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Sexual Empowerment for All? Exploring the Connections between Social Inequality and Expectations of Sexual Pleasure from Adolescence to Young Adulthood

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University of Connecticut, 2013

While the bulk of past quantitative research conceptualizes adolescent sexuality as a risk factor for negative later- life outcomes, this dissertation tests the opposite assumption: that developing a positive sexual self-concept is a normative and integral component of general health and well-being for girls and boys alike. I use data from Waves I, III, and IV of the National Longitudinal Study of Adolescent Health (Add Health) to investigate one positive aspect of sexual self-concept: expectations that sex will be pleasurable. The first goal of this research is to test the sociological determinants of attitudes toward sexual pleasure when respondents were 15 to 19 years old. The second goal is to see how attitudes formed in adolescence affect long-term sexual and contraceptive behavior as well as general health and achievement outcomes when these same respondents were in their 20s and early 30s.

Multivariate analyses show differential influences of racial background and socioeconomic status by gender. For girls, positive expectations of sexual pleasure are stratified along racial lines. For boys, positive expectations of sexual pleasure are stratified not by race, but by traditional social capital measures. Parental education level, high school grade point average, and attendance at a private school are all positively associated with expectations of sexual pleasure for boys.

In terms of long-term effects, I find distinct differences between the effects of adolescent sexual behavior and sexual pleasure attitudes for both men and women. Estimates from generalized linear models show that expectations of sexual pleasure do not have negative effects on contraceptive use and sexual behavior in adulthood. I also find that sexual pleasure attitudes in adolescence have significant positive effects on other long-term outcomes (such as educational attainment and personal income), holding traditional control variables constant. These findings can be used encourage parents, teachers, and policymakers that a positive, shame-free approach to adolescent sexuality is not harmful, and is even beneficial to a child's long-term health and well-being.

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CHAPTER 1: INTRODUCTION

1.1 Research Problem

Over the past 40 years, feminist scholars and activists have advocated for a more positive approach toward female sexuality (Rubin 1975; Vance 1984; Lorde 1984). These scholars have argued that the differences in experiences of sexual pleasure between heterosexual men and women are an integral component of enduring gender stratification in the United States. In order to reduce this aspect of gender inequality, feminists advocate for adult women to make demands in the sexual realm in order to have the freedom to express desire and pleasure free from shame, guilt, and violence. More recently, this conception of positive sexuality has expanded to include girls and young women (Fine 1988; Martin 1996; Tolman 2001, 2002; Fine and McClelland 2006; Tolman and McClelland 2011; Schalet 2011).

Despite the development of research focused on positive adolescent sexuality in scholarly publications, the majority of public policy argues that encouraging positive aspects of sexuality will be inherently risky for girls, and the majority of sexuality research in sociology is guided by this assumption. Even feminists themselves, who support *gender* empowerment in general, often disagree about the definition, path, and diffusion of *sexual* empowerment for adolescent girls (Levy 2005; Lamb 2010a, 2010b; Lamb and Peterson 2011; Gavey 2012). In addition, mainstream (i.e. white, middle-class) feminist theorists have been criticized for overlooking how the "ideal" of sexual

empowerment may be impossible, stigmatizing, or even dangerous for girls from different racial, socioeconomic, or religious backgrounds (Collins 1990; Tolman 1994).[1]

1.2 Research Aims

Despite these theoretical and empirical improvements to our knowledge about adolescent sexuality, very little is known about the differential paths to positive sexual self-concept for young people. The sexuality of adolescent girls and boys continues to be defined in static ways, despite research that has shown how sexual attitudes and experience are shaped by social, cultural, and structural factors (González-López 2005; Edin and Kefalas 2005; Carpenter 2002, 2005).

