Sexual Identity and Postsecondary Education: Outcomes, Institutional Factors, and Narratives

DISSERTATION

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Abstract

Sociological literature has not paid the same attention to the educational attainment of lesbian, gay, and bisexual (LGB) persons, despite their status as a socially marginalized group. Through the application of sociological methods and theories, my dissertation argues that sexual identity’s effect on educational attainment is *conditional*. That is, determining whether sexual minorities are advantaged or disadvantaged educationally depends not only on their sexuality, but also on the social context in which they are nested. This work builds upon educational scholars’ investigations of LGB student experiences to apply the same sociological inquiry used to determine other minority groups’ educational attainment to sexual minorities.

The second chapter of this work investigates the relationship between sexuality and educational attainment. Using the National Longitudinal Survey of Adolescent Health (Add Health), I run logistic regressions on respondents’ likelihood of having a bachelor’s degree. I use these results to predict probabilities of completing college for heterosexual men, heterosexual women, sexual minority men, and sexual minority women. Results show that education differentials as a function of sexuality are gender-dependent. LGB men are more likely to have a college degree than heterosexual men, and their educational attainment patterns mirror those of heterosexual women. LGB women, however, are the group least likely to have a bachelor’s degree, indicating that their educational attainment patterns parallel heterosexual men’s.
Most studies of the interaction between lesbian, gay, bisexual, and transgender (LGBT) persons and the American college campus environment have been confined to the micro-level. However, little is known about factors at the institutional level that could affect the campus climate. In the third chapter, I use social closure theory to determine the link between institutional factors and a school’s climate toward sexual minorities. Results indicate that a higher percentage of women, a more liberal political milieu, and a lower student-to-faculty ratio are associated with a more positive climate for LGBT persons, suggesting that macro-level factors exert an influence.

Sexual minorities’ education levels may differ from those of heterosexuals, but it is currently unknown how these differences manifest themselves – or if these differences are universal for all sexual minorities. The fourth chapter uses individual interviews with twenty-two lesbian, gay, and bisexual (LGB) respondents indicate that social support may explain the difference in educational trajectories both within the LGB community and between LGB persons and heterosexuals. LGB respondents who were classified as Drop-Outs – those that did not complete a bachelor’s degree without interruption – were more likely to indicate a lack of supportive significant others. On the other hand, respondents classified as Graduates were more likely to have family, faculty, and friends who were supportive as they were out on campus – or delayed their coming out until after college.
For Matt. You are my shining light. Yeah, you light up my life.
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Chapter 1: Introduction

Educational attainment, or the ultimate level of education one achieves in his or her lifetime, affects life chances (Pascarella and Terenzini 2005), including future earnings (Bobbit-Zeher 2008), health (Goesling 2007), and political engagement (Milligan et al. 2004). Because of education’s broad influence on individual lives and experiences, sociologists have explored the social role of education (Durkheim [1902] 1956, Ramirez and Boli 1987) and issues of educational inequality (Bowles and Gintis 1977, Kozol 1990, Rafferty and Hout 1993, Downey 2008). For instance, a large body of literature already details educational inequalities as a function of race (Downey 2008, Alon and Tienda 2007), gender (Buchmann and DiPrete 2006, Bobbit-Zeher 2007), and social class (Kozol 1990, Hurst 2009, Ryan 2010).

Sociology has not paid the same attention to the educational attainment of lesbian, gay, and bisexual (LGB) persons, despite their status as a socially marginalized group (Pharr 1997, Phelan 2001). Because of the discrimination LGB people in America face, there is good reason to believe that sexual identity will have an effect on educational outcomes. Although it may be assumed that sexual minorities will be educationally disadvantaged as compared to heterosexuals because of this marginalization, little research exists to support this hypothesis. And given the importance that education has
in determining various life outcomes, including earnings potential, it is important to consider how sexual minority status may affect one’s level of education.

Further complicating the question of sexuality’s effect on postsecondary education is the existence of two competing narratives to explain the contemporary social position of LGB people more generally: what Savin-Williams (2005) calls the victim narrative and the resiliency narrative. The victim narrative focuses on the negative social forces LGB people experience, which can compromise their self-esteem, safety, and overall well-being. The resiliency narrative argues that, unlike other minorities, LGB persons are living fulfilling, successful lives in an increasingly accepting social climate despite these negative social forces. Although sociologists have yet to fully engage with the topic, existing literature on LGB students’ educational attainment levels vis-à-vis heterosexuals from other disciplines is split between these narratives. Some studies show that LGB persons obtain lower levels of education than do heterosexuals (e.g., Badgett 2001, Boatwright et al. 1996), whereas others find that LGB individuals likely have more education (e.g., Carpenter 2009, Rothblum et al. 2005, Barrett et al. 2002, Black et al. 2000). Hence, it is still unknown which interpretation of LGB academic success is correct (Sanlo 2004).

Savin-Williams’ description of the victim and resiliency narrative provides theoretical framing, but there is yet another consideration absent from the literature: conditionality. How does sexuality interact with other social identities, as well as social structures, to affect educational trajectories? What might cause some sexual minorities to succeed academically, while others stop pursuing higher education?
Sociology’s absence from this scholarly dialogue regarding the intersection of sexuality and educational attainment is particularly of note given that the disciplinary methods and approaches of sociology could complement the findings of the existing body of literature to provide new perspectives.\(^1\) There are three research questions I engage with in this dissertation that are still unanswered. First, is there a difference between heterosexual and LGB persons in the ultimate education level these groups attain? If so, how is this difference moderated by social- and individual-level factors? Second, what macro-level factors are linked with a positive campus climate that is supportive of sexual minority students? Third, how do LGB students describe the manifestation of differences in institutional climate and general educational attainment patterns manifest themselves in their narratives? Sociology has the tools, both theoretical and methodological, to answer these questions, but has yet to engage with them.

Through the exploration of these questions, my dissertation argues that sexual identity’s effect on educational attainment is \textit{conditional}. That is, determining whether sexual minorities are advantaged or disadvantaged educationally depends not only on their sexuality, but also on their individual characteristics, like gender. It also depends on greater social context, such as whether their campus is accepting or not or whether their families are supportive or not. Both the resiliency and victim narratives have utility in explaining LGB educational attainment. Moderating forces, such as gender, political

\(^1\) Sociology has engaged with issues of sexuality only in the last few decades (Epstein 1994); this has largely prevented the discipline from making the same contributions to the study of sexual inequalities as it has to the canonical inequalities based on race, class, and gender.
context, institutional supports, and social supports, complicate the relationship between sexuality and outcomes related to postsecondary education.

This introduction provides a theoretical framework for understanding the conditional nature of sexual identity’s relationship to educational attainment. First, I examine Savin-Williams’ argument in more detail, bringing in other relevant literature to explain how the victim and resiliency narratives provide a theoretical framework for understanding the conditionality of educational attainment as a factor of sexual identity and other social forces. Second, I examine literature on educational inequalities as a function of gender, race, and class, as well as the intersection of these identities. This not only provides a much-needed template through which to study educational inequalities that stem from sexual identity – it also demonstrates how educational inequalities are dependent on the intersection of several factors at the individual level in addition to the structural or institutional. Finally, I provide a brief overview of this dissertation, and how subsequent chapters will examine the complicated and conditional relationship between sexual identity and postsecondary education.

*What Is Known: Victim Narrative v. Resiliency Narrative*

*Argument for disadvantage: victim narrative.* The current literature from other disciplines is mixed as to whether LGB persons are penalized or privileged educationally as compared to heterosexuals. There is evidence to suggest that negative social attitudes toward LGB persons make it likely that sexual minority students will be disadvantaged educationally. This general argument, which focuses on the disadvantages sexual minorities face vis-à-vis heterosexuals, is what Savin-Williams refers to as the victim
narrative. This victim narrative stems from an exploration of three systems of power commonly identified in literature that examines sexual minorities, generally referred to as heterosexism, homophobia, and heteronormativity. These three forces marginalize sexual minorities and create a society where LGB persons are disadvantaged in many ways as compared to heterosexuals.

Pharr (1998:17) defines heterosexism as “the belief that the world is and must be heterosexual.” There are two strains within the literature that conceptualize of heterosexism as a social force. The first focuses more on the micro-level, describing how the assumption that others are heterosexual colors our social interactions, constantly reinforcing the idea that heterosexuality is the preferred – or only – sexual identity (Pascoe 2005, Rich 1980). Heterosexuality – either actively or tacitly – is upheld as the preferred form of sexual expression, and individuals police each others’ behavior to this end. The second broad conceptualization of heterosexism focuses on macro-level structures, exploring how social institutions are set up to continue to privilege heterosexuality over other forms of sexual expression (Polikoff 2008, Phelan 2001). Even if heterosexuality is not actively supported by institutional policies, heterosexism can still be an unintended consequence. For instance, because tax codes, inheritance laws, and hospital visitations are almost always linked to marriage, the opposite-sex dyad is the assumed and preferred institutional family form (Polikoff 2008). Heterosexism enacts its power through social institutions, such as family and government, to privilege and encourage heterosexuality.
Working in tandem with heterosexism is homophobia, which Pharr defines as an “extreme hatred or fear” (1998:17) of sexual minority persons. Pharr states that homophobia places sexual minorities at risk for several losses: employment, family, community, and even one’s life. Pharr argues that this is because our society uses these negative attitudes in an attempt to bolster traditional family structure and encourage conformity to sexual norms. Heteronormativity refers to the “mundane, everyday ways that heterosexuality is privileged and taken for granted” (Martin 2009:190). This results in the marginalization of sexual minority identities (Seidman 1994, 2005). Growing up in a heteronormative world affects sexual minorities because they are socialized to think of themselves as inferior or abnormal (Cass 1979). Further, heteronormativity institutionalizes discrimination against LGB people, ensconcing heterosexuality as the preferred form of sexuality in government (Polikoff 2008), the military (Phelan 2001), and education (Best 2000, Fine 2011).

These forces extend onto the college campus, where heterosexism and homophobia affect students’ lives. The student development literature describes several contexts in which sexual minority students may experience disadvantage because of heterosexism, homophobia, and heteronormativity (Rankin 2003, 2005). For instance, LGB students may be more uncomfortable expressing themselves or disclosing their

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2 Some works problematize the use of the word “homophobia,” criticizing its use without a clear definition on the part of the researcher (e.g., Herek 1984, Lottes and Grollman 2010). While recognizing the use of “homophobia” as problematic, particularly because of its ambiguity across literatures and within works, research continues to use the term to refer to generalized negative feelings toward sexual minorities (Maher et al. 2009). This work will use the term to refer to this generalized – often pronounced – aversion that Pharr describes.
sexuality within the classroom environment (Eyre 1993). Greek life has typically been an environment where LGB persons are not openly embraced by the community (Hesp and Brooks 2009, Yeung and Stombler 2000). Even a student’s residence hall, their home while obtaining a college education, can be a source of stress: insensitive, ill-trained residence life staff (Robinson 1998), exclusion from social networks (Hamilton 2007), or deciding to come out to one’s roommate (Evans and Broido 1999) are obstacles that heterosexual students do not encounter simply because of their sexuality, but LGB students may. In prior work, I used qualitative methods to investigate out LGB college students’ experiences with heterosexism and homophobia, and found that nearly all respondents encountered homophobic behaviors: hostile remarks, epithets, and even physical violence (Fine 2011). This indicates that LGB college students live in a world that demonstrates a strong aversion to sexual minorities. The challenges LGB students face may exceed or compound those all college students otherwise encounter.

*Argument for advantage: resiliency narrative.* Heterosexism and homophobia, though, may not affect all students in the same manner, however. As a counterpoint to the victim narrative, Savin-Williams (2005) argues that the victim narrative of LGB students is flawed. His interviews with sexual minority youth support what he calls the *resiliency narrative:* a portrait of LGB teens as successful and embraced by their peers. Whereas the victim narrative literature presents sexual minority youth as ostracized and depressed, Savin-Williams believes his interview data indicate that, in the current social milieu, many LGB teenagers are able to live lives that are remarkably similar to those of their heterosexual peers. Even if LGB persons encounter heterosexism, homophobia, and
heteronormativity, the improved social climate means these encounters are more fleeting and their influence on LGB teen outcomes is slight.

The resiliency narrative may have some utility in explaining how LGB college students may have a positive experience on campus. Other work indicates that college campuses may actually be welcoming, particularly as compared to the larger society. For instance, those with higher education levels have been found to be more accepting toward sexual minorities (Grapes 2006, Lambert et al. 2006), meaning that the academy may be a safe haven as compared to other social contexts. And though there is a large body of research that indicates that LGB college students face obstacles on campus, they may, in fact, be more accepted in the college environment than ever before, as college students’ attitudes toward LGB persons are improving as compared to decades past (Newman 2007, Altemeyer 2001).

Prior literature from economics, student affairs, and demography has attempted to study sexuality’s effect on educational attainment using macro-scale approaches, with the general consensus being that sexual minorities are likely to have higher levels of education than heterosexuals (Black et al. 2000, Barrett et al. 2002, Rothblum et al. 2005, Carpenter 2009). As this appears to support the resiliency narrative despite a body of literature that indicates that LGB students are disadvantaged, this consensus exemplifies the tension between the victim and resiliency narratives. If LGB students are excelling over their heterosexual peers academically, then concerns regarding heterosexism and homophobia in the academy may be misplaced.
This consensus, though, is based on research with methodological limitations that makes it difficult to generalize to all American sexual minorities. The studies that explicitly discuss educational attainment as a function of sexuality make claims about the state of American LGB people’s educational standing generally. But these works have either confined themselves to partnered LGB persons (Black et al. 2000, Rothblum et al. 2005), excluded female respondents (Black et al. 2000, Barrett et al. 2002), or focused on a specific geographic context (Barrett et al. 2002, Rothblum et al. 2005). The conclusion that sexuality has a monolithic, unidirectional effect on educational attainment, then, may be problematic.

Gender is perhaps the most notable variable that these studies have ignored in determining how sexual identity affects educational attainment. For instance, these studies do not address prior academic experience or performance as playing a role in educational attainment, which is of concern as sexual identity may affect academic performance prior to college (Carpenter 2009). This calls into question the resiliency narrative that LGB persons are educationally advantaged as compared to heterosexuals, while providing an opportunity to reconcile literature on obstacles for sexual minority students with educational outcomes. Educational attainment, as well as educational success more generally, is likely contingent on sexual identity – but sexual identity’s effect on education is likely conditional on other factors. Whether or not a student is resilient in the face of heterosexism and homophobia may be dependent on gender, social support, prior academic performance, and school context, for instance.
What Is Known: Other Social Groups and Educational Attainment

Although some works have investigated how educational attainment is affected by sexuality, their methodological or theoretical limitations prevent us from drawing conclusions about LGB students’ relative standing as compared to heterosexuals. The prior literature on sexual minority educational attainment fails to examine how these differences are conditional, or influenced by social factors other than sexual identity. These works focus exclusively on specific sub-populations of LGB persons: gay men (Black et al. 2000), urbanites (Barrett et al. 2002), or those from a particular geographic region (Rothblum et al. 2005). Sexual identity likely exerts an influence on educational attainment, but that influence is moderated by many other social structures and forces. A new approach to studying educational inequalities as stemming from sexuality can look to prior literature that examines how other marginalized social groups are faring with regards to their educational attainment for theoretical and methodological direction.

Examining how other social groups fare educationally serves three purposes. First, it illustrates how various identities may intersect to make educational attainment conditional (Collins 2004). That is, although there may be a general pattern that emerges with regard to sexual minorities and educational outcomes, this relationship is not likely to be uniform. Race, class, and gender can create circumstances in which sexual identity’s relationship to educational outcomes is not a straightforward one. Second, it provides a template to use in the study of sexual inequalities in education. Sociology has devoted energy to exploring how race, class, and gender as systems of hierarchy affect a variety of educational outcomes. As it also acts as a means of allocating privileges to
certain groups of people, it is reasonable to assume that sexual identity will operate in a like manner.

Race, gender, and class. Sociology has long considered educational attainment a proper object of study (Blau and Duncan 1967, Sewell et al. 1969, Bowles and Gintis 1977). Because of this, it has devoted a good deal of attention to educational disparities as a function of race, class, and gender. Black Americans (McDaniel et al. 2011) and poorer Americans (Hurst 2009) are less likely to go on to earn college degrees. Women are now enjoying what is termed the female advantage in higher education (Buchmann and DiPrete 2006), outpacing men in bachelor’s degree completion.

Despite the attention paid to how gender, race, and class affect educational attainment, sociology has failed to turn the same attention to the relative educational status of sexual minorities. Although the lack of data collected on LGB persons both at the national level (Renn 2010, Black et al. 2000) and the institutional level (Sanlo 2004) has prevented representative analyses of the effect of sexuality on educational attainment, new publicly available data sources now make this possible. Given the importance that education has in dictating future life outcomes, scholarly inquiry needs to be conducted to determine whether or not parallel mechanisms that lead to inequality based on other social identities also affect the academic lives – and subsequent life chances – of LGB persons.

Savin-Williams acknowledges there may be two competing narratives regarding LGB students’ chances. Yet Savin-Williams’s narratives may be complementary, not competing, given that LGB students come from different familial, class, or racial
backgrounds. There is a tendency in works that investigate the experiences of sexual minorities to depict them as a monolithic group (Seidman 1994), much as the aforementioned sociological literature examines educational disparities based on class, gender, and race largely independent of one another. Sexuality intersects with other social identities to generate a unique worldview and life experience (Collins 2004). The forces of heterosexism, homophobia, and heteronormativity, as well, have differential effects on various subgroups of LGB people (Polikoff 2008, Collins 2004, Phelan 2001, Rodriguez and Ouellette 2000, Cohen 1999). The validity of the victim or resiliency narratives may be contingent on other social forces, such as class, gender, race, political context, temporal context, and educational structure. Intersection theory has had some utility in explaining educational disparities within marginalized groups, indicating that a similar approach would be useful in analyzing the educational standing of sexual minority subgroups. The gender gap between Black men and women in college attainment is widening, with women obtaining bachelor’s degrees at a higher rate (McDaniel et al. 2011). Young Latinas perceive that they are less institutionally supported, both by teachers and by their families, to obtain higher education because of their traditional roles and responsibilities in the domestic sphere (Williams et al. 2002). Although on average women are more likely to obtain a college degree than men, the female advantage in college completion is more pronounced for poorer men (Buchmann and DiPrete 2006). All of these studies demonstrate how the effects of gender, race, and class do not operate independent of one another, but instead collectively operate and lead to distinctive educational outcomes.
If the intersection of class, race, and gender yields significant permutations of the educational inequality that affects various minority social groups, it stands to reason that sexuality may have an effect that is moderated, mitigated, or exacerbated by these factors, as well. The effect of sexuality on other outcomes is not uniform: for example, LGB teens in more accepting school contexts report higher self-esteem (Wilkinson and Pearson 2009) and have more school resources available to promote their success (Fetner and Kush 2008). These are examples of institutional-level factors that interact with individual students’ sexual identities to yield very different educational outcomes. It is reasonable to assume a like process occurs with regard to educational trajectories.

An examination of the sociological literature that details how the educational experience is affected by class, gender, and race can provide a template for an investigation of sexuality’s effect on educational attainment. One chapter of my dissertation uses a structural framework to study institutional factors that affect campus climate. In two other chapters, adopting an intersectional approach points to some ways in which the effect of sexuality on educational attainment is contingent on these and other factors, such as gender and social support. These contributions both represent major limitations in the current literature about the educational outcomes of LGB students that my dissertation addresses.

An intersectional approach is particularly important because much of the literature on sexual minorities’ educational experiences present issues that prevent them from being generalizable to all sexual minorities – particularly women. Although it is currently unknown how sexuality generally affects educational attainment, even less is known
about how sexual minority women fare educationally. Educational comparisons are scant in the literature for sexual minority women as compared to heterosexual women – and almost non-existent between sexual minority women and sexual minority men. As mentioned above, the literature on LGB educational attainment tends to follow one of three patterns. Either the literature excludes female respondents altogether (Barrett et al. 2002) or assumes post-hoc that patterns of LGB men’s educational attainment also extend to women (Black et al. 2000). An intersectional approach may be useful in teasing out differences in educational attainment as a function of both sexual identity and gender.

Overview of This Work: A Sociological Contribution

This dissertation’s next three chapters examine the postsecondary educational outcomes for LGB students. Chapter Two examines educational outcomes for LGB youth as compared to heterosexual youth on a national scale. The National Longitudinal Study of Adolescent Health, or Add Health for short, is a useful longitudinal source of data as it asks questions about sexual identity, educational outcomes, family background, and prior academic performance (Muller et al. 2009). I analyze the likelihood of graduating with a bachelor’s degree as a function of sexual identity. The chapter improves upon earlier scholarship by using nationally-representative data, including women and non-urban respondents.

My model points to ways in which educational attainment is conditional not only on sexuality, but also on gender. I compare the predicted likelihood of obtaining a bachelor’s degree of four groups – heterosexual men, heterosexual women, sexual minority men, and sexual minority women – to one another. In keeping with prior
literature, I find that gay and bisexual men are more likely than heterosexual men to have earned a bachelor’s degree. Conversely, lesbian and bisexual women are actually less likely than heterosexual respondents to have completed college. Sexual minority women’s educational penalty also exists despite the female advantage women generally enjoy in their educational attainment (Buchmann and DiPrete 2006), meaning that the female advantage does not extend to LGB women. These findings indicate that sexuality’s effect on educational attainment is not uniform, but is moderated by gender.

Chapter Three examines what macro-level factors are associated with services and policies favorable for LGB students being present at postsecondary institutions. My prior work has demonstrated that certain structural factors, such as a school’s size, tuition costs, and political liberalism, are strong predictors of a campus’s likelihood of having an LGBT resource center (Fine 2012), one marker of a positive campus climate for sexual minorities. Chapter Three expands on this and explores whether gender composition, political milieu, selectivity, and available financial resources have an effect on a campus’s climate toward sexual minorities,

I find that three institution-level factors are associated with a positive general campus climate, as measured by the Campus Climate Index (Beemyn et al. 2011). Having a higher proportion of female students, a lower student-to-faculty ratio, and a more liberal state political climate are all positively associated with a positive campus environment for sexual minorities. These findings indicate that macro-level, structural approaches may be useful in contextualizing sexual minority college student outcomes.
As Brown and Gortmaker (2009) discuss, quantitative and qualitative methods are useful in answering different types of research questions. This dissertation’s quantitative analyses seek to describe macro-scale patterns in sexual minority respondents’ educational attainment and structural factors that lead to a positive campus climate. Although these quantitative analyses have the potential to provide some much-needed perspective regarding the potential differential educational trajectories of LGB youth, the mechanisms that underpin these outcome differences may be hard to discern (Brown and Gortmaker 2009, Reskin 2003). Individual interviews can be useful for obtaining information about respondents’ experiences. Weiss (1994) notes that interviews allow the researcher to obtain rich narrative data that can answer theoretical questions quantitative work has difficulty exploring. The goal of the fourth chapter is to determine how structural factors and social identities interact in individuals’ lives to produce educational narratives for sexual minorities.

I interview two groups of LGB people: those who have completed a bachelor’s degree, or Graduates; and those who finished at least one term of postsecondary education but dropped out, or Interrupters. I then compare the narratives of these groups to identify the mechanisms that might lead some LGB students to academically succeed – and lead others to interrupt their education. I find that both Graduates and Interrupters encountered heterosexism and homophobia. Graduates were able to cope with these forces either because they had support from significant others, because they felt integrated into their college environment, or because they delayed coming out until after they had obtained their bachelor’s degrees. Most Interrupters, on the other hand, report
episodes of heterosexism and homophobia that derailed their educational careers because they were not able to draw on support necessary to counter discriminatory episodes.

Education remains an important institution in American society. However, given the literature that identifies the many challenges and supports sexual minority students have on campus, the absence of sociological literature that explores the educational trajectories of LGB persons is a notable omission. This project answers important questions about the relationship between sexual identity and higher education. Inequalities continue to pervade higher education, as literature on other social groups shows. However, my results suggest that there is a complicated relationship between sexual identity and several educational outcomes that varies from prior work on race, class, and gender: some LGB students thrive while others do not, and some institutions are welcoming while others remain hostile.

My work adds another dimension to the literature on educational stratification while also enhancing our understanding of the lives of LGB persons. As Sanlo (2004) notes in her article’s title, are LGB students resilient or at risk? Or are they both simultaneously? This dissertation argues that the truth behind narratives of LGB educational risk or resiliency depends on other individual characteristics and social context.
Because education can be such an important predictor of life chances, it is important to determine whether or not lesbian, gay, and bisexual (LGB) students are systematically privileged or disadvantaged with regards to educational attainment. Currently, there is a lack of quantitative research exploring this question using nationally-representative data. There are two competing narratives to explain how LGB individuals are faring educationally as compared to heterosexuals. The first set of arguments focuses on the disadvantages sexual minorities face that hinder their ability to pursue education. A large body of literature indicates that LGB students are disadvantaged both in secondary schools (Wilkinson and Pearson 2009, Fetner and Kush 2008) and in

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3 This research uses data from Add Health, a program project directed by Kathleen Mullan Harris and designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris at the University of North Carolina at Chapel Hill, and funded by grant P01-HD31921 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development, with cooperative funding from 23 other federal agencies and foundations. Special acknowledgment is due Ronald R. Rindfuss and Barbara Entwisle for assistance in the original design. Information on how to obtain the Add Health data files is available on the Add Health website (http://www.cpc.unc.edu/addhealth). No direct support was received from grant P01-HD31921 for this analysis.

4 This study does not specifically look at transgender persons. The data set used did not have enough respondents who reported a transgender identity or a change in sex to warrant their inclusion in the analysis. Although transgender students are frequently overlooked in scholarly literature (Renn 2010), the omission is done to avoid making generalizations to a group that frequently has different concerns than do LGB persons (Israel 2004).
postsecondary educational institutions. Like secondary schools, American college campuses are a site where heterosexism – “the belief that the world is and must be heterosexual” (Pharr 1997:16) – is endemic. Nearly two-thirds of LGB college students have reported hearing overtly homophobic remarks on campus, and nearly one in five feared violence because of their sexual identity (Rankin 2003, 2005). Several studies have demonstrated how such heterosexism can have negative effects on LGB students’ well-being and self-esteem (e.g., Rankin 2003, 2005; D’Augelli 1993; Evans and Broido 1999). Given the heterosexism that LGB students face, it is reasonable to posit that sexual minorities will have lower levels of educational attainment than their heterosexual peers (Sanlo 2004).

