means that for every Title IX investigation under a lower standard of evidence, there is more likely to be a Type 2 error than not. Given any case, the most likely event is that a guilty student is found innocent. This prompts the question: why change to a higher standard of evidence given such a high Type 2 error rate, which will only exacerbate the problem by making it harder to find any student responsible and thus potentially increase the likelihood of repeated misconduct?

The range of possible values for the red area has significance for what our model should look like as well. Based on Villasenor's paper and instinctive reasoning, we would assume that our distribution, whatever it looks like, should be monotonically decreasing. The assumption would be that for a guilty student we would expect an adjudicator to be more likely to think they are definitely guilty than be 80% sure they are guilty, and be more likely to think a guilty student is 80% guilty than 50% guilty, and so on. However, the range of red values shows this is not an accurate assumption. The red area, the probability a guilty student is found innocent under the PotE standard, must be the area under the curve to the right of .5, which is the 50% confidence needed to decide under PotE. As this is a probability density function, the total area under the curve must be equal to 1. However, as the range of values for the red area is [.4888, .5888] with an average of .5388, it is entirely possible, and even likely that the area of the red curve is greater than .5. We cannot have an area to the right of .5 be greater than

half the total area, unless the distribution is not necessarily monotonically decreasing.

Given the range of values for the red area that are quite close to .5, as well as the knowledge that we cannot guarantee that the function is monotonically increasing or decreasing, we tried two different distributions to look at the potential change in probability that a guilty student is found innocent under the two standards of evidence. First, we tried a linear model. We did this by finding a linear function $f(x) = mx + b$ such that:

$$\int_0^1 f(x) dx = 1$$

and

$$\int_{.5}^1 f(x) dx = .5388$$

Here, .5388 is the average value for the red area. The function that satisfies these conditions is:

$$f(x) = .3104x + .8448$$

We then integrate this function from .25 to 1 to find the probability of a guilty student being found responsible under a Clear and Convincing standard of evidence, where an adjudicator must be at least 75 percent sure of guilt to convict, so anything greater than 25 percent belief in innocence will correspond with a finding of innocence. This definite integral gives a value of .7791, which is the expected probability of a guilty student being found innocent under the higher standard, Clear and Convincing. The

difference between the probability under the two standards is $.7791 - .5388 = .2403$, which means an additional 24 percent of the guilty students would be expected to be found innocent if a school raises the standard of evidence in a Title IX investigation. We can represent this visually as well. Figure 3.2 shows the probabilities of an adjudicator finding a guilty student innocent under the two standards using the average linear function: $f(x) = 0.3104x + 0.8448$.

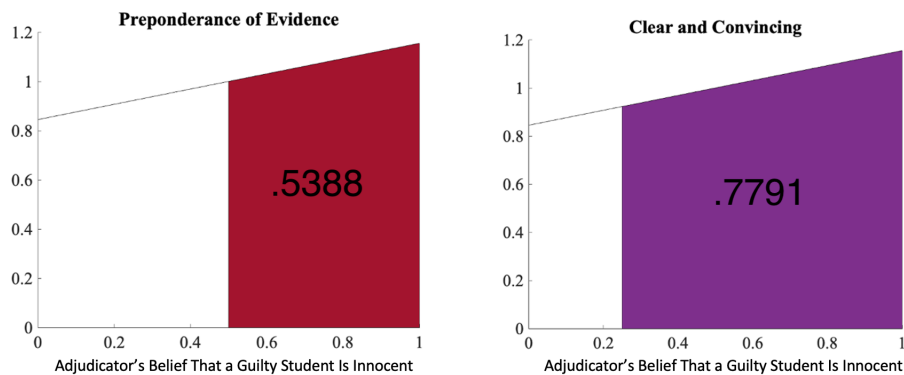


Figure 3.2 Comparative areas of probability of finding a guilty student innocent under the Preponderance of the Evidence standard and the Clear and Convincing standard using the linear function $f(x) = .3104x + .8448$

We repeat this process for the maximum and minimum of the range of the red area to find three possible linear functions, and the expected values under the higher standard, as well as the increase. The outcomes of all three linear functions are shown here in Figure 3.3.

Figure 3.4 and Figure 3.5 show the change in the probability of an adjudicator finding a guilty student innocent under the two evidence standards using the minimum and maximum linear functions: $f(x) = -0.0896x + 1.0448$ and $f(x) = 0.7104x + 0.6448$.

Likelihood a Guilty Student Found Innocent Under PotE	Corresponding Linear Function	Likelihood a Guilty Student Found Innocent Under CaC	Difference Between the Two Probabilities
.4888	$f(x) = -.0896x + 1.0448$.7416	.2528
.5388	$f(x) = .3104x + .8448$.7791	.2403
.5888	$f(x) = .7104x + .6448$.8166	.2278

Figure 3.3 Table of possible linear functions used to find the increase in probability of the likelihood of a guilty student being found innocent under a higher standard of evidence

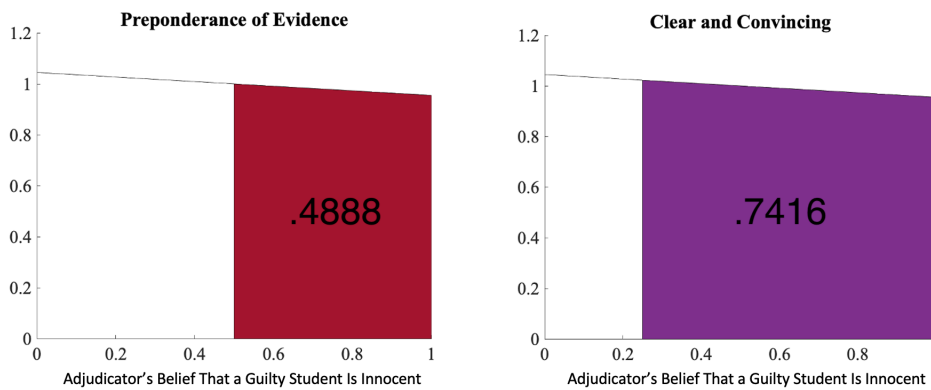


Figure 3.4 Comparative areas of probability of finding a guilty student innocent under the Preponderance of the Evidence standard and the Clear and Convincing standard using the linear function $f(x) = -0.0896x + 1.0448$

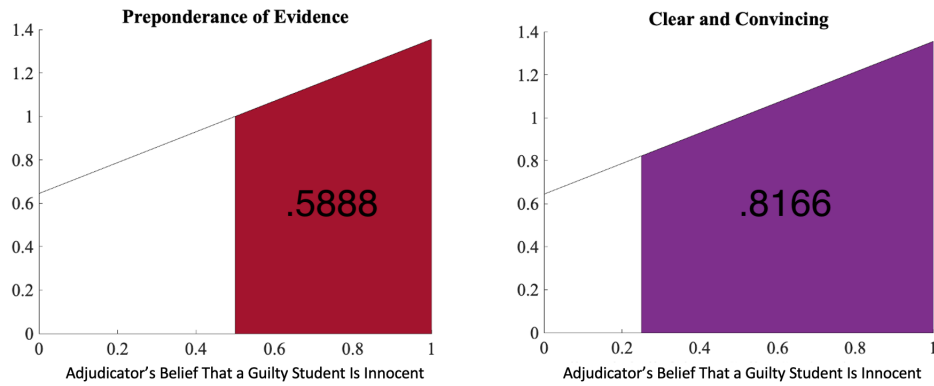


Figure 3.5 Comparative areas of probability of finding a guilty student innocent under the Preponderance of the Evidence standard and the Clear and Convincing standard using the linear function $f(x) = 0.7104x + 0.6448$

The other distribution we used is the truncated exponential distribution, where:

$$f(x) = \frac{\lambda \exp(-\lambda x)}{1 - \exp(-\lambda)} \text{rect}(x - .5)$$

Using the three values in the range of the red area, we again find functions that satisfy the conditions :

$$\int_0^1 f(x) dx = 1$$

and

$$\int_{.5}^1 f(x) dx = .5388$$

We then do the same integration from .25 to 1 as with the linear model, and can create a similar table of values as shown in Figure 3.6:

In Figure 3.7 we can see the change in the probability of an adjudicator

Likelihood a Guilty Student Found Innocent Under PotE	Value of λ in Corresponding Exponential Distribution	Likelihood a Guilty Student Found Innocent Under CaC	Difference Between the Two Probabilities
.4888	.09	.7415	.2528
.5388	-.311025	.7784	.2396
.5888	-.718014	.8128	.2240

Figure 3.6 Table of possible exponential functions used to find the increase in probability of the likelihood of a guilty student being found innocent under a higher standard of evidence

finding a guilty student innocent under the two evidence standards using the truncated exponential model, with $\lambda = -0.311025$.

Though the function is quite different, as it is an exponential function, the corresponding outcomes are remarkably similar to the linear model. When we look at the exponential model for .5388 in Figure 3.7, we can see how similar it looks to the linear models.

As can be seen from the models, because we know that approximately half of the area must lie to the right of 50 percent, our distribution looks quite linear, and in fact somewhat like the constant function $f(x) = 1$. Even the exponential distribution, when parameterized to accommodate the large likelihood that a guilty student will be found innocent under PotE, looks very linear, as would other common distributions, such as the normal distribution, in this situation. We can see that regardless of exactly which model is used and which value within the range of possible $P(\text{found innocent} | \text{guilty})$, approximately an additional 24 percent of the guilty students will be found

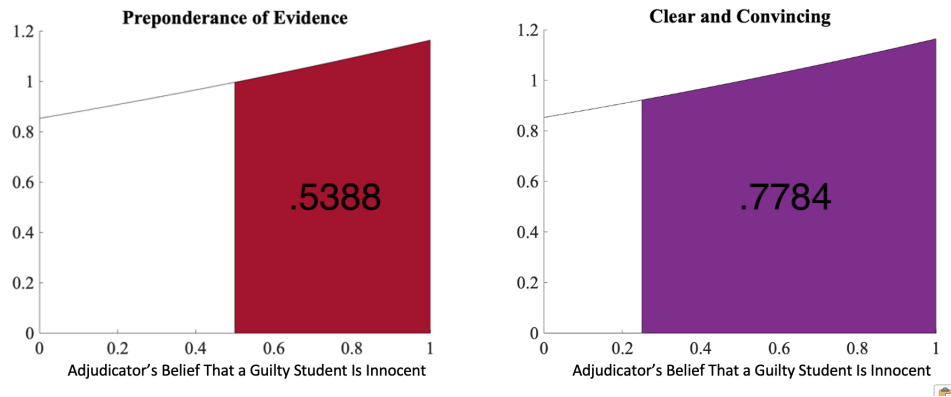


Figure 3.7 Comparative areas of probability of finding a guilty student innocent under the Preponderance of the Evidence standard and the Clear and Convincing standard using the truncated exponential function: $f(x) = (-0.311025 \exp(0.311025x)) / (1 - \exp(0.311025)) * \text{rect}(x - .5)$

innocent. As an example, if we start with the .5388 value, which increases to .7791 under the linear model, with a difference of .2401, this is a 45 percent increase of Type 2 errors. This is deeply concerning and undercuts any argument that we should raise the standard of evidence.