Amidst the voluminous research on the negative effects of early sexual activity for young people, there has been no large-scale examination of the determinants of sexual empowerment in adolescence and its potential long-term effects. Using data from Waves I, III, and IV of the National Longitudinal Study of Adolescent Health (Add Health), this research represents the first nationally-representative investigation of one particular aspect of sexual empowerment – expectations of sexual pleasure among adolescents. The goal of this study is to empirically test whether or not it is beneficial to foster positive attitudes toward sexual pleasure among young people (as feminists have argued) or if it is healthier and safer to continue to push the message that sexuality is detrimental to the development and future outcomes of adolescents, especially young women.

[1] The most recent debate about inclusion in reclaiming female sexuality and agency feminist sexuality movements is in the debate about the Slut Walk movement. This movement began in Toronto as a response against victim-blaming for sexual violence and rape has been criticized by many black feminist scholars as ignoring the racial and classed history of the term "slut."

Sociological research has been slow to make distinctions between attitudes and behavior (Bandura 1986) when it comes to sexual decision-making. Although various inventories in social psychological work have advanced the study of sexual attitudes such as sexual self-concept, these micro-level analyses often overlook structural factors that constrain or enhance the diffusion of attitudes toward sexuality. This research will examine the sociological influences and outcomes of expectations of sexual pleasure within adolescence. First, I will explore how race, class, and other sociodemographic characteristics influence expectations of sexual pleasure. Second, I further examine the long-term effects of sexual pleasure on various sexual and general health, social, and achievement outcomes at two points in young adulthood.

The primary theoretical and empirical task of this research is to examine the determinants of expectations of sexual pleasure for young people. Due to the prevalence of the sexual double standard and the restrictive norms for female heterosexuality, the general public may assume that boys do not face similar restrictions to sexual pleasure. However, based on the limited research that explores adolescent male sexual attitudes and behavior in-depth (Pascoe 2007; Carpenter 2002, 2005; Giordano et al. 2009), researchers now know that this is a gross oversimplification. Therefore, I include analyses of boys alongside the female samples, in order to see if the patterns for sexual pleasure differ for males and females with similar sociodemographic characteristics.

1.3 Overview of Dissertation

In Chapter 2, I begin by highlighting the historical and social factors that are directly relevant to the development of the sociological perspective on sexuality over the

last four decades. I then discuss feminist and queer interventions in sexuality theory by describing how these theories have been incorporated into the study of adolescent sexuality; including a discussion of the ways gender, race, and socioeconomic status affect the development of positive attitudes toward sexual pleasure. I conclude with a discussion of the debate over sexual empowerment for young people and its connection to recent calls for a normative approach to adolescent sexuality and the active development of positive sexual attitudes.

Chapter 3 includes information about the data and plan of analysis for the empirical chapters. I include a description of the data used in this study: The National Longitudinal Study of Adolescent Health (Add Health), the most comprehensive, nationally representative survey on adolescent sexual health conducted to-date. Add Health is the optimal dataset for this project and its benefits and limitations will be explained in more depth in Chapter 3.

Figure 1.1 presents the conceptual map for this research. The goal of this dissertation is two-fold. The first goal is to understand how sexual pleasure attitudes are stratified by racial, socioeconomic, and other traditional sociological determinants. The second goal is to determine if and how attitudes toward sexual pleasure in adolescence impact long-term outcomes. Chapters 4, 5 and 6 answer the core questions posed in this dissertation:

1. What sociodemographic factors influence expectations of sexual pleasure in adolescence for girls and boys? Are there significant differences by race, class, and other sociodemographic characteristics?