Despite the heterosexism LGB students encounter, other research suggests that LGB students may be more likely than their heterosexual peers to earn a college degree. The few studies that have attempted to analyze the relationship between educational attainment and sexual identity have indicated that gay men, on average, appear to have higher levels of education than do comparable heterosexual males (Black et al. 2000, Barrett et al. 2002). There is also evidence that increased social tolerance of LGB sexualities is leading to greater resilience among gay teenagers because greater social support softens harmful impacts of a heterosexist environment (Savin-Williams 2005). Hence, the potentially negative effects of sexuality on educational attainment may be mitigated by increasingly positive social attitudes toward homosexuality (Altemeyer 2001). If the college campus is a welcoming environment relative to greater society
(Rubin 1984), then sexual minorities may have an increased likelihood of completing their bachelor’s degrees as compared to heterosexuals.

The existence of these competing narratives indicates that there is little consensus as to the effect of sexuality on educational attainment. There are two limitations to this literature as it stands. First, it does not address how sexual minority women fare educationally. Existing literature on educational attainment suggests that lesbian women are also more likely to have bachelor’s degrees as compared to heterosexuals (Black et al. 2000, Rothblum et al. 2005), but methodological limitations make this conclusion problematic. Particularly because another body of literature that specifically investigates LGB women’s status attainment indicates that they may be educationally disadvantaged as compared to heterosexuals (Carpenter 2009, Badgett 2001, Boatwright et al. 1996), it is important to determine whether the victim narrative or resiliency narrative is most correct when applied to LGB women.

Second, there is little integration of theories related to educational attainment, sexuality, gender, and heterosexism / homophobia to explain why the female advantage in college completion (DiPrete and Buchmann 2012, Buchmann et al. 2008, Buchmann and DiPrete 2006, Jacobs 1996) may not hold for sexual minorities. Given that heterosexism and homophobia are present forces at postsecondary institutions, it is striking that the literature argues that sexual minority men are actually educationally advantaged as compared to heterosexual men. If women, in general, are more likely to obtain bachelor’s degrees, and if there is reason to believe that educational institutions present obstacles for sexual minority men, why, then, are they apparently more
educationally resilient? How do these findings reconcile with the literature on the female advantage? If sexual minority men experience an educational bonus, and if there is a general female advantage in terms of college completion, what does it mean if LGB women are less likely than heterosexual women to have earned bachelor’s degrees? Why might these differences arise, and which of the potential explanations seems the most plausible?

This chapter synthesizes the two competing narratives on LGB students’ chances for educational success using an intersectional lens, comparing the educational attainment of four gender and sexuality groups – heterosexual men, heterosexual women, LGB men, and LGB women – to one another. I argue that the validity of the victim or resiliency narrative with regard to educational attainment is conditional on both sexuality and gender. I first outline the literature on both the female advantage in higher education and what I refer to as the “LGB bonus” in educational attainment, and discuss how current empirical findings complicate both of these arguments when the intersection of gender and sexuality are taken into account. Based on these complications, I synthesize three theoretical perspectives to explain why both the female advantage and the LGB bonus in educational attainment may lead to different outcomes for sexual minority men versus sexual minority women, as well as for sexual minorities generally as compared to heterosexuals: differential life goals, differential gender role adherence within the education system, and differential social support.

To determine if the female advantage holds for sexual minorities, I use the National Longitudinal Survey of Adolescent Health (Add Health) to estimate the
influence of sexuality and gender on the probability of earning a bachelor’s degree. I find that gay and bisexual men’s educational attainment patterns more closely mirror heterosexual women’s than heterosexual men’s, meaning that LGB men do, in fact, encounter a “bonus” with regards to educational attainment. LGB women, on the other hand, have educational patterns that more closely parallel heterosexual men’s, and further are the gender and sexuality group with the lowest predicted probability of having a bachelor’s degree. The female advantage for sexual minorities is inverted, with sexual minority males more likely to have a bachelor’s degree than sexual minority females.

Gender acts as a moderating factor that determines whether the victim narrative or the resiliency narrative has more utility in explaining how sexual minorities fare educationally as compared to heterosexuals. Neither the female advantage nor LGB bonus literature, then, is sufficient to explain the current educational terrain for sexual minorities. Instead, I argue that future work could explore how the three bodies of theory I outline may serve as a better base off which to explore how educational attainment is contingent on the intersection of gender and sexuality.

*What Is Known: The Female Advantage and the LGB Bonus*

*The “LGB bonus.”* As the introduction discusses, education is the social institution by which many in American society attempt to improve their wage prospects and life chances (Blau and Duncan 1967). Therefore, it is important to determine how sexual identity affects one’s likelihood of completing college. Most of the literature on educational inequalities and LGB student experiences is qualitative (e.g., Evans and
Broido 1999, D’Augelli 1993) or focuses on disadvantage within specific contexts of the academy (e.g., Hesp and Brooks 2009, Robinson 1998).

What little quantitative work has been done on the effect sexuality exerts on educational attainment indicates that LGB persons are actually advantaged educationally as compared to heterosexuals. I refer to this phenomenon as the “LGB Bonus,” akin to the female advantage in college completion. There are three known prior quantitative studies that explicitly focus on sexual identity and educational attainment. Black et al. (2000), Barrett et al. (2002), and Rothblum et al. (2005) all generally indicate that LGB people tend to have higher education levels than their heterosexual peers. However, all of these studies have methodological limitations that hinder their ability to lay a definitive claim to the relationship between sexual identity and educational attainment. I discuss the findings of these studies first. I then evaluate the studies’ limitations and explain how my dissertation addresses these limitations.

Black et al. (2000) investigate sexual minority status across several dimensions. They use 2000 U.S. Census data and code anyone who indicates being partnered to someone of the same sex as gay or lesbian. The authors then compare several social outcomes, such as income and education level, against partnered heterosexual persons, including measures of status attainment. Black et al. find that gay men tend to have higher levels of education than do partnered heterosexual men. The authors state that there were not enough lesbians identified using this sampling method to make a strong comparison between partnered lesbians and partnered heterosexual women, so no tests were run for sexual minority women.
Barrett et al. (2002) use the Urban Men’s Health Study to create a sample of 2,290 self-identified gay and bisexual men in the cities of San Francisco, Chicago, New York, and Los Angeles. They then run logistic regression analyses to determine how sexual identity influences status attainment, including educational attainment. They find that age of coming out is an important predictor of how much education the respondents had. Those who came out at earlier ages often had lower incomes and less education than heterosexual men; respondents who came out later in life tended to have higher incomes and education levels than heterosexual men. Barrett et al. hypothesize that this outcome is mediated by how and when heterosexism affects educational trajectories. If someone comes out before college, family stress, discrimination, violence, or any number of negative sanctions for identifying as gay could prevent young out men from completing college. Men who come out after college, on the other hand, may have completed their educational attainment with few sexually-related social sanctions and, thus, were able to focus on their education without the negative effects of homophobia.

Rothblum et al. (2005) examine the relationship between sexuality and educational attainment using a sibling study. The researchers obtained copies of all civil union certificates from July 1, 2000 to June 30, 2001 – the first year same-sex marriages were made legal in the state of Vermont. They then contacted these couples and asked them to identify heterosexual, married siblings to provide a comparison group. Out of their 335 sexual minority respondents, all were partnered and 20 percent were from Vermont. The authors find that both lesbian women and gay men generally have higher levels of education than do their heterosexual siblings, though this does not translate to
more economic gains for the sexual minority sibling. Rothblum et al. also note that causal order is difficult to determine; that is, do LGB people finish college and then come out, or do LGB people come out before completing a bachelor’s degree?

All three studies document that LGB Americans tend to have higher education levels than heterosexuals. However, though they provide an initial glimpse into the influence of sexuality on educational attainment, these studies suffer from methodological difficulties that make it difficult to state with certainty that all sexual minorities are educationally advantaged as compared to heterosexuals. Because of data limitations, important subgroups of LGB persons are excluded from sample designs. Barrett et al. and Rothblum et al. focus on LGB persons who live in particular social contexts – urban contexts and the northeast respectively – thus their findings may not be nationally representative. Urbanites tend to be better educated as compared to those from rural contexts (Roscigno and Crowley 2001), and those from the northeast tend to have higher levels of education than Americans from other regions (U.S. Census Bureau 2012). Because they obtain respondents from contexts were all people are generally better-educated, their findings may overestimate the education level of sexual minorities. Both Black et al. and Rothblum et al. study only partnered respondents. Those LGB persons who tend to report being monogamously coupled are also those who are more likely to have higher levels of education, as they are largely white and affluent (Polikoff

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5 Although Black et al. (2000) note that gay men are overwhelmingly concentrated in a few urban areas across the United States, lesbian women’s residential patterns are far more diffuse. Therefore, a method that concentrates on urban respondents may be more likely to overestimate sexual minority women’s educational attainment levels.
Therefore, because these two studies look at partnered respondents and exclude single LGB people, the calculated levels of educational attainment for sexual minorities may be artificially inflated.

More problematic, though, is the exclusion of female respondents. Neither Black et al. nor Barrett et al. examine LGB women’s educational attainment. Excluding women from these analyses is a concern because it provides an incomplete picture of the educational status of all LGB persons. These findings can be further called into question given the literature that explores sexual minority women’s career, educational, and social lives, which indicates there is cause to believe LGB women may be educationally disadvantaged as compared to heterosexual women. I discuss this literature below.

*The female advantage.* In the last few decades, women have obtained the majority of bachelor’s degrees conferred in America (DiPrete and Buchmann 2012, Buchmann et al. 2008, Buchmann and DiPrete 2006). The female advantage in America started emerging in the 1960s, as males and females reached parity in bachelor’s degree attainment. Since then, women have been outpacing men’s college completion rates to the point where there are nearly two female college graduates for every one male. DiPrete and Buchmann identify a number of reasons why this gender switch in educational advantage has taken place. The postindustrial transition of the American economy from manufacturing to service pushed women into the workforce, causing them to pursue higher education to receive better wages. Social beliefs regarding gender equity opened up educational institutions to women. Now that these institutions are open to them, women’s superior academic performance and pro-school behaviors mean they
are more likely to succeed academically once they are in college as compared to men. Meanwhile, men and boys in some contexts interpret academic success – and the jobs associated with a college degree – as feminine (Legewie and DiPrete 2012, Morris 2008). Men’s college enrollment rates have continued to lag behind those of women.

Although women are generally advantaged in terms of college completion as compared to men, the extent of the advantage varies by race and socioeconomic status. Black women have long outpaced Black men educationally (DiPrete and Buchmann 2012, McDaniel et al. 2011). McDaniel et al. argue this is because Black women’s longer relative involvement in the labor force, which provides a greater incentive to pursue higher education to obtain higher wages. Class also moderates gender’s effect on educational attainment: the female advantage is less pronounced among wealthier Americans (DiPrete and Buchmann 2012, Buchmann and DiPrete 2006). Legewie and DiPrete (2012) argue this is because the upper class in America constructs a narrative of masculinity that values education as a means of competition, thus encouraging young men to pursue a bachelor’s degree to prove one’s worth relative to other men.

If the female advantage is not uniform, but is moderated by race and class, sexuality may likewise moderate lesbian and bisexual women’s educational attainment. The intersection of gender and sexuality may lead to distinctive educational outcomes for lesbian and bisexual women that differ from those of both heterosexual women and sexual minority men (Collins 2004). But little has been done to investigate how sexual minority women are faring educationally; studies that claim to study the phenomenon
either generalize findings on sexual minority men to women, or study subgroups of women that are much more likely to be well-educated.

Further, the female advantage literature does not examine why sexual minority men may experience an educational advantage over heterosexual men. If heterosexism and homophobia are present on college campuses, presenting obstacles to college completion and damaging LGB students’ self-esteem (Fine 2011, Rankin 2005), then how are sexual minority men able to succeed academically? The female advantage literature, much like the LGB bonus literature, has neglected to examine how sexuality, like race and class, may moderate – or even invert – the female advantage for LGB people.

_The Intersection of Gender and Sexuality_

The literature on LGB educational attainment and the female advantage does not provide an adequate theoretical framework for understanding sexual minority women’s educational standing. Nor does it explain why sexual minority men may actually be privileged in terms of their educational attainment when the general pattern indicates men lagging behind women. Other literature provides three potential arguments that illustrate both why LGB men may be privileged educationally, and why LGB men’s educational bonus may not hold for sexual minority women. Differences in career expectations, gender role adherence, and social support between LGB men and women may cause differences in educational trajectories. These strains of literature indicate that the female advantage in educational attainment for women may not hold for LGB people. Using these theoretical frameworks may provide a means of understanding how heterosexual
men, heterosexual women, LGB men, and LGB women are all faring in terms of college completion when compared to one another – something the current literature does not do.

Career expectations. Because of the importance of education in determining one’s occupation and earnings, career and educational decisions are closely linked. If sexual minority men and women differ in their career trajectories, differences may also exist in their educational trajectories. Some works indicate that the intersection of gender and sexuality may lead to different career expectations for these two groups, which could translate to differences in educational attainment.

Although both lesbian women and gay men must deal with navigating their sexuality at the workplace (Rostosky and Riggle 2002), these groups may have different career experiences and values that affect their educational trajectories. Fassinger (1996) compares lesbian women’s career and identity issues to those of gay men, noting that lesbian women tend to come out later and express greater uncertainty regarding their sexual identities. Because of this, she hypothesizes that lesbian women may have greater difficulty in focusing their energies on career choice and development than heterosexual women – or even gay men. Boatwright et al.’s (1996) interviews with lesbian women regarding their career decisions support Fassinger’s hypothesis, finding that a number of respondents altered their career plans as a result of coming out. Respondents indicated that career issues tended to take a back seat to identity development issues, valuing self-discovery and comfort with one’s identity at work. Sexual minority men, on the other hand, appear to exhibit career desires and preferences that align with those of heterosexual men, valuing financial returns and status (Hewitt 1995). Chung (1996)
argues that gay men may be willing to endure heterosexism and homophobia in exchange for higher earnings, keeping with a gendered pattern of behavior that emphasizes the importance men place on financial status and career. This may make gay and bisexual men more likely than lesbian and bisexual women to persist to earn their degrees even while encountering stress related to sexual identity.

Wage differentials also indicate that there may be differences between lesbian women and gay men’s career trajectories, which may affect educational attainment. Gay men are underpaid relative to heterosexual men in like occupations (Carpenter 2005, Badgett 2001). Therefore, much like women (Bobbit-Zeher 2007), gay men may find it more necessary to obtain a college degree in order to attain wage parity with heterosexual men. In general, lesbian women are found to enjoy a wage benefit as compared to heterosexual women (Antecol et al. 2008, Daneshvary et al. 2008, Black et al. 2000). The wage bonus suggests that lesbian women should also enjoy an educational bonus as compared to heterosexual women, as higher levels of education typically translate to higher wages. However, others call the mechanisms behind this wage differential into question, suggesting that the wage advantage actually reflects LGB women’s educational disadvantage. Rothblum et al. (2005) find that, although partnered lesbian women in their sample tended to make more than married heterosexual women, this was largely because a good number of heterosexual women in their sample were voluntarily unemployed (i.e., homemakers). They also find that, as compared to their heterosexual siblings, LGB women are underpaid relative to their level of education. This is similar to Badgett’s (2001) findings that, within occupations as opposed to across occupations,
lesbian women are underpaid compared to heterosexuals of both genders. Daneshvary et al. (2008) find that the lesbian wage bonus disappears at higher levels of education; only lesbian women in lower-paid careers make more than heterosexual women, thus diluting the advantage of higher education. Obtaining higher education, then, may have diminishing returns for lesbian women as compared to heterosexual women. Black et al. (2000) point out that lesbian women probably earn more because they enter the workforce earlier, as they do not expect to be dependent on a male partner to provide financial security – at the expense of obtaining education.

The effects of gender and sexuality on career decisions may explain the LGB bonus for sexual minority men. LGB men appear to adhere to the masculine norm of valuing one’s career and financial security. Sexual minority women’s career decisions, though, indicate that there is reason to believe that the LGB bonus and female advantage may not extend to them. Unlike sexual minority men, sexual minority women may be more willing to sacrifice long-term career goals to come to terms with their sexuality or avoid job discrimination. Career comparisons to heterosexual women, too, also provide reason to believe that the female advantage may not hold for LGB women. Because LGB women may not expect that a male breadwinner will provide for them financially, they may forego education for short-term financial security. Heterosexual women, on the other hand, may view their college education as a long-term investment in terms of both career and family.

*Education as a gendered institution.* Differences in sexual minority women’s chances at earning a bachelor’s degree may be moderated by educational institutions.
These differences may facilitate LGB men’s educational attainment as compared to heterosexual men’s, but may also lead to fewer LGB women completing college. Schools themselves are gendered institutions (Wilkinson and Pearson 2008, Best 2000, Martin 1998) where boys and girls are expected to conform to behavioral norms. Because of this, students’ individual gender identities may interact with the gender expectations of educational institutions in such a way that behaviors favorable to academic achievement are either promoted or discouraged. The female advantage literature acknowledges that women have outpaced men on other metrics of educational success – grades, attendance, time spent on homework – at both the high school and college levels (DiPrete and Buchmann 2012). Because women exhibit more pro-school behaviors and attitudes than men, DiPrete and Buchmann argue that women have reaped the benefits of increased levels of education as these institutions have opened up to them. For men, hegemonic masculinity – that is, the dominant and socially preferred narratives of how men should behave (Connell 1992) – holds that the behaviors that are positively associated with educational attainment are gendered as feminine (Legewie and DiPrete 2012). Morris’s (2008) ethnographic research in a rural Ohio school supports DiPrete and Buchmann’s conclusion that pro-school behaviors are constructed by youths themselves as feminine. Some of the rural boys Morris spoke with deliberately exerted less effort on their schoolwork in an attempt to avoid labels that connote academic success, thus preserving their masculinity.

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6 As discussed earlier in this chapter, Legewie and DiPrete (2012) note that, for male students from more privileged class backgrounds, the effect of peers on perceptions of non-school behavior as feminine is largely mitigated; the effect is more pronounced for boys of lower socioeconomic status.
What, then, explains gay and bisexual men’s relative educational advantage as compared to heterosexual men? It may be that sexual minority men may be “free” to pursue their higher education without worry of the stigma of effeminacy because their sexual identity already contests hegemonic masculinity (Connell 1992). LGB people report that one of the positive aspects of coming out is freeing oneself from restrictive, undesirable gender norms (Riggle et al. 2008). This may mean that sexual minority men believe they are less stigmatized by their pursuit of education. Gay men may be more likely to pursue higher education because this “feminine advantage” in terms of preschool behaviors and attitudes counterbalances the disadvantage it confers in high school. It may be that college provides an environment with less-restrictive gender norms (Rubin 1984) where sexual minority men can thrive as compared to secondary institutions. This may be because many high school cultures favor hegemonic masculinity while disdaining the feminine (Wilkinson and Pearson 2008, Pascoe 2005). Pearson et al. (2007) use Add Health data to determine if there are differences in cumulative high school GPA and likelihood of failing a high school course between same-sex and opposite-sex attracted youth within genders. They find no effect of same-sex attraction on grades or likelihood of failing a class for women. Same-sex attracted men, though, have a higher risk of failing a course and tended to have lower GPAs than heterosexual men. How, then, does this square with information on the female advantage? Pearson et al.’s findings suggest that sexual minority men should be disadvantaged in terms of their ultimate educational attainment, but the literature shows this is not the case.
If sexual minority men are at a higher risk for negative outcomes in high school, it may be that the college environment allows them to flourish. Carpenter (2009) uses data from the College Alcohol Study to examine the relationship between sexual identity and outcomes while students are in college. His findings show that gay and bisexual men actually spent more time studying and reported both higher grades and satisfaction with the college environment than did lesbian and bisexual women.\(^7\) Sexual minority men, then, may suffer educationally in high school, but persist on to college in the hopes that they can insulate themselves from heterosexism and homophobia (Hewitt 1995). This means that they may be more likely than heterosexual men to obtain a bachelor’s degree, as they may feel more welcomed in an environment that some heterosexual men construct as feminine. Conversely, sexual minority women may feel less pressure to conform to feminine standards of academic success.

Beyond differences in college outcomes, LGB women’s career values may interact with education institutions’ gender norms, causing them to eschew higher education in favor of entering the job market. Women subject each other to less peer pressure to engage in feminine pro-school behaviors (Legewie and DiPrete 2012). Schneider and DiMito (2010) argue that sexual minority women, unlike sexual minority men, report that coming out has broadened their career options. The authors speculate

\(^7\) The authors made different decisions as to how they operationalized sexual identity, which also could explain why they appear to be incongruous. Pearson et al. (2008) rely on same-sex attraction as reported in Wave I of the Add Health data, justifying this choice because it is a measure of sexual minority status while students are in high school, which would presumably affect their academic performance therein. On the other hand, Carpenter (2009) uses sexual behavior as his method of identifying sexual minorities. I chose an alternate method, self-identification, which I justify in the Methods section.
that this is because lesbian and bisexual women may come to view occupations not typically held by women as viable career options. This relative lack of institutional, gendered pressure as compared to men may facilitate LGB women’s entry into the workforce, decreasing their likelihood of obtaining postsecondary education.

Sexual minority women may be less likely than sexual minority men to engage in pro-school behaviors in college as compared to in high school. Therefore, it may not be that there is a female advantage in higher education completion as much as there is a feminine advantage in higher education. If education systems favor supposedly feminine characteristics, such as discipline and studying, then those that adhere to these (gendered) norms may be more likely to succeed academically. Conversely, sexual minority women may also enjoy freedom from gender roles – the expectation that they will engage in the pro-school behaviors to the same degree as heterosexual women are expected to. These findings support the finding that the LGB bonus exists for LGB men as compared to heterosexual men, but cast doubt as to whether or not it holds for LGB women. Indeed, if LGB women do not feel the same pressure to conform to feminine pro-school behaviors and attitudes, it is also possible that the female advantage may not hold for them, either; LGB women may be less likely than both LGB men and heterosexual women to have earned a bachelor’s degree as a result.

**Differential social support.** Sexual minority women may not receive the same social support as LGB men upon coming out from significant others, such as peers and family. These differences may lead to an educational advantage for LGB men, but a disadvantage for LGB women. Social support is an important predictor of students’
academic success, as well as the likelihood that they will pursue higher education (Hossler and Stage 1992, Tinto 1975, Sewell et al. 1969). LGB persons, though, are far less likely to have the same social support as heterosexuals that make one able to focus on academic goals (D’Augelli 1993). But gender also moderates the social support available to sexual minorities. LGB men and women have different experiences coming out to friends and family that may affect their educational trajectories.

Coming out, or publicly disclosing one’s sexual identity, can change the social landscape for LGB people (Cass 1979, Evans and Broido 1999). Differences in how and when women come out may translate to differences in educational trajectories. Women tend to come out later in life than men (Grov et al. 2006, Fassinger 1996). Many of Boatwright et al.’s (1996) respondents noted that they felt their realization of their sexual identities came later in life than they would have liked, interfering with their educational plans. Although coming out earlier is associated with a lower likelihood of completing education (Henrickson 2008), the initial stress incurred when people first come out to themselves may be difficult to deal with (Cass 1979). If this happens at a later age for women than for men, LGB women may find themselves starting to struggle with sexual identity issues during their college years. LGB men, on the other hand, may have come out even earlier and may have already dealt with the personal and interpersonal stress that coming out engenders. This may permit them to focus more intently on their educational careers than LGB women, leading to higher levels of educational attainment.

I discuss social support as a mechanism that affects LGB postsecondary educational attainment in great detail in Chapter 4 of this dissertation.
Peer networks are important determinants of educational success (Legewie and DiPrete 2012, Hossler and Stage 1992, Sewell et al. 1969). Peers may hold different opinions of lesbian sexuality and gay male sexuality, leading to differential treatment. Young people generally express more favorable attitudes toward lesbians than gay men (Morrison and Morrison 2011, Roper and Halloran 2007). However, students’ favorable attitudes toward lesbianism may not translate to favorable attitudes toward lesbians (Evans and Broido 2002) – largely because such “favorable” attitudes towards lesbianism hinge on satisfying heterosexual male sexual desire (Jackson and Gilbertson 2009, Hamilton 2007). When faced with an actual lesbian, particularly one that does not conform to feminine standards of beauty, heterosexuals may enact severe social sanctions (Geiger et al. 2006, Rich 1980). Horn (2007) notes that young boys actually have more positive attitudes toward gay men who are gender conforming than heterosexual men who are not, whereas young women’s opinions of lesbians remain negative regardless of gender conformity. If sexual minority men conform to the gender roles expected of peer groups, they may be able to focus on their education more so than sexual minority women.

Family reactions to one’s sexual minority status can be an important determinant of self-esteem (Martín 2009, D’Augelli 2005, Cass 1979). But LGB men and women may experience differences in how families respond to their coming out. Sobello and Elliott’s (2011) interviews of fathers note that fathers place disproportionate pressure on sons rather than on daughters to express heterosexuality. In the face of decreased familial support, LGB men may be more likely than LGB women turn to support networks.
outside of the family, pressing them to achieve higher education to compensate (Hewitt 1995, Rubin 1984).

These works indicate that LGB women may not have higher educational standing relative to LGB men and heterosexual women. Sexual minority women’s decreased social support may translate to a derailment of their educational plans. Sexual minority men, though, may use higher education as a means to compensate for the lack of social support they encounter. This indicates that LGB women may be educationally disadvantaged: the female advantage and LGB bonus may not hold for them based on differences in social support.

*Using an intersectional framework.* The intersection of social identities can lead to unique, non-additive outcomes for social groups (Collins 2004). The intersection of gender and sexuality may lead to distinctive educational attainment patterns for sexual minority women as compared to sexual minority men because of the ways career trajectories, gender norm adherence, and social support covary. Differences in career values, earlier entry into the workforce, diminishing returns for higher education, suggest sexual minority women may be less likely to earn a bachelor’s degree than either heterosexual women or sexual minority men. The female advantage, then, may be moderated by sexuality; the LGB bonus, by gender. LGB men may be more likely to obtain a bachelor’s degree than their heterosexual counterparts, whereas LGB women are less likely.