3.3.4 Summary of Mathematical Analysis

To clarify the significance of these findings, we reiterate the meaning and impact of this process. We first found the range of possible values for the probability that a guilty student is found innocent to be between .4888 and .5888. This means that under the lower standard of evidence, Preponderance of the Evidence, where it is less difficult to find students guilty, likely more than half of the guilty students are found innocent. This is very concerning in and of itself, regardless of the change to a higher standard of evidence. A system that is more likely to find an actually guilty student innocent than

find them guilty clearly fails survivors of sexual violence who enter a likely traumatic and painful investigation process. It also will likely expand the number of assaults that go unreported and expose complainants and other students to continued risk. Furthermore, through the two models we see that if schools do move to using the higher standard of evidence, Clear and Convincing, an additional 25 percent of guilty students are expected to be found innocent. Under that standard, about 75 percent of guilty students would be found innocent.⁵ How can we ask students to proceed with investigations in a system so obviously set up to prioritize respondents? Given the already shockingly low reporting rates of sexual violence, as well as a clear issue with Title IX under a PotE standard, raising the standard of evidence is not only not necessary, but actively harmful. Title IX exists both to address sexual misconduct that has occurred and to prevent further harm. A system that so rarely holds students responsible for their actions is both harmful to victims who come forward and to others on the campuses of schools that do not effectively address misconduct.

3.4 Off Campus Events

The remaining significant Title IX change we want to call specific attention to is the exclusion of off campus misconduct from Title IX coverage. Schools are released from responsibility for misconduct that occurs off campus with the exception of locations and events that the school facilitates or

⁵To clarify, it is a coincidence that the value we found for the predicted number of guilty students being found innocent under a Clear and Convincing standard was found to be approximately 75%, which is the same value as the confidence needed to find responsible under the Clear and Convincing standard.

is clearly responsible for. For example, official school fraternities and sororities are still covered by Title IX, as are official school club events off campus, and presumably any harassment that occurs in Zoom classes is also covered. This leaves out sexual misconduct that occurs in off campus housing or informal events. While data is not available to analyze this policy change, it is still of particular significance due to the unfortunate timing of the international pandemic alongside the DOE changes. While ignoring off campus sexual misconduct would under any circumstances be a concerning decision, continuing to apply this policy change during the Covid-19 pandemic is particularly ill-advised. During the pandemic, many students have either chosen to live together or had little alternative to living together in houses cohabited by near-strangers, friends, and/or partners. It is important to understand that the majority of sexual assaults do not fall under the common conception of an assault by a stranger at a party or in a dark alley. Rather, they occur between people who know each other, and often between partners.(16; 36) While students may be going to fewer parties and other social events during the pandemic, the closure of campuses will not suddenly halt all student assault. Students continue to interact, study and live with each other, so claims of sexual misconduct will continue to occur. Taking into account the stressful nature of the pandemic, increasingly difficult financial situations for many students, and serious obstacles preventing students from easily moving out of a bad situation, sexual violence is not disappearing during the pandemic. Schools now have no obligation to investigate many incidents that are happening to students, a clear deviation from the original statement and intent of Title IX, ensuring

equal access to education. Students assaulted off campus face the same difficulties engaging with their schoolwork as students assaulted on campus, especially if their attacker is a student. Such incidents are no less harmful, serious or impactful than incidents occurring on campus.

Furthermore, when we consider this change after the pandemic, when many students will have returned to living on campus, other problems will likely arise. Though quantitative data backing this assumption is needed, it seems likely that there are differences in rates of living on campus along lines of socio-economic class, race, national origin, and other factors. On campus housing is more expensive at many schools, so presumably students with fewer financial resources are more likely to move off campus earlier than wealthier students. Given disparities such as this, providing protection only for students who experience sexual misconduct on campus would harm low income students disproportionately. If the other factors mentioned are also shown to have an impact on the probability of moving off campus, Title IX would rightfully become vulnerable to serious accusations of discrimination.

While it can be argued that schools can technically still address misconduct off campus by including such misconduct in their school specific code of conduct policies, this defeats the purpose of Title IX. If all schools implemented effective policies dealing with sexual misconduct of their own volition, Title IX would be unnecessary. However, schools did not and do not necessarily take the appropriate steps to protect their students, especially in cases of sexual misconduct, without pressure from the government. Thus arguments supporting the recent changes to Title IX that depend on the idea of schools choosing to adopt progressive policies to support students,

especially victims of sexual violence, ignore the reality that required the passage of Title IX.

In the following two chapters we turn to the mathematical analysis of this Thesis. Chapter 4 gives an introduction to Bayesian networks, the branch of probability theory we explored in this project. In Chapter 5 we create a Bayesian network based on real Title IX data, and then analyze the network and the significance of the relationships we see within the data.

Chapter 4

Bayesian Networks

4.1 Intentions for Using Bayesian Networks

One of the aims of this thesis was to combine two typically separate fields of study: mathematics and gender studies. Chapters 1 and 3 both include mathematical analyses of gendered issues: the likelihood of false accusations and the predicted increase in guilty perpetrators of sexual misconduct being found innocent. This chapter introduces the primary mathematical research done within this thesis: Bayesian networks. Bayesian networks are a part of probability theory that we had not engaged with before beginning this thesis. As the material was initially unfamiliar, we spent a portion of the summer studying Bayesian networks through Adnan Darwiche's textbook "Modeling and Reasoning with Bayesian Networks."⁽²⁶⁾ The goal was to use this research to create our own networks for Title IX research. Though there were difficulties properly applying the math to Title IX given the lack of collected data, the chapter following this one details a network we

created to analyze a Title IX data set from New York. This chapter gives a brief introduction on Bayesian networks based on our understanding of Darwiche's book.

4.2 Introduction to Bayesian Networks

Bayesian networks are a graphical method of modeling the conditional relationships and probabilities between a set of variables. Bayesian networks have two parts. First, a directed acyclic graph (DAG) where variables are represented by nodes and the relationships between the variables are expressed through directed edges connecting the nodes. Second, there is a set of conditional probability tables (CPT) for each variable and any of its predictor variables. Bayesian networks can also be used with continuous data, in which case the conditional relationships cannot be demonstrated using CPTs. Bayesian networks typically use categorical data, which is what this chapter will focus on. In the following chapter, the analysis of a specific Title IX data set, we do use some continuous data, and will then discuss the issues that arose from those variables.

Bayesian networks are useful because they allow us to visualize and calculate the conditional probabilities of different events based on the states of a number of other related variables. They also allow us to more easily recognize conditional independence between variables and update these relationships given other information. Bayesian networks are a particularly useful method of analyzing probabilities as they allow us to query different variables rather than only one designated output variable, such as in linear

regressions. We are also able to perform calculations without knowing the values of all of the input variables. Bayesian networks are also beneficial as they are a more concise and visual method of demonstrating a set of beliefs and relationships than joint probability distributions, which can quickly become overwhelmingly large given multiple variables. The networks allow us to see at once how a number of variables relate to each other, rather than being able to look only at the individual relationships.

This introduction was created using previous course work in probability theory and Adnan Darwiche's textbook "Modeling and Reasoning with Bayesian Networks." Though this chapter is primarily intended for an audience with some mathematical background, key terms in probability theory are defined, as well as explanations of different Bayesian network concepts that aim to be fairly accessible to any audience. As a general note, the definitions and theorems written in their mathematical form will be more challenging for someone without much experience with math, but the subsequent descriptions or examples given for interesting concepts should be more manageable.

4.2.1 An Introduction to Important Probability Theory Used in Bayesian Networks:

Bayesian analysis depends on the notions of independence and dependence, as well as conditional independence and conditional dependence.

Two events are independent when our knowledge of one event does not impact our belief in the other. For example, we pick two colored balls out of a bag with one red ball and one blue ball. If we first pick a red ball, and

then replace it in the bag, we have no new information about the likelihood that we pick a red or blue ball on our second pick. In this situation, the two picks are independent of each other. If we had not replaced the first ball in the bag, our knowledge of the color of the second ball would depend on the first pick and so the two picks would be dependent.

Definition 4.2.1 (Independence). Event A is independent from event B if and only if the probability of A given B is equal to the probability of A, or the probability of B is zero:

$$Pr(A|B) = Pr(A) \quad \vee \quad Pr(B) = 0$$

and

$$Pr(A \vee B) = Pr(A) \cdot Pr(B)$$

Where A and B are random variables.

Note that the symbol \vee signifies "or", and that the term marginal independence can also be used here

Sometimes our knowledge of one event is independent of another given a third variable, we call this conditional independence.

Definition 4.2.2 (Conditional Independence). Event A is conditionally independent of event B given event C if and only if:

$$Pr(A|B \vee C) = Pr(A|C) \quad \vee \quad Pr(B \vee C) = 0$$

Essentially, we have an event B which influences our belief in event A, but if event C occurs, then B no longer impacts our belief in A.

We use conditional independence and dependence to create the conditional probability tables used in Bayesian networks, through using Bayes' theorem.

Theorem 4.1. *Bayes' theorem*

$$Pr(A|B) = \frac{Pr(B|A) \cdot Pr(A)}{Pr(B)}$$

Bayes' Theorem is critical for the idea of any Bayesian analysis, and is used frequently. Essentially, we can find the probability of event A given event B using the probabilities of A and B, as well as the probability of B given A. It's important to note that the probability of A given B is distinct from the probability of B given A, and the two cannot be used interchangeably.¹

Another fundamental theorem used in Bayesian networks is the Law of Total Probability. To explain this theorem, we first need to define the term partition.