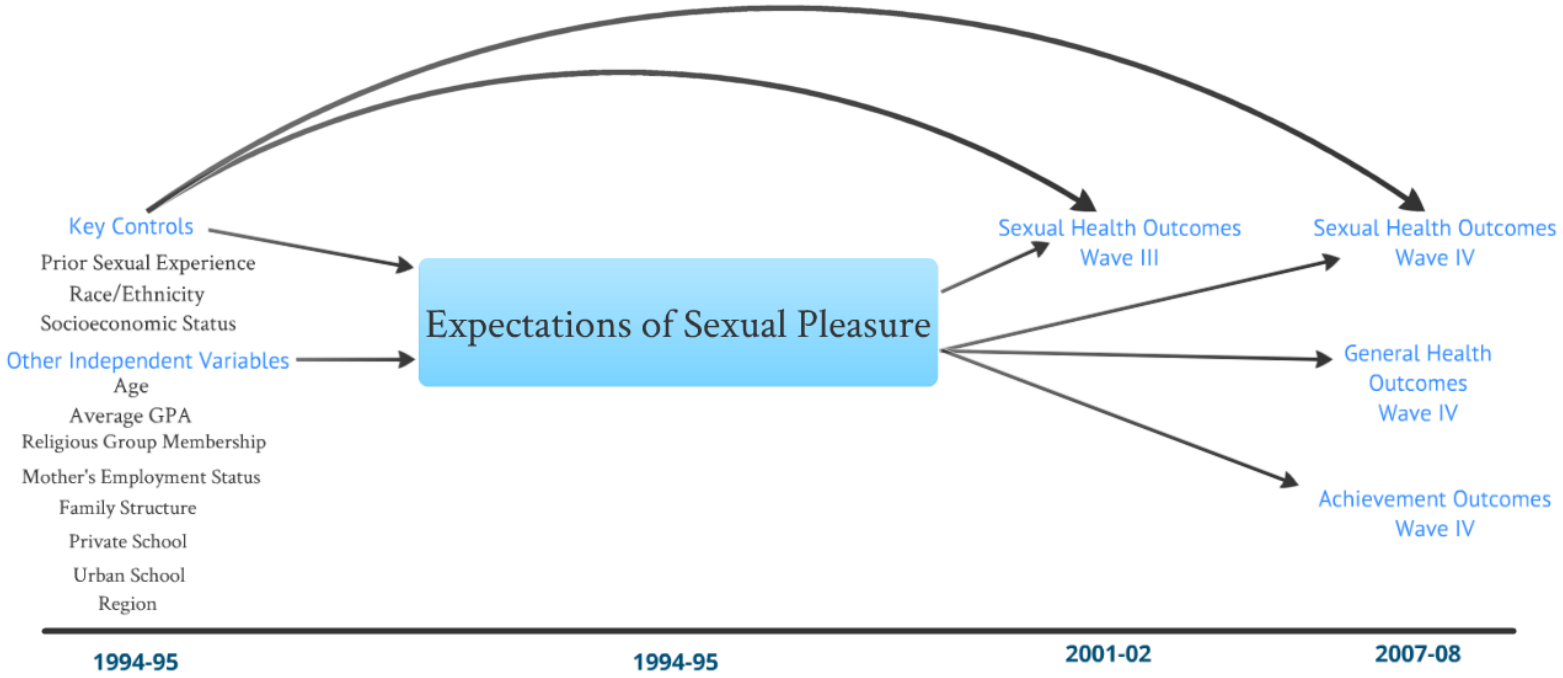
2. Do positive attitudes toward sexual pleasure in adolescence have significant long-term effects on sexual behavior and sexual health outcomes in emerging

adulthood and adulthood, holding all other relevant sociodemographic variables constant?

3. Do positive attitudes toward sexual pleasure in adolescence have significant long-term effects on general health and achievement outcomes in emerging adulthood and adulthood, holding all other relevant sociodemographic variables constant?

Chapter 4 focuses on the determinants of sexual pleasure attitudes in Wave I. Although general sociodemographic variables are included, the goal of this chapter is focus on differences by race, class, and prior sexual history. Chapter 5 uses expectations of sexual pleasure as an independent variable, along with all the other sociodemographic characteristics measured in Wave I, to examine the impact on sexual health and behavior outcomes in Waves III and IV. Chapter 6 again uses sexual pleasure and other control variables from Wave I to explore their impact on general health and achievement outcomes in Wave IV. In conclusion, Chapter 7 summarizes the main findings, limitations, and theoretical and policy implications.