I argue it is ultimately unknown how heterosexual men, heterosexual women, LGB men, and LGB women stand in terms of educational attainment. All three bodies of
literature indicate that there is reason to believe that the LGB bonus does exist – for sexual minority men as compared to heterosexual men. But these literatures also indicate that there is reason to believe that prior research has been remiss in generalizing both the LGB bonus and the female advantage to sexual minority women. If sexual minority women come out later, face different social challenges, are absolved of the pressure to conform to feminine pro-school behaviors, or enter the workforce earlier than sexual minority men, then there is reason to believe that they are less likely to complete college relative to both gay men and heterosexual women. This finding would necessitate a reevaluation of the female advantage and LGB bonus literature. Sexuality, like race and class, would need to be taken into account in studying the female advantage if LGB women’s likelihood of earning a bachelor’s degree is below that of heterosexual women’s. Likewise, the LGB bonus literature would have to exert care in generalizing findings about educational attainment LGB people generally to sexual minority women. Additionally, this chapter presents scholars interested in the conditionality of the LGB bonus new potential mechanisms by which the female advantage may be inverted for sexual minorities.

**Methods**

*Hypotheses.* The prior literature indicates that LGB men enjoy a bonus in terms of their educational attainment, and that women generally enjoy an educational advantage over men. The literature does not explore lesbian and bisexual women’s educational attainment levels in any depth, however. The studies that argue that lesbian and bisexual women are educationally advantaged as compared to heterosexual women tend to
generalize from findings on LGB men to LGB women or examine subpopulations that may be more likely to have higher levels of education. Others exclude female respondents altogether. Therefore, it is largely unknown how LGB women are faring educationally compared to heterosexual men, heterosexual women, or sexual minority men. Likewise, studies of LGB men’s educational attainment tend to focus on within-gender differences in educational attainment, comparing them only to heterosexual men. Because of this, it is unclear as to how these four gender and sexuality groups – heterosexual men, heterosexual women, sexual minority men, and sexual minority women – stack up educationally as compared against each other.

I argue that educational attainment is contingent on both sexuality and gender. Prior work provides ample reasons to believe that the female advantage does not hold for LGB people. I conduct an analysis that compares the predicted likelihood of having a college degree for four gender and sexuality groups: LGB women, LGB men, heterosexual women, and heterosexual men. Informed by the prior literature, I propose the following hypotheses:

H₁: Heterosexual women will be more likely to earn a bachelor’s degree than heterosexual men.

H₂: LGB men will be more likely to earn a bachelor’s degree than heterosexual men.

H₃: LGB women will be less likely to earn a bachelor’s degree than heterosexual women.
H₄: LGB women will be less likely to earn a bachelor’s degree than LGB men.

The first two hypotheses are largely supported by prior literature on the female advantage and the LGB bonus. Hypothesis 2 is further supported by the literature that outlines the differences between sexual minority men’s and women’s likelihood of completing college, as discussed above. Hypotheses 3 and 4, though, claim that the female advantage and LGB bonus are not monolithic.

Data. I use data from the National Longitudinal Study of Adolescent Health (Add Health) (Harris et al. 2009). These data are an improvement over prior studies’ data for several reasons. Add Health data are nationally representative; respondents come from a variety of geographic contexts, not just from urban areas. The data contain a sufficient number of cases for both LGB men and women to investigate potential gender differences in educational attainment. Add Health also includes multiple questions that can be used to classify respondents as heterosexuals or sexual minorities, an important consideration given my hypotheses.

Four waves of Add Health data have been collected. I use the first and fourth waves of Add Health in this study. Wave I data were collected in 1994-1995 when respondents were in grades 7-12. This wave provides background characteristics about respondents which served as control variables. For example, information about respondents’ family lives, early educational careers, and basic demographic characteristics, such as race, age, and gender, are included in analyses because of their effect on educational attainment. The most recent wave, Wave IV, was collected in
2007-2008, when respondents’ average age was almost 30 years – past the age when the majority of Americans complete their college degrees (Jacobs and King 2002). Wave IV provides both the dependent variable, educational attainment, and the independent variable, self-reported sexual identity. The final sample size is 14,556 respondents after merging data and dealing with missing cases, which I describe in more detail below. Table 1 shows the weighted means, standard deviations, and range of all variables used in this analysis.

Independent variable: sexual identity. I use self-identification of sexual identity at the time of Wave IV as my independent variable. At Wave IV, respondents were asked, “Which of these choices best describes you?” Akin to Kinsey’s (1948) scale, respondents were allowed to place their sexual identity somewhere along a one-to-five scale. Add Health’s scale asked respondents to rate themselves from one to five on the sexual identity question, with a rating of one being “100 percent heterosexual,” a rating of three being bisexual, and a rating of five being “100 percent homosexual (gay)” (Harris et al. 2009). Those who answered three, four, or five on this question were coded as LGB. 9 126 respondents indicated they felt no sexual attraction, commonly referred to as asexual (Boegart 2006); these cases were dropped from the analysis. 10

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9 Although it would be ideal to separate out bisexual respondents from lesbian and gay respondents – particularly because of the differences between the concerns of bisexuals versus lesbians and gay men (e.g., Phelan 2001, Weinberg et al. 1994), it was determined that such a separation might compromise the statistical integrity of the model by splitting up LGB persons into subgroups too small to study. Future research with larger, purposeful sampling of LGB populations could be used to answer questions about differences between subgroups.

10 Much like transgender respondents, small sample size and the fact that asexuality is a distinct sexual identity with issues separate from those of heterosexuals and LGB persons face, coupled with the fact that
Admittedly, any attempt to operationalize sexual identity is not without its problems. Despite the limitations of the data, no method of measuring sexual identity is generally accepted (Savin-Williams 2005). Depending on how sexual identity is measured – based on sexual behavior, romantic attraction, physical attraction, dating behavior, or self-identification – respondents may give very different answers (Savin-Williams 2005, Laumann et al. 1994). Because my research questions hinge on the premise that social structures treat LGB students disparately, I maintain that self-identification is the preferable measure for this work. Endogeneity may also be present in using a Wave IV measure as compared to other means of operationalizing sexual identity that come from earlier waves. It is possible that higher levels of education may lead to a higher likelihood of respondents identifying as LGB, either because education has exposed them to alternate social possibilities or because of contact with successful, educated role models that can provide social support (Rhoads 1995). Although sexual minorities are coming out at earlier ages, many of them before they enter college (Savin-Williams 2005, Broido 2004), it is still possible that the causal order may be reversed for some respondents.

A key limitation of the Add Health data as they stand is the absence of a variable that reports \textit{when} LGB respondents came out – that is, first publicly disclosed their sexual identities. This is important because, although one may acknowledge oneself as being LGB, the development of a public identity can translate to discrimination from others.

\footnote{Asexuals comprised such a small percentage off respondents, led to the decision to exclude asexual respondents from this analysis (Savin-Williams 2005, Boegart 2006).}
(Cass 1979). A gay male respondent who came out after college likely had a radically different experience than a gay male who has been out since adolescence. The respondent who came out later in life may not have experienced the same forces of heterosexism and homophobia as the latter student – or, at least, he may not have experienced them in the same manner (Henrickson 2008, Barrett et al. 2002). Further, coming out is not a standard process, and sexual minority people can vary in their conceptualizations as to what makes one LGB or not (Savin-Williams 2005). Because it is not possible to know at what point in their lives the LGB respondents came out, or if they are out publicly, these data cannot answer the question of how timing of coming out affects educational outcomes. I present results from qualitative data in Chapter 4 that examines how timing of coming out may affect educational attainment through the analysis of qualitative narratives.

Despite these issues, identity as measured at Wave IV is preferable to identity measured at earlier waves of Add Health. To justify the use of self-identification as a preferable measure of LGB status, I developed alternative methods of operationalizing LGB status: same-sex sexual attraction as reported in Wave I, and reporting a same-sex romantic partner in Wave I. I ran correlations on these operationalizations to one another, as well as ran preliminary logit models to determine if behavior or attraction could be related to educational attainment (results not shown). Behavior at Wave I, attraction at Wave I, and identity at Wave IV were weakly correlated with one another ($\rho < 0.15$ for all three comparisons). This is not surprising given the chasm between sexual identity and behaviors or attractions (Laumann et al. 1994). Logit models indicate that
Wave I operationalizations were not statistically significantly related to educational attainment.

Although the lack of correlation between measures of sexuality at Wave I to identity as measured in Wave IV may engender validity concerns, it should be noted that the average age of Add Health respondents at Wave I was 16 years of age. Sexuality, particularly sexual identity, can be relatively fluid during adolescence (Savin-Williams 2005, Laumann et al. 1994, D’Augelli 1991). It is likely that as respondents aged, they developed congruence between their sexual behaviors, attractions, and identities (Cass 1979). Further, behavior and attraction are often poor indicators of sexual identity (Laumann et al. 1994) – many people who identify as heterosexual, for instance, may have engaged in same-sex sexual behavior, but did so either privately or sporadically.

Use of Wave IV self-identification to measure LGB status mitigates issues of construct validity that Wave I measures present, but this variable also captures some of the potential effects of social sanctioning in ways that behavioral or attraction measures do not. If respondents disclose sexual minority identification in Add Health, it is likely that they have also disclosed sexual minority status in other settings and thus may have experienced some of the negative social forces others impose on those who are sexual minorities through other social disclosure (Fine 2011, Pharr 1997). Even if they are not publicly out, acknowledging their own sexual identity as a minority may make them more acutely aware of the forces of heterosexism and homophobia (Cass 1979), which could alter their social experience and self-concept. Also, self-identification is one of the most conservative measures, with fewer respondents reporting a self-identification as a sexual
minority than engaging in same-sex sexual behavior or other operationalizations (Laumann et al. 1994). If persons identify as LGB by Wave IV, regardless of whether or not they did so at or before Wave I data collection, their educational trajectories still contribute to a general pattern of self-identified LGB persons’ relative educational standing as compared to heterosexuals. Similarly, even if education led to the development or disclosure of a sexual minority identity, the fact that respondents now identify as LGB means that their educational attainment level still speaks to a larger demographic relationship between sexuality and education.

Therefore, because the self-identification variable at Wave IV provides a current understanding of sexuality’s relationship to education, better captures the potential effects of heterosexism and homophobia than other measures, and provides a more stable measure of sexuality than Wave I behaviors, I choose to keep it as the preferable measure of educational attainment. Table 2 shows the sexual identity and gender breakdown of the sample. 547 of 14556 respondents, 3.76 percent of the sample, identified as lesbian, gay, or bisexual.\footnote{This percentage of LGB respondents matches the proportion of respondents who identify as sexual minorities when self-identification is used to operationalize sexual minority status (Laumann et al. 1994, Savin-Williams 2005). Kinsey’s (1948) oft-quoted statistic of 10 percent of the population being gay or lesbian stems from his use of engagement in same-sex sexual behavior as a means of operationalizing sexual minority status.}

**Dependent variable and analysis.** Add Health asks respondents at each wave about their highest level of education attained. The Wave IV question on highest degree earned was used to construct the dependent variable. Respondents who reported having earned a bachelor’s degree or higher by the time of Wave IV data collection were coded...
as “1;” those with less education were coded as “0.” Table 3 shows the highest education level achieved as reported by respondents. 32.34 percent of all respondents and 58.87 percent of LGB respondents had earned a bachelor’s degree by the time of Wave IV data collection. Because the variable is dichotomous – respondents either have attained a bachelor’s degree or they have not – I use logistic regression techniques to analyze the relationship between sexual identity and educational attainment (Pampel 2000). Data were weighted using Add Health provided weights (Harris et al. 2009). Data were also clustered by the secondary school the respondent reported attending at the time of Wave I data collection to compensate for any school-level effects earlier in students’ educational careers (Wilkinson and Pearson 2009). I estimate two models: one including an interaction term for gender and LGB sexuality, and one without. Because the hypotheses predict directions for the effects of gender, sexuality, and their interaction, these tests of significance are one-tailed. Tests of significance for control variables are two-tailed. I use results from the logistic regression models to predict the probability of having a bachelor’s degree as a function of gender and sexual identity in order to compare all four

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12 Add Health does ask respondents whether they are currently pursuing for-credit education. Given that the average age of respondents at Wave IV is 30, it is possible that some of them have not yet completed their educational careers. I choose to use attainment of a bachelor’s degree as a cutoff point in my analysis, as most Americans still complete their college degrees before the age of 30 (Jacobs and King 2002). Additionally, Add Health’s question regarding current enrollment lumps together vocational / technical training with college, university, or community college enrollment, which is problematic given my interest in bachelor’s degree completion. I also do not separate those enrolled in higher education as I ran multinomial logistic regression models including current pursuit of education as a competing outcome, and results were similar to those presented. Analysis of future waves of Add Health Data may be able to determine if there are any changes in the findings after more respondents have largely finished pursuing education.
gender and sexuality groups – heterosexual men, heterosexual women, sexual minority men, and sexual minority women – to one another directly.

**Control variables.** All other variables come from Wave I of data collection and are treated as controls. Although half of all Add Health respondents are aged 29 to 31 by the time of Wave IV data collection, the range of ages spans ten years. Respondent age is included as a control to compensate for its effects on educational attainment, as older respondents may have had more time to obtain higher education.

Parent characteristics, like education and occupation, are important in determining status attainment, including educational attainment (Sewell et al. 1969, Buchmann and DiPrete 2006, Bobbit-Zeher 2007). This work uses Bearman and Moody’s (2004) method of measuring the relative social class of Add Health Wave I respondents’ families, combining the occupational prestige and the education level of their parents. Their method is quite useful, as it provides a comprehensive socioeconomic status (SES) measure with a minimum of missing cases. Occupations and education levels of parents as reported by respondents were ranked on a one to five scale, then added together to provide a measure of family SES. In the case of two values reported for family SES, the larger of the two values was used. SES values were not calculated for parents who were missing values on either occupation or education level.\(^\text{13}\) I describe how I dealt with missing data for family SES below.

\(^{13}\)Although Add Health asks about parental income, they do so in a parents’ survey separate from other Wave I data collection. Because not all parents completed a corresponding parents’ survey, and because several declined to provide information on incomes, nearly one-third of cases are missing. Therefore, because Moody and Bearman’s approach results in far fewer missing cases, it is used to capture SES instead of income.
Attitudes, desires, and drives are also important predictors of an individual’s likelihood of attaining higher education (Sewell et al. 1969). In Wave I, before respondents were of age to begin college, respondents were asked how likely they thought it would be they would go to college. This question was asked using a Likert scale from one to five, with five corresponding to a higher perceived likelihood of the respondent’s chances of going to college. This question may capture both respondents’ aspirations as well as any practicalities that may affect their perceived likelihood of obtaining higher education.

Respondents’ self-esteem was also measured using a battery of questions in Add Health’s first wave. Self-esteem can be an important force in determining how far one may pursue higher education (Sewell et al. 1969, Chickering and Reisser 1993). Particularly for LGB students, who may suffer from lower self-esteem than their heterosexual peers generally (D’Augelli 1993), self-esteem may be an important predictor of further educational attainment.\(^\text{14}\) I use the same method as Longmont et al. (2004) to measure self-esteem. A battery of six questions within Add Health is used to construct the self-esteem variable: “I have a lot of good qualities,” “I have a lot to be proud of,” “I like myself just the way I am,” “I feel like I’m doing everything just about right,” “I feel socially accepted,” and “I feel loved and wanted.” These questions measure perceived self-efficacy and social connectedness, both components of self-esteem that may affect educational attainment. Each question is answered on a scale

\(^{14}\) An interaction effect between LGB sexual identity and self-esteem was tested in preliminary statistical models. However, the interaction variable was not statistically significant. Therefore, it is not included in the final models presented.
from one to five, with higher values indicating higher self-esteem. I then use the total of these six items to measure self-esteem in my models. Respondents were included if they provided answers to at least four of the six items; those with missing values had the total value for the responses they did answer scaled to match those who answered all six items.

Students who enjoy greater academic success earlier in their educational careers may be more likely to gain admission into college or be encouraged by significant others to obtain a bachelor’s degree (Sewell et al. 1969). I use McNeely’s (2005) method to operationalize GPA. Students provide self-reported grades in four core subjects in the Add Health data set at Wave I: math, English, science, and social studies / history. Converting letter grades to numeric values (a grade of A = 4, whereas a grade of failing = 0), the average of students’ self-reported grades in these four subjects is used to measure prior academic performance. Also following McNeely’s method, students were included in the sample if they reported grades in at least two of four subjects. Treatment of missing data for cumulative GPA at Wave I is described below.\(^{15}\)

Race is included as a control variable in this study, as there continue to be racial gaps in education (McDaniel et al. 2011, Goldsmith 2009, Chapa and de la Rosa 2004). Race was coded from Wave I data, when respondents indicated their racial backgrounds. Those who indicated more than one racial background or who indicated a race other than

\(^{15}\) On self-reports of academic performance, males tend to over-estimate their academic success moreso than females do (DiPrete and Buchmann 2012). The Add Health data have a companion survey, the Adolescent Health and Academic Achievement (AHAA) survey, that contains cumulative GPA data for respondents whose high schools were able and willing to provide transcripts. Using AHAA’s measure of GPA, which has a lower potential for bias, would have meant an increased number of missing cases for the GPA variable, a disproportionate amount of whom were coded as LGB (results not shown). Because of this, I choose to use McNeely’s operationalization for the GPA control variable despite the potential gender bias.
white, Black, Latino/a, or Asian were coded as being from another race to avoid the loss of LGB respondents. Those who did not provide data on their race were dropped from the analysis. The analysis contains five racial groups: white, Black, Latino/a, Asian, and other, with white respondents acting as the reference group.

Geographic context was included as a control variable as well, as it can have an effect on one’s likelihood of pursuing higher education. Those from urban contexts may be less likely to have attended well-funded schools with high concentrations of poverty (Kozol 1991, Ryan 2010), which leaves them disadvantaged in the pursuit of higher education. Likewise, rural schools may be under-funded, and student culture may disdain the pursuit of higher education in favor of blue-collar careers (Morris 2008). Wave I interviewers coded the respondent’s residence at the time of the interview as living in either a urban, rural, suburban, or an other locale (e.g., an industrial area). Respondents whose interviewer did not provide a code for their urban context were coded as living in another locale. Suburban residents were used as the reference group. Add Health also provides the region of the U.S. that the respondents are living in at the time of the Wave I interviews, which are used as control variables in this analysis. The Southern region is used as the reference group in these analyses.

Presumably, the intersection of race and sexuality would lead to differential educational outcomes for LGB persons of color as compared to white LGB persons (Collins 2004). Interactions between LGB status and race were created and included in analyses (not shown), but only one variable was found to be significant: the intersection between LGB status and Asian race. However, there are only 24 LGB Asians in the sample, I decided to exclude race interactions in this work. Qualitative research techniques or quantitative analysis of future data sets with larger numbers of LGB persons of color may be able to untangle any race / sexuality interactions that affect educational attainment.
Missing data. I merge data from Wave I with data from Wave IV for all respondents. For the independent variable, all respondents who did not report a sexual identity, or who identified as asexual, were dropped from the analysis. For the independent variable, one respondent who did not provide information on highest degree attained was also dropped. For most other control variables, I chose to use listwise deletion to deal with missing cases, as this method preserved over 98 percent of respondents who provided data for both Wave I and Wave IV of Add Health (Allison 2001). This led to a final sample size of 14,556 respondents. Table 4 shows the progression of listwise deletion of cases for these variables. Listwise deletion led to a loss of six LGB respondents out of an initial 533, or 1.12 percent.

For family SES and cumulative GPA, 1,332 respondents, or 9.15 percent of the sample remaining after listwise deletion, had missing values for at least one of these variables. This number included 47 LGB respondents, or 8.59 percent of the remaining LGB sample. Because the number of sexual minority respondents is relatively small as compared to the total sample size, listwise deletion would have eliminated a large number of cases, lowering the statistical power of the analysis. To preserve these cases, I create a dummy variable for missing GPA and a dummy variable for missing family SES. I also chose to break those who reported SES and GPA values into dummy variable categories representing “low” values or “high” values as a means to provide a direct comparison against those with missing values.  

17 Although this may lead to biased estimators, this

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17 I also ran models with those with missing values on SES and GPA coded as “0” while still including the flag for missing values as a dummy variable. Results did not differ significantly from those shown. Further, because GPA and SES act as control variables here – because their general effect on educational
method may be a useful way of preserving a small sample size (Allison 2001). I test the appropriateness of using dummies as proxies by running comparison models that use listwise deletion of all cases with missing variables and multiple imputation techniques.

Goal of description. The aim of this chapter is to determine if the female advantage holds for sexual minorities, or if LGB men are educationally advantaged as compared to LGB women. That is, this chapter is largely descriptive. Ideally, a statistical model could test for the three potential mechanisms I outline that suggest LGB women may be educationally disadvantaged as compared to both heterosexual women and sexual minority men (Reskin 2003). But many of the factors that underpin the mechanisms outlined above cannot be measured using Add Health data, such as timing of coming out, parental attitudes toward sexual minority status, and relative adherence to gender roles. Despite these limitations, given the lack of information on LGB women’s attainment, determining if a female advantage exists for sexual minorities is a worthy goal. In this respect, the Add Health data are a good choice, as they are nationally-representative and have a relatively large sample of LGB respondents. After presenting my results, I will turn my attention to which of the potential mechanisms I propose seem most plausible, and how future work can determine how – or to what degree – career expectations, gender norms, and social support differences affect sexual minority educational attainment.

attainment is well-documented – it is likely that little explanatory power is lost through this operationalization of these variables.
Results

Table 5 shows the results of the regression analysis. Model 1 runs the analysis without an interaction term for gender and LGB sexuality. The coefficient for sexual minority status is not significant in this model.

Model 2 adds the interaction term to the analysis. The effect of sexual identity on bachelor’s degree completion by the time of Wave IV data collection is positive and statistically significant with the addition of the interaction term to the analysis. This indicates that sexuality does exert an effect on educational attainment, but one that is contingent on gender. Gay and bisexual men are over 79 percent more likely to have obtained a bachelor’s degree than heterosexual men net of all other variables (b = 0.5837, p < 0.01). The main effect for gender is also significant, in keeping with prior literature. Women in the Add Health data set demonstrate the female advantage in college completion is still present, as they are over 33 percent more likely than heterosexual men to have a bachelor’s degree, controlling for all other variables (b = 0.2888, p < 0.001).

The interaction effect in Model 2 for gender and sexual identity is also significant. The significance of both the main term and interaction term in Model 2 indicates that there is a significant difference between the educational attainment patterns of sexual minority women and men. Unlike the main effect for sexual identity, though, the interaction term is negative, indicating that the relationship between sexuality and educational attainment is conditional on gender. Summation and conversion of regression coefficients allow the determination of the percent odds of lesbian and bisexual women earning a bachelor’s degree. Whereas gay and bisexual men are more
likely than heterosexual men to have earned a bachelor’s degree by Wave IV, lesbian and bisexual women are over 16 percent less likely as compared to heterosexual men, net of other effects (interaction effect $b = -1.0505$, $p < 0.001$; summation of main effects and interaction effects $= -0.1780$). Sexual minority men, then, enjoy an educational bonus compared to heterosexuals – men and women. Sexual minority women, on the other hand, suffer a penalty in terms of their educational attainment.

The direction and significance of the control variables’ effects in Model 2 are in keeping with prior literature. Black and Latino respondents were less likely to have a bachelor’s degree as compared to white respondents; Asian respondents were more likely. Respondents who are older, from the northeast region of the country, with higher socioeconomic status, and with higher GPAs were also more likely to have a bachelor’s degree. All these effects are statistically significant. Respondents who were coded as living in urban, rural, or other non-suburban contexts were less likely than suburban-raised respondents to have a college degree, and the effects are statistically significant. Dummy values for missing GPA and family socioeconomic status are also statistically significant and negative. Self-esteem as measured here does not have a statistically significant association with the outcome variable.

Figure 1 provides a comparison of all gender and sexual identity groups’ likelihood of having a bachelor’s degree by the time of Wave IV data collection in the Add Health data set as compared to heterosexual men. Gay and bisexual men’s likelihood of earning a bachelor’s degree is above heterosexual women’s. The likelihood
of lesbian and bisexual women earning a bachelor’s degree, though, are below that of heterosexual men’s.

Post-estimation margins. In order to compare gender and sexuality groupings to different reference groups than heterosexual men, I estimate margins and linear contrasts for all four gender and sexuality combinations. Table 6 shows the predicted probabilities of each group having a bachelor’s degree by Wave IV. Gay and bisexual men have the highest predicted probability of having completed college at 0.3784. They are followed by heterosexual women, whose predicted probability is 0.3282. Heterosexual men’s predicted probability of having a bachelor’s degree by Wave IV is 0.2813. Lesbian and bisexual women have the lowest predicted probability of all gender and sexuality groupings of finishing college at 0.2540. These probabilities are represented graphically in Figure 2.

I run tests on the contrasts between these predicted probabilities to determine if they differ from one another at a statistically significant level. I present results using both Bonferroni corrections and no postestimation adjustments. Although Bonferroni tests are generally the preferred method to lessen type I error across multiple estimations – that is, lessening the likelihood that a relationship will be deemed statistically significant based on chance (Brown 2008) – they also reduce statistical power (Perneger 1998). As the sample size of LGB respondents is relatively small, the Bonferroni correction may cause the null hypothesis – that the intersection of gender and sexuality do not have a statistically significant influence on educational attainment – to be upheld even if it
should be rejected. Therefore, I present the results of both methods of calculating significance.

The contrast between heterosexual men’s and heterosexual women’s predicted probability is statistically significant regardless of whether the Bonferroni correction is employed (p < 0.001 non-adjusted, p < 0.01 Bonferroni-adjusted), which indicates that the female advantage in educational attainment holds when comparing heterosexual men to heterosexual women. Two contrasts were not significant regardless of whether the Bonferroni adjustment was employed: the contrast in predicted probabilities between sexual minority men and heterosexual women and between sexual minority women and heterosexual men. This is telling, as it indicates that LGB women’s predicted probability of college completion likely mirrors that of heterosexual men more closely than it does that of heterosexual women. LGB men’s pattern of attainment, on the other hand, is likely more closely related to that of heterosexual women instead of that of heterosexual men.