Definition 4.2.3 (Partition). A partition is a group of events that are mutually exclusive and have probabilities that add up to exactly 1.

$$Pr(A) = \sum_{i=1}^n Pr(A|B_i) \cdot Pr(B_i) \text{ where } \beta_1, \dots, \beta_n \text{ are disjoint events}$$

For example, the three events that someone has no siblings, they have 1 sibling, or they have more than 1 sibling form a partition. They are mutually

¹In the legal field, the Prosecutor's Fallacy is an example of this exact error. This is when a prosecutor conflates the presumably low chance of observing some damning evidence given that the accused is innocent, with the probability of the accused being innocent given that the damning evidence is observed. The former probability is $P(E|I)$, where E is the event we see the critical evidence, and I is the event the accused person is innocent. The latter probability is $P(I|E)$. Now that we have seen Bayes' theorem, we know that these two probabilities are not the same. Conflating the two is used to exaggerate the seeming likelihood of guilt of the accused party.

exclusive events and cover all possible scenarios, so their probabilities add up to 1.

We can now explain the Law of Total Probability:

Theorem 4.2. *The Law of Total Probability*

$$Pr(A) = \sum_{i=1}^n Pr(A \wedge B_i) \text{ where } B_1, \dots, B_n \text{ form a partition}$$

This theorem tells us that the probability of some event A is equal to adding the conditional probabilities of A and a number of events B_i that form a partition. For example, if we pick balls out of a bag with red and blue balls, the probability that we pick a red ball on the second pick is equal to the probability that we pick a blue ball on the first pick and then a red ball, plus the probability that we pick a red ball on the first pick and then another red ball. Either way, we get a red ball on the second pick. The events that we pick a blue ball or a red ball on the first pick form a partition, as they are mutually exclusive and their probabilities add up to one, as we can only pick either a blue or red ball on the first pick.

We can expand some of these theorems to look at the probability of a number of events all occurring, using the chain rule for probability theory. The chain rule lets us find the probability of several events occurring by multiplying the conditional probabilities of each variable given the remaining variables.

Definition 4.2.4 (The Chain Rule).

$$Pr(A_1 \wedge A_2 \wedge \dots \wedge A_n) = Pr(A_1 | A_2 \wedge \dots \wedge A_n) * Pr(A_2 | A_3 \wedge \dots \wedge A_n) * \dots * Pr(A_n)$$

4.2.2 Incorporating New Evidence Into Prior Probabilities

When we have variables with a dependence relationship, gaining evidence about one variable influences our beliefs in the other variable to some degree. The new evidence can be either hard evidence or soft evidence. Hard evidence tells us that an event occurred, which will change our beliefs in the other variable. For example, if we are wondering whether our grass will be wet tomorrow morning, getting new information that it is currently raining will clearly influence our belief in the likelihood that the grass will be wet in the morning. Soft evidence is when we gain inconclusive evidence about a related variable. For example, if we are told there is a 70 percent chance of rain tonight, how does that change our belief that the grass will be wet tomorrow morning? Soft evidence is trickier to use, but we have a few methods of incorporating soft evidence into the probability of the initial event.

First is Jeffrey's Rule:

Theorem 4.3. *Jeffrey's Rule: Let q be the soft evidence, so $q = Pr'(B)$, the updated probability of related event B . Then the updated probability of A , $Pr'(A)$, will be:*

$$Pr'(A) = q * Pr(A|B) + (1 - q) * Pr(A|\neg B)$$

The generalized form of this rule is:

$$Pr'(A) = \sum_{i=1}^n q_i * Pr(A|B_i)$$

We can also consider soft evidence, B by looking at the change in the

odds of B occurring.

The odds of event B can be given by:

$$O(B) = \frac{Pr(B)}{Pr(\neg B)}$$

So we can consider our soft evidence as the relative change in the odds of B, where:

$$k = \frac{O'(B)}{O(B)}$$

where $O'(B)$ is the odds of B after the new evidence, given by:

$$O'(B) = \frac{Pr'(B)}{Pr'(\neg B)}$$

Here, k is known as the Bayes factor. For example, a Bayes factor of 3 means that the new evidence on B is strong enough to triple the prior odds of B. This can then be incorporated into Jeffrey's Rule to adjust our expected probability of A.

Similarly, we can consider soft evidence coming from continuous variables by using the distribution and density functions of the continuous variables. We use distribution and density functions for continuous variables because it does not make sense to ask the probability that our variable X equals any particular value for a continuous function, as that value will always be 0.

Definition 4.2.5 (Cumulative Distribution Function). The cumulative distribution function, or CDF, of a continuous variable, is a function, F_Y that gives us the probability of our variable, Y , being less than a certain value. The CDF of Y

is then:

$$F_Y(y) = Pr(Y \leq y)$$

We also define the probability density function, f_Y .

Definition 4.2.6 (Probability Density Function). The probability density function, f_Y , for variable Y is found by integrating the CDF.

$$F_Y(y) = \int_{-\infty}^y f_Y(t) dt$$

We can integrate the PDF to find the probability of Y being between a range of values:

$$Pr(a \leq Y \leq b) = \int_a^b f_Y(y) dy$$

4.2.3 Bayesian Networks Specific Terminology

Now that we have a decent amount of probability theory to rely on, we delve more specifically into Bayesian networks. Figure 4.1 shows an example network we will use to define some key terms.

To talk about the different nodes of a Bayesian network we require some important conditional independence notations, using the example Bayesian network in Figure 4.1. Given variables, \mathbf{V} , where \mathbf{V} is the set of variables A, B, C, D , and E , in the directed acyclic graph, \mathcal{G} , as shown in Figure 4.1:

- The set of variables, \mathbf{P} , with an edge from \mathbf{P} to V are the parents of V .
In the example, A is the parent of both B and C , B and C are the parents

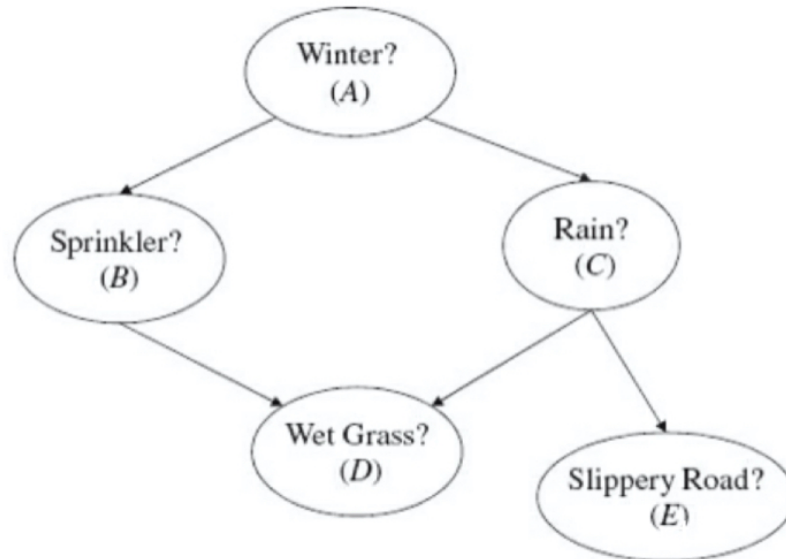


Figure 4.1 Example Bayesian network from *Modeling and Reasoning with Bayesian Networks* by Adnan Darwiche (26)

of D , and C is also the parent of E .

- The set of variables, \mathbf{D} , with a directed path from V to \mathbf{D} are the descendants of V , and V is the ancestor of \mathbf{D} . In the example, B, C, D , and E are descendants of A , D is also a descendant of B and C , and E is also the descendant of C , but not of B or D as there is no directed path from B or D to E . A is the ancestor of B, C, D , and E , B and C are the ancestors of D , and C is the ancestor of E .
- All variables in \mathcal{G} other than V , $\text{Parents}(V)$, and $\text{Descendants}(V)$ are Non-descendants of V .

With these terms, we can make an independence statement of the DAG, \mathcal{G} , using the notation \mathbf{I} , to signify independence. Using this notation, we

write:

$$I(V, \text{Parents}(V), \text{Non-descendants}(V)) \text{ for all variables } V \text{ in } \mathcal{G}$$

This means that every variable V is conditionally independent of its Non-descendants, given its parents. As an example from Figure 4.1, if we know that it is raining, knowing that the grass is wet will not influence our belief in whether or not the road will be slippery. However, if we did not know whether or not it was raining, knowing that the grass is wet would certainly influence our belief in the likelihood the road will be slippery.

Using this new terminology we can better state the components of each network. Bayesian networks for variables \mathbf{V} are a pair (\mathcal{G}, θ) where \mathcal{G} is a directed acyclic graph (DAG) over \mathbf{V} called the network structure, and θ is a set of conditional probability tables (CPT) for each variable in \mathbf{V} , called the network parameterization. We need a CPT for each variable V in \mathbf{G} and $\text{Parents}(V) = P$ which gives us every $Pr(v|p)$ for all values of v in V and p in P .

4.2.4 Creating Bayesian Networks

Now that we understand what Bayesian networks consist of, we can consider creating new networks through several steps. When we want to build a new Bayesian network, we begin by determining the relevant variables we are considering and their possible values. For projects such as this one, the variables used are determined both by what is useful for the model and

what variables it is feasible to access data for. We then connect our variables in a DAG, creating our network diagram. This can be done manually when we understand the dependence relationships between our variables, or with a computer program that determines the structure of the DAG by using data. The last step to setting up the Bayesian network is to define the CPTs for each variable and its parent variables.

We will define variables which fall under three separate categories: query variables, evidence variables, and intermediary variables. Query variables are the variables that we are asking the questions about, the outcomes we are interested in. An example query variable for this project would be the finding in a Title IX investigation. Evidence variables are those which we assert evidence about, comparable to an independent variable. An example evidence variable in this project could be which standard of evidence is used in Title IX investigations at the school. Intermediary variables are used to navigate the relationship between the other two types of variables, and are often less obvious modeling choices. Depending on the model and which variables we have data on and which are of interest, variables can play different roles.

4.2.5 Additional Properties of Probabilistic Independence

The related probabilities defined within our Bayesian network, (\mathcal{G}, θ) , have a number of graphical axioms. As it is important for understanding the notation of these axioms, we repeat the definition and notation of conditional independence. Recall from the earlier independence statement using the notation **I** that:

$$\mathbf{I}_{Pr}(X, Z, Y)$$

states that the probability distribution Pr from Bayesian network (\mathcal{G}, θ) finds X independent of Y given Z . We can also then say that:

$$Pr(X|Z, Y) = Pr(X|Z) \text{ or } Pr(Y, Z) = 0$$

Having reviewed conditional independence, we move on to the graphical axioms.