Figure 1.1: Conceptual Map



CHAPTER 2: THEORETICAL BACKGROUND

2.1 Introduction

As Michael Ryan argues, "[n]o area of social life is seen as immune from the influence of sexuality" (2008:509). Despite this assertion, research on the differences in sexual attitudes and behaviors of men and women by race, class, and other sociological characteristics is still underdeveloped. This is especially true regarding scholarship in adolescent sexuality. While the bulk of past research focused primarily on the risks associated with sexual behavior for young people, this dissertation is guided by the opposite assumption advocated by feminist and public health researchers: that developing a positive sexual self is a normative and integral component of general health and well-being for girls and boys alike (World Health Organization 2006; Moore and Rosenthal 2006; Harden et al. 2008; Tolman and McClelland 2011; Vrangalova and Savin-Williams 2011; Diamond 2006; Halpern-Felsher and Reznik 2009; Halpern 2010).

Despite the voluminous amount of research on the effects of abstinence and abstinence-only sex education in the past twenty years (Bearman and Brückner 2001; Brückner and Bearman 2005; Pardue, Martin, and Rector 2004; Rector and Johnson 2005; Sabia and Rees 2008; Santelli et al. 2006), there have been few nationally-

representative longitudinal studies that have tested the assertion that fostering positive attitudes toward sexuality may mitigate the potentially negative effects of early sexual behavior.

However, as scholarship in gender and sexuality has demonstrated, the freedom to develop positive attitudes toward sexuality differs significantly for adolescent boys and girls (Tolman 2012; Tolman, Striepe, and Harmon 2003; Crawford and Popp 2003; Hamilton and Armstrong 2009; Valenti 2008). Gendered, racialized, and classed norms of sexuality have also been found to inhibit or outright restrict girls from voicing their romantic and sexual desires, for fear of social stigmatization (Fine 1988, 2005; Fine and McClelland 2006; Tolman 1996, 2002; Muehlenhard and Peterson 2005). Despite work by feminist scholars to incorporate an explicitly intersectional perspective in quantitative work (see, for example, Harnois 2005, 2012), I argue that racial, class, and other sociodemographic differences have not been adequately theorized and empirically tested in nationally representative studies of sexuality, which have primarily focused on male-female differences in sexual attitudes and behavior.

This dissertation will explore one key component of a normative approach to sexuality: the expectation that sexual intercourse will be pleasurable. In addition to other important aspects of sexual empowerment such as expectations of sexual safety, contraceptive self-efficacy, and a healthy body image, feminist researchers argue that sexual pleasure is an integral aspect of sexual empowerment (Martin 1996; Tolman 2002). As Deborah Tolman argues: "Sexual desire is at the heart of sexual subjectivity" (2002:5–6). Despite some notable exceptions in social psychology and education (i.e. Fine 1988; Martin 1996, Tolman 2002; Thompson 1995), the majority of sociological

research on sexual pleasure has focused on adult men and women. Researchers have consistently found that women report significantly fewer orgasms during sex and are less likely to prioritize their sexual desires than men do (Laumann et al. 1994; Schwarz and Rutter 2000; Armstrong, England, and Fogarty 2010, 2012). Although this body of work has focused primarily on gender differences in sexual outcomes, researchers know fairly little about how attitudes toward sexual pleasure develop and if they are stratified by racial, socioeconomic, and/or cultural norms.

In addition to understanding the determinants of sexual pleasure attitudes within adolescence, this dissertation also tests the assertion that the development of a normative and healthy approach to sexual pleasure has positive effects on long-term sexual health and general well-being. This perspective argues that the development of positive attitudes toward sexual pleasure within adolescence has beneficial effects that are distinct from the potential damaging effects of early adolescent sexual behavior. Although qualitative researchers have demonstrated the ways in which context is integral to understanding perceptions of sexual experience and its subsequent negative or positive outcomes (Tolman 2002; Carpenter 2005; González-López 2005; Pyke and Johnson 2003), quantitative sociological research in sexuality has yet to adequately operationalize these concepts in their research. Therefore, it is still unclear whether or not positive sexual attitudes have positive or negative effects in a nationally representative sample of adolescents.