The question of whether the remaining three contrasts are significant depends on whether non-adjusted or Bonferroni-adjusted tests of significance are employed. The model predicts that there is a 9 percentage point difference in the likelihood that sexual minority men will have a bachelor’s degree as compared to heterosexual men. This contrast statistically significant level if no adjustment is used (p < 0.021), but the difference is insignificant using the Bonferroni correction (p < 0.123). Sexual minority women have a seven percentage point deficit in their likelihood of having a bachelor’s degree as compared to heterosexual women, which is a statistically significant difference.
if no adjustment to p-values is made (p < 0.018). The Bonferroni correction, though, renders this relationship insignificant (p < 0.106). Within the LGB respondents, sexual minority men’s predicted probability of having a bachelor’s degree was 12 percentage points above that of sexual minority women. This difference is statistically significant if no adjustment is used (p < 0.018) and insignificant if the Bonferroni adjustment is used (p < 0.107). Although the more conservative Bonferroni tests prevent the model from making an inaccurate rejection of the null hypothesis, the already-small sample size means that these differences may be statistically significant were the number of LGB respondents greater.

Test for appropriate handling of missing data. Table 7 shows the results of models that run the same analysis as described above, but use different techniques for dealing with missing data. I compared results from the analysis I use here, which employs dummy variables, to two other models: one that uses listwise deletion of cases, and another that uses multiple imputation. All models used the same independent, control, and dependent variables as described above. Results from data that used multiple imputation and listwise deletion of all missing cases were similar to those from the model that used dummy variables to code for missing data. Coefficients for the dummy variable model used here were slightly smaller in magnitude and, therefore, provide the most conservative estimates.

Discussion and Conclusion

The logistic regression model and unadjusted tests of predicted probabilities indicate that sexual identity has an effect on educational attainment, and whether its
effect is beneficial or detrimental depends on gender. All four hypotheses are supported by these analyses. Starting with the first hypothesis, odds ratios from the second logistic regression model indicate that the female advantage for heterosexuals holds in the Add Health data. Heterosexual women are over 33 percent more likely to have a bachelor’s degree than heterosexual men.

Of particular interest, though, are the differentials in educational attainment between sexual minority groups. According to the second model, gay and bisexual men are over 79 percent more likely to have a bachelor’s degree as compared to heterosexual men. This translates to a 9.71 percentage point contrast in predicted probabilities, which is significant if no adjustment is made to p-values. This finding goes against the narrative of disadvantage that is perpetuated by literature about sexual minority youth (Savin-Williams 2005). If LGB men are actually more likely to do well in school and more likely to attain bachelor’s degrees than their heterosexual male counterparts, particularly in spite of the negative social forces they experience in school by virtue of their sexual identity (e.g., Wilkinson and Pearson 2009), then this indicates that LGB men are largely resilient in the face of heterosexism and homophobia while they pursue higher education.

However, although sexual minority men’s educational bonus may suggest that all LGB persons enjoy an advantage in college completion, lesbian and bisexual women face an educational penalty. Even controlling for several variables, logistic regression results show that LGB women were less likely than even heterosexual men to have completed a bachelor’s degree. Sexual minority women had the lowest predicted probability of the four gender and sexuality groupings to have a college degree by the end of Wave IV.
Within gender, there is a 7.42 percent difference between the predicted probabilities of sexual minority women having a bachelor’s degree as compared to heterosexual women, and this difference is statistically significant if no adjustment is made to p-values. Unadjusted tests of significance of this contrast support the third and fourth hypotheses: LGB women are less likely than their heterosexual female counterparts to have a bachelor’s degree. This finding indicates that sexual identity has negative consequences for the educational attainment of LGB women. The female advantage in higher education, then, is conditional on sexual identity. LGB women do not enjoy the same female advantage in higher education that heterosexual women do.

The unadjusted significance tests of the contrasts between gender and sexuality groups indicate that the female advantage in educational attainment does not hold when sexuality is taken into account. Instead, the advantage in college completion switches over to men. Of all gender and sexuality groups, sexual minority men actually had the highest predicted probability of having a college degree. This probability was not found to be statistically significantly different from that of heterosexual women, indicating that these two groups’ patterns of educational attainment are similar. Likewise, significance tests of contrasts indicate that there is no statistically significant difference between the predicted probabilities of LGB women and heterosexual men having a college degree. This means that, for LGB people, sexual minority men’s pattern of educational attainment more closely parallels that of heterosexual women, whereas sexual minority women’s more closely parallels that of heterosexual men.
The Bonferroni tests of significance for the contrasts, though, complicate these findings. If this more stringent standard is used, the only contrast that remains statistically significant is that between heterosexual men and heterosexual women. However, the Bonferroni tests of significance trade off type I error for type II error, making it more likely that the null hypothesis be retained even if it is untrue. Because of the relatively small sample size of LGB respondents in Add Health, Bonferroni tests of significance may indicate that the relationship between gender, sexuality, and education is no greater than chance when, in fact, such a pattern does exist. Future research with larger samples of LGB respondents may be able to withstand the increased scrutiny of a Bonferroni test of significance. Additionally, as Add Health respondents age and patterns of educational attainment stabilize, examination of future waves of data may be able to identify a pattern of educational attainment as contingent on sexuality and gender.

Also, regardless of whether the Bonferroni tests or unadjusted tests are used, the data indicate that there is still a gendered pattern of educational attainment. Predicted probabilities suggest that sexual minority men’s pattern of educational attainment is more akin to heterosexual women’s than heterosexual men’s: although men in general may be falling behind women in college graduation rates, sexual minority men appear to be keeping pace with heterosexual women educationally. These two contrasts were found to be insignificant regardless of which method of calculating statistical significance was used. Although these data may not be able to definitively support the hypotheses if Bonferroni tests of significance are used, the fact that there is *not* a statistically significant difference between the likelihood of having a bachelor’s degree of LGB
women and heterosexual men, nor between LGB men and heterosexual women, indicates that there is a pattern of educational attainment that hinges on the intersection of gender and sexuality.

These descriptive findings do much to untangle the relationship between gender, sexuality, and education. It also provides some directions for future research. Because I use self-identification as LGB at a later wave as my independent variable, it is possible that endogeneity is a concern. I argue that timing of coming out is not of heightened concern in this chapter, whose goal is more descriptive than explanatory; regardless of when or how respondents disclosed their sexual identities, they still contribute to a pattern of educational attainment amongst sexual minorities. However, because it is important to explore what mechanisms underpin these gender and sexuality differences in educational attainment, future works should look to determine how timing of coming out may affect educational attainment. I speak to this in my qualitative findings in Chapter 4.

On the issue of mechanisms, the model in this chapter does not provide any way of testing for what causes these differences in educational attainment. This chapter is largely descriptive – a necessary contribution, given the ambiguity in the literature regarding sexual minorities’ educational standing. Although heterosexism and homophobia may affect sexual minority persons’ educational decisions, I only indirectly test for these forces here through some of the included variables. I explore the potential mechanisms behind these findings, asking what factors separate LGB college graduates from those who interrupt their education, using qualitative data in Chapter 4. Given the three mechanisms proposed here as potential contributors to the inversion of the female
advantage for LGB persons, results in Chapter 4 indicate that differences in social support may contribute to differences in educational attainment. The relationship between institutional gender norms and individual gender role adherence may also exert an effect. Add Health does contain data on the secondary schools students attended during their educational careers. Wilkinson and Pearson (2009) provide some means of operationalizing school cultures’ relative adherence to hegemonic masculinity. Measuring individual students’ adherence to pro-school behaviors, too, is possible using Add Health. This may be a means of determining whether adherence to pro-school behaviors differs across gender for LGB persons, and whether that explains why female advantage does not hold for sexual minorities, further exploring the mechanisms that underpin these differences in educational attainment.

The finding that gay and bisexual men are more likely than their heterosexual counterparts to both enroll in and complete college might lead to a dangerous interpretation: that the academy is an environment where gay and bisexual men are actually privileged in comparison to heterosexual students. I believe it is appropriate to caution against such an interpretation of this finding, particularly given that heterosexism and homophobia have been shown to be alive and well on college campuses (Fine 2011; Rankin 2003, 2005). Although male LGB students may be successful in terms of educational attainment, they may still incur stress related to their sexual identity while on campus. Also, it is possible that male gay and bisexual respondents in this study may experience a bonus in terms of their educational attainment, but this may not translate to advantages in other outcomes that are influenced by education, such as income.
Educational attainment is not the only benchmark by which status attainment can be measured. Income, health, or occupational prestige are all measures that have some utility in explaining the ultimate disposition of the respondents. Particularly with regards to income, even studies that have identified LGB men as being more likely to have a college degree note that income disparities still persist (Badgett 2001, Carpenter 2005, Rothblum et al. 2005). Given these respondents’ relatively young age, it is premature to conjecture as to the ultimate returns of the LGB respondents’ college degrees. As this population ages, Add Health’s longitudinal design could permit an exploration of the returns of these differences in educational attainment between heterosexual and sexual minority respondents.

Cohort effects may be important, given Add Health’s longitudinal design. The group of respondents in the Add Health data all fall between the ages of 25 to 35 at the time of Wave IV data collection, with over half of the respondents clustered within one year of age 30. It is important to note that these data represents a particular cohort of people, most of whom finished high school right on the cusp of American society’s relative transformation to a broader acceptance of sexual minorities (Broido 2004). The age of the respondents affects its generalizability to all LGB persons; both older and younger LGB persons might experience disproportionate affects – and returns – on their educational attainment as a function of sexual identity. As data collection processes continue to emphasize including LGB populations, it is likely that more systematic data sources will collect information on respondents’ sexual identity status (Black et al. 2000).
These sources can be used to expand the work here past its limited focus on a particular cohort.

Conclusion. The analysis presented here indicates that there are differences in educational attainment between heterosexual and LGB respondents in the Add Health data. LGB men’s educational attainment patterns mirror those of heterosexual women, with predicted probabilities of college completion above those of both heterosexual men and LGB women. Sexual minority women, on the other hand, had the lowest predicted probability of having a bachelor’s degree, which was not found to be statistically significant from heterosexual men’s. The Add Health data indicate that LGB men’s and heterosexual women’s educational trajectories parallel one another, as do sexual minority women’s and heterosexual men’s. Sexual minority men, then, experience an educational bonus in terms of bachelor’s degree completion, but sexual minority women are educationally penalized. Sexual identity’s effect on educational attainment is not monolithic. Gender moderates this relationship, as LGB persons’ likelihood of obtaining a bachelor’s degree hinges on whether one is male or female. In terms of educational attainment, whereas sexual minority men exemplify Savin-Williams’ (2005) resiliency narrative, sexual minority women are still disadvantaged.

The finding that lesbian and bisexual women are less likely to obtain a bachelor’s degree is all the more striking given the general female advantage in college completion. The educational trajectories of sexual minority women should be studied to determine why they are disadvantaged as compared to their male counterparts. Those who wish to promote LGB student success should pay particular attention to the educational needs of
women, and further work could examine the mechanisms behind this gender-dependent
differential in educational attainment. In particular, interventions to promote timely
completion or facilitate college enrollment of lesbian and bisexual women may help to
close this education gap.

The analysis here makes an important contribution to identifying the disparities in
educational attainment that exist as a result of students’ sexualities. The findings that gay
and bisexual men may be more likely to earn college degrees than heterosexual men
while lesbian and bisexual women are less likely than heterosexual women indicate that
there are some underlying mechanisms of interest that future work could explore.
Particularly because college completion has serious consequences, it is all the more
important to explore why certain groups may be advantaged – or disadvantaged – when it
comes to obtaining a postsecondary degree.
Chapter 3: Institutional Factors Linked to a Positive Campus Climate for Sexual Minorities

Whether sexual minority students are resilient or victims in their pursuit of higher education may be contingent on the campus environment. There is a need for more macro-scale approaches in exploring the experiences of lesbian, gay, bisexual, and transgender (LGBT) students, faculty, and staff (Renn 2010). It is still largely unknown if factors at the institutional level affect whether a college or university is accepting of sexual minorities. For instance, the LGBT resource center is a relatively new presence on many campuses, providing sexual minority students with community space and staff to help facilitate their educational and social growth while at college (Sanlo et al. 2002). The Consortium of Higher Education LGBT Resource Professionals (2010) keeps a public record on its website of the founding of new LGBT resource centers. In prior work, I link two prominent social movement theories – political opportunity and resource mobilization – to explain which campuses may be more likely to have these on-campus spaces (Fine 2012). I found that larger public institutions in more politically-liberal states were more likely to have LGBT resource centers, supporting the claim that both resource mobilization and political process exert some influence in determining these centers’ presence. This also meant that these on-campus spaces for sexual minority students may
not be present at colleges where students may need them most: smaller institutions in politically-conservative areas.

This chapter extends the contribution of this prior work in two important ways. First, the article measured only one outcome related to an institution’s relative acceptance of sexual minorities: the existence of an LGBT resource center. Although this study was one of the first to investigate the campus characteristics that contribute to a marker of an LGBT-friendly campus, the presence of an LGBT resource center is but one indicator. This chapter uses a more comprehensive measure of campus climate, which includes a variety of factors related to a safe and positive environment, to obtain a greater understanding of the totality of an institution’s disposition toward LGBT persons. Factors such as same-sex domestic partner policies, specialized training for residence life staff, and procedures for dealing with acts of bias against sexual minorities may also speak to how welcoming and open a campus is. As compared to other institutions, the presence of such factors may contribute to a more positive campus climate for sexual minorities.

Second, my prior work relied on social movement theory to explain the existence of LGBT resource centers. I used political opportunity (Jenkins and Perrow 1977) and resource mobilization (McCarthy and Zald 1977) theories to determine various campuses’ likelihood of having an LGBT resource center. This made sense because many LGBT resource centers emerged as a direct result of the larger gay rights movement coming to campuses, encouraging college and university administrators to be more inclusive (Sanlo, Rankin, and Schoenberg 2002). However, because I use a more
comprehensive measure of campus climate in this chapter, many of the factors associated with the campus climate more broadly, such as campus demographics, are not necessarily associated with social movement outcomes.

Instead of social movement theory, social closure theory (Weber 2008 [1968]) can provide a useful framework through which to understand how several institution-level factors may be associated with campus climate. Social closure theory has investigated how administrators within higher education maintain prevailing patterns of inequality (Swartz 2008), as well as how peers and employers may exclude sexual minorities from power structures (Connell 1992). What is missing from the literature, though, is an investigation of how social closure theory operates both within higher education and to the disadvantage of sexual minorities. Because available data cannot account for the myriad social networks that may affect campus climate, social closure theory helps provide the lens through which to infer how structural factors determine who creates those networks, and therefore affect campus climate. If certain campus characteristics can be linked to positive or negative attitudes toward sexual minorities, we may be able to infer what sorts of campuses are more or less likely to be open to LGBT students, faculty, and staff.

This chapter examines how macro-level campus characteristics, such as funding, gender composition, and political context, may be linked to how colleges and universities deal with heterosexism and homophobia. That is, because heterosexism and homophobia are enacted not just through interactions between individuals, but also at the macro-level
by institutions (Phelan 2001), what institutional factors are linked to the campus climate? What makes some campuses more accepting of sexual minorities than others?

Here, I use data from the U.S. Department of Education and the Campus Climate Index to determine what factors, both at the school and regional level, affect the likelihood of a campus having a more positive climate for sexual minority persons than other campuses. Given prior literature that explores how heterosexism and homophobia operate structurally, I hypothesize that a postsecondary institution’s demographics, political milieu, relative number of faculty, and prestige will exert an influence on campus climate, as they also measure a campus’s relative social closure. An institution with a higher population of people who are more sympathetic to LGBT rights, or with a financial imperative to create a more welcoming environment, may be more likely to be open and accepting toward sexual minorities than other colleges and universities.

I conduct a Heckman analysis of data that shows an institution’s gender composition and political context do have an effect on campus climate, as does the student-to-faculty ratio. Campuses nested in liberal political contexts with a higher percentage of female students and a lower student-to-faculty ratio tend to have more positive campus climates. However, other institutional factors that I hypothesize will influence the campus climate, such as financial resources and selectivity, do not have a statistically significant effect. Using regression model results, I then construct ideal types (Weber 1949 [1904]) of institutions to illustrate how certain institutional characteristics are related to the campus climate toward sexual minorities.
Literature Review

Campus climate for LGBT students. Heterosexism, “the belief that the world is and must be heterosexual” (Pharr 1997:16), and homophobia, the “hatred or fear” (Pharr 1997:18)\(^\text{18}\) of sexual minorities, are still present on American college and university campuses. Researchers have demonstrated that heterosexism and homophobia still affect students in many parts of the campus environment, including residence life (Evans and Broido 1999, Robinson 1998), the classroom (Eyre 1993), and Greek life (Yeung and Stombler 2000). Sexual minority students are able to name several encounters they have had with these forces on college campuses while simultaneously being reluctant to confront them (Fine 2011). A positive campus climate makes it less likely that students will encounter these negative forces that can have ramifications for their self-esteem, academic achievement, and overall college experience through the provision of training, support, and services for sexual minorities.

Rankin’s (2003, 2005) Campus Climate Studies, which serve as a predecessor to the Campus Climate Survey used here, offer some other evidence that heterosexism and homophobia still affect students’ lives. Nearly two-thirds of sexual minority students reported hearing a homophobic comment at their institutions, and one-third feared for their safety at some point while on campus. Higher education continues to be an environment where heterosexism and homophobia continue to negatively affect the lives of students.

\(^{18}\) Herek (1984) problematizes the use of the term “homophobia” to mean a fear of those who are not heterosexual, when terms such as “prejudice” or phrases like “negative attitudes” may better apply. Although fear may not be the correct emotion to associate with the phenomenon as it manifests itself on college campuses, the general use of the term to indicate negative feelings toward sexual minority persons is what is intended in this work.
of LGBT students. Because of these studies, several campuses began to take steps to improve their campus climate through the implementation of training programs, support staff, and institutional policies that were friendly toward sexual minorities. The presence of positive factors also speak to a campus’s general acceptance of LGB students, faculty, and staff.

Macro-level explanations for institutional differences in campus climate, though, are generally scant. It is still largely unknown what structural factors tend to make some campuses more accepting, while others still lag behind in their development of a positive campus climate. In prior work, I used the Integrated Postsecondary Educational Data System (IPEDS), provided by the U.S. Department of Education, to determine the presence of an LGBT Resource Center on particular campuses (Fine 2012). LGBT resource centers are on-campus spaces, typically staffed by a full-time professional, that provide services and support to sexual minority students (Sanlo et al. 2002). The results indicated that larger, public universities in more liberal political climates tended to be more likely to have these centers. These spaces are one indicator of a positive campus climate, and it was demonstrated that macro-level factors – such as institutional prestige and the state political milieu – were correlated with their existence.

Although this work was a starting point in identifying what institution-level factors at colleges and universities might lead to an LGBT resource center, the presence of such a space is but one indicator among many of a positive climate for sexual minorities. Domestic partner benefits, sexuality studies curricula, residence life training, and gender-neutral restrooms are some of the many other indicators of campus climate
that have yet to be studied. This chapter uses a more comprehensive measure of campus climate that includes these factors and many others as measures of campus climate.

*Campus climate and social closure.* Weber (2008 [1968]) first developed the concept of social closure. Weber explains that those who hold institutional power may wish to prevent outsiders from gaining access to their institution in order to preserve their monopoly. Weber notes that those perceived as competitors or as a threat – for instance, those of a different race or religion, or with the potential to otherwise break the monopoly of power the elite have set up – are often barred from entry to a closed group (Parkin 1979). Sociologists have investigated how social closure can be used to maintain dominant group privilege based on gender (Kanter 1977), race (Elliott and Smith 2001), or class (Parkin 1979). Social closure, however, can also be used to maintain heterosexual privilege by excluding sexual minorities, both interpersonally and institutionally. For instance, Connell’s (1992) gay male respondents note how their personal and professional relationships changed upon coming out. Several of these men had to renegotiate their social networks as they found themselves excluded by those who had previously been their friends. In addition, the government has maintained social closure institutionally through the exclusion of same-sex couples from marriage rights, allowing heterosexual couples to maintain access to the myriad social privileges that come with the legal recognition of their relationships (Polikoff 2008, Phelan 2001). Heterosexism and homophobia, then, may function to maintain social closure for sexual minorities at both the micro and macro levels.
Most of the literature regarding social closure has concentrated on workplace or workforce exclusion, but social closure can be enacted through educational institutions. Lucas (2001) defines the phenomenon of effectively maintained inequality within education systems. Although postsecondary education is becoming generally more accessible, the elite create a hierarchy of institutions wherein the most prestigious universities offer social capital that still allows them to maintain their privilege. Swartz (2008) describes how America’s most prestigious universities maintain social closure through the systematic exclusion of minority populations in admissions. By admitting legacy students or relying on entrance metrics that favor wealthier applicants, these institutions keep their social networks – and donor networks – closed.

Sexual minorities can be subject to social closure like other minority groups; education is one institution through which the phenomenon can be enacted. But little work explicitly uses a social closure framework to identify how educational institutions might systematically exclude sexual minorities. Within postsecondary educational institutions, campus climate can act as a form of social closure for LGB persons. Hamilton (2007) describes how sexual minority women can be systematically excluded from residence hall communities by heterosexual floormates. Fine (2011) notes that certain campuses, as well as certain spaces within a particular campus, develop reputations as either accepting or not among sexual minority students. If sexual minority students are made to feel unwelcome or unsafe, then they may “choose” to discontinue their education at that particular institution. This has the effect of maintaining
heterosexual privilege within educational institutions, as sexual minorities are dissuaded or actively prevented from pursuing higher education.

Because campus climate studies measure to what degree an institution may welcome sexual minorities, it is essentially a measurement of social closure (or, perhaps more accurately, social openness). Institutions with a poor campus climate may deny LGBT students the opportunity to earn a degree, or LGBT faculty and staff the ability to work to their full potential. A hostile campus climate may induce effectively maintained inequality, whereby sexual minority students’ educational decisions are constrained. Measures of campus climate, though, identify both challenges that sexual minorities may face on campus, but also identify positive aspects that may contribute to a more welcoming environment for LGB students, faculty, and staff. For instance, demographic and institution-level factors may indicate how likely a campus is to be closed off toward sexual minority individuals. Demographically, if a campus has a higher proportion of groups that have positive attitudes towards sexual minorities, these groups may help to create a welcoming climate toward LGBT persons. Institutionally, if college and university elites have good reason – as I will argue below, a financial motive – to create a welcoming climate and attract a broad base of students, then the campus climate may be more positive as well. Social closure theory indicates that demographic composition and institutional characteristics may indicate how open some colleges and universities are toward sexual minorities relative to others.

_Campus demographics and attitudes toward sexual minorities._ Because of differences in attitudes toward sexual minorities on the individual level, the relative
composition of an institution’s student body may affect how accepting the campus climate is of LGBT persons. For example, studies demonstrate that gender has an effect on one’s relative acceptance of sexual minorities. Altemeyer (2001) and Herek (1988) show that women generally have more favorable attitudes than do men. Herek argues this is because men are more likely than women to hold traditional gender role attitudes and, thus, feel threatened by homosexuality. Further, students who identify as sexual minorities may choose to enroll in colleges with a higher proportion of female students, including all-women’s colleges, because of their positive reputation for being inclusive of LGBT people (Holland and Holley 2011). Therefore, campuses with a larger proportion of female students may be more likely to have a positive campus climate, as women may be less closed off to sexual minorities.

Racial patterns in individual acceptance of LGBT persons may also translate to campus climate at the institutional level. The intersection of race and sexuality can lead to differential experiences with heterosexism and homophobia (Collins 2004), particularly on the college campus (Poynter and Washington 2005). For instance, some racial minority cultures generally associate homosexuality with whiteness (Harper et al. 2004). White Americans also tend to have more positive attitudes toward homosexuality than do Americans of color (Brown and Henriquez 2008). Although this may seem paradoxical – perhaps a campus that is more welcoming toward racial minorities should similarly be welcoming toward sexual minorities? – social closure can be enforced by whatever group is dominant in a particular context even if they are marginalized in greater society. If racial minorities hold institutional power in terms of numbers at a
particular university, and if they tend to have more negative attitudes towards LGBT people, this may translate to a less-welcoming climate at the campus-level. Therefore, campuses with a lower proportion of racial minorities may have a more positive climate toward LGBT students, leading to a better campus climate.

Finally, the number of students present on a campus may affect the campus climate. Larger campuses may have a greater need for such services, simply because it is likely that they have a larger number of sexual minority staff, faculty, and students on their campus. This critical mass of sexual minorities could lead to demands for recognition and equality (Fine 2012). Meanwhile, smaller campuses with fewer LGBT persons may not have the ability to mobilize to advocate for similar benefits.

*Institution-level factors.* An institution’s student demographics, including population size, racial composition, and gender composition, may have an effect on the campus climate through the aggregation of individual attitudes, beliefs, and demands. Beyond the aggregation of individuals, other uniquely institutional factors may affect a particular campus’s desire – or ability – to provide a welcoming environment for sexual minorities. For instance, the creation of an LGBT resource center, one marker of a positive campus climate, can cost a college hundreds of thousands of dollars a year to maintain (Sanlo, Rankin, and Schoenberg 2002). Although monetary resources, such as endowment, do not typically affect whether or not a campus has such a space (Sanlo, Rankin, and Schoenberg 2002; Fine 2012), variables that capture aspects of these resources may point more broadly to institutional prestige. More prestigious universities, although smaller in size, may have more resources – particularly in terms of finances and
relative amount of faculty – that could contribute to a more positive campus environment. Further, the university market has become very competitive in recent times, forcing universities to provide more services to attract the most desirable students (Winston 1999). More prestigious universities may have particular resources at their disposal to create a more positive campus climate, in addition to the motivation to attract the best talent possible to their institutions, regardless of sexual identity.

Likewise, the type of institution may determine the campus climate toward sexual minorities (Fine 2012, Rankin 2005). Large public institutions may be more likely to serve equally large student bodies, including greater numbers of sexual minority students, than smaller, private institutions. Private institutions without a religious affiliation tend to be competitive and selective, presumably necessitating a desire to cater to the best and brightest within a minority student group. On the other hand, private religiously-affiliated institutions may covertly or overtly discourage LGBT student enrollment (Yoakam 2006), meaning that institutions without a religious affiliation may have a more positive campus climate.