Axiom 4.1 (Symmetry).

$$\mathbf{I}_{Pr}(X, Z, Y) \text{ if and only if } \mathbf{I}_{Pr}(Y, Z, X)$$

This states that if X is independent of Y given Z , then Y must be independent of X given Z as well.

Axiom 4.2 (Decomposition).

$$\mathbf{I}_{Pr}(X, Z, Y \cup W) \text{ only if } \mathbf{I}_{Pr}(X, Z, Y) \text{ and } \mathbf{I}_{Pr}(X, Z, W)$$

Essentially, if knowing $Y \cup W$ does not change our beliefs in X , given Z , then knowing only Y or W also will not change our beliefs in X . We note that the opposite property, composition, does not always hold.

Axiom 4.3 (Weak Union).

$$\mathbf{I}_{Pr}(X, Z, Y \cup W) \text{ only if } \mathbf{I}_{Pr}(X, Z \cup Y, W)$$

This axiom claims that if knowing the combined information $Y \cup W$ tells us nothing about X , given that we know Z , then knowing just Y will not make the rest of the information, W , relevant.

Axiom 4.4 (Contraction).

$$\mathbf{I}_{Pr}(X, Z, Y) \text{ and } \mathbf{I}_{Pr}(X, Z \cup Y, W) \text{ only if } \mathbf{I}_{Pr}(X, Z, Y \cup W)$$

This means that if we learn nothing about X from Y given that we know Z , and we find W to be independent of X given that we know Z and we know Y , then the combined information $Y \cup W$ must have been irrelevant to X .

We also have another property, Intersection, which only applies to strictly positive probability distributions.

Axiom 4.5 (Intersection).

$$\mathbf{I}_{Pr}(X, Z \cup W, Y) \text{ and } \mathbf{I}_{Pr}(X, Z \cup Y, W) \text{ only if } \mathbf{I}_{Pr}(X, Z, Y \cup W)$$

This tells us that if X is independent of Y given W , and X is independent of W given Y , then X is independent of $Y \cup W$, given we know Z .

4.2.6 Graphical Expressions of Independence

One of the features of a Bayesian network is the network structure visual, such as Figure 4.1, which we can use to draw conclusions about independence relationships. Primarily, we discuss what it means to be d-separated, which is a graphical way of checking the independencies from the previously listed graphical axioms. We write $dsep_G(\mathbf{X}, \mathbf{Z}, \mathbf{Y})$ to say that X and Y are

d-separated by Z in the DAG, \mathcal{G} .² This is true if for every pathway between X and Y in \mathcal{G} , Z blocks the path.³ This then tells us that $\mathbf{I}_{Pr}(\mathbf{X}, \mathbf{Z}, \mathbf{Y})$, which says that X is conditionally independent of Y , given Z .

While d-separation always leads to conditional independence, it is important to note that not all conditional independence relationships can be found with d-separation, unless the DAG is intentionally parameterized to represent all independencies with d-separation.

We have a few terms to further clarify the relationship between d-separation and independence within a DAG.

A DAG is called an **Independence Map** if and only if every independence found from d-separation holds for the probability distribution Pr :

$$dsep_G(X, Y, Z) \text{ only if } \mathbf{I}_{Pr}(X, Y, Z)$$

We call the DAG a **Dependency Map** of Pr if and only if every independence relation is showed through d-separation:

$$\mathbf{I}_{Pr}(X, Y, Z) \text{ only if } dsep_G(X, Y, Z)$$

Lastly, if a DAG is both an I-MAP and a D-MAP, we call it a **Perfect Map**.

² $\mathbf{X}, \mathbf{Y}, \mathbf{Z}$ are disjoint sets of nodes in \mathcal{G} , so they can represent more than one variable each. They are bolded to show they are each a set of variables.

³Depending on the arcs in the pathways, Z blocking the path can have different meanings. For more information on blocking see chapter 4.5 of Darwiche.(26)

4.2.7 Most Probable Explanation

As well as looking at independence through d-separation, Bayesian networks allow us to update our understanding of a number of variables given some new evidence. One piece of information we are often interested in is called the Most Probable Explanation (MPE), which is the most likely value of every variable given some evidence, e . Essentially, given a piece of evidence, we want to know the most likely state of every variable in the network together, not just the most likely value for any individual variable in our network.

More formally, the MPE is the instantiation x_1, \dots, x_n of all network variables X_1, \dots, X_n given evidence e where $Pr(x_1, \dots, x_n | e)$ is maximal.

The Most Probable Explanation is actually a specific case of another idea, the Maximum a Posteriori Hypothesis (MAP). This generalized form is very similar to the MPE, except it involves the most likely values for some subset of the network variables, while the MPE always considers the entire set of network variables.

For some subset M of the network variables, we want the instantiation m of M that maximizes $Pr(m | e)$. Here, the MAP is the instantiation m .

4.2.8 Querying a Bayesian Network: Local and Global Beliefs

When we query our Bayesian network, it is useful to distinguish between local and global beliefs.

Local beliefs are represented by parameters $\theta_{x|u}$ which tells us the likelihood of different values of variable X given the parent variables, U . In this situation we are considering the impact of the variables that have a

direct impact on X .

Global beliefs, on the other hand, are a probability $Pr(y|e)$ which represent our beliefs in the states of variable Y given the state of some other variable, E . Here, E and Y can be distantly related, rather than E being the parent variables of Y .

4.3 Literature Review

After gaining an understanding of Bayesian networks, we completed a brief literature review of Bayesian networks and how they have been applied. Our goal was to find a model that functioned similarly to the one we hoped to create — in other words, to have a model upon which to base our Title IX network on. We primarily considered papers that used Bayesian networks within a legal context. Some of the papers we read included: “The “Jury Observation Fallacy” and the Use of Bayesian Networks to Present Probabilistic Legal Arguments,”(27) “Reasoning About Evidence Using Bayesian Networks,”(39) “Analyzing the Simonshaven Case Using Bayesian Networks,”(28) “Constructing Bayesian Networks for Criminal Profiling from Limited Data,”(19) and “A Bayesian Belief Network Classifier for Predicting Victimization in National Crime Victimization Survey.”(50) The main issue with these legal applications was that they were not predictive models. The typical use of a Bayesian network in the law is to determine the probability of guilt or innocence given certain evidence. Because our interest lay in predicting the outcome of a situation, not determining whether or not an event actually occurred, these models were quite different from what

we were looking for. We found that predictive models are more common in healthcare applications, though the medical jargon makes them less accessible. These papers included: “Bayesian Networks for Risk Prediction Using Real-World Data: A Tool for Precision Medicine”(17) and “A Bayesian Network Model for Predicting Post-stroke Outcomes With Available Risk Factors.”(45)

In the following chapter we explain the process of creating a Bayesian network using real data related to Title IX, and then analyze the relationships we find.

Chapter 5

Bayesian Network Applied Work

5.1 Introduction to Our Bayesian Network

The network we created came from a data set that included primarily continuous data about reporting and Title IX investigations from all of the colleges and universities in the state of New York in 2018. This data came from New York's Enough is Enough annual data report, where 2018 is currently the only year with available data.⁽⁸⁾ Data on additional variables for this data set was given to us by Dr. Tara Richards, with whom we communicated with on several occasions throughout this thesis. After reading some of Dr. Richards' research on Title IX we reached out to her to learn more about different Title IX data sets. Dr. Richards provided us with the extra variables for the New York data set, which is how we were able to include factors such as the presence of fraternities and a school's NCAA

division in our analysis in this chapter.

While the data set did not allow for analysis of the recent Title IX changes, it did allow us to consider some of the relevant factors in Title IX reporting, such as how residential a school is, school size, and presence of fraternities and sororities. We were also able to gain experience creating real Bayesian networks from data, and in Chapter 6 we show the structure of a basic network that could be used to analyze the recent changes given a more relevant data set.

5.2 Process of Creating the Network

This network was created using a data-driven approach in the R package `bnlearn`. In a data-driven network data is loaded into `bnlearn` and the program learns the network structure and parameters from the data. This is in contrast to an expert created network, where the probabilities and relationships of the variables are known beforehand and so the network structure is told to the program.

After loading the data set into R, the first thing we addressed was deciding which variables we were interested in looking at, and making sure they were in the ideal form for this work. After reconstructing some of the variables so as to create percentages and scale some variables while still in the Excel sheet, the data set we put into R had 90 different variables, far more than we could look at for this project. In creating a Bayesian network or other model, we take all of the variables available, and remove the variables that are not relevant to the problem we are addressing. Initially, a fairly large

number of variables were selected, but after forming a Bayesian network with them all, it was clear the network would be too complicated to look at with so many nodes and arcs. As we discovered during the literature review of Bayesian networks in the social sciences, Bayesian networks are typically not used in such a predictive manner. The classic examples we saw both in textbooks and in the literature have a more clear vertical structure, where parent variables are higher in the graph, and there is a fairly straightforward downward movement demonstrating causality. Because of the complicated and often unclear relationships between the variables of this data set, all of the graphs created were much more circular and harder to follow, adding to the need to limit the included variables.

In addition to questions of which variables to include, there was the decision of whether to leave the large number of continuous variables as continuous or attempt to break them down into categorical variables. In our classroom and textbook experience, as well as most of the literature we read, primarily categorical data was used. Categorical data allows for conditional probability tables to be used to parameterize the Directed Acyclic Graph, which are both easy to read and a good visual. Continuous data does not allow for conditional probability tables, and so the Bnlearn package in R deals with continuous data by giving the values for intercepts, coefficients, and standard deviations to create separate Gaussian distributions depending on the parent variables. This is noticeably harder to compare and determine results. However, the issue with choosing to force continuous variables into categorical ones is that the process of categorizing the variables necessarily changes parts of the graph structure. As we did not want to lose information

from the original data, we chose to keep the continuous variables as they were. This did limit some of the comparisons we were able to do, as while Bnlearn will evaluate a continuous variable with discrete parents, it will not consider a discrete variable with any continuous parents, though this did not come up much.