In this chapter I begin by tracing the development of sexuality theory from the biological to the sociological realm. Next, I outline the primary critiques of heterosexuality posed by feminist and queer scholars. Following a brief discussion of the

history of adolescence in the United States, I explore how sexuality theory has been used to understand gender differences in the definitions of heterosexuality during various developmental stages.

Following the discussion of gender theory in sexuality, I explore the primary interventions in sexuality theory made by critical race theorists and stratification research. I move on to summarize the methodological divide in contemporary adolescent sexuality research and briefly summarize past studies on the influence of adolescent sexual behavior on health and achievement outcomes. I then contrast this with the theoretical position of scholars who advocate for a normative perspective for adolescent sexuality development. Finally, I conclude with a discussion of the ongoing sexual empowerment debate among feminist scholars.

2.2 The Evolution of Sexuality Theory

Although sociologists have historically been interested in the individual and structural factors that influence social stratification, the consideration of sexuality as a central analytic category necessary for understanding inequality is a relatively new phenomenon (Chafetz 1997; Stacey and Thorne 1985; Alway 1995; Ingraham 1996). Feminist sexuality scholars have argued that the sociological study of sexuality – which includes research on sexual orientation, sexual attitudes, and behaviors – is an integral component of social analysis (Stein and Plummer 1994). Until relatively recently, however, sexuality research in academia was primarily the purview of sexologists who understood sexual behavior as biologically-rooted and prescribed at birth.

Sigmund Freud moved the study of sexuality away from the purely biological realm and began to examine sexuality as a psychological, and therefore malleable, construct. Freud argued that sexual motives were not solely rooted in biology, but created and shaped by infant and childhood development (1962). Freud famously focused his research on the interaction between children and parents, most importantly, identification or differentiation from the mother. This focus on the influence of family relationships laid the groundwork for an explicitly sociological examination of sexuality, which moved the level of analysis from internal (whether biological or psychological), to external, social determinants of sexual behavior.

A sociological perspective of sexuality began to be explored by Talcott Parsons and his functionalist role theory. In terms of sexuality, this theory claimed that just like all other social roles, we are socialized into appropriate sexual roles within the family (Parsons 1951). A shift away from role theory began with the work of Alfred Kinsey and colleagues (Kinsey, Pomeroy and Martin 1948), who exposed the tremendous variation of sexual practices in the United States. Symbolic interactionists built on this work, arguing that sexual norms developed within interaction. These scholars argued that sexual meanings or "scripts," were not present at birth, but shaped by social forces (Gagnon and Simon 1973; Simon and Gagnon 1986). Understanding precisely how these social forces influence sexuality has become the central theoretical task for sexuality researchers in sociology. Following this work, sexuality scholars began to theorize the different ways that sexual identities and experiences are constituted through historical, social, and institutional practices (Foucault 1978; Rubin 1984).

2.3 Feminist and Queer Interventions

Feminist and queer scholars have posed substantial critiques to the assumptions about sexuality developed by researchers in biology, sexology, and psychology. This section will trace those interventions and examine the ways in which these perspectives have added to our understanding of the social influences of sexuality.

Feminist scholars in the 1970s challenged the presumed link between biological sex, gender, and sexual identity, defined as the "sex/gender system" (Rubin 1975:159). Carole Vance further elucidated the feminist critique of biological essentialism, arguing that "[s]ex is not a natural fact…Although sexuality, like all human cultural activity, is grounded in the body, the body's structure, physiology, and functioning do not directly or simply determine the configuration or meaning of sexuality" (1984:7-8). The consideration of sexuality and sexual behavior as determined by politics, power, and the social order influenced feminist biological research (Fausto-Sterling 2000), intersex studies (Kessler 1990, 1997; Turner 1999; Preves 2001), feminist interpretations of psychoanalytic theory (Chodorow 1979) and Marxist theory (Hennessey 2000; D'Emilio 1983).