Broader social milieu. The campus does not exist in a vacuum; the local context in which the campus is nested may also exert an influence on a campus’s likelihood of having a positive campus climate. Traditionally, the gay rights movement has been associated with liberal politics in American society (Stein 2001). In general, surveys of attitudes toward LGBT persons indicate that more liberal political leanings are associated with more positive attitudes (Brown and Henriquez 2008, Altemeyer 2001); the aggregate of a state’s political attitudes may be able to predict campus climate. Even though a
campus may be a more liberal enclave than the community that surrounds it (Rubin 1984, Sharp 2002), campuses may still be affected by politics at the state level (Fine 2012). Therefore, campuses nested in more liberal political contexts may be more welcoming toward LGBT students, faculty, and staff than those in more conservative political contexts.

Gay and lesbian people have historically congregated in and around urban centers (Boyd 2003), whereas rural areas have generally had slower progress with regard to acceptance for sexual minorities (Bell and Valentine 1995). This urban / rural schism in attitudes and acceptance toward LGBT persons may bleed over into the campus environment. Sexual minority students may be more likely to attend college in an urban area with a vibrant, pre-existing gay community. Therefore, urban institutions may likewise have more positive campus climates than institutions in rural or suburban contexts.

Hypotheses. Based on the literature, I test three hypotheses:

1. A campus’s demographics will affect the campus climate. Given racial and gender patterns in attitudes toward sexual minorities, campus demographics will reflect a campus’s relative openness toward sexual minorities on an institutional level. Schools with a higher percentage of women and a lower proportion of students of color are predicted to have a more positive campus climate than other institutions. Also, the gross population of students on campus may affect whether or not the campus is a positive environment for LGBT persons; a larger student body may mean a greater demand for
services that specifically benefit sexual minorities, as well as a general open climate overall for many different types of students.

2. The greater milieu in which a postsecondary institution is nested will have an effect on campus climate. There is a split between acceptance of sexual minorities based on urbanity. I expect this split will also manifest itself on the campus level, with schools nested in urban centers having a more positive campus climate than those in suburban or rural contexts. Likewise, because of the relationship between political context and LGBT social acceptance, I posit that schools in more liberal states will have an improved campus climate. Individuals from urban and politically liberal contexts tend to espouse greater acceptance of LGBT persons; I expect this acceptance will translate to an open, accepting campus climate at the institutional level.

3. The type of institution – public or private, religious or not, prestigious or not – affects the campus climate. Private institutions that are not religiously affiliated may have an improved campus climate because of their desire to maintain or enhance their educational prestige in a competitive academic market. Large public institutions may have more resources at their disposal to address the concerns of LGBT faculty, staff, and students, as well as a critical mass of LGBT persons that advocate for such consideration. Private institutions that are religiously affiliated, on the other hand, may be less likely to afford protections and services to sexual minorities on their campuses. Institutional type may affect the resources available and the financial motive colleges and universities have that may dictate how open the campus is – or wishes to be – toward sexual minorities. I
hypothesize, then, that the campus climate may differ based on a campus’s institutional affiliation and relative level of prestige.

Methods

Sample. Data are from three sources, though the majority of the variables come from the Integrated Postsecondary Educational Data System, or IPEDS. The 2008 IPEDS data, which are collected by the U.S. Department of Education, provided most of the contextual independent variables (2010). Each year, IPEDS collects basic statistics on all American institutions of higher education, including enrollment statistics, faculty salaries, available endowments, and so forth. Data are then sorted and quality checked. I use data from 2008 as it was the most recent set of data available at the time of this project. These variables provide measures related to background contextual factors of the institution.

Only four-year institutions within the 50 U.S. states and the District of Columbia are included in the analysis. Specialty schools that were not coded as public or private four-year institutions, such as military colleges or professional schools, are excluded. Additionally, any institution that did not report on any of the IPEDS variables of interest was dropped. Schools with no admittances or reporting no undergraduate enrollments are also not included. Branch campuses of larger institutions are kept in the analysis if they had a separate entry in the IPEDS database. This final sample is comprised of 1,432 postsecondary institutions.

Dependent variable. I use a campus’s comprehensive “LGBT-Friendly Score” star rating on the Campus Climate Index website (Beemyn et al. 2010) as the dependent
variable in this chapter. The site allows a verified representative of any American postsecondary institution to log on and answer a battery of questions related to the campus environment for LGBT persons. Questions include topics related to residence life training, the availability of domestic partner benefits, the presence of a sexuality studies program, and the establishment of an LGBT resource center, among others. The index then provides a star rating, from one to five, on several dimensions of perceived friendliness toward sexual minority persons, as well as a comprehensive “LGBT-Friendly Score” for each college that takes all dimensions into account. The measures of campus climate concentrate on both positive and negative contributors toward campus climate, with the presence of several services for LGBT persons considered to be positive indicators.

During fall of 2010, a research assistant went through all schools listed in the index and coded the star ratings for all campuses that were included in the IPEDS data set. All data provided publicly on the website was coded between September and November 2010, and is accurate for that time period (Beemyn et al. 2010). The Index provides several sub-ratings for campuses on matters like transgender inclusiveness and residence life, which the assistant also recorded; however, for this work, only the comprehensive, final star rating was used. Appendix A shows the factors used by the index to develop a star rating. The rating is from one to five stars in half-star increments, with one star indicating a hostile climate and five an accepting one.

The Index has some limitations: schools choose to opt-in to the assessment; many institutions do not choose to complete the Index. Thus, the sample size of postsecondary
institutions with publicly-available data is less than 300. This means that the findings of this analysis hinge on complete data from a relatively limited number of institutions: most of them are large, public colleges and universities. Although the modeling strategy described below makes corrections for this selection bias, the results may more accurately reflect the structural factors that affect campus climate at a particular type of institution – one that is more likely to be welcoming of LGBT persons to begin with. Issues of selection bias are further discussed below in the methods section.

Further, the site may have a financial motive (Renn 2010). Although Campus Pride, the organization that operates the site, is not-for-profit (Beemyn et al. 2011), they offer a “Premier Campus” listing on their site for a fee, which complicates the nature of this site as an open resource for students, faculty, and administrators. Efforts to obtain a more comprehensive data set from the administrators of the Campus Climate Index were denied, as the administrators did not wish to share data from any schools that chose not to publish their results publicly on the website because of confidentiality concerns.\(^\text{19}\) Also, the site provides no concrete anchor for their scores, other than referring to the system as “a continuum of progress” and a rating of three stars as “the mid-range score” (Beemyn et al. 2011). Despite these limitations, the site remains one of the most comprehensive available for information on institutional factors that could affect LGBT student lives.

*Independent variables: demographics and institutional characteristics.* The IPEDS data contain many of the independent variables related to the hypotheses.

\(^{19}\) Renn (2010) might suggest that allowing access to these data would also compromise the Campus Climate Index financially.
Because gender and racial composition are believed to have an effect on the relative acceptance of sexual minority students and, thus, the campus climate, I include a variable from IPEDS that reports the percentage of female students and the percentage of white students. IPEDS also provides the total enrollment, the total full-time undergraduate enrollment, and total full-time faculty at each institution. I include the number of undergraduates as an independent variable, as campuses with more undergraduate students may be more likely to offer these services (Fine 2012). The student-to-faculty ratio was calculated by dividing the number of total students – not just undergraduates – by the number of full-time faculty reported in the IPEDS data.

I use several IPEDS variables to measure an institution’s prestige. The student-to-faculty ratio is a demographic measure in that it represents the relative number of faculty on a campus. However, it is also measure of prestige as higher-ranked colleges tend to have lower student-to-faculty ratios (Astin 1999). IPEDS provides the available endowment funds and average yearly tuition charged by institutions, which I include as independent variables capturing institutional prestige and the effect of type of school on campus climate. For public universities, tuition figures for in-state students are used. Institutions provided the percentage of students who applied in the past year that were admitted as new undergraduate students, which will be used as an independent variable; more prestigious universities tend to admit fewer students (Astin 1999).

I hypothesize that institutional control will affect the campus climate. IPEDS data contain a variable that separates institutions into three categories: public; private, religiously affiliated; and private, not religiously affiliated. I constructed dummy
variables for each of these categories. Public schools were used as the reference group in analysis. Regarding urbanity, IPEDS provides information on the context in which institutions are nested. IPEDS categorizes institutions in being in one of four broad urban contexts: urban, suburban, town, or rural. To control for the effects of urban context, institutions in town or suburban locales as determined by IPEDS were used as the reference group. Two dummy variables for rural and urban institutions were included in the analysis.

*Independent variable: political context.* Political climate has an effect on a region’s relative acceptance of LGBT persons. For instance, my prior work indicated that a liberal political climate is associated with the presence of an LGBT resource center (Fine 2012). Because of the importance of the influence the larger political climate beyond the campus may have on an institution’s climate for LGBT students, I develop a measure to determine the relative liberalism of a particular campus. Data for a measure of political liberalism came from the U.S. Federal Elections Commission official certified 2008 presidential election results (2010). The variable represents the percentage of that state’s popular vote for Barack Obama, the Democratic candidate for President in 2008, in that state. This is similar to the method I used in my earlier work (Fine 2012), where I measured political liberalism by using a variable for the state’s percentage of votes that went to John Kerry, the Democratic presidential candidate in the 2004 election.

Admittedly, this is a rough measurement of a college campus’s political context. It is likely that, for many college campuses, the political milieu of the “town” does not match that of the “gown” (Sharp 2002). Further, using the state as a unit of analysis is a
crude estimate, as the relative liberalism of the political environment can vary within the state as well (Moller et al. 2009). Unfortunately, a more sophisticated measurement of political liberalism could not be obtained given the structure of the IPEDS data and the lack of data sources available that used smaller geographic units’ election returns. Future research could use a more refined, meso-level measurement of the political context of these institutions.

Analysis and selection bias issues. The dependent variable data source has notable selection issues. 258 institutions publicly display their data on the The Campus Climate Index website. Of these, 221 were present in the IPEDS data set. This means that of the 1,432 total schools in the IPEDS data set, 1,211 were censored, having no data for the dependent variable. Generally, schools that had data posted on the Index tended to have higher scores; on a scale from one to five, the average rating for the available institutions was 3.56. Figure 3 illustrates this skew in the data: schools with more positive climates were more likely to be available on the Index. Presumably, other institutions did complete the Index but may have been less likely to share their results on the website if they were less-than-positive. Therefore, the data can be considered not missing at random, and there are selection issues present. This means that the findings here may better speak to what structural factors affect campus climate at institutions that are more welcoming toward LGBT persons to begin with.

20 Most institutions that had a Campus Climate Index entry but no corresponding IPEDS data were typically community colleges or branch campuses without a separate IPEDS entry. About ten larger, four-year, non-branch campuses did have a Campus Climate Index rating, but were not present in the IPEDS data set. For most, this is because they were excluded earlier in the analysis for not reporting on an independent variable of interest.
Because of these issues, I use a Heckman model to determine the characteristics of campuses with a more positive climate toward sexual minorities, as determined by the Campus Climate Index ratings. Heckman models can be used when data for all independent and control variables is present, but data for the dependent variable is missing (Heckman 1976, 1979). The model first uses a probit equation to determine a case’s likelihood of having data for the dependent variable. In this case, the selection model determines a campus’s likelihood of having participated in the Campus Climate Index. Then, contingent on this probability, the second full informational maximum likelihood (FIML) model predicts the effects of independent and control variables on the outcome: the school’s total star rating on the Index.

FIML estimators for the Heckman variable were used instead of two-step estimators. Heckman (1976) suggests using FIML estimators because of their increased efficiency – that is, their lower standard errors – as compared to two-step estimators (Bushway et al. 2007). However, the potential problem of multicollinearity exists, as variables in the probit selection equation are then used in the outcome equation. To best prevent this multicollinearity, Bushway et al. suggest using exclusion restrictions: variables in the selection equation that would not be assumed to affect the second FIML outcome equation. However, all the structural factors of interest in the outcome equation could be assumed to affect selection into the Campus Climate Index model, as well. Therefore, to check for multicollinearity, Leung and Yu’s (1996) suggestion of calculating the condition number for the matrices of the equation is used. The condition number for the provided Heckman model is 24.7843; both Bushway et al. and Leung and
Yu state that condition numbers above 20 in a FIML model suggest that multicollinearity is a concern. Bushway et al. advise, though, that the use of a Heckman model to correct for sample selection may be justified depending on the model specification, even with condition numbers above 20.

Because selection bias is such an important issue with the Campus Climate Index data, I still choose to employ the Heckman correction to best compensate for these issues. However, because the results are based on a model with potential multicollinearity issues and selection bias, caution must be employed in interpreting the results. Because so few campuses have data on the dependent variable, and because the model contains no exclusion restrictions, the findings here may speak more accurately to structural forces that affect campus climate at a select group of institutions that completed the Campus Climate Index.

Future research may identify exclusion restrictions or more comprehensive campus climate data to avoid multicollinearity and provide a more comprehensive understanding of campus climate across institution types. For instance, Chapter 4 of this dissertation also identifies potential mitigating factors – significant other support and social integration – that may be useful measures to include in future analyses of structure’s effect on campus climate. Beyond the addition variables, more work can be done to explore what the campus climate is like at institutions that tend to be unwelcoming of LGBT persons. Because campuses with better campus climates were

\[21\] For an explanation, see Bushway et al. (2007), who provide sample syntax for STATA to use in calculating the condition number. The condition number is a measurement of the correlation between matrices in the Heckman equations, a reflection of potential multicollinearity in the model.
more likely to either opt in to the survey or publicly display their results, these findings may be better representative of the structural factors associated with a campus climate at an institution with more positive attitudes toward sexual minorities. Also, because IPEDS data are longitudinal, the use of multiple years’ worth of Campus Climate Index data could provide a better understanding of how structural changes, even on more welcoming campuses, affect campus climate.

Because no variables are exclusion restrictions, interpreting the coefficients in a Heckman model cannot be done directly without calculating the marginal effects (Sigelman and Zeng 1999). The coefficients in the Heckman model, b, have been converted to marginal effects (m.e.). Significance for coefficients was determined using one-tailed tests, as the directions of the effects in the Heckman model are predicted by the hypotheses. Two-tailed tests are still used for the selection equation. The equation was corrected for clustering by region. IPEDS identifies eight broad regions of the country (see Table 8). This Heckman model corrects for any regional effects through this clustering correction.

22 The typical interpretation of a one unit change in x leads to a particular magnitude of change in y is not possible without first converting the coefficients into marginal effects for variables included in both the selection and outcome equations of a Heckman model. Sigelman and Zeng (1999) provide a formula for calculating the marginal effects of variable k of coefficients in a Heckman model: m.e.\textsubscript{k} = β\textsubscript{k}−λ\textsubscript{k}ρσ\textsubscript{k}\delta(−wλ), where β\textsubscript{k} is the provided coefficient for the variable from the outcome model, λ\textsubscript{k} is the coefficient from the selection model, ρ is the correlation between errors, σ\textsubscript{k} is the error of the variable in the outcome model, and δ(−wλ) is the inverse Mills ratio for the equation. Both ρ and the inverse Mills ratio, which is used to calculate coefficients in Heckman’s models (Heckman 1976), can be provided in the statistical output in STATA.
Results

Heckman model. Table 9 shows the results of the regression. The ρ statistic determines whether or not controlling for selection effects, as the Heckman model does, is needed. The Wald-$\chi^2$ test for ρ was significant (10.76, p < 0.01). The significance of the ρ term indicates that sample selection bias exists in the Campus Climate Index data, meaning a Heckman selection model is appropriate. Regarding the selection effects of campuses that choose to publish their results onto the public Campus Climate Index website, many of the variables were found to have a statistically significant effect. Large, public universities in liberal state political contexts were more likely to offer their Campus Climate Index survey responses. Schools that charge large tuition rates, have large endowments, and have higher proportions of white students were also more likely to participate.23

Of particular interest in this regression are the outcome equation results. Gender composition was found to have a significant effect on the Campus Climate Index’s rating of an institutions relative friendliness toward sexual minorities (b = 0.0142, p < 0.05). The marginal effects indicate that a campus with a balanced sex ratio tends to have over half a star more in toward its total rating (0.71 of a star), and an all-female institution will have nearly a star and a half added to its total rating (1.42 stars), net of other effects. This was the only demographic factor found to have a statistically significant effect; racial

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23 As mentioned above, this selection equation is a probit equation to predict completion of the index. The second equation then takes this probability into account when estimating the other variables’ effects on the total star rating.
composition and number of students on campus were not found to be associated with campus climate.

Political context is found to have a statistically significant effect on the likelihood of a campus having a higher total star rating ($b = 0.0231, p < 0.01$). All else being equal, a state where Obama carried half the vote in the 2008 presidential election translates to a Campus Climate Index rating of just over a star (1.16), compared to about half a star (0.58) in a state where he received 25 percent of the vote and nearly two stars (1.74) in a state where he received 75 percent of the vote, according to the marginal effects calculated. The urban context in which a campus is nested, though, was not found to have a statistically significant effect on campus climate.

The only variable related to institutional type that was found to have a statistically significant effect on the dependent variable was the student-to-faculty ratio ($b = -0.0380, p < 0.05$). A fifteen-unit increase in the student-to-faculty ratio results in the loss of about half a star (0.57) on the total Campus Climate Index rating. That is, a school with 15 students (undergraduate and graduate, where applicable) to every full-time faculty member is likely to have half a star more in its final rating than a school with 30 students to every faculty, controlling for all other variables. Theoretically, this variable was included to capture institutional prestige. None of the other prestige variables – percentage of students admitted, endowment, private status versus public, or tuition – were found to be significant. Additionally, no other institutional characteristics – public versus private status or religious affiliation – were associated with campus climate at a statistically significant level.
**Ideal types.** Ideal types can be a useful way of conceptualizing cases that do not necessarily exist in the real world, but illustrate how particular social phenomena work (Weber 1949 [1904]). Using the calculated marginal effects, I construct eight ideal types of institutions. These institutions do not exist in the data set, but illustrate how the statistically significant variables identified in the Heckman model have an effect on the overall campus climate. I create four different types of postsecondary institutions. Three are akin to small liberal arts colleges, with a low student-to-faculty ratio of 10. I vary these by gender composition: one is all-female, another all-male, and another balanced co-educational (coed, with a gender composition of half female and half male students). The fourth ideal type institution I create is similar to a large public university: a high student to faculty ratio of 30, and a balanced gender ratio of 50 percent female students. Finally, I nest these four ideal type institutions in two different political contexts: liberal, where 60 percent of the state vote went to Barack Obama in the 2008 presidential election; and conservative, where he earned 40 percent of the state vote.

Table 10 shows the predicted star ratings of these ideal type institutions based on the marginal effects. As a low student-to-faculty ratio, a liberal political milieu at the state level, and a high percentage of female students are all associated with higher cumulative star ratings on the Campus Climate Survey, the all-women’s college with a low student-to-teacher ratio in a liberal state would be predicted to have the highest rating according to the index. Indeed, this institution’s predicted rating of 5.2730 exceeds the one-to-five star scale the Survey uses. Conversely, a school with a high student-to-faculty ratio nested in a conservative state would have the lowest predicted Campus
Climate Survey rating of 3.3414 stars, even though it has a balanced gender composition. An all-male college with a low student-to-faculty ratio in a conservative state has a predicted probability that is just slightly higher at 3.3905 stars. Figure 4 graphically illustrates the differences in predicted star ratings for the ideal type institutions.

Discussion and Conclusion

The results support aspects of the three hypotheses. Particular macro-level institutional factors are linked to how open and accepting a campus will be toward sexual minorities. Demographically, gender composition is linked to campus climate; institutions with a higher percentage of female students tended to have a more positive environment for sexual minorities. The state political context is also connected to campus climate. Campuses nested in more politically liberal states generally had a higher star rating on the Campus Climate Survey. Social closure theory holds that these factors are significant because of the translation of individual attitudes to institutional policy. Because women tend to have more positive attitudes toward sexual minorities, campuses with higher proportions of female students are more likely to have a more positive campus climate. If the state’s politics are more liberal, this translates to the campus level with less social closure exhibited toward LGBT individuals. This is likely because more liberal politics are linked with the gay rights movement, thus indicating that this minority group will tend to be more welcomed in educational institutions.

Initially, student-to-faculty ratio was included in the models as a measure of a campus’s prestige, as the third hypothesis holds that more prestigious universities will have a more positive campus climate. However, this was the only measure of prestige
linked to less social closure for sexual minorities on campus. Neither private status nor the percentage of students admitted, two other strong indicators of institutional prestige, were found to be significant. Therefore, interpreting student-to-faculty ratio as a variable that speaks to institutional prestige’s influence on campus climate may be suspect.

The fact that the variable for student-to-faculty ratio is significant in the models even though other models of prestige are not suggest that, instead of moderating the campus climate as a mechanism of the institution’s prestige, faculty likely affect campus climate in another way. It could be that campuses with a lower student-to-faculty ratio have more vocal faculty members who agitate for protections for sexual minorities (Sanlo, Rankin, and Schoenberg 2002). Or it is possible that a lower student-to-faculty ratio means that faculty are more attuned to institutional politics or LGBT undergraduate concerns, as the educational community could be considered more intimate than that at an institution with a larger student-to-faculty ratio. Future work could explore what role faculty specifically play in determining a campus’s climate for sexual minority persons, given that other measures of prestige were not found to be significant.

What is notable, though, is that many campuses have less-than-ideal environments for sexual minority students, faculty, and staff, remaining closed off to LGBT persons. The absence of non-discrimination policies, same-sex domestic partner benefits, LGBT resource centers, and other programs, offices, and interventions potentially disadvantage sexual minorities who learn, live, and work on many American college campuses. Many institutions still remain closed to LGBT individuals, potentially depriving them of the same access to education or wages as compared to heterosexuals. Given a campus’s
gender composition, political context, and relative number of faculty, future research could develop strategies for improving the campus climate for sexual minorities. The incorporation of a structural perspective with campus-specific solutions could help to open up postsecondary educational institutions to LGBT students, faculty, and staff.

The finding that certain structural factors do not affect the general campus climate toward sexual minorities may be considered distressing. If the presence of a more positive climate for LGBT students cannot be explained using structural factors such as endowment and the number of undergraduates, then it may appear that we are no closer to understanding how macro-scale phenomenon at the university level systematically affect this outcome. However, the fact that many of the variables in these models are not statistically significant could be interpreted positively. If there are few institutional or demographic factors related to prestige or financial resources that affect a campus’s relative standing on the Campus Climate Index, then it may be possible for any campus, no matter what its resources, to enact programs, policies, and interventions that may lead to a more positive environment for sexual minority students. Were any of the factors to be significant, it could be difficult to fault campuses that do not have the resources to enact such programs; instead, these results suggest that many campuses, regardless of their available resources, have been able to create a positive, open environment for their sexual minority students.

Limitations. There are some limitations to this work that could be addressed in future studies. First, the Campus Climate Index is not a comprehensive data source; completing the survey is voluntary, and an unknown number of institutions elected to
keep their responses confidential. The Heckman model for selection corrects for this, but a more comprehensive data source could help in ascertaining the exact effects of structural determinants on the campus’s climate toward sexual minorities. Given the variables of interest to the Department of Education, who collects the IPEDS data, it is unlikely that questions about campus climate will be included in their survey in the foreseeable future. An expansion of the Campus Climate Index, or the development of another independent data set, could produce responses from more schools.

Campuses opt-in to participation in the Campus Climate Index. Should they complete the instrument to begin with, they then have the option of keeping their results private. Because of this, there are notable selections issues with the instrument, as the Heckman model shows. This means that the Heckman model’s findings hinge on a relatively small number of cases. Further, I was unable to identify an exclusion factor that predicts opting into the survey, but would not have a predicted impact on the campus’s star rating. The model’s relatively high condition number reflects these problems of selection bias. It may be more accurate to say that this model reflects the factors that predict campus climate in the types of institutions that tended to fill out the survey: large, public colleges and universities. The use of a longitudinal survey design with multiple years of IPEDS and Campus Climate Index data could address some of these issues of selection bias and multicollinearity, providing findings that are more generalizable to multiple types of American postsecondary institutions.

The scaling of the dependent variable is problematic as well. The developers of the Index did not anchor the ratings to particular institutional characteristics (Renn 2010).
Although it can be assumed that a campus with an overall rating of five stars on the index has a better climate than one with one star, there is no quantitative or qualitative description about what a particular rating translates to at the campus level. The Campus Climate Index could be strengthened by the development of such a rubric, and future work could be used to develop a more comprehensive data set. The use of an index that is compiled on an institution-by-institution basis would be time-intensive, but could use dummy variables to provide concrete measures as to whether or not a particular indicator of a positive climate is present.

The measure of political climate in this work was confined to the state level and measured based on the results of one election: the 2008 presidential election. I use these data because they were readily available and nationally comprehensive. It should also be noted that, despite the crudeness of this estimate, the variable was still found to be statistically significant. If time were to permit, the development of a data source that measures political outcomes in smaller geographic contexts – such as cities, counties, or even on campuses themselves – could be used to provide a more sophisticated measure of political effects.

There are likely many more macro-level factors that could contribute to an institution’s acceptance of sexual minority persons. Although this analysis identifies some national patterns in this regard, there may be campus-specific histories or key figures that have led to more positive outcomes in terms of campus climate. Qualitative work, particularly case histories, can supplement the data here by indicating how, in what
manner, and to what degree these structural factors affect the lives of students, faculty, and staff on a daily basis.

Finally, although the Heckman model was appropriate, given the significance of the $\rho$ term in the model, multicollinearity is still a concern. The lack of exclusion factors, or variables that have a theoretical basis for being included in the selection equation, but not in the outcome equation, led to a condition number above the recommended threshold. Future research could identify exclusion variables to lessen the risk of multicollinearity. A more comprehensive data set from the Campus Climate Index or another source could also address this issue by removing the need for a Heckman selection model, allowing for the use of alternative analytical methods.