After creating several different networks with slightly different variables, sometimes categorizing key variables and other times not, the network we settled on included $n = 183$ cases for the following 13 variables:

- Total number of incidents per 100,000 students (continuous variable of all the incidents reported to Title IX at the school)
- Number of incidents on campus per 100,000 (continuous variable of all the incidents reported that occurred on campus)
- Number of Title IX cases pursued per 100,000 (continuous variable of all of the reports that lead to an investigation that was followed through to a finding)
- Number of students found responsible per 100,000 (continuous variable of all of the cases that resulted in a finding of responsibility)
- Number of students expelled per 100,000 (continuous variable of the number of Title IX cases that resulted in expulsion as the consequence for the finding of responsibility)
- School population (continuous variable of the total number of students attending the school)

- Whether there were any sororities (categorical variable with two factor levels representing no sororities or some sororities)
- Whether there were any fraternities (categorical variable with two factor levels representing no fraternities or some fraternities)
- Percent of the student body that is female (continuous variable of the percent of the student body that was female)
- Percent of the student body that is nonwhite (continuous variable of the percent of the student body that was not white)
- How residential the campus is (categorical variable with 3 factor levels of low residentiality [fewer than 25% of degree-seeking undergraduates live on campus], medium residentiality [25-49% of degree-seeking undergraduates live on campus], and high residentiality [at least half of degree-seeking undergraduates live on campus])
- The NCAA level of the school (categorical variable with 4 factor levels of 0 [No NCAA division], 1 [Division 1], 2 [Division 2], and 3 [Division 3])
- Whether the school is Division 1 or not (a categorical variable with 2 factor levels representing whether a school was Division 1 or not)

For the purposes of this project variables that counted the number of incidents, findings of responsibility, and expulsions were the query variables, the ones we were interested in being able to predict, or see how they were impacted. The other variables, such as fraternities, NCAA level residentiality,

etc., were the evidence variables; variables whose impact we were interested in.

We used `hc()`, the hill climbing algorithm, which is a score based algorithm for learning the network structure based on the data. There are also other types of structure learning functions, such as constraint based, hybrid models, and Bayesian network classifiers, but this was the algorithm commonly used in the examples we saw for similar data types. After creating a network structure we were able to plot the network, and see the nodes and arcs created by the learning algorithm. After plotting the structure we fit the parameters, using `bn.fit`. This function fits parameters to the network, with a default to using the maximum likelihood parameter estimation, but it can be told to use Bayesian parameter estimation for discrete variables. For categorical variables with categorical parents `bn.fit` creates a set of conditional probability tables. For continuous variables with continuous parents, conditional probability tables are impossible as there are an infinite number of possible values. Instead `bn.fit` returns the coefficients and standard deviation of the residuals for a regression line. Each coefficient corresponds to a continuous parent variable. For continuous variables with both continuous and categorical parents `bn.fit` returns multiple regression lines, one for each possible value of the categorical parent. This makes sense as it is a compromise between the conditional probability tables and regression curves. For continuous variables with only discrete parents, `bn.fit` returns regression lines with only intercepts and standard deviation of the residuals for every combination of the parent variables. So for example, if there are two discrete parent variables with two and four factor levels

respectively, there will be eight different regression lines given. Figure 5.1 shows the original directed acyclic graph created:

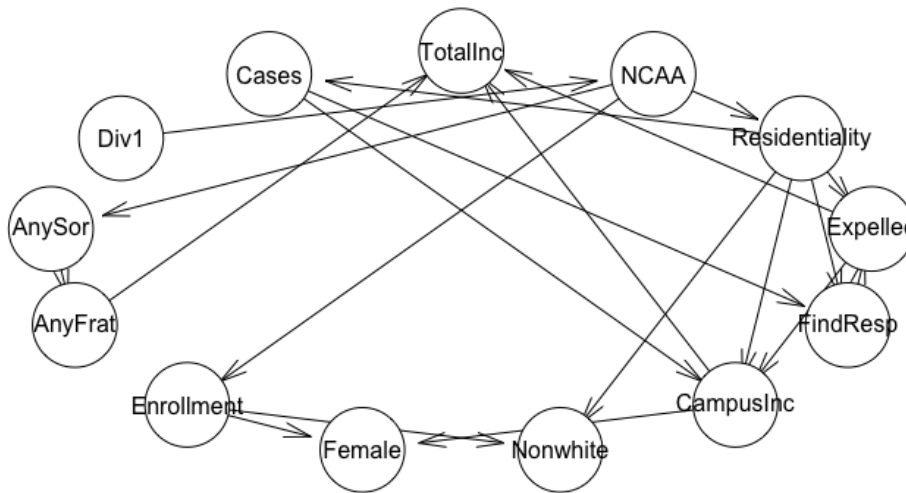


Figure 5.1 Initial Bayesian network created by bnlearn from chosen NY data variables

We based our analysis and assumptions of relationships from the dynamics that showed up in the graph structure, as well as relationships we expected to see and wanted to test. As is the case with data-driven Bayesian networks, not every arc that the program came up with made sense realistically. For example, there was initially an arc from the number of incidents on campus node to the percent female node. While it does not make sense for the number of incidents to have an impact on the percent of the student body that is female, it does suggest there is a relationship worth exploring there. We confirmed that changing the arcs did not change the probabilities of the variables, it just allowed for different questions to be asked and answered. Based on this, we at times created new arcs,

dropped others, and reversed the direction of some based on a more realistic understanding of the ways the variables could interact, in order to look at different relationships. For example, setting an arc from residentiality to the Incident Total variable, which did not initially exist, does not change the Incident Total variable, instead we are able to print the conditional probability tables or regression lines of the Incident Total variable, which will show the different expected values for Incident Total depending on residentiality. If residentiality really does not have much of an impact on the number of total incidents, the tables or coefficients of the lines will show similar expectations for each level of residentiality. While the Bnlearn package allows us to draw all possible arcs between variables in order to see all the potential relationships, this creates conditional probability linear regression tables that are too complicated to be useful. Instead, we look at variables with just a few parent variables at a time, so we can see how the variables are interacting with more clarity.

Bnlearn allows for two primary ways of examining the probabilities: printing out the probability of the different states of a variable given the assigned parent variables as shown by the arcs, or querying the variable, which is when we ask a specific question such as the probability of the total incidents being above 300 given that there are no fraternities ($\text{AnyFrat} = 0$). The advantage to querying is that we can ask questions about variables that do not currently have an arc between them, rather than having to assign an arc if there is not already one there. The disadvantages are that asking the probability of being above or below a value does not make as much sense for continuous variables, and that the `cpquery` function returns slightly different

values each time, as it does not just take the conditional probability of the event from the data. Because so many of our variables were continuous, using cpquery did not make much sense. We instead based our analysis off of the conditional probability tables and Gaussian distributions, which is why we had to redraw the arcs frequently.

5.3 Analysis of the Network

One of the variables we were quite interested in was the impact of the presence of fraternities at a school. Fraternities are often discussed in the context of campus sexual violence, though their role is not very clear from a data perspective.(12) We expected to see more reported incidents at schools with fraternities, however this was not the case.

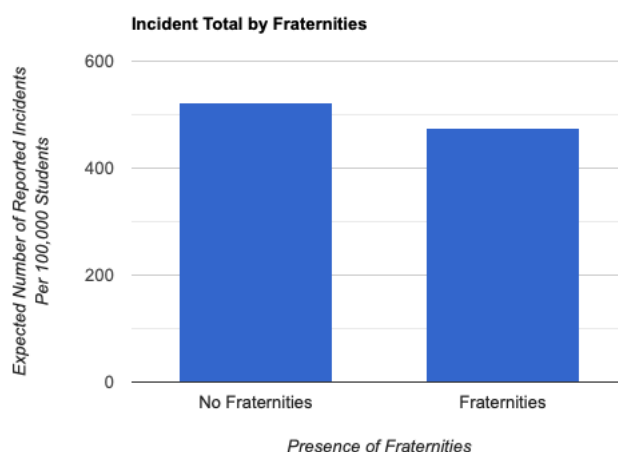


Figure 5.2 Expected Number of Reported Incidents per 100,000 students, graphed by whether or not there are fraternities associated with the school

In Figure 5.2 we can see that the expected number of incidents per 100,000

students for schools without fraternities was 523, while for schools with fraternities we expect 476 incidents. Though this difference is not huge, the direction of it was surprising, as we expected schools with fraternities to see higher incident rates. We questioned whether the residentiality of a school might be impacting this, so we looked at the predictions for incident totals by the variables for fraternities and residentiality.

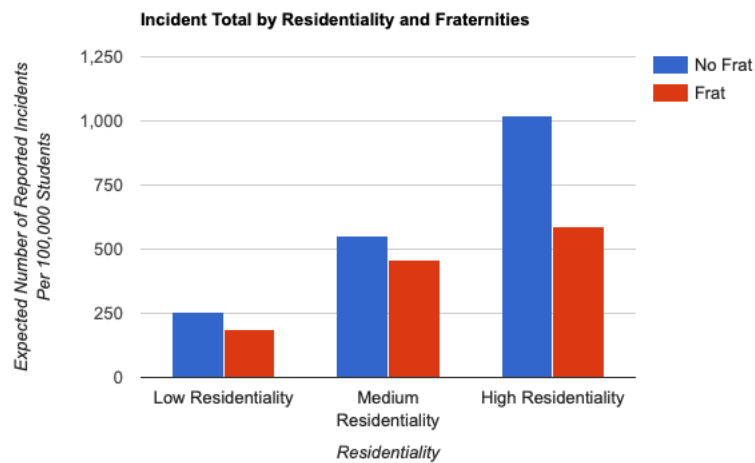


Figure 5.3 Expected Number of Reported Incidents per 100,000 students, graphed by residentiality level and whether or not there are fraternities associated with the school

Looking at Figure 5.3, we can see that there is a clear trend that more residential schools see more incidents reported. This is not very surprising, as we would expect schools with more students living on campus to get more reports of Title IX violations. It is possible that students who live off campus face a similar amount of sexual misconduct, but they are presumably less likely to bring these experiences to their Title IX offices than someone who

experienced violence on campus. Within the residentiality trend, we can see that schools with fraternities consistently have lower rates of expected incidents at each level of residentiality. It is not entirely clear why this is occurring. One theory is that fraternities actually lead to safer environments. Entire fraternities can find themselves in hot water after accusations of sexual violence leveled against individual members,(43; 18) so it is possible that fraternities have adapted to prevent reportable sexual misconduct at their events. On the other hand, it also seems feasible that students who face sexual violence at a fraternity event are less likely to file a report, as the idea of going up against a member of a fraternity is intimidating. The findings on fraternities call for further analysis of this issue, as the impact of Greek life on sexual violence is still unclear.

We also were quite interested in the general role of residentiality within the Title IX process. As mentioned above, we expect more incidents reported at schools where more students live on campus. Figure 5.4 is the graph for the total number of incidents by residential level.