Feminist scholars further critiqued the dichotomization of male and female heterosexuality (Vance 1984; Rich 1980). These scholars argued that sexuality, like every other aspect of social life, is a terrain of power between men and women. Male control of female sexuality was not just limited to privileging male sexual pleasure, but existed across many social dimensions. Rich (1980) argued that men not only have the ability to deny women sexuality and sexual pleasure, but they also have the ability to force unwanted sexual contact on women through coercion, control, and the threat of violence.

Feminist and queer scholars not only critiqued sexuality at the individual level but at the institutional level, arguing that heterosexuality should be viewed as a social and political institution that has its own set of rules, regulations, and social norms that inherently disadvantages women, both straight and gay (Rich 1980; Calhoun 1995; Ingraham 1996). These scholars critiqued the "naturalness" of an institution that is "imposed, managed, organized, propagandized, and maintained by force" (Rich 1980:50). Additionally, this work argues that compulsory heterosexuality denies the existence of lesbian experience, claiming that heterosexual pairing is natural and inevitable. The recognition of the connection between stereotypical gender norms and norms for sexuality has significantly influenced research on the development of sexuality within adolescence, which will be explored in the next section.

2.4 Defining Adolescent Sexuality

As a developmental, sociological and legal concept, the definition of "adolescence" has been in constant flux throughout American history. In the past, researchers have defined adolescents as "little adults," and imposed concepts and theories from adult sexuality research to understand adolescent sexual behaviors and attitudes. However, more recent research has identified adolescence as a unique developmental period, distinct from childhood and adulthood, based on specific developmental and social criteria (onset of puberty, age, etc.) This section will trace the history of adolescent sexuality theory using a sociological perspective.

Prior to the 1800s, adolescence did not exist as a unique developmental stage and the term did not appear in print until 1904 (Luker 1996). Following the Revolutionary

War, a legal age of marriage was established in order to confer adult rights such as the ability to consent to and consummate marriage. Throughout this time, age of consent became the primary way to distinguish between adolescence and adulthood. Age of consent ranged anywhere from 10 to 14 years old throughout the 19th century in the United States. Ages of consent and marriage only began to shift with the influx of immigrants and rise in poverty around the turn of the 20th century. Some scholars arue that increased restrictions on marriage became de facto restrictions on the childbearing of poor, immigrant, minority and other "unfit" populations (Luker 1996).

The Progressive Era also brought increased attention to the definitions of childhood and adolescence due to the creation of child labor laws. As Luker argues, "…complex, well-differentiated age grades are a product of modern industrial life" (1996:25). With increased urbanization, fewer children were needed as laborers. In conjunction with laws for compulsory schooling, the establishment of pediatrics, and the professionalization of protective services, children were no longer viewed as little adults, but as a vulnerable population with developing minds and bodies that should be protected from adult pressures.

The rise of developmental psychology in the early 1900s also contributed to the acceptance of the new social category of adolescence. The age of physical and emotional "fitness" for adult responsibilities (work, marriage, sex) began to rise, which was reflected in social policy[2]. The age of consent to marry rose to 16 years of age for women and 18 years for men in many states by the turn of the 20th century. By the end of the Progressive Era, adolescence was considered a special developmental stage between

[2] However, marriage restrictions on race and consanguinity still existed.

childhood and adulthood and that teenage women, in particular were naturally unsuited for "adult" sexual behavior. As Luker summarizes:

> They [Americans] no longer believed that young women (and to a lesser extent young men) were psychologically, emotionally, or physically prepared for adult responsibilities such as childrearing, and they took it for granted that women who embarked too soon on an adult path were jeopardizing both their future and that of their children (1996:35-36).

This framework for understanding adolescent sexuality is still reflected in contemporary scholarship, politics, and social norms. The following sections will explore the differences in the boundaries of heterosexuality based on gender.