Conclusion. Macro-scale factors are linked to the campus climate for sexual minority persons on college campuses. Social closure theory explains how structural characteristics and the aggregation of individual attitudes translate to a campus’s relative acceptance of LGBT persons. Gender composition, political context, and faculty are related to the measures used by the Campus Climate Index to determine an institution’s openness toward LGBT people. An awareness of these structural forces can be used by administrators, students, and staff who wish to improve their campus climate and lessen social closure for sexual minorities. Directions for future scholarship provided here can use these findings to determine other structural determinants that might have an effect on campus climate, as well as how these forces translate to other outcomes for LGBT persons.
Chapter 4: “I Can’t Do This Right Now:”
Heterosexism, Homophobia, and LGB College Students’ Educational Trajectories

This chapter asks what allows some LGB students to complete their bachelor’s degrees while others do not. What makes some students resilient against the forces of heterosexism and homophobia, while others quit attending college (Savin-Williams 2005)? The prior chapters of this work have made the argument that education is an important institution in American society for enhancing one’s life chances, and that the current structure of education leads to unequal outcomes for sexual minority students. However, as my statistical models cannot test for a variety of factors at the individual level as they relate to sexual identity, such as discrimination or encounters with homophobia, a focus on individuals’ narratives may yield information about how any differences in educational attainment result (Reskin 2003). For instance, even if an out LGB person has a supportive family environment, they may start their educational career on a campus with few institutional supports for sexual minority students.

As it stands, the existing literature cannot provide mechanisms to explain what permits some LGB college students to persist on to complete their degrees, whereas others stop pursuing higher education. For students generally, a lack of social integration on campus (Tinto 1975), or a lack of social support from significant others (Sewell et al. 1969), affects decisions to leave college – but it is unknown how these mechanisms may
play out differently for sexual minority students. Further, although there is literature that focuses on the individual narratives of LGB students’ difficulties in higher education (e.g., Evans and Broido 1999, Savin-Williams 2005, Fine 2011), little of it focuses on how these students’ college experiences may effect their ultimate educational attainment. The prior chapters of this dissertation demonstrate that the interaction between sexual identity and educational attainment is not universal, but conditional – but do not provide specific mechanisms that explain why this interaction is not monolithic.

This chapter addresses these shortcomings of the existing literature and my prior quantitative analyses by examines how sexual identity affects educational attainment in individuals’ lives with a particular focus on mechanisms. By using LGB individuals’ narratives of their college experiences, I seek to determine under what circumstances sexual minority students were able to complete their college degrees successfully – and under what circumstances sexual minority students decided to discontinue pursuing higher education. I interviewed two groups of LGB persons. The first I call “Graduates” – those who persisted to successfully completed a bachelor’s degree without any break in attendance. The second I call “Interrupters” – those who started at least one term of postsecondary education, but stopped attending. Using in-depth semi-structured interviews with respondents from both groups, I compare and contrast themes in their educational narratives with a particular focus on their experiences with heterosexism and homophobia.

During their time in college, two-thirds of Interrupter respondents encountered the forces of heterosexism and homophobia that directly led to a pause in their educational
careers. These students expressed a lack of social integration and significant other support, two key factors in determining educational persistence as described in prior literature for all students. Therefore, the episodes of heterosexism and homophobia they described derailed their educational careers. Because LGB students may be less likely to have supportive significant others or be socially integrated into the university environment, some of them may be at a higher risk for discontinuing their education. On the other hand, Graduates were largely able to cope with heterosexism and homophobia. Some Graduates were able to do so because they were not out in college, thereby dodging the potential negative effects of heterosexism and homophobia. Others were well socially integrated or had supportive significant others, allowing them to thrive in college despite the heterosexism and homophobia they encountered.

Finally, although these differences in interaction with heterosexism and homophobia led to different educational trajectories, most respondents had returned to college – and many did finish their undergraduate education, albeit later than planned. I conclude by reflecting on Savin-Williams’ exploration of the victim narrative and the resiliency narrative as they relate to educational attainment and persistence. I argue both narratives have utility in explaining LGB persons’ complex and non-uniform educational trajectories: heterosexism and homophobia are still powerful forces that affect LGB students’ educational careers, but they ultimately may not prevent sexual minorities from attaining their bachelor’s degrees if social integration and significant other support are present.
Educational Attainment and Persistence at the Individual Level

Pascarella and Terenzini (2005) define educational attainment as the ultimate level of education one achieves in his or her lifetime. Their extensive literature review outlines several benefits that come with having a college degree: increased political participation (Milligan et al. 2004), better health (Miech et al. 2011), and higher earnings (Buchmann and DiPrete 2004). Also important, though, is educational persistence, which Pascarella and Terenzini define as the uninterrupted pursuit of higher education. They note that persistence is particularly important because students who attend college without interruption are far more likely to achieve their desired level of education. Even if they should eventually obtain a bachelor’s degree, those who interrupt their education do not enjoy the same financial returns for the years during which they paused their undergraduate careers. Educational attainment and persistence are important in determining future life chances, and a sizable body of literature explores why students stop their pursuit of higher education (Astin 1964, Bayer 1968, Pascarella and Terenzini 2005). Generally, students may discontinue their education because of poor academic performance (Clark 1960), a lack of social integration (Tinto 1975), a lack of finances (Alexander et al. 2008), or familial obligations (Bonham and Luckie 2006). Both heterosexual and LGB students may decide to quit attending college should any of these obstacles present themselves.

Although all students may face such obstacles to college completion, students from marginalized social groups may face barriers other students may not. Prior studies have demonstrated that educational experiences are different based on other social
identities, including gender (Bobbit-Zeher 2007, Buchmann and DiPrete 2006), race (Ryan 2010, Downey 2008), and class (Hurst 2007), but little attention has been paid to how sexual identity may affect educational attainment. Research has generally ignored the potential educational differentials between LGB persons and heterosexuals – as well as how such differentials may manifest themselves in a unique manner for sexual minority students.

_Heterosexism and homophobia._ With regard to sexual identity, most studies maintain that LGB persons tend to have higher levels of education than do heterosexuals (Black et al. 2000, Barrett et al. 2002, Rothblum et al. 2005). However, as discussed earlier in the dissertation, these studies tend to suffer from methodological shortcomings that prevent their generalizability: small sample sizes, the exclusion of female respondents, or sampling from a particular geographic context. Although there is a small body of literature that investigates educational attainment as a function of sexual identity, even less is known about educational persistence. Currently, there are no known studies that investigate LGB students’ educational persistence (Sanlo 2004).

These inconclusive findings are difficult to reconcile with the two forces of heterosexism and homophobia, which may affect an LGB students’ likelihood of graduating with their bachelor’s degree. Pharr (1998:17) defines heterosexism as “the belief that the world is and must be heterosexual.” That is, everyone is assumed to be heterosexual, and those that are not are subject to social sanctions. Heterosexism works in concert with homophobia, which Pharr defines as an “extreme hatred or fear” (1998:17) of sexual minorities. Homophobic attitudes from those on campus, coupled
with heterosexism in educational institutions, may make it very difficult for sexual minority students to succeed.\textsuperscript{24}

Heterosexism and homophobia have an influence on the micro-level at colleges and universities, affecting sexual minorities’ engagement with significant others. LGB students have little trouble remembering the last incidence of these forces they encountered while on campus (Fine 2011). Nearly one-third of sexual minority students have reported feeling unsafe on their campuses (Rankin 2003, 2005). In the residence halls, where students live and learn with their peers, LGB students can feel anxiety over coming out to roommates (Evans and Broido 1999) or being excluded from activities by their dormmates (Hamilton 2007). LGB students may have difficulty identifying mentors within the faculty (Lark and Croteau 1997).

\textit{Significant others and social integration.} There is reason to believe, then, that sexual minority students are at risk of not completing their bachelor’s degrees because of heterosexism and homophobia. How, then, does that reconcile with prior studies’ findings that LGB people (or LGB men, at least) attain higher levels of education than do heterosexuals? Although there are structural patterns in educational trajectories – for instance, race and gender affect one’s likelihood of having a bachelor’s degree – the decisions LGB people make about their education, as well as their unique experiences while college students, also affect their lives and ultimate attainment.

\textsuperscript{24} These terms are problematized in the introduction of the dissertation; please refer to the introduction for an in-depth discussion about prior uses of the terms heterosexism and homophobia, as well as why I choose to use them the way I do in this chapter.
Examining literature on college drop-outs in general, two concepts emerge as being of important for all students: significant other influence and social integration. A lack of either of these on campus may make it difficult for any student, regardless of his or her sexual identity, to succeed. As compared to heterosexuals, though, the existing literature on sexual minorities indicates that they are at an increased risk of lacking both of these important protective factors in their lives as college students due to heterosexism and homophobia. On the other hand, if LGB students are positively integrated into their campus community or have the support of significant others, they may find themselves able to academically thrive despite experiencing heterosexism and homophobia.

Significant others play an important role in determining educational aspirations and achievement. Sewell et al.’s (1969) Wisconsin study argued that motivation from significant others, specifically peers, teachers, and parents, affected whether or not the young men in their survey attended college. In their study of white males from Wisconsin, Sewell et al. found that encouragement from teachers and parents led to a higher likelihood that the respondent would go to college. Additionally, peer group placement had an effect; if the respondent perceived his friends as valuing higher education, he was more likely to have earned a bachelor’s degree.

Beyond the Wisconsin study, research continues to demonstrate the importance of significant others in determining individual educational outcomes, such as Buchmann and DiPrete’s (2004) argument that the presence of a father affects lower-class males’ educational attainment, and Hess and Leaf’s (1997) findings that having instructors of the same race may improve racial minorities’ educational performance. Significant others
continue to exert an influence on educational trajectories, particularly for minorities.
However, LGB students also have to contend with the forces of heterosexism and
homophobia, which could alter how supportive they perceive others to be.

The family has an enormous impact on LGB persons’ self-concept. Most parents
tend to raise their children under the assumption – or hope – that they are heterosexual
(Martin 2009, Sollebello and Elliott 2011). Because of this, it can be difficult for sexual
minority individuals to come out to their parents (Waldner and Magruder 1999).
Younger LGB persons may have to fear that their parents may evict or disown them if the
family climate is incredibly hostile (Nicholas 2006). Negative parent reactions may lead
to increased stress levels (Iwasaki and Ristock 2007). An unsupportive family may
generate obstacles that impede an LGB undergraduate’s attempt to complete their degree.

Significant others have an influence on educational attainment for all students. But given
the negative forces of heterosexism and homophobia LGB students face, significant other
influence from parents, faculty, and peers may be all the more integral to ensure they
persist to complete their college education. Should LGB students be unable to find
support from any significant others, or should a pivotal significant other withdraw
support, this may make it all the more difficult for them to focus on their educational
careers.

The influence of significant others is an important determinant of educational
attainment. LGB students, though, are at risk of having lower levels of social support
from key significant others. Heterosexism and homophobia may prevent sexual
minorities from enjoying the same levels of support and integration as their heterosexual
peers. Therefore, an examination of the relationship between sexuality, educational attainment, and significant other influence represents an important step in understanding how sexual identity affects students’ educational trajectories. Examining this relationship may also be able to reconcile the existing literature that suggests LGB students may actually have higher levels of education, as significant others may be the determinant of whether or not LGB students graduate from college. Those with supportive significant others, both on- and off-campus, may be able to push themselves educationally, whereas those with unsupportive significant may find their educational progress stymied.

Although significant other influence can come from a variety of sources – Sewell et al. specifically identify teachers, peers, and parents – the relative importance or influence of each source may vary depending on the context. For instance, a student living at home may have to worry about coming out to his or her parents, whereas an unsupportive family may not be as much of a concern to a student living in a residence hall over a thousand miles away.

Social integration is the second major predictor of college student persistence. Tinto (1975) provides a model that uses social integration as a predictor of college students’ educational persistence. His model is useful for conceptualizing students’ decision to drop out because it merges multilevel factors – institutional, individual, and interactional – to explain college students’ decision to drop out. Borrowing from Durkheim’s (1979 [1897]) study of suicide, he defines social integration on both an institutional and individual level. Institutionally, the individual must feel that his or her values align with those of the college attended. Individually, a college student must
engage in social interaction with other members of the community. These two forms of integration are also affected by the individual’s background characteristics, such as social class, gender, and race. Tinto argues that these institutional and individual forms of integration affect one’s decision to drop out of college; those who feel their values do not align with the institution’s, or those who fail to have meaningful personal interactions while on campus, are more likely to commit academic suicide – dropping out of college.

Others have applied Tinto’s framework to explain why racial minority groups, who are more likely to report a lack of integration into college environments, decide to pause or stop their educational careers (Zurita 2005, Belgarde and Loré 2003). Similarly, if LGB students find themselves with little faculty support, few friends, and a hostile campus climate, they may make the decision to end their pursuit of a bachelor’s degree. On the other hand, it is conceivable that LGB students may increasingly find the social integration needed to promote educational attainment and persistence, particularly given the improving social climate for LGB persons (Altemeyer 2001, Newman 2007). This may be particularly true on college campuses, which tend to have positive attitudes towards sexual minorities than other social milieus (Rubin 1984).

Both significant other influence and social integration are useful concepts in the examination of LGB students’ educational decisions. Although these factors affect decisions to discontinue pursuing higher education more broadly, LGB students may be less likely to have supportive significant others or to be well socially integrated into their university environments. The effect of sexual identity on educational trajectories may be
conditional on both the level of social integration they feel while on campus, as well as the influence of significant others both on- and off-campus.

Methods

This dissertation chapter examines the relationship between educational attainment and sexual identity at the individual level, seeking causal explanations as to why some LGB students graduate, but others do not. I have two research questions that guide this work. First, if sexual minorities are more likely to have higher levels of education, then how does this reconcile with the literature that describes the disadvantages that LGB people face? Generally, the literature supports the argument that LGB students are more likely to have higher education levels than heterosexuals. However, given that sexual minority students encounter heterosexism and homophobia on college campuses with relative frequency (Fine 2011; Rankin 2003, 2005), why are some students seemingly able to succeed despite these negative forces? And do other LGB students make the decision to discontinue their education because of them?

Second, as Chapter 2 of this dissertation argues that LGB persons’ educational attainment can vary depending on other individual characteristics – namely gender and sexual identity – what are the mechanisms that lead to this pattern? That is, do all LGB persons tend to have similar educational narratives, or is there something on the individual level that leads to differences in educational attainment? As the literature stands right now, these questions remain unanswered.

To best explore the reasons behind LGB persons’ varied educational trajectories, I chose to use individual interviewing techniques. Qualitative interview techniques are
particularly useful when studying LGB respondents, as quantitative data is still scarce for sexual minority populations (Gamson 2003). Further, in-depth interviews allow for depth of analysis, permitting the researcher to go into detail with subjects regarding topics of interest (Gamson 2003, Weiss 1994). The Institutional Review Board (IRB) from my institution approved this research protocol.

Interviews were semi-structured. Although I entered into the interview with a specific list of questions in mind regarding the interaction between sexuality and education, a semi-structured research design permits for the researcher to investigate concepts of interest to the respondent, as well as topics that may not have been considered in the development of the interview guide (Weiss 1994). See Appendix A for a complete list of prepared interview questions. The average time for interviews was 57 minutes, with a minimum of 37 minutes and a maximum of 70 minutes.

Sample. I sought two distinct groups of LGB persons in constructing my research design: LGB persons who graduated from college without interruption, whom I refer to as Graduates, and LGB persons whose postsecondary educational careers were interrupted for at least six months, whom I refer to as Interrupters. I use the term Interrupter to cover two distinct groups of students: drop-outs, who stopped going to college and never return; and stop-outs, who paused their educational careers, but return later (Astin 1977, Zurita 2005). As I will discuss later, the overwhelming majority of Interrupters were stop-outs and not drop-outs: only three of the twelve Interrupter respondents still had less than a bachelor’s degree and were not actively pursuing one.
The rest were either current undergraduate students or later returned to complete their bachelor’s degree.

It is important to note that the terms Graduate and Interrupter as I use them do not necessarily refer to the ultimate educational attainment that respondents reported; rather, it refers to whether or not their postsecondary education proceeded continuously or not. Comparing these two groups of LGB respondents will be useful in identifying the unique processes that affected Interrupters’ educational careers as compared to Graduates. It is reasonable to assume that both groups have been subject to discrimination because of their minority sexual identity. However, something in the Interrupters’ lives led to a differential educational trajectory. Analysis of both sets of narratives will help in elucidating what mechanisms specifically affected Interrupters’ education as compared to their Graduate peers.

I solicited participants from three research sites across the United States. I chose research sites for two reasons. First, I selected sites where I had existing community connections through which to solicit participants. Using existing relationships to obtain respondents is a common technique to build credibility with respondents (Weiss 1994, Biernacki and Waldorf 1981), particularly with tight-knit or minority communities (Gamson 2003). Second, the three research sites were selected because of their geographic and cultural diversity. The Pacific research site is a large urban center on America’s west coast. The Midwest site is a small college town. Finally, the Rust Belt research site is a large urban center in America’s Great Lakes region. These areas have
different racial compositions, different political milieus, and different climates for LGB persons that may contribute to a wide diversity in respondents.

Participants were solicited using LGB community email listservs. Using my prior connections at the three research sites, I sent emails to various LGB social and professional groups. I told prospective respondents that I was interested in hearing the educational narratives of LGB students. In the emails, I noted that I was particularly interested in hearing the narratives of LGB persons who had either graduated from college or started attending college, but stopped for whatever reason.

Respondents were asked to be out in their everyday lives. Although students who have not yet come out certainly do encounter negative social sanctions, their responses and constructed meanings of these experiences differ from those who have publicly disclosed their sexual identity (Cass 1979, Gortmaker and Brown 2006, Fine 2011). Also, transgender people were not included in this study. Although researchers frequently lump transgender people together with LGB people because all tend to be targets of homophobia (Phelan 2001), transgender people typically experience homophobia and general discrimination much differently than LGB people do (Schilt 2009). Future work could investigate the educational narratives of transgender people or those who are not yet out to determine if similar results emerge.

For this study, I conducted 19 interviews with 22 total respondents; three couples wished to be interviewed together. Twelve respondents – 55 percent – were classified as Interrupters. Table 11 provides further demographic information about my sample. The average age was 34.45 years; the oldest respondent was 52 years old, while the youngest
was 21 and had just graduated college. Eight of the 22 respondents, or 36 percent, were female. Fifteen out of 22, or 68 percent, identified as white only; the rest identified as either a person of color or multiracial. Twelve of the 22 respondents, or 55 percent, identified as gay males. There were four lesbian females, three queer females, one bisexual male, one bisexual female, and one pansexual male.

**Analysis.** I adopt Weiss’s (1994) issue-focused analysis to analyze the interview data. Issue-focused analysis is used to identify general themes that are common between the individual narratives of respondents. This method is particularly useful when the researcher has a construct of interest in mind when the research design was developed, as it allows the researcher to focus in on themes of interest. The method consists of four steps: coding, where the researcher identifies key phrases or concepts that emerge across respondents’ narratives; sorting, where coded materials are excerpted and grouped together based on similar themes; local integration, where excerpts are synthesized to develop general themes; and inclusive integration, where the researcher uses all the themes to make an overarching argument. A research assistant transcribed all tape recordings of interviews. I then read and coded transcripts, looking for themes that emerged between different respondents’ narratives. To avoid privileging the researcher’s interpretation of the interview data (Borland 1991), I sent a few respondents drafts of this work to see if they concurred with my findings.

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25 Although the research design specifically sought out persons who identified as LGB, if respondents felt they met the criterion of being an LGB person out in their everyday lives, they were included in the study. For instance, the pansexual respondent clarified that he felt he tended to identify as gay in his everyday life, particularly to those who do not know him well; however, personally, he identifies as pansexual. Similarly, the queer females felt they sufficiently met this criterion and were included as well.
Findings: Heterosexism, Homophobia, and Educational Attainment for LGB Students

Based on analysis of the transcripts, there are three different reasons why LGB Interrupters discontinued pursuing higher education. First, *LGB Interrupter respondents were far more likely to describe episodes of heterosexism and homophobia while in college*. Further, *because of a lack of social integration or support from key significant others, these episodes of heterosexism and homophobia led to the decision to discontinue their pursuit of higher education*. Significant other support and social integration are two factors that the literature have described as having a bearing on all students’ decisions to continue attending college. LGB students, though, may have unique challenges in finding supportive significant others or becoming integrated into the larger university community because of heterosexism and homophobia. Indeed, friends, family, and community are important to LGB persons as they come out (Walder and Magruder 1999, Cass 1979). Half of the Interrupters – six out of twelve, or 50 percent – made a reference to an unsupportive family member, a hostile campus climate, or being abandoned by friends.

For instance, Carmen, a lesbian female from the Rust Belt research site, was eager to enroll at a small liberal arts college when she finished high school. However, because of a housing shortage, she found herself occupying the only room in a wing of her dormitory. The dorm also served as housing for a campus-affiliated religious organization. After decorating her door with rainbow stickers and Harvey Milk quotes, the harassment began:

*People would be knocking on my door to witness to me, to try to save me, people would call me, people would e-mail me. I stopped*
going to the dining hall during the second semester because I was harassed in the dining hall. I could not eat a meal in peace. Like, originally I strategized and I would try to go right at the end of dining hall hours, so I could just go in and get my food and be done. But I would be seen walking from our building into the dining hall, so I just stopped going to the dining hall my second semester. I didn't have any way to cook, so I was literally eating crackers, peanut-butter, you know – anything I could get that was snack-like from the store and so that was ridiculous. I had to shower in the bathroom that was in their wing and so I would try to shower at odd hours when I would not expect to run into other people in the bathroom. It invaded my life, 'cause that was my living space, and I couldn't get away from it unless I closed my door.

Carmen found her life’s rhythm disrupted by the incessant harassment she encountered from her peers. Many of them even stopped by her room, including one particular incident that was largely responsible for her decision to leave college:

_There were still people knocking on the door, and so one gentleman actually tried to force the door open and thank heaven... the housekeeper was just coming downstairs to get something out of her closet as he was about to force the door open. Like, I had been pushing back, trying to not let the door get forced open and he suddenly relented on his efforts and it was 'cause she had just walked into the wing and in the basement, so he ran away and then she came and knocked on my door and I opened the door, and she's like, “What happened? Are you okay?”_

The housekeeper got Carmen in touch with campus officials. Although she pursued judicial action against her assailant, Carmen learned that academic probation was the worst punishment he would receive. This caused her to become depressed. Shortly following this incident, Carmen dropped out of her college. After taking a year’s break to get treatment for her depression, she started attending classes at her local community college.
Carmen experienced overt homophobia in the form of harassment. Her peers targeted her explicitly because of her sexuality. Because of her lack of integration, Carmen’s hostile living situation proved to be too much for her to cope with. Carmen was not integrated into her community. Carmen was already physically isolated by being put in her own wing of a residence hall. On top of that, it was only late into her second semester, after she had already made the decision to leave her college, that she started to find other LGB students or heterosexual allies. Her initial peer networks were hostile, and the university did little to address the heterosexism and homophobia she faced.

Nick, a gay male from the Midwest research site, had transferred from the small Christian college where he started his undergraduate career after coming out to his best friend. Nick made the decision to transfer to a different school after this friend asked him to leave his original college because she was uncomfortable with his sexual identity. Afterwards, he came out to his parents, whom he said did not react well. Weathering the reactions of both his friend and his family, the suicide of a close friend at his new college, also a gay male, triggered depression and led to his withdrawal from school:

I moved in with [my friend] and we lived together for a year and then it was right after we moved out with each other, [he] committed suicide, and it just completely wrecked me. I went into complete and total seclusion and stopped going to class. I just didn’t care anymore. ...I think that during that time I needed more social interaction, but, didn’t really have that so I just kind of went into seclusion. Stopped going to class, I ended up failing all my classes that semester. That was a great GPA booster, a 0.0 semester. Somebody sent me to the Dean of Arts and Sciences, try to go fix that. She told me to go see the counselor, so I went and saw the counselor, ’cause he was supposed to give me a letter that says I was depressed, whatever, just be like, “Here’s documentation of why he did so poorly,” and he’s like, “I can't do that, we can never do that. They ask us to do that all the time, and
we can't." And I was like, okay. So I went back and told the Dean, and they're like, “Oh, well, thanks for trying.” And that was pretty much all I got out of it, so I was left with this 0.0.

Nick had already been shunned by his best friend at his first college. The suicide of a close friend at his new college triggered seclusion and depression. Although Nick did have many other friends at his new school, he found it increasingly difficult to focus on his studies after this loss. Nick was further victimized by his educational institution, receiving misinformation about how he can address his academic and emotional situation. When one of Nick’s pillars of social support committed suicide, he then received little guidance from the college when he was in need of help. Nick decided to take a year off and is now nearly finished with his bachelor’s degree. A heterosexual student in Nick’s place may feel isolation and experience depression at the loss of a close friend. Nick’s case, though, demonstrates the university’s lack of resources and knowledge about issues specific to sexual identity. His social isolation interacts with an unsupportive university to exacerbate his academic problems.

Although both Carmen and Nick mentioned that their families were generally unsupportive as they began their coming out process in college, likely exacerbating their social isolation, the absence of peer networks largely contributed to their decisions to leave college. Mike, a Black gay male from the Pacific research site, talked about how family difficulties were the primary contributor to his decision to leave college. After his mother died when he was twelve years old, Mike’s primary caregiver was his aunt. His aunt was helping him financially as he attended a college about an hour away from home, which made it difficult for him to make friends and become involved on campus. After
one of her friends told her about Mike’s sexuality, his aunt abruptly removed Mike from her life – as well as all the financial support she had been providing – making a difficult college career nearly impossible:

_It took me probably a month to be able to move out and every morning I found religious scripture on my bed and all kinds of, you know, pamphlets on homosexuality and condemnations and all this kind of stuff. I felt like it took me emotionally, first of all, just the emotion, just that I was going through and the conflict of, you know, is this really me? Or was it just a phase? Am I really condemned to hell, all of these things that were coming up for me. The other thing was I had no transportation._

Because his aunt took his car, refused to pay any further financial aid, and forced him to find his own place to live, it was financially and logistically impossible for Mike to continue attending college. Mike’s aunt’s reaction caused him to experience emotional distress over his sexuality, which led to him leaving the state with his new boyfriend. Mike was already ill-integrated into his college, given the great distance he had to commute. On top of that, a key significant other withdrew her financial and moral support. His aunt’s treatment – explicit homophobia – derailed his educational career, but now, years later, Mike has returned to college part-time while also working full-time. Although heterosexual students may find themselves unable to pay for college, or may have difficulty balancing academic and family demands, heterosexual students generally do not have to cope with an outright loss of support because of their sexuality. Mike, though, found himself in such a situation, and it derailed his educational career for several years.

Ethan, a gay white male from the Midwest research site, had suffered physical abuse at the hands of his classmates while in high school because he chose to be out.
Thanks to a supportive mother and a strong will, he continued on to earn his diploma.