As we noted, the trend here is clear: more students on campus leads to more incidents reported. Presumably this is because students are likely to report incidents to their Title IX office only if they believe the school can do something about it, and so students who face misconduct off campus by a non student have little reason to report to Title IX.¹

We also looked into the impact of NCAA division alongside residentiality, in order to account for any relationship between NCAA levels and residentiality.

¹The reason they still might report to Title IX is that Title IX can offer support and accommodations to students assaulted off campus, even if there is no investigation of the perpetrator.

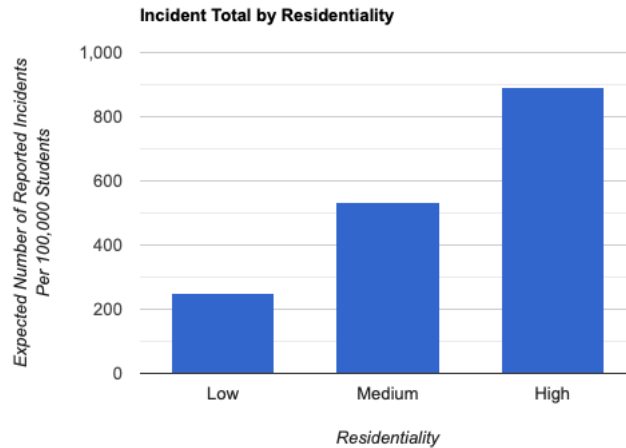


Figure 5.4 Expected Number of Reported Incidents per 100,000 students, graphed by residentiality level

Figure 5.5 shows the bar graph:

The relationship between residentiality and NCAA division here is somewhat unclear. Division II schools appear to have the most consistent low incident rates, though Division I schools also tend to the lower side. Division III schools with medium or high residentiality have very high expected numbers of incidents, as well as schools without an NCAA division on high residentiality campuses. Here, higher residentiality generally leads to an increase of expected reported incidents, except for in the case of Division III schools, where medium residentiality campuses see more incidents than high residentiality campuses. Holding residentiality constant, similar to the fraternities variable, we are left without answers for whether schools with competitive athletic departments are somehow preventing sexual misconduct, or if they are more likely to have campus cultures that

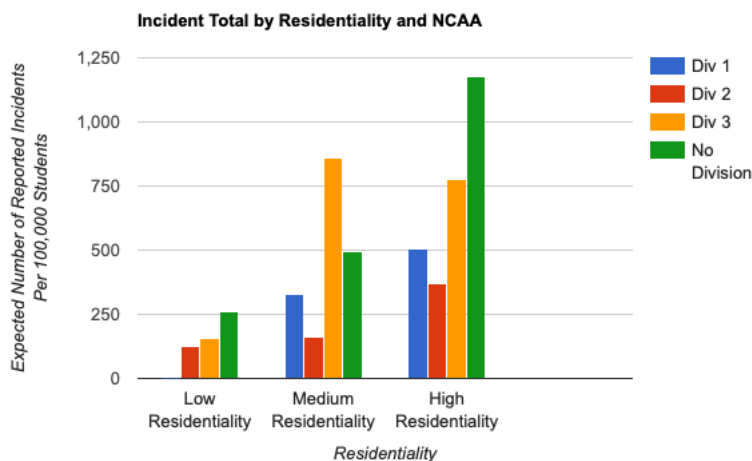


Figure 5.5 Expected Number of Reported Incidents per 100,000 students, graphed by residentiality level and NCAA division²

discourage reporting.

We also looked at the impact of NCAA divisions on the number of expulsions per 100,000 in Figure 5.6, which follows a consistent trend where schools with competitive athletics see less expulsions.

We were also interested in how the population of the school impacted the number of students who were found responsible per 100,000 students. As both of these variables are continuous, the prediction for the number of incidents is a line, with intercept 140.6277 and coefficient for enrollment population of -0.0052. $Y = -0.0052X + 140.6277$. The coefficient for total enrollment, though negative, is so close to zero that it does not have much of an impact.

We looked at the effect of the percent female variable on the number of incidents that occurred on campus. Similar to before, because both of

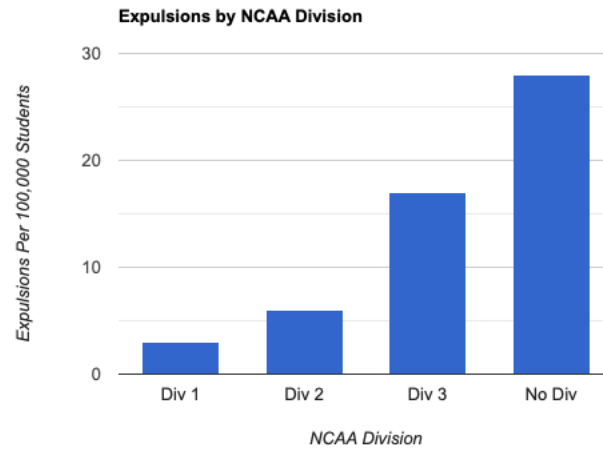


Figure 5.6 Expected Number of Expulsions per 100,000 students, graphed by NCAA division

these variables are continuous our result is a line with intercept 1070.6421 and coefficient for percent female of -12.7686. $Y = -12.7686X + 1070.6421$. This implies that having a higher number of women on campus leads to less incidents. This is not surprising as men are more typically the perpetrators of sexual violence,(20) so a campus with less men would presumably see less sexual misconduct.

The impact of the percent of non white students was not analyzed here, as the node on the original graph had only a connecting arc with residentiality and enrollment, suggesting the direct impact on incident rates was minimal. This is another area that requires future study and better data, as we have demonstrated throughout this thesis the importance of looking at race within Title IX.

We also wondered how the different query variables interacted with each

other. How many of the incidents were on campus, and of those, how many will lead to a formal Title IX case, and so on? In Figure 5.7 we compare the means of each query variable:

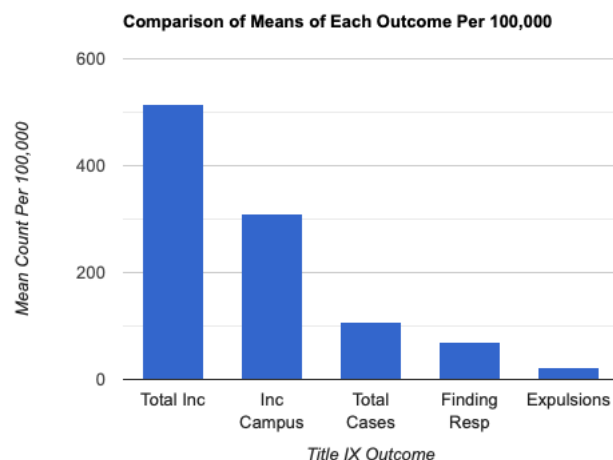


Figure 5.7 Count of several Title IX outcomes per 100,000 students to see how incidents progress through the Title IX process.

We can see that the above graph of the different Title IX outcomes shows only a predicted drop in numbers for each step of the Title IX process, which is to be expected as at each stage some cases will be excluded from the next step. In order to see if the trend varies in unexpected ways we repeat this analysis but also take residentiality into account. We first look at the expected count for each outcome, separated by residentiality in Figure 5.8.

In Figure 5.8 we can see the trend from before repeated at each level of residentiality. As expected, the low residentiality schools see less incidents. However, when we change the bar graph to look closer at the outcome trends within each residentiality level, the pattern becomes less clear as in Figure

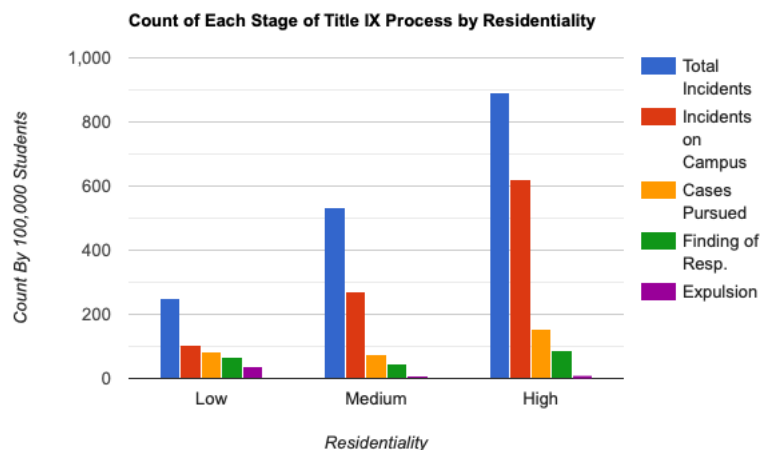


Figure 5.8 Count of several Title IX outcomes per 100,000 students graphed by residentiality level

5.9.

In Figure 5.9 we can see that the total incidents and number of incidents on campus follow the same trend where low residentiality sees the least total incidents and on campus incidents. But the number of cases and the number of findings of responsibility show a different residential trend, where medium residentiality sees the lowest rate of Title IX cases and guilty findings, and the high residentiality schools again see the most Title IX cases and guilty findings. Lastly, the most expulsions occur at low residential schools, and the least expulsions occur at medium residential schools. The lack of a consistent pattern is surprising, and suggests the residentiality level of a school impacts the likelihood of incidents becoming formal cases, as well as the likelihood of investigations leading to a finding of responsibility, and an eventual likelihood of expulsion.

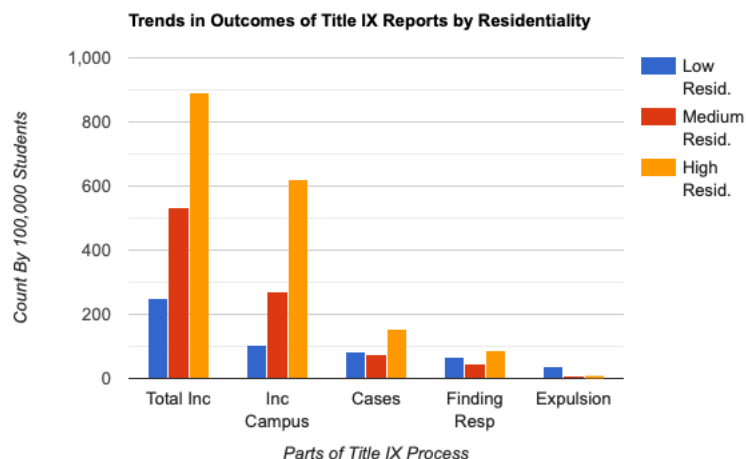


Figure 5.9 Trends in several of the Title IX outcomes per 100,000 students graphed by residentiality level

5.4 Conclusions

Though the data does not tell us about the recent Title IX changes, it still brings up some interesting related issues. The level of residentiality showed a strong impact on the number of incidents reported, with higher residentiality schools seeing more incidents. As we noted earlier, presumably at high residentiality schools more students experience sexual misconduct on campus from other students, which they then report to their Title IX office. Off-campus students likely experience sexual misconduct at similar rates, but may not report incidents of misconduct that occurred with a non student as their school cannot investigate this. The impact of residentiality is significant especially when we consider the recent change to not include most reports of off-campus misconduct as a part of schools' Title IX liability.