2.5 The Problematization of Female Adolescent Sexuality

Historically, research on adolescent sexuality has focused on the sexual behaviors of girls. Male sexuality was understood to be insatiable, inevitable, and ultimately not as troubling, since girls bear the brunt of negative sexual outcomes ranging from social stigma, sexually transmitted diseases, to unwanted pregnancy. The control of female sexuality has a long tradition in U.S. history. As Luker describes: "Whether passive victim or willing participant, the young woman who was sexually active, particularly outside of marriage, and particularly when intercourse led to an out-of-wedlock birth, was perceived as deviant, unfit" (1996:36). This perception began to shift slightly, with the increased availability of hormonal birth control and the legalization of abortion in the 1970s (Luker 1984).

Despite this increased freedom for women and sexuality, what followed was an increase in attention to the "problematic" social consequences of female sexual openness.

Poor women who had children out of wedlock quickly became the center of the debate surrounding the connection between the irresponsible sexual behaviors of certain groups and increasing poverty (Luker 1996). This trend continued into the 1980s and 1990s, leading to the federal government's investment in abstinence-only education programs (Ashbee 2007; Chappell, Maggard, and Gibson 2010; Gusrang and Cheng 2010; Irvine 2002; Lord 2010; Luker 2006).

The "historical residue" (Luker 1996:40) of this period of time has immense implications for the continued problematization of female adolescent sexuality today. Sexuality scholars have argued that the forces that suppress adult women's sexuality take root in adolescence, particularly during puberty. Whereas girls generally report feeling anxious about their changing bodies, boys report a sense of power and pleasure associated with puberty (Martin 1996). In contrast to feelings of shame and loss of self-esteem girls experience, boys generally report a boost of self-esteem following puberty and early sexual experiences. As Martin writes, "[w]hile puberty is not always easy for boys, they know that valued adult masculinity is on the other side of puberty. Girls see devalued, over-sexualized femininity on the other side of puberty" (1996:51). Girls are also taught that they must be the gatekeepers of insatiable male sexual drives and that sexual desire is coded as male. As Tolman (2012) argues, this "cultural story" of inherent gender differences in male and female sexuality is constantly reproduced by parents, peers, the media and even official policymaking (Fields 2008; Waxman 2004).

The cultural story of passive female sexuality versus active (and normalized) male sexuality puts girls in a difficult position. As qualitative sexuality researchers argue, young women are faced with the "dilemma of desire" (Tolman 2002; Fine 1988, 2005;

Fine and McClelland 2006) in which they feel the urge to explore their burgeoning sexuality while at the same time feel social pressure to maintain the status of a "good girl" in the eyes of their peers and family. Adherence to this feminine ideal arguably contributes to the lack of knowledge, passivity, and silence that puts young women at risk for unwanted pregnancy, disease, and sexual violence.

Knowing about contraception, seeking out sexual encounters, and being critical of the "ideal love" paradigm (Thompson 1995) puts girls in danger of ruining their reputations and being labeled a "slut" or worse. Despite these constraints, findings from qualitative research suggests that girls who are able to ignore or at least dismiss this sexual double standard are "sexually subjective" (Tolman 1994, 2002; Fine 1988; Schalet 2010). These young women are knowledgeable about the risks and benefits of sexual behavior, are confident in their bodies (whether this means engaging in sexual behavior or not), and are insightful and self-reflective when discussing sexuality.