While at college, he joined a fraternity to make new friends and get involved. Although his first semester as a member of the organization was successful, Ethan was surprised his second semester when his brothers questioned him about his sexuality:

> When I had moved into the house, I just assumed that all my brothers knew I was gay, I didn’t question it. I moved in everything and they helped my mother move in some of my stuff including some of my drag stuff and so they had this big questioning, “Oh, are you gay?” And I said, “Yeah?” …They decided they were going to have this meeting of the entire fraternity, active, alumni, and pledges and I was to sit in front of them and explain why I was there, and then open myself up to questions.

Ethan subjected himself to the inquisition organized by his fraternity brothers, but decided that this was not a space where he felt safe:

> For the most part they were very respectful but there were a couple that were, you could tell were also leading the charge for me to be there. They were asking really just very, very inappropriate questions meant to be very hurtful… I was dismissed, went back to my room and while they were there running through their decision. …Maybe an hour, two hours later my big brother came in and he said, you know, we’ve made the decision that you can stay and I said, “You know, I appreciate it, but I’ve made the decision [that] there’s no way I can stay in this… I’m not welcome here in the long run and no brother would ever do this to somebody else.” And so I was immediately removed from the house and put into emergency housing in the dorms, which was a pretty jarring experience anyway. And so as all of that’s going on. …I just wasn’t doing well and so, by the end of my second semester, where my GPA was so low, I said, this is silly, I’m – this isn’t the time for me, I can’t do this right now, so I just kind of left everything.

Although Ethan explained that the treatment from his fraternity brothers was one factor among many that motivated his decision to leave college – he was taking well over a standard load of classes while working a full-time job to pay for his education – this
episode marked the point where he decided he could no longer continue to pursue his bachelor’s degree. Even though he had a supportive significant other in his mother, Ethan’s anger over his treatment at the hands of his fraternity brothers communicated to him that he was unwelcome on his college campus. Over a decade later, he just recently completed his bachelor’s and has gained entry into a doctoral program.

All of these Interrupter LGB students experienced the negative forces of heterosexism and homophobia. For Nick, an unsympathetic administration espoused heterosexist attitudes, failing to take into account the specific challenges sexual minority students may face on campus as a result of social isolation. For Ethan, Carmen, and Mike, overt homophobia – oftentimes from key significant others – communicated that they were unwelcome at their colleges. All respondents, with the exception of Nick, were poorly socially integrated on campus as well – and, in Nick’s case, the incompatibility with institutional values coupled with prior experiences with unsupportive family and friends left him unable to salvage his educational career at that time.

Because of the stress incurred coming out (Cass 1979, Iwasaki and Ristock 2007), social support is crucial in determining LGB students’ self-esteem (Cass 1979, Wilkinson and Pearson 2009). LGB students with sympathetic significant others who feel welcomed on campus are better able to weather the negative social forces of heterosexism and homophobia they encounter, permitting them to focus on their educational careers. Family, friends, and educational institutions themselves were largely
unsupportive toward most of the Interrupter respondents in my study who ultimately decided to pause their educational careers.

Tinto (1975) indicates that integration into the university community affects educational persistence, and Sewell et al. (1969) argue it is encouragement from key significant others, such as faculty, staff, and peers. Although their findings concentrate on (presumably, given the historical context in which they wrote) heterosexual students, my findings indicate that LGB students who drop out did so because of these reasons as well. Heterosexism and homophobia largely generated the obstacles that caused the LGB students in my sample to cease or postpone their educational attainment. Because sexual minority students are at a greater risk for facing social isolation, mistreatment, or institutional apathy, there may be severe barriers that prevent some sexual minority persons from achieving full educational equality.

Half of the Interrupters decided to leave college because they experienced overt or institutionalized heterosexism and homophobia. Other Interrupters were still subject to these forces, but struggled with them internally. Two Interrupter respondents made their decision to discontinue pursuing higher education because they wanted to explore their sexuality. Bruce, a gay white male from the Pacific research site, decided to discontinue his education in order to “find himself:”

Really, I couldn't concentrate, I couldn't think straight, I was completely distracted by what was going with me in terms of coming out. I really couldn't think about much else, and it really didn't allow me to concentrate on school and in some sense, I really didn't want to think, I was thinking too much as it was and I wanted to get away from thinking, so I just went and worked, you know, just, you know, labor, doing whatever and not having to
think.

Bruce’s family and friends were eventually supportive when he did come out and return to college, but Bruce discussed how he needed to spend time on himself thinking about how his sexual identity would affect his life. Similarly, Alan, a gay Latino male from the Pacific research site, found himself questioning his sexuality after suppressing it during his time in the military:

I went to college. I was going to finish my degree I thought, okay, well I have to finish my degree to get hired. ...I remember seeing an advertisement for a gay and lesbian student group, and so I went there once, just like, kind of that, heart, felt my heart beating, palpitation, sweaty, like, “What’s this going to be like? Oh, are they going to make me say the ‘I’m gay’ word?” And so I go there and the meeting hasn’t yet started. Somebody from my chemistry class happens to be in there because there’s also mailboxes and he says, “What are you doing here? Don’t you know they’re gonna have a gay and lesbian meeting here soon?” All of a sudden it was, “Yeah, I don’t know what I was thinking. I must have got [sic] lost.” So, that was my first experience out of the military for self-identifying in what was a fairly safe environment. I was still coming out but I wasn’t yet completely out...

Alan, too, took time off from school to sort out his feelings. He never ended up returning, happy with his career trajectory thereafter.

Because of a heterosexist social context, Bruce and Alan had to reconsider how their newly-discovered sexual identities fit into their lives – and educational plans. Bruce and Alan were not socially integrated enough to feel comfortable coming out to peers at their universities. Instead, they chose to take time off and reflect on their sexuality themselves, finding social networks outside the campus context. Bruce and Alan epitomize the pattern of sexual minority persons’ coming out process may interfere with educational and career trajectories (Schnieder and DiMito 2010, Boatwright et al. 1996).
Both internal and external heterosexism and homophobia proved to be educational obstacles.

*Other LGB Interrupters.* A smaller group of Interrupters, one-third, stopped attending college for reasons unrelated to their sexuality. As students may have many reasons for discontinuing their education, it is not unexpected that certain obstacles that would cause heterosexuals to stop attending college would also have the same effect on LGBT persons. For instance, Chris, a mixed-race respondent from the Midwestern research site, found himself in a major he didn’t care for and saddled with credit card debt:

* I started with Engineering as a major, went through four different types of engineering and finally ended up on graphic design before I failed out. And my financial situation had a lot to do with that. During my first year I wasn't employed. I didn't really have a financial plan while I was in college, credit cards were easily accessible, certainly didn't take the time to think about it in long term, how I was going to deal with that. I racked up quite a bit of debt and [my partner] and I have been working on paying that off ever since. Pretty much ruined my credit and we’ve been in the process of getting that sorted and still are, I mean, four, five years later. It was a huge part of it, I mean, it- there was the part of, of not going to class and then, uh, not keeping up with the work and then getting bad grades and then not dealing with that, financial stuff…

Credit card debt is a common obstacle that young adults face, which can lead to stress similar to what Chris described (Norvilitis et al. 2006). Additionally, Chris was majoring in a program he wasn’t interested in – Engineering – because of the promising financial prospects instead of focusing on a major more directed toward his passion of human services and non-profit organizational work – another common phenomenon that can lead to stress for undergraduates (Goldstein 2005). Chris reported that his sexuality was
largely accepted by everyone he encountered on campus. Whereas his sexuality was largely not a factor in his decision to drop-out, credit card debt and dissatisfaction with his choice of major were – which are issues that all undergraduates, regardless of sexual identity, may face.

Jessica, a white lesbian from the Rust Belt research site, was having a great experience in college until her mother’s health brought her back home:

_Basically what happened, family-wise, is my mom was in a car-crash and had to have multiple surgeries. At that point I hadn’t graduated, but had left school for about two years, maybe three, realized I should probably grow up and try to come up and take care of my mom and try to help them out, so that's why I came back to [my home state]…_

Jessica mentioned that she was already out to friends at college and to her family. Largely, her experience at college was a positive one. However, her mother’s accident caused her to drop out of college and return home to be present for her family. Her sexual identity played no role in her decision to pause her educational career.

It is difficult to paint a general picture of how this sub-group of Interrupter respondents engaged with heterosexism and homophobia. For instance, whereas Jessica reported a very supportive campus climate and strong peer networks, Chris discussed how his undergraduate institution was relatively hostile toward sexual minorities. In the cases of Interrupters who dropped out for reasons unrelated to their sexual identity, family or financial issues tended to take priority, causing an abrupt decision to terminate one’s educational career. These students were not shielded from the effects of heterosexism and homophobia; rather, other issues in their lives took precedence.
Although one-third of Interrupter respondents did not report encountering major episodes of heterosexism and homophobia that affected their educational trajectories, they constitute a minority of the Interrupters in the sample. Two-thirds of respondents in this study described episodes of heterosexism and homophobia as contributing to their decision to discontinue their education, largely because they were not insulated from their negative effects by significant other support or social integration.

**LGB Graduates: support and timing.** Conversely, unlike the Interrupters in my sample, Graduates fell into two categories. The first sub-group of Graduates had come out prior to their educational careers, but had supportive friends and family that encouraged them to pursue higher education. For instance, Matt, a gay white male from the Pacific research site, came out shortly after his first year at college. His friends at college and his parents reacted quite well when he came out:

*It went really well. It very surprised me. I was in a fraternity, and nobody cared. My parents didn’t care. It was almost anticlimactic ‘cause everyone has this you know, built up, sort of idea of what’s going to happen and what questions that they’ll have to answer. I was with my mom and we had gone to lunch. I had told her and her question was, “So are we still going shopping?” I’m like, okay, there you go.*

Matt went right from undergraduate to medical school, eventually earning a M.D. Kate, a queer female from the Pacific site, came out first to her brother, who was also an undergraduate student on her campus at the time:

*It actually went really well. My brother and I are very close ...He was very accepting. He was also at [my college], so we were kind of away from our family so we didn’t have the kind of family pressure that we would have had if our parents were here... I mean my mom was the same way practically... But I felt very understood. He kind of checked in on me about whether I was*
going to tell our parents. I feel like he and I have always been each other’s biggest fans, and so it meant a lot to me that he was very supportive.

Kate earned a master’s degree without interruption immediately following her undergraduate years, and is now working on a doctorate. For Kate and Matt, although significant other influence and social integration may not be the sole reasons that they were able to enjoy academic success, their experiences are in sharp contrast to those of most Interrupters. Matt and Kate reported experiencing heterosexism and homophobia in other quarters as out college students. Their families, campuses, and peer networks were largely supportive, though, which may have shielded them from heterosexism and homophobia’s negative effects on their educational careers.

The second group of Graduates was able to complete their bachelor’s degrees because they did not come out until after they had already attended college. These respondents were able to avoid overt engagement with heterosexism and homophobia because they were not out on campus – or perhaps even to themselves – as college students. Largely, these respondents tended to be over the age of 40 at the time of their interview. Because they either were not aware of their sexuality or because they decided to delay the coming out process while in college, these respondents were largely able to defer overt encounters with heterosexism and homophobia (Boatwright et al. 1996). For instance, Martha, a white lesbian from the Pacific site, didn’t realize she was a lesbian until she had started her master’s degree. Although she had inklings – she remembers having attractions to women, and studied issues of sexuality – Martha dealt with her parents and friends after she had already completed her education. Kevin, a gay white
male from the Rust Belt site, had been in a relationship with a man for years, even during college, but had concealed it for years. In fact, even at the age of fifty-two, he had just come out as gay to his family a couple of years ago. Because respondents like Martha and Kevin came out after finishing their undergraduate education, their sexual identity largely did not affect their educational trajectories. They were able to largely circumvent the negative effects of heterosexism and homophobia because they did not claim a minority sexual identity during their college years.

**Ultimate educational attainment.** It is of note that my sample as a whole has a high level of educational attainment – even those respondents who were classified as Interrupters. Half – six of the twelve Interrupters – had since gone on to attain at least a bachelor’s degree, with one of them going on to earn a *juris doctorate*. One additional Interrupter respondent has gone back to earn an associate’s degree as well. Even though Interrupters may have chosen at one time to pause their educational careers, many of them because of experiences with heterosexism and homophobia, respondents in general were still able to attain high levels of educational attainment (Black et al. 2000).

**Discussion and Conclusion**

Two-thirds of Interrupter respondents stopped pursuing higher education because they were unable to challenge heterosexism and homophobia without social resources. Significant others and social integration are two forces that can help LGB students navigate the heterosexism and homophobia they experience while attempting to pursue a bachelor’s degree. This finding demonstrates how the relationship between sexual identity and educational attainment may be moderated at the individual level, leading to
very different outcomes for students who may otherwise share a minority sexual identity. For instance, Ethan and Matt are both white gay males with overtly supportive mothers. Matt’s fraternity brothers reacted positively to his coming out; Ethan’s set up an inquisition. Matt was socially integrated through his fraternity and institutionally integrated as a student on a campus with a positive campus climate. Ethan was shunned by his fraternity, largely his only network of friends on campus, and chose to leave school shortly after his “trial.”

Also of note are the two findings that explain why nearly all LGB Graduate respondents were able to earn their bachelor’s degrees without interruption. The first group of Graduates encountered supportive significant others: friends, family, and faculty. For instance, Matt’s mother and Kate’s brother encouraged and supported them while they were in college. Their educational institutions were also perceived as generally welcoming toward sexual minority students. This supports the argument that significant others and social integration are integral in determining LGB students’ academic success. Because these respondents were able to rely on key significant others when they encountered any negative social sanctions as a result of their sexual identity on campus, they reported greater satisfaction with their college experience, which translated into higher levels of educational attainment.

Respondents in the second group of Graduates were able to focus on their education because they came out after they had already completed college. However, deferment of the coming out process is not a practical educational policy suggestion, particularly as people are coming out at earlier and earlier ages (Broido 2004, Savin-
Williams 2005). This means that social integration and institutional support for LGB undergraduates may become even more integral as more students come to campus already relatively secure in their public sexual minority identity.

Sexual identity, then, is not the sole predictor of an LGB student’s educational trajectory. In addition to other macro-level determinants that are known to have an effect on one’s likelihood of obtaining a bachelor’s degree, such as race, gender, and parental factors, individuals may face circumstances that determine whether or not heterosexism and homophobia will derail their educational careers. The finding that a lack of social integration and supportive significant others tends to result in an interruption in educational attainment supports what Savin-Williams (2005) pejoratively calls the victim narrative. LGB students who have little institutional support, few social networks, and unsupportive families – of which there are many – may face obstacles that prevent them from obtaining a bachelor’s degree. This is of concern because LGB students are already at risk for encountering negative social sanctions related to their minority sexual identity. If heterosexism and homophobia interfere with LGB persons’ educational careers to the point that they must drop out of college, they risk losing out on the myriad benefits that come with having a college degree, such as higher wages.

For LGB students, heterosexism and homophobia create challenges that create, compound, or interact with problems related to significant other influence or social integration. What is striking about significant others’ support and social integration being key in determining LGB student success is their explanatory power for all students. Sewell at al. (1969) and Tinto (1975) argue that significant others and social support have
an enormous influence on educational decisions, respectively. Sexual minority students, though, are at an increased risk for being poorly socially integrated or having lower levels of social support, leaving some of these students vulnerable to pausing their educational careers.

On the other hand, many Graduate respondents were able to use their time as undergraduates to learn and to thrive. What differentiated these respondents from Interrupters were their supportive significant others and strong integration into campus networks. Sexual identity, then, does not necessarily have to exert a negative influence on educational attainment. Given the right conditions, LGB students may be able to pursue their education without distraction or interruption. This supports Savin-Williams’ (2005) resiliency narrative. In spite of the heterosexism and homophobia many Graduate respondents reported in their college careers, they were able to navigate the campus environment to focus on their educations. Even Interrupter respondents ultimately were able to attain relatively high levels of education; some even continued on to earn postgraduate degrees. Three of the four respondents reporting a high school education as their highest level of educational attainment were also working toward their bachelor’s degrees at the time of the interview. Notwithstanding the challenges sexual minority students face, many of them persist, working toward their educational goals. Heterosexism and homophobia are not necessarily the cataclysmic social forces that completely ruin someone’s chances for enjoying academic success.

Despite this comfort, though, the unique challenges that LGB students face – lack of social support, homophobia on campus, and the like – still derail many educational
careers. Because of the myriad benefits associated with college degrees, it is problematic that LGB students may be less likely to enjoy higher wages, improved self-esteem, and the like because of challenges related to sexuality. It is also problematic that a sizable number of Graduate respondents in this study were able to successfully navigate any heterosexism and homophobia they encountered as college students because they were not out at the time of their undergraduate careers; this is hardly a practical strategy for LGB students who otherwise wish to pursue higher education to adopt.

There are several steps educational institutions can take to improve the campus environment toward LGB students in an attempt to maximize social integration. Given that several of the respondents indicated ways in which faculty, staff, and university policy made it difficult from them to persist as students, administrators may be able to reevaluate procedures to see if LGB students may be at a higher risk of being forced to discontinue their college careers. Institutions can also enact policies that affect the general campus climate. Rankin (2005:17) defines the campus climate as the “cumulative attitudes [and] behaviors” toward LGB students. Providing safe residence halls, staff dedicated to LGB student concerns, or educational programs devoted to the study of sexuality may communicate to sexual minorities that they are welcome on campus. A positive campus climate will also communicate to heterosexual students that overt heterosexism and homophobia are not tolerated, thus improving the potential for positive peer social support.

An easy first step that many campuses have not taken, though, is to evaluate the campus climate for sexual minority students (Rankin 2005). Many campuses have not
taken the steps to assess LGB students’ comfort on campuses. Even fewer have statistics on LGB recruitment and retention (Sanlo 2004). Collecting data on sexual minorities’ experiences and educational trajectories would allow campuses to craft detailed, contextually-specific solutions to address educational disparities between heterosexual and LGB students.

**Conclusion.** Social integration and significant other influence are strong predictors of postsecondary educational persistence for LGB students as well as for heterosexual students. However, LGB students may not have the same abilities to integrate or the same support networks that heterosexual students may have. LGB respondents in this study that did not were far more likely to drop out of college. Most of the respondents that successfully completed college tended to have significant others in their lives, both off and on campus, who embraced their sexual identity and helped them to weather any negative social sanctions that might have otherwise derailed their educational careers. Additionally, they reported finding supportive contexts on campus, which facilitated their social integration. Because out LGB students must navigate college at the same time as they encounter heterosexism and homophobia, those not well integrated into the university community, or those who do not have an interpersonal support system, may at an increased risk for stopping the pursuit of a bachelor’s degree.

Respondents’ narratives indicate that the relationship between sexual identity and educational persistence may be contingent on supportive significant others and strong integration into the campus community. Fortunately, many LGB respondents reported that they had family, friends, and faculty they could turn to while they were out and at
college. Consequently, these respondents were more likely to earn their bachelor’s degrees without interruption than those who reported significant others who were not supportive. Because LGB persons run the risk of being socially ostracized, and because higher levels of educational attainment bring with them other social benefits, it is integral for educational institutions to continue to study the link between significant other influence, social integration, heterosexism, homophobia, and educational persistence for this group.

Sexual identity, then, does not necessarily determine whether or not a student will graduate from college in and of itself. Rather, it may put students at a higher risk for experiencing the factors that eventually lead to a decision to discontinue one’s education. Alex, a queer female from the Rust Belt region, dropped out of college shortly following a sexual assault her first weekend at a new college. She explained the potential link between sexual identity and educational persistence elegantly toward the end of her interview:

*I mean, when you ask me, “Did being queer cause me to drop out of college?” I’d have to answer, “No.” I didn’t drop out BECAUSE I’m queer. But then I think about it... and who can say, you know? I mean, maybe I wouldn’t have been sexually assaulted if I were straight. Or maybe I would have had more friends at that party who would have looked out for me. Or maybe when I told [a professor] about it, maybe he would have listened to me if I were straight instead of blaming me. Gotten me help. Or maybe I would have had friends I could have talked to about it. So I can say there’s no link – but maybe there’s something there.*

Like many other respondents, Alex herself is a strong, resilient, intelligent person. However, even Alex recognized that forces outside her control caused her to put her educational career on hold. There were several social links in the proverbial chain that
could have assisted Alex during her time in college; because they did not, it is possible that she has missed out on some the benefits associated with more education.
Chapter 5: Conclusion

This dissertation examines in what ways sexual identity affects educational attainment. Through an investigation of educational attainment outcomes, structural factors that contribute to a positive campus climate, and LGB respondents’ own narratives, I find that sexual minorities face unique obstacles on college campuses. Revisiting Savin-Williams’ (2005) competing narratives of resiliency and victimhood, my findings indicate that this binary is an oversimplification of the realities LGB undergraduates face. Penalty or privilege is not an absolute linked to a student’s sexuality. Rather, sexuality may exert a penalty or offer a privilege dependent on other contextual factors. That is, sexual identity’s effect on educational attainment is conditional. Gender, family support, on-campus structures, race, geographic context, and the like interact with sexuality to create a complex picture of how LGB persons are faring in higher education as compared to their heterosexual peers.

Regarding educational attainment, I find that LGB men are significantly more likely to have a college degree than heterosexual men. LGB women, on the other hand, are significantly less likely to have a bachelor’s degree than heterosexual women. Predicted probabilities indicate that LGB women’s educational attainment levels more closely mirror those of heterosexual men’s, whereas LGB men’s mirror those of heterosexual women. These findings demonstrate the importance of gender as a
moderating factor on educational attainment. Although LGB persons may face the institutions of heterosexism, homophobia, and heteronormativity both on and off campus, there is a gendered pattern in the effects of educational attainment. Sexual minority men appear to be resilient in the face of these negative forces on campus, persisting to earn their degrees. On the other hand, sexual minority women appear to be susceptible to these forces in a way that adversely affects their educational careers.

It is little wonder that there is no consistent narrative regarding LGB persons’ relative educational status. Because of sampling issues, LGB women and other subsets of the larger sexual minority community have been ignored in prior research. My results indicate that a broader approach to studying educational inequalities is useful in identifying any educational disparities that result as a consequence of sexual identity. As available quantitative data on LGB populations becomes more readily available, future studies will be able to determine how the relationship between sexuality and education changes over time, or if it holds true for other subgroups within the LGB community.

Beyond the individual level, structure also plays a role in determining LGB college students’ educational experience. My third chapter finds that factors at the macro-level determine how welcoming and open a campus may be toward sexual minorities. Because particular campuses are more closed off than others to LGBT individuals, I hypothesize that there are structural determinants that indicate how closed a campus may be. The student-to-faculty ratio, gender composition, and the political liberalism at the state level are all associated with campus climate. Data limitations prevented me from making a causal argument; although this chapter was able to identify
what factors are associated with a positive campus climate for sexual minorities – as measured by the subjective Campus Climate Index – I have no way of knowing precisely how the factors translate to outcomes at the student level. The Add Health data set, used in the educational attainment chapter, did collect information on what colleges respondents attended if they were enrolled at Wave III. Future work could examine whether or not LGB persons, particularly those who eventually graduated in Wave IV data, were more likely to attend more welcoming schools as measured by the Index. Despite these limitations, Chapter 3 identifies macro-level factors that may affect on sexual minority students’ well-being and academic performance.

The final substantive chapter, Chapter 4, demonstrates how the interaction of the individual and the social can lead to varying educational outcomes. I analyze in-depth interview data from two categories of LGB respondents: those who completed college without interruption, or Graduates, and those who started attending college but stopped, or Interrupters. Graduates were able to complete their education largely because they were somehow insulated against the effects of heterosexism and homophobia. Some graduates had supportive family and friend networks. Others succeeded academically because they came out after college, thus avoiding overt engagement with heterosexism and homophobia while in college. Interrupters, on the other hand, tended to be more poorly socially integrated or had weaker support networks. Interrupters reported having to deal with hostile peers, unsympathetic administration, and family complications. When they encountered heterosexism and homophobia, they were more likely to stop pursuing higher education. This is because the institutions these respondents attended did
not provide the resources necessary to address their specific concerns, or more actively
demonstrated unwillingness to attempt to reduce the hostility of the campus environment
toward LGB students.

Implications: Sociology, Data Collection, and LGB College Students

This dissertation represents an important contribution to several disciplines who
study educational outcomes, sexuality, or inequalities. For sociology, this dissertation is
a step toward considering the study of sexuality as a proper object of sociological inquiry
(Epstein 1994). Although the data now exist to turn traditional, large-scale analysis
methods to sexual minority populations, this remains a brave new world that few have
explored. Chapters 2 and 3 use quantitative data techniques to investigate educational
attainment and campus environments as they relate to sexuality. Now that data sets are
increasingly providing information about sexual minority populations (Black et al. 2000),
it is my hope that researchers interested in sexuality or inequalities will use such
opportunities to bring scholarship about LGB persons into the sociological mainstream.

It is surprising – and more than a bit dismaying – that sociology, a discipline that
concerns itself with the study of inequalities, has had little to say about the interaction
between sexuality and education. Sociology has largely abdicated this responsibility to
scholars of education or student development, many of whom are more interested in
narratives than structure or large-scale patterns. Were sociology to offer its focus on
macro-micro linkages and the importance of structure to such research questions, we may
gain new perspectives on both educational inequality and sexuality.
Through my investigation of how sexuality affects postsecondary educational outcomes, my dissertation bridges this gap between the structural and the individual, the macro and the micro. Structurally, gender intersects with sexual identity to affect educational attainment patterns. Institutionally, certain types of campuses may be more likely to be closed off to sexual minorities than others. Interactionally, social support affects how LGB persons engage with the heterosexism and homophobia on campus, determining whether these students may be able to persist to earn their bachelor’s degrees. At all three levels, I show that sexuality affects education. The data are now available to investigate these macro-micro linkages; scholars must begin asking the same questions regarding educational inequality as it relates to sexuality as they have for gender, race, and class.

Up to this point, methodological limitations have played a role in keeping sociology from engaging in such inquiry (Savin-Williams 2005). Because so many sociological studies hinge on large-scale data sets, the difficulties the operationalization of sexual minority status or small sample sizes have complicated the ability to make claims about how LGB sexuality affects various individual outcomes. However, I suspect that sociology’s own discomfort with issues of sexuality may be equally to blame (Epstein 1994). Methodological difficulties are increasingly mitigated by inclusive, purposive data collection on sexual minority populations. Yet the methods traditionally used to explore issues of stratification for other social groups have not been turned toward LGB individuals.
Borrowing from a broad base of theory and methods, this work demonstrates the utility in a sociological approach when considering questions of sexual minority stratification. As more data sets collect information on LGB populations – and as more sociologists are encouraged to conduct related analyses – we may obtain a more comprehensive understanding of the relationship between sexuality, social structure, and individual outcomes.