Students who live off campus are more likely than ever to be less protected by Title IX. Students who live off campus presumably spend more time off campus than those who live on campus, leaving them more exposed to sexual misconduct that is not covered by Title IX, even if the perpetrator is also a student. As mentioned in Chapter 3, it is worth considering how the Covid-19 pandemic will impact students' ability to seek protection from Title IX, when most students are currently living off campus due to the pandemic.

The impact of the presence of fraternities as well as the NCAA level was also notable. Given the stories about sexual violence at fraternities and school protection of athletes who commit sexual violence, we expected to see more incidents at schools with fraternities and more competitive athletic departments. However, this was not what was demonstrated in this data set. These findings call for further research to understand what is actually occurring. Lower incident rates could signify either less sexual misconduct, or campus environments that discourage reporting misconduct to Title IX. Additional research, in the form of both Title IX data as well as student surveying to get a better sense of the campus climate, would help answer these questions.

Chapter 6

Conclusions and Future Work

6.1 Conclusions

This thesis was intended to be an exploration of the recent changes to Title IX through a joint approach of theoretical consideration and data based analysis. In Chapter 1, we highlighted some of the key issues in the recent Title IX literature, and discussed the problem of policies that prioritize accused students. We found the question of false accusations to be an important part of the Title IX debate, and demonstrated the improbability of a student being punished because of a false allegation. Chapter 2 discussed the insincere use of race as a tool to weaken Title IX protections, as well as the need for more consideration of the experiences of women of color within Title IX. In Chapter 3 we found many of the Trump Department of Education changes to be harmful, especially to complainants. In particular, we expressed the likely consequences of introducing live cross examinations potentially done by attorneys, we modeled the predicted significant increase in guilty students

being found innocent under a higher standard of evidence, and we addressed the risks of ignoring off campus sexual misconduct especially during the pandemic. Chapters 4 and 5 introduced the readers to Bayesian networks and analyzed the impact of relevant factors such as level of residentiality, presence of fraternities, and NCAA division on reported Title IX incidents and case outcomes.

Overall, we found that the recent changes were largely centered around protecting the rights of accused students. Especially considering the low likelihood of false allegations we demonstrated in Chapter 1, these changes push Title IX in the wrong direction. There was minimal regard for the needs of complainants, in particular women of color complainants. The changes move Title IX away from being a more victim-centered option and towards a process that imitates criminal proceedings. We expect these changes to result in harming complainants, students of color, queer students, and low income students. As a civil rights law enacted to ensure equal access to education, Title IX needs to do a better job of protecting students equally, and separating itself from the criminal justice system.

In the rest of this chapter we go over the clear need for more and better data on Title IX, future avenues of research, and the expectations for Title IX under President Biden.

6.2 Need for More Data Collected

In working on this thesis it became very clear that the Title IX data currently available is insufficient for both a general analysis of Title IX, let alone an

impact analysis of the recent changes. The lack of recorded data prevented meaningful analysis of many of the changes and more ongoing concerns of racial and other bias in the Title IX process. Evaluating these issues would not be particularly challenging given that the appropriate data was collected by the federal government from each schools' Title IX office. Currently the data collected by the federal government is just the Clery Act data from Annual Security Reports, which is much less extensive than needed. We have made a list of the pieces of information that would ideally be collected for each incident reported to a Title IX office in US colleges and universities.

List of questions for each Title IX incident reported:

1. School name
2. Type of Title IX violation (i.e. harassment, stalking, sexual violence, rape)
3. Total number of incidents per 100,000 students reported to the school
4. Whether or not the violation occurred on campus or at a school affiliated location/event
5. Whether or not the school's policy covers misconduct that did not occur on campus or at a school affiliated location/event
6. Whether the schools' policy uses a standard where an incident must be "severe, pervasive and objectively offensive," rather than "severe, pervasive or objectively offensive"
7. Whether the perpetrator was a student of the same school or consortium

8. The gender of the complainant
9. The gender of the respondent
10. The race of the complainant
11. The race of the respondent
12. The sexual orientation of the complainant
13. The sexual orientation of the respondent
14. The financial aid status of the complainant
15. The financial aid status of the respondent
16. Whether or not the complainant wishes to continue the incident report into an investigation
17. Whether or not the incident is pursued as an investigation
18. If a reported incident is not pursued as a formal investigation, the reason for this decision
19. Whether the school has a strict timeline within cases must be completed
20. The length of the entire process, from date of report of incident to when the case is closed
21. Whether alternative resolution processes or mediation was used, and if so, what the outcome was
22. Which standard of evidence was used in the investigation: Preponderance of the Evidence or Clear and Convincing

23. Whether the school policy permits live cross examination of all parties and witnesses by the advisors of each party, or if questioning is done through the impartial adjudicator
24. Whether the complainant had an attorney as their advisor
25. Whether the respondent had an attorney as their advisor
26. What the finding of the investigation was
27. If there was a finding of responsibility for any of the claims, what the sanctions for the respondent were
28. Whether any accommodations given to the complainant, if so, what they were

We would want future incidents counted, as well as all incidents in the last 5 or 10 years. This would allow for us to see changing trends in case outcomes within schools that altered their policies. Additionally, we would want information about the schools themselves, such as:

1. School size
2. Gender breakdown of the student population
3. Racial breakdown of the school
4. Percent of queer students at the school
5. Percent of students on financial aid at the school

This information, combined with the incident-specific data, would allow us to begin evaluating the consequences of some of the recent changes. Many of the Trump administration changes would not have clear data-based answers for a while, especially with the current pandemic which has dramatically changed the likelihood of students even being on campuses. However, some of the changes had already been instituted at some states or individual schools before the pandemic, so we might be able to find answers by comparing those schools to the others. For example, the *Doe v. Allee* case in California in 2019 forced schools to change to allow live cross examination by the advisors of each party before this policy was instituted nationally by the Trump DOE.⁽⁶⁾ As mentioned in Chapter 3, Dr. Tara Richards has begun research on the impacts of the *Allee* case.

6.3 Proposed Future Avenues of Inquiry

Having access to the types of data brought up above would enable us to begin finding answers for some critical aspects of Title IX beyond just the recent changes. We could start answering questions about racial bias, such as: are students of color reported at higher rates than white students? How do the findings of investigations differ for complainants of color and respondents of color? Do students of color receive different sanctions than white students when they are found responsible? The idea of collecting this type of data is not unprecedented. The Obama administration released a 2014 Dear Colleague Letter addressing racial discrimination in school disciplinary procedures for primary and secondary schools. One of the

things the letter called for was proper data collection, so that this issue could be better evaluated and remedied. Based on this, it is unclear why the federal government has not called for similar data requirements for Title IX, as even less data is collected there.¹

There are also ongoing general concerns with the fairness of the system that we could examine with this data. For example, does having an attorney as a representative impact the outcome of cases? Are there factors that predict whether students have an attorney, such as gender, race, and socio-economic status?

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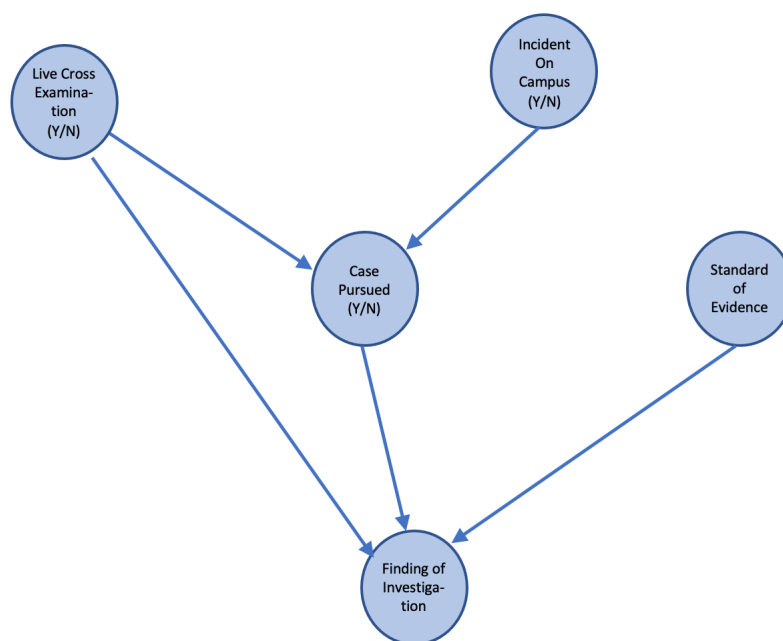


Figure 6.1 Proposed base network for future research

¹This letter has since been rescinded by the Trump administration

In Figure 6.1 we propose a base model to start future networks from. The variables and relationships in Figure 6.1 are based on our understanding of the nature of the recent changes. The additional factors we listed earlier could then be incorporated into this network, depending on which relationships are demonstrated by actual data. While the strength of the relationships between the five variables included is currently unknown, presumably there would be some conditional relationships here. For example, we would expect a school with a higher standard of evidence to find students responsible at a lower rate than schools with a lower standard of evidence. Similarly, the introduction of live cross examination by the advisors of each party might be expected to both lower the number of students who proceed with formal investigations and lower the rate of findings of responsibility because of the intimidating nature of live cross examination for victims of sexual violence. Ideally, with a large enough data set, we could create a network that could predict the outcome of different incidents based on many of the relevant factors about the complainant, respondent, misconduct, and the policies of the school. Figure 6.1 only includes a few variables, both for clarity's sake and also because we do not want to assume the impact of many of the variables without actually seeing what the data shows.

The answers to the questions raised above are incredibly important, especially as Title IX was intended to grant equal access to education. Finding empirical evidence that this system fails to protect students equally would put serious pressure on both the government and schools to make dramatic changes. Continuing to not collect this data undermines the validity of the federal government's claims, under both Democratic and Republican

administrations, to want to improve Title IX.