Although more data is being collected on LGB populations than ever before, it is important that those developing survey instruments do their utmost to make sure this population is included in sampling. It is striking that many of the early examinations of educational attainment exclude LGB women altogether because of small sample sizes (Black et al. 2000, Barrett et al. 2002). Also, depending on how sexual identity is operationalized, large swaths of those within the community may not be included if survey instruments are not carefully designed. For instance, although Black et al. (2000) were ingenious in their use of Census data to identify same-sex couples, bias with regards to what types of persons choose to cohabit or marry mean that sexual minorities of color or poorer LGB persons were likely excluded from analyses such as Black et al.’s. Add Health’s operationalization of sexuality is not without its problems, either. But because it is nationally-representative and asks about respondents’ sexuality in a variety of ways, Add Health represents such an important first step in the data collection of LGB persons.

Policy-wise, this dissertation may be the first step in developing a blueprint for educational institutions to foster LGB student success. First, social support appears to be key, as it is for many students (Chickering and Reisser 1993). However, because LGB
students run the risk of being marginalized because of the institutions of heterosexism, homophobia, and heteronormativity, it is important for institutions to consider in what ways this student population may need particular interventions to promote social integration. LGB resource centers are an important first step (Fine 2012). Beyond that, though, promoting student groups, identifying faculty mentors, establishing housing communities, or promoting campus-wide dialogue regarding sexuality issues may help these students find the social support they need on campus should it be lacking in other areas of their lives.

Academic interventions targeted toward LGB students may be a prudent step as well. Particularly for LGB women, as Chapter 2 indicates that they may be at a higher risk to postpone or forgo higher education, colleges should best consider how to promote LGB student success inside the classroom as well as outside. Developing a sexuality studies program, creating a faculty mentorship program, hiring sexual minority faculty, or linking academic and co-curricular programs – such as holding tutoring sessions at a campus LGBT center – may help to foster academic success for these students.

Regarding data collection, it is also important for institutions to take the lead on collecting information about their sexual minority students. Sanlo (2004) points out that few colleges are able to answer questions about how their sexual minority students are faring because of a lack of evaluation and data collection. Although this dissertation is able to speak to phenomena on various scales – national, regional, individual, institutional – collecting data at the source for the purposes of internal evaluation may
help key figures within a campus context identify the challenges and supports sexual minority students encounter at their college or university.

The educational landscape for LGB college students is complex. Neither the victim narrative nor the resiliency narrative fully captures the nuanced interplay between sexuality and education, as this interplay is conditional on other social factors. Although this dissertation represents an important first step in exploring this relationship, other social institutions also have an effect: family, gender, peer networks, institutional policy, and so forth. A continued exploration of how LGB students chart their educational trajectories can help to address continued inequalities, develop needed interventions, and encourage the development of sexuality scholarship.
References


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Appendix A: Factors Used to Construct Star Rating in the Campus Climate Index
The Campus Climate Index collects data from American postsecondary institutions, who participate in the survey on a voluntary basis. A representative from the university completes the instrument after being verified by the index staff as a valid member of said university’s administration. This representative can then choose whether to have their results posted publicly on the index’s website (Beemyn et al. 2011).

The Inclusion Factors the index identifies are LGBT policy inclusion, LGBT support and institutional commitment, LGBT academic life, LGBT student life, LGBT housing and residence life, LGBT campus safety, LGBT counseling and health, and LGBT recruitment and retention efforts. The following are binary (yes / no – coded as 1 if the factor is present on the campus) components of the Campus Climate Index, which are distilled from a larger survey instrument. The schools are then given a star rating on each subsection, as well as a total star rating representing the campus’s overall climate. Star ratings range from one to five stars, with five stars being the most welcoming. The complete survey instrument, as well as clarification as to how the index chose to operationalize some of its terms and concepts, can be found on the Campus Climate Index website, http://www.campusclimateindex.org (Beemyn et al. 2010, 2011).

Academic Life

LGBT Studies program

LGBT-specific course offerings

Gender-neutral / single occupancy restroom facilities in academic settings

New faculty / staff training opportunities on sexual orientation issues

New faculty / staff training on gender identity issues
Student Life

Student organization for LGBT and Ally students
Resource center / office with responsibilities for LGBT students
Paid staff with responsibilities for LGBT and Ally support services
Ally program or Safe Space / Safe Zone
Regularly plans LGBT social activities
Regularly plans educational events on sexual orientation issues
Regularly plans educational events on transgender issues

Policies and Practice

Non-discrimination statement inclusive of sexual orientation
Non-discrimination statement inclusive of gender identity / expression
Health insurance coverage for employees’ same-sex partner
Accessible, simple process for students to change their name and gender identity on university records and documents
Standing advisory committee that deals with LGBT issues

Campus Safety

Procedure for reporting LGBT-related bias incidents and hate crimes
Trains campus police on sexual orientation issues
Trains campus police on gender identity / expression issues

Housing and Residence Life

LGBT housing options / themes
Transgender student option to be housed in keeping with their gender identity / expression

Gender-neutral / single occupancy restroom facilities in campus housing

Trains residence life and housing staff at all levels on LGBT issues and concerns

Counseling and Health Services

LGBT-inclusive counseling / support groups

LGBT-inclusive health services / testing

Insurance coverage for students transitioning from MTF and FTM to cover hormone replacement therapy

Recruitment and Retention Efforts

LGBT mentoring program to welcome and assist LGBT students in transitioning to academic and college life

LGBT and Ally student scholarships

Active LGBT alumni group

Special Lavender or Rainbow Graduation ceremony for LGBT students and allies

Actively participates in LGBT admission fairs
Appendix B: Interview Questions
1. What made you interested in participating in this interview?

2. What is your sexual identity? How did you decide (or not decide) on that identity? When did you come out?

3. Please give me a brief overview of your educational history. Where did you attend college? Could you describe the campus for me?

4. What activities were you involved in on campus? Did you enjoy going to school at your campus? Can you tell me about a specific time when you were enjoying yourself on campus?

5. How far did you go in school? Did you encounter any obstacles along the way that made getting an education difficult? Can you tell me about a specific time that was difficult for you while you were at college?

6. Do you think being LGB affected your decision to go to college in the first place?

7. What was it like being LGB (lesbian, gay, or bisexual) at your campus?

8. Were you “out” during your college years? How “out” were you? To whom were you “out?”

9. Do you think being LGB affected your time in college?

10. What aspects of your campus helped LGB students succeed? What aspects of your campus might have made it difficult for LGB students to succeed?

11. (If respondent dropped out,) what caused you to stop attending college?

12. Do you think being LGB affected whether or not you graduated from college?

13. What is your job? Are you “out” in your workplace? Is your workplace welcoming?
14. Are you in your ideal career? What was your ideal career before you started college?
   What is your ideal career now? If there was a change, how did that change during your time in college?

15. Were you out to faculty? Who is the last faculty member you came out to? Under what circumstances? How did s/he respond? How did you feel about the interaction?

16. Do you think your campus was accepting toward LGB persons? Why or why not?

17. Are you still connected to your campus? Are you active in any school alumni groups, or are you close to any LGB people from your college years? How do you think your campus’s attitudes have changed toward queer persons in the past five years?

18. Were you out during high school? How did that go? If not, how do you think that would have gone? Can you think of a specific time when you were made aware of your sexuality in high school?

19. Are you “out” to your family? When did you come out to them? How did they react? Were you in school at the time?

20. Are most of your friends heterosexual or LGB? Are you out to them? How does that influence your friendships?

21. When was the last time you heard a heterosexist comment? Where were you? Who said it? How did it make you feel?

22. How would you characterize American society’s attitudes toward queer persons? How do you think America’s attitudes have changed in the past five years? Since your lifetime?
23. When is the last time you saw a media representation of a queer person? What was the representation? What was the form of the media? How did it make you feel?
Appendix C: Tables
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N = 14556

Weighted using Add Health provided weights.

Table 1. Descriptive Statistics of Sample, Chapter 2
Table 2. Gender and Sexual Identity of Sample, Chapter 2

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## Table 3. College Graduation Status and Sexual Identity of Sample, Chapter 2

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<td><strong>Total</strong></td>
<td>9,848</td>
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Table 3. College Graduation Status and Sexual Identity of Sample, Chapter 2
Table 4  Listwise Deletion of Cases, Chapter 2

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<td></td>
</tr>
<tr>
<td>Drop don't know / refused</td>
<td>64</td>
<td>0</td>
<td>0</td>
<td>553</td>
<td>14674</td>
<td>99.1486</td>
<td>100.0000</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>553</td>
<td>14674</td>
<td>99.1486</td>
<td>100.0000</td>
<td></td>
</tr>
<tr>
<td>Education History</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>553</td>
<td>14673</td>
<td>99.1419</td>
<td>100.0000</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino/a</td>
<td>43</td>
<td>1</td>
<td>2.3256</td>
<td>552</td>
<td>14630</td>
<td>98.8514</td>
<td>99.8192</td>
<td></td>
</tr>
<tr>
<td>Primary race</td>
<td>4</td>
<td>1</td>
<td>25.0000</td>
<td>551</td>
<td>14626</td>
<td>98.8243</td>
<td>99.6383</td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>26</td>
<td>1</td>
<td>3.8462</td>
<td>550</td>
<td>14600</td>
<td>98.6486</td>
<td>99.4575</td>
<td></td>
</tr>
<tr>
<td>Likely will go to coll.</td>
<td>44</td>
<td>3</td>
<td>6.8182</td>
<td>547</td>
<td>14556</td>
<td>98.3514</td>
<td>98.9150</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>547</td>
<td>14393</td>
<td>98.3514</td>
<td>98.9150</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>244</td>
<td>6</td>
<td>2.4590</td>
<td>547</td>
<td>14556</td>
<td>98.3514</td>
<td>98.9150</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Listwise Deletion of Cases, Chapter 2
Table 5. Logistic Regression of Variables on Likelihood of Having a Bachelor's Degree, Chapter 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>s.e.</td>
<td>o.r.</td>
<td>b</td>
<td>s.e.</td>
<td>o.r.</td>
</tr>
<tr>
<td>Lesbian, gay, or bisexual (LGB)</td>
<td>0.0252</td>
<td>0.1576</td>
<td>1.0255</td>
<td>0.5837++</td>
<td>0.2440</td>
<td>1.7927</td>
</tr>
<tr>
<td>Female</td>
<td>0.2532+++</td>
<td>0.0726</td>
<td>1.2881</td>
<td>0.2888+++</td>
<td>0.0732</td>
<td>1.3349</td>
</tr>
<tr>
<td>Female x LGB</td>
<td>-1.0505+++</td>
<td>0.3252</td>
<td>0.3498</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-0.3105*</td>
<td>0.1540</td>
<td>0.7331</td>
<td>-0.3095*</td>
<td>0.1540</td>
<td>0.7338</td>
</tr>
<tr>
<td>Latino</td>
<td>-0.2167*</td>
<td>0.0974</td>
<td>0.8052</td>
<td>-0.2221*</td>
<td>0.0966</td>
<td>0.8008</td>
</tr>
<tr>
<td>Asian</td>
<td>0.7426**</td>
<td>0.2399</td>
<td>2.1014</td>
<td>0.7387**</td>
<td>0.2407</td>
<td>2.0932</td>
</tr>
<tr>
<td>Other race</td>
<td>-0.1275</td>
<td>0.1709</td>
<td>0.8803</td>
<td>-0.1295</td>
<td>0.1712</td>
<td>0.8785</td>
</tr>
<tr>
<td>Age</td>
<td>0.0524*</td>
<td>0.0232</td>
<td>1.0538</td>
<td>0.0511*</td>
<td>0.0232</td>
<td>1.0524</td>
</tr>
<tr>
<td>Urbanity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>-0.2756**</td>
<td>0.1014</td>
<td>0.7591</td>
<td>-0.2761**</td>
<td>0.1011</td>
<td>0.7588</td>
</tr>
<tr>
<td>Rural</td>
<td>-0.2156*</td>
<td>0.0956</td>
<td>0.8060</td>
<td>-0.2192*</td>
<td>0.0963</td>
<td>0.8032</td>
</tr>
<tr>
<td>Other locale / not reported</td>
<td>-0.2605</td>
<td>0.1597</td>
<td>0.7707</td>
<td>-0.2727</td>
<td>0.1619</td>
<td>0.7613</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>0.6410***</td>
<td>0.1609</td>
<td>1.8985</td>
<td>0.6408***</td>
<td>0.1619</td>
<td>1.8980</td>
</tr>
<tr>
<td>Midwest</td>
<td>0.1813</td>
<td>0.1581</td>
<td>1.1988</td>
<td>0.1809</td>
<td>0.1582</td>
<td>1.1983</td>
</tr>
<tr>
<td>West</td>
<td>-0.0149</td>
<td>0.1241</td>
<td>0.9852</td>
<td>-0.0152</td>
<td>0.1247</td>
<td>0.9849</td>
</tr>
<tr>
<td>Family SES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High SES (&gt;5)</td>
<td>1.0714***</td>
<td>0.0746</td>
<td>2.9193</td>
<td>1.0714***</td>
<td>0.0746</td>
<td>2.9196</td>
</tr>
<tr>
<td>Missing SES</td>
<td>-0.3915*</td>
<td>0.1802</td>
<td>0.6761</td>
<td>-0.3817*</td>
<td>0.1812</td>
<td>0.6827</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>0.0143</td>
<td>0.0079</td>
<td>1.0144</td>
<td>0.0139</td>
<td>0.0080</td>
<td>1.0140</td>
</tr>
<tr>
<td>Likely will go to college</td>
<td>0.8598***</td>
<td>0.0470</td>
<td>2.3627</td>
<td>0.8570***</td>
<td>0.0469</td>
<td>2.3562</td>
</tr>
<tr>
<td>Wave I cumulative GPA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High GPA (&gt;2.5)</td>
<td>0.6259***</td>
<td>0.0651</td>
<td>1.8700</td>
<td>0.6262***</td>
<td>0.0654</td>
<td>1.8705</td>
</tr>
<tr>
<td>Missing GPA</td>
<td>-0.8232***</td>
<td>0.2110</td>
<td>0.4390</td>
<td>-0.8255***</td>
<td>0.2116</td>
<td>0.4380</td>
</tr>
<tr>
<td>Constant</td>
<td>-7.4922***</td>
<td>0.7963</td>
<td>-7.4501***</td>
<td>0.7928</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo-R2</td>
<td>0.2115</td>
<td>0.7963</td>
<td>1.4556</td>
<td>0.2127</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N 14556

+ = p < 0.05, ++ = p < 0.01, +++ = p < 0.001, one-tailed
* = p < 0.05, ** = p < 0.01, *** = p < 0.001, two-tailed

Reference group is a. white, b. suburban, c. the South, d. family SES ≤ 5, e. GPA < 2.5.
Corrected for clustering by school at Wave I. Weighted using Add Health provided weights.

Table 5. Logistic Regression of Variables on Likelihood of Having a Bachelor's Degree, Chapter 2
### Table 6. Predicted Probability of Having a Bachelor's Degree and Significance of Contrasts, Chapter 2

<table>
<thead>
<tr>
<th>Group</th>
<th>P(r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual men</td>
<td>0.2813</td>
</tr>
<tr>
<td>Heterosexual women</td>
<td>0.3282</td>
</tr>
<tr>
<td>Sexual minority men</td>
<td>0.3784</td>
</tr>
<tr>
<td>Sexual minority women</td>
<td>0.2540</td>
</tr>
</tbody>
</table>

| Reference Group | Comparison Group | Contrast | s.e. | |p| < Z, Bonferroni-adjusted | |p| < Z, no adjustment |
|-----------------|------------------|---------|------|---------------------------------|---------------------------------|
| Heterosexual men | Sexual minority men | 0.0971 | 0.0419 | 0.123 | 0.021 |
| Heterosexual men | Heterosexual women | 0.0469 | 0.0120 | 0.001 | 0 |
| Heterosexual men | Sexual minority women | -0.0273 | 0.0306 | 1 | 0.371 |
| Sexual minority men | Heterosexual women | -0.0503 | 0.0435 | 1 | 0.248 |
| Sexual minority men | Sexual minority women | -0.1245 | 0.0525 | 0.107 | 0.018 |
| Heterosexual women | Sexual minority women | -0.0742 | 0.0313 | 0.106 | 0.018 |
Table 7. Comparison of LGB, Female, and LGB x Female Variables Across Multiple Models

<table>
<thead>
<tr>
<th>Model</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missing GPA / family SES Dummies Dropped Imputed x 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lesbian, gay, or bisexual (LGB)</td>
<td>0.5837++</td>
<td>0.6573+</td>
<td>0.6727++</td>
</tr>
<tr>
<td>Female</td>
<td>0.2888+++</td>
<td>0.3297+++</td>
<td>0.3311+++</td>
</tr>
<tr>
<td>Female x LGB</td>
<td>-1.0505+++</td>
<td>-1.1075+++</td>
<td>-1.1383+++</td>
</tr>
<tr>
<td>N</td>
<td>14556</td>
<td>13224</td>
<td>14556</td>
</tr>
</tbody>
</table>

+ = p < 0.05, ++ = p < 0.01, +++ = p < 0.001, one-tailed
Corrected for clustering by school at Wave I. Weighted using Add Health provided weights.

Table 7. Comparison of LGB, Female, and LGB x Female Variables Across Multiple Models
Table 8. IPEDS Classification of States Into Regions, Chapter 3

<table>
<thead>
<tr>
<th>Region</th>
<th>States Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>CT, MA, ME, NH, RI, VT</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>DC, DE, MD, NJ, NY, PA</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>IL, IN, MI, OH, WI</td>
</tr>
<tr>
<td>Midwest</td>
<td>IA, KS, MN, MO, NE, ND, SD</td>
</tr>
<tr>
<td>South</td>
<td>AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV</td>
</tr>
<tr>
<td>Southwest</td>
<td>AZ, NM, OK, TX</td>
</tr>
<tr>
<td>Mountain</td>
<td>CO, ID, MT, UT, WY</td>
</tr>
<tr>
<td>West</td>
<td>AK, CA, HI, NV, OR, WA,</td>
</tr>
<tr>
<td>Table 9. Heckman Regression of Independent Variables on American Four-Year Colleges' campusclimatesurvey.org Rating, Chapter 3</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Number of Undergraduates (in thousands)</td>
<td>0.0009</td>
</tr>
<tr>
<td>Percentage of White Students</td>
<td>-0.0026</td>
</tr>
<tr>
<td>Percentage of Female Students</td>
<td>0.0142</td>
</tr>
<tr>
<td>Percentage Admitted</td>
<td>0.0042</td>
</tr>
<tr>
<td>Student-to-Faculty Ratio</td>
<td>-0.0380</td>
</tr>
<tr>
<td>Institutional Affiliation</td>
<td></td>
</tr>
<tr>
<td>Private, Not Religiously Affiliated</td>
<td>-0.6051</td>
</tr>
<tr>
<td>Private, Religiously Affiliated</td>
<td>-0.4592</td>
</tr>
<tr>
<td>Tuition (in thousands)</td>
<td>0.0329</td>
</tr>
<tr>
<td>Endowment (in thousands)</td>
<td>0.0002</td>
</tr>
<tr>
<td>Urban Context</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>0.0158</td>
</tr>
<tr>
<td>Rural</td>
<td>-0.0509</td>
</tr>
<tr>
<td>Percentage of State Vote for Obama</td>
<td>0.0231</td>
</tr>
<tr>
<td>Constant</td>
<td>2.5023</td>
</tr>
</tbody>
</table>

Selection Model

| Number of Undergraduates (in thousands) | 0.0772 | *** | 0.0096 |
| Percentage of White Students | 0.0079 | ** | 0.0030 |
| Percentage of Female Students | -0.0018 | 0.0028 |  |
| Percentage Admitted | 0.0023 | 0.0031 |  |
| Student-to-Faculty Ratio | -0.0052 | 0.0117 |  |
| Institutional Affiliation | |
| Private, Not Religiously Affiliated | -1.4227 | *** | 0.1917 |
| Private, Religiously Affiliated | -1.7517 | *** | 0.2580 |
| Tuition (in thousands) | 0.0679 | *** | 0.0088 |
| Endowment (in thousands) | 0.0011 | *** | 0.0002 |
| Urban Context | |
| Urban | 0.0510 | 0.1300 |  |
| Rural | 0.1456 | 0.2160 |  |
| Percentage of State Vote for Obama | 0.0190 | ** | 0.0062 |
| Constant | -3.4532 | *** | 0.4749 |

\[
\begin{align*}
\rho & = -0.7556, \quad \sigma = 1.0260, \quad \lambda = -0.7752 \\
\text{Wald } \chi^2 \text{ test for } \rho & = 10.76, \quad ** \\
\text{Uncensored Observations} & = 221 \\
N & = 1432
\end{align*}
\]

* = p < 0.05, ** = p < 0.01, *** = p < 0.001, two-tailed
+ = p < 0.05, ++ = p < 0.01, +++ = p < 0.001, one-tailed

Corrected for clustering by region as defined by the eight IPEDS regions.
Reference group is a. public institutions, b. institutions in towns or suburbs.

Table 9. Heckman Regression of Independent Variables on American Four-Year Colleges' campusclimatesurvey.org Rating, Chapter 3
<table>
<thead>
<tr>
<th>Institution Type</th>
<th>Percentage of Female Students</th>
<th>Student-to-Faculty Ratio</th>
<th>Percentage of State Vote for Obama</th>
<th>Predicted Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low S/F Ratio, All-Women, Liberal State</td>
<td>100</td>
<td>10</td>
<td>60</td>
<td>5.2730</td>
</tr>
<tr>
<td>Low S/F Ratio, All-Men, Liberal State</td>
<td>0</td>
<td>10</td>
<td>60</td>
<td>3.8517</td>
</tr>
<tr>
<td>Low S/F Ratio, Coed, Liberal State</td>
<td>50</td>
<td>10</td>
<td>60</td>
<td>4.5623</td>
</tr>
<tr>
<td>High S/F Ratio, Coed, Liberal State</td>
<td>50</td>
<td>30</td>
<td>60</td>
<td>3.8027</td>
</tr>
<tr>
<td>Low S/F Ratio, All-Women, Conservative State</td>
<td>100</td>
<td>10</td>
<td>40</td>
<td>4.8117</td>
</tr>
<tr>
<td>Low S/F Ratio, All-Men, Conservative State</td>
<td>0</td>
<td>10</td>
<td>40</td>
<td>3.3905</td>
</tr>
<tr>
<td>Low S/F Ratio, Coed, Conservative State</td>
<td>50</td>
<td>10</td>
<td>40</td>
<td>4.1011</td>
</tr>
<tr>
<td>High S/F Ratio, Coed, Conservative State</td>
<td>50</td>
<td>30</td>
<td>40</td>
<td>3.3414</td>
</tr>
</tbody>
</table>

Table 10. Ideal Type Institutions’ Predicted campusclimatesurvey.org Star Rating, Chapter 3
<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Gender / Sexuality</th>
<th>Site</th>
<th>Age</th>
<th>Race</th>
<th>Occupation</th>
<th>Current Education</th>
<th>Education Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martha</td>
<td>Lesbian Female</td>
<td>Pacific</td>
<td>43</td>
<td>White</td>
<td>Office Director</td>
<td>Master’s</td>
<td>Graduate</td>
</tr>
<tr>
<td>Alan</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>47</td>
<td>Latino / White</td>
<td>Program Manager</td>
<td>High School</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Cody</td>
<td>Bisexual Male</td>
<td>Pacific</td>
<td>39</td>
<td>White</td>
<td>Office Librarian</td>
<td>Graduate</td>
<td>Graduate</td>
</tr>
<tr>
<td>Kate</td>
<td>Queer Female</td>
<td>Pacific</td>
<td>37</td>
<td>Asian / Native American</td>
<td>Librarian</td>
<td>Master’s</td>
<td>Graduate</td>
</tr>
<tr>
<td>Rachel</td>
<td>Queer Female</td>
<td>Pacific</td>
<td>32</td>
<td>Asian</td>
<td>Graduate Student</td>
<td>Master’s</td>
<td>Graduate</td>
</tr>
<tr>
<td>Edgardo</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>49</td>
<td>White / Latino</td>
<td>Program Manager</td>
<td>Bachelor’s</td>
<td>Graduate</td>
</tr>
<tr>
<td>Bruce</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>52</td>
<td>White</td>
<td>Office Manager</td>
<td>Bachelor’s</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Chad</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>48</td>
<td>Latino</td>
<td>Program Manager</td>
<td>J.D.</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Mike</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>43</td>
<td>Black</td>
<td>Event Coordinator / Undergrad Student</td>
<td>High School</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Matt</td>
<td>Gay Male</td>
<td>Pacific</td>
<td>38</td>
<td>White</td>
<td>Doctor / Student</td>
<td>M.D.</td>
<td>Graduate</td>
</tr>
<tr>
<td>Ethan</td>
<td>Gay Male</td>
<td>Midwest</td>
<td>34</td>
<td>White</td>
<td>Graduate Student</td>
<td>Bachelor’s</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Nick</td>
<td>Gay Male</td>
<td>Midwest</td>
<td>24</td>
<td>White</td>
<td>Undergrad Student</td>
<td>High School</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Chris</td>
<td>Gay Male</td>
<td>Midwest</td>
<td>25</td>
<td>Asian / White</td>
<td>Non-Profit Coordinator / Undergrad</td>
<td>High School</td>
<td>Interrupter</td>
</tr>
<tr>
<td>Ben</td>
<td>Pansexual Male</td>
<td>Midwest</td>
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Appendix D: Figures
Figure 1. Percent Odds of Having a Bachelor's Degree by Wave IV as Compared to Heterosexual Men, Chapter 2
Figure 2. Predicted Probability of Having a Bachelor's Degree by Wave IV, Chapter 2
Figure 3. Distribution of Campus Climate Index Ratings, 221 Institutions, Chapter 3
Figure 4. Ideal Type Institutions' Predicted campusclimatesurvey.org Star Rating,
Chapter 3