6.4 What Does a Biden Future Look Like?

The Biden administration has already denounced the Trump DOE changes, though it remains to be seen exactly how the Biden DOE will address the new rule. Biden played a large role in the Obama administration's push to eliminate campus sexual misconduct and other campaigns for women's rights during his vice-presidency. As a senator, Biden wrote the Violence Against Women Act (VAWA) in 1990, which is still an important piece of gender legislation today. Addressing institutional sexual discrimination is undoubtedly a significant issue in the Biden platform.⁽¹⁵⁾ However, Biden's actual plans for responding to the Trump changes are not clear. The Biden-Harris platform's Agenda for Women references the Trump DOE Title IX changes and states in response that "Biden will immediately put this to an end and stand on the side of survivors, who deserve to have their voices heard, their claims taken seriously and investigated, and their rights upheld."⁽⁷⁾ As mentioned in the first chapter of this thesis, rescinding the Trump rule will not be a simple task, and certainly cannot be done 'immediately.' The Trump DOE was able to quickly rescind the Obama era changes because the Obama regulations were passed as a guidance, without the formal regulation process. The Trump rule, on the other hand, was passed through the formal regulation process, which is why it took several years to be finalized. The Trump DOE proposed the new rule several years before it was instituted on campuses. The Biden DOE will have to go through this formal process,

including a comment and response period, in order to rescind any of the Trump policies or institute new changes. Given Biden's policy track record on gender issues and the claims of the administration, they will likely begin working on the formal process soon.

We hope that Biden's DOE acts quickly to reverse the more insidious changes and institutes new policies that move us in the direction of a society that is committed to addressing sexual violence, harassment, and discrimination, as well as pushing for more restorative and less punitive solutions.

Bibliography

- [1] *Title VI of the Civil Rights Act of 1964*, volume 42. U.S.C., 1964. 2000d.
- [2] *Title VII of the Civil Rights Act of 1964*, volume 42. U.S.C., 1964. 2000e.
- [3] *Title IX of the Education Amendments of 1972*, volume 20. U.S.C., 1972. 1681-1688.
- [4] Dear Colleague Letter 2011. Apr 2011.
- [5] Dear Colleague Letter 2014. Jan 2014.
- [6] *Doe v. Allee*, volume 30. Cal. App. 5th, 2019.
- [7] The Biden Agenda for Women. *Joe Biden for President: Official Campaign Website*, Sep 2020.
- [8] Chapter 76 of the Laws of 2015, "Enough is Enough" Annual Aggregate Data Report. 2020.
- [9] *Final Rule Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance*, volume 85, No. 97. Office for Civil Rights, Department of Education, May 2020.

- [10] Hands Off IX. *Know Your IX*, Aug 2020.
- [11] Campus Sexual Violence: Statistics. *RAINN*, 2021.
- [12] Greek Life. *End Rape On Campus*, 2021.
- [13] Michelle Alexander. *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. The New Press, 2020.
- [14] G Anderson. US Publishes New Regulations on Campus Sexual Assault. *Inside Higher Ed*, 2020.
- [15] G Anderson. A Long and Complicated Road Ahead. *Inside Higher Ed*, 2021.
- [16] Michelle J Anderson. Campus Sexual Assault Adjudication and Resistance to Reform. *Yale LJ*, 125:1940, 2015.
- [17] Paul Arora, Devon Boyne, Justin J Slater, Alind Gupta, Darren R Brenner, and Marek J Druzdzal. Bayesian Networks for Risk Prediction Using Real-world Data: a Tool for Precision Medicine. *Value in Health*, 22(4):439–445, 2019.
- [18] Jeremy Bauer-Wolf. Fraternities No More at Swarthmore. *Inside Higher Ed*, 2019.
- [19] K Baumgartner, Silvia Ferrari, and G Palermo. Constructing Bayesian Networks for Criminal Profiling from Limited Data. *Knowledge-Based Systems*, 21(7):563–572, 2008.

- [20] Michele Black, Kathleen Basile, Matthew Breiding, Sharon Smith, Mikel Walters, Melissa Merrick, Jieru Chen, and Mark Stevens. National Intimate Partner and Sexual Violence Survey: 2010 Summary Report. 2011.
- [21] Dana Bolger. Gender Violence Costs: Schools' Financial Obligations Under Title IX. *Yale LJ*, 125:2106, 2015.
- [22] NiCole T Buchanan, Mindy E Bergman, Tamara A Bruce, Krystle C Woods, and Lauren L Lichty. Unique and Joint Effects of Sexual and Racial Harassment on College Students' Well-being. *Basic and Applied Social Psychology*, 31(3):267–285, 2009.
- [23] Elizabeth Kaufer Busch and William E Thro. *IX: The Transformation of Sex Discrimination in Education*. Routledge, 2018.
- [24] Nancy Chi Cantalupo. For the Title IX Civil Rights Movement: Congratulation and Cautions. *Yale LJF*, 125:281, 2015.
- [25] Kimberle Crenshaw. Race, Gender, and Sexual Harassment. *s. Cal. l. Rev.*, 65:1467, 1991.
- [26] Adnan Darwiche. *Modeling and Reasoning with Bayesian Networks*. Cambridge university press, 2009.
- [27] Norman Fenton and Martin Neil. The Jury Observation Fallacy and the Use of Bayesian Networks to Present Probabilistic Legal Arguments. *Mathematics Today-Southend on Sea*, 36(6):180–187, 2000.

- [28] Norman Fenton, Martin Neil, Barbaros Yet, and David Lagnado. Analyzing the Simonshaven Case Using Bayesian Networks. *Topics in Cognitive Science*, 2019.
- [29] B Fisher, F Cullen, and M Turner. The Sexual Victimization of College Women (NCJ). Retrieved from the National Criminal Justice Reference Service: <https://www.ncjrs.gov/pdffiles1/nij/182369.pdf>, 2000.
- [30] Jeannie Suk Gersen. Shutting Down Conversations About Rape at Harvard Law. *New Yorker*, 2015.
- [31] Nancy Gertner. Complicated Process. *Yale L&J*, 125:442, 2015.
- [32] Erica L Green. DeVos's Rules Bolster Rights of Students Accused of Sexual Misconduct. *The New York Times*, May 2020.
- [33] Sarah Haley. *No Mercy Here: Gender, Punishment, and the Making of Jim Crow Modernity*. UNC Press Books, 2016.
- [34] Janet Halley. Trading the Megaphone for the Gavel in Title IX Enforcement. *Harv. L. Rev. F.*, 128:103, 2014.
- [35] Katie Heaney. Almost No One Is Falsely Accused of Rape. *The Cut*, Oct 2018.
- [36] Jennifer S Hirsch and Shamus Khan. *Sexual Citizens: A Landmark Study of Sex, Power, and Assault on Campus*. WW Norton & Company, 2020.
- [37] Linda Hirshman. *Reckoning: The Epic Battle Against Sexual Abuse and Harassment*. Houghton Mifflin Harcourt, 2019.

- [38] Antuan M Johnson. Title IX Narratives, Intersectionality, and Male-Biased Conceptions of Racism. *YALE LJ*, 1969:2016, 1940.
- [39] Michael Kwan, Kam-Pui Chow, Frank Law, and Pierre Lai. Reasoning About Evidence Using Bayesian Networks. *IFIP International Conference on Digital Forensics*, pages 275–289, 2008.
- [40] Shanon Lee. #MeToo Won't Succeed If We Don't Listen to Black Women. Jun 2018.
- [41] David Lisak, Lori Gardinier, Sarah C Nicksa, and Ashley M Cote. False Allegations of Sexual Sssault: An Analysis of Ten Years of Reported Cases. *Violence against women*, 16(12):1318–1334, 2010.
- [42] Kimberly A Lonsway. Trying to Move the Elephant in the Living Room: Responding to the Challenge of False Rape Reports. *Violence against women*, 16(12):1356–1371, 2010.
- [43] Robert McCoppin and Tony Briscoe. Northwestern's Frats in Crisis Amid Sexual Assault Reports. *Northwestern's frats in crisis amid sexual assault reports - Northwest*, Feb 2017.
- [44] Jake New. Burden of Proof in the Balance. *Inside Higher Ed*, 2016.
- [45] Eunjeong Park, Hyuk-jae Chang, and Hyo Suk Nam. A Bayesian Network Model for Predicting Post-stroke Outcomes with Available Risk Factors. *Frontiers in neurology*, 9:699, 2018.
- [46] Elizabeth Redden. Sexual Assault and Study Abroad. *Inside Higher Ed*, 2012.

- [47] Celene Reynolds. The Mobilization of Title IX Across US Colleges and Universities, 1994-2014. *Social Problems*, 66(2):245–273, 2019.
- [48] Tara N Richards. No Evidence of “Weaponized Title IX” Here: An Empirical Assessment of Sexual Misconduct Reporting, Case Processing, and Outcomes. *Law and human behavior*, 43(2):180, 2019.
- [49] Zoe Ridolfi-Starr. Transformation Requires Transparency: Critical Policy Reforms to Advance Campus Sexual Violence Response. *Yale LJ*, 125:2156, 2015.
- [50] Michael Riesen and Gürsel Serpen. A Bayesian Belief Network Classifier for Predicting Victimization in National Crime Victimization Survey. *IC-AI*, pages 648–652, 2009.
- [51] Lauren Rosenblatt. Q&A: Why it’s Harder for African American Women to Report Campus Sexual Assaults, Even at Mostly Black Schools. *Los Angeles Times*, Aug 2017.
- [52] Erika Sanzi. Black Men, Title IX, and the Disparate Impact of Discipline Policies. *RealClearEducation*, Jan 2019.
- [53] Tyra Singleton. Conflicting Definitions of Sexual Assault and Consent: The Ramifications of the Title IX Male Gender Discrimination Claims Against College Campuses. *Hastings Women’s LJ*, 28:155, 2017.
- [54] Chase Strangio. Why Did the New Yorker Publish This Awful, Error-Ridden, Anti-Trans Article? *Slate Magazine*, May 2016.

- [55] Françoise Vergès. *The Wombs of Women: Race, Capital, Feminism*. Duke University Press, 2020.
- [56] John Villasenor. A Probabilistic Framework for Modelling False Title IX ‘Convictions’ Under the Preponderance of the Evidence Standard. *Law, Probability and Risk*, 15(4):223–237, 2016.
- [57] Emily Yoffe. The Question of Race in Campus Sexual-Assault Cases. *The Atlantic*, 2017.
- [58] Emily Yoffe. The Uncomfortable Truth About Campus Rape Policy. *The Atlantic*, 2017.