2.6 The (Non)problematization of Male Adolescent Sexuality

Whereas much of the past research on heterosexual behavior has focused on understanding the "problems" of female sexuality, namely, out-of-wedlock pregnancies, the sexual attitudes and behaviors of heterosexual men and boys has been largely unexamined. The majority of studies that examine male heterosexuality have focused on its connection to gender identity, and, in particular, the ways in which sexuality can enhance or reconstitute the hegemonic masculine ideal (Connell 1995; Connell and Messerschmidt 2005.). If "heterosexuality is masculinity," as Holland et al. (1998) claim, sexuality is solely an extension of the ideals of hegemonic masculinity, which include

dominance over women through sexual conquest, force, and emotional detachment. The assumption is that male sexuality can never be controlled, but only contained. Not only is this ideal of male heterosexuality reproduced in the various aspects of the cultural landscape, but by the United States government as well. In his evaluation of the content of federally-funded abstinence-only sex education curricula, U.S. Representative Henry Waxman (2004) found that stereotypes about boys' insatiable sexuality were frequently emphasized alongside strategies for girls to resist and protect themselves from this inevitable force. Examples like these reinforce the idea that male sexuality is unproblematic by virtue of its universal, biological inevitability.

The increased interest in the study of masculinity in academic scholarship has given way to theorizing about multiple masculinities and alternatives to the hegemonic ideal (Connell 1995, 2000). Although all men can benefit from male privilege in certain contexts, scholars have shown the ways in which men of color and low socioeconomic status do not have the same access to or garner the same benefits from embodying the hegemonic masculine ideal that white males do (Pyke 1996; Chen 1999; hooks 2003). Amidst this discourse of multiple masculinities and the proliferation of feminist scholarship on the dilemmas that adolescent girls face with regard to their sexuality, there has been no concomitant surge in research on the lived experience of boys and sexual self-concept (for notable exceptions, see Pascoe 2007 and Giordano, Longmore, and Manning 2006). This deficit most likely exists for two reasons. First, despite feminist critiques of the monolithic sex/gender system and its reformulation female sexuality, for the most part, adolescent male sexuality development is still assumed to be a positive experience shaped by biological drives. Secondly, it has been notoriously difficult for

researchers to recruit adolescent and high school-aged boys to talk about sexuality (Martin 1996). However, as queer theorist Sharon Marcus argues:

> There could be no more powerful extension of queer theory than detailed research into straight men's desires, fantasies, attractions, and gender identifications – research unafraid to probe the differences between sexual ideology and sexual practices (2005:213).

Groundbreaking qualitative work in the 1990s and 2000s shed light on how teen girls felt about desire, sexuality, and romance in qualitative accounts of their lived experiences in classic works by Sharon Thompson (1995), Karin Martin (1996), and Deborah Tolman (2002). Until recently, it had been assumed that male heterosexuality development was largely a positive experience, or at least unproblematic in relation to female sexual development (Martin 1996). Using the Add Health data set, my research is able to examine male adolescent sexual attitudes that may not otherwise be accessible, which is integral to the study of power, gender, and sexuality.

Inconsistent and often conflicting messages regarding sexuality and gender have led to very interesting social phenomena and research questions for sociologists to observe and to study. From a sociological perspective, sexual norms are not only shaped by gender, but by race/ethnicity, socioeconomic status, and other markers of social advantage or disadvantage. Although existing research on adolescent sexuality usually mirrors the work on sexual inequality between men and women, much less is known about the ways sexual norms develop for women and men (or girls and boys) in various social strata. The following section will trace the ways sexual norms and behaviors differ

among females and males by race and socioeconomic status, as informed by critical race and stratification scholarship.

2.7 Social Disadvantage and Sexuality

Sociologists from various theoretical and methodological traditions have argued that social forces such as racial and ethnic background, socioeconomic status, and economic opportunity structures shape the shared cultural practices and behaviors of youth (Bourdieu 1986; Lareau 2003; Anderson 1999; Pattillo-McCoy 1999). For disadvantaged groups, social and structural cohesion may lead group members to impose more traditional and restrictive social norms upon their members. This high level of social closure often entails close supervision and gatekeeping, which may limit deviant behaviors, including teenage sexual activity.

Sexuality theorists have also argued that adolescents from disadvantaged backgrounds are more often subject to racialized and classed stereotypes about their sexuality compared to their more privileged counterparts (Collins 1990, 2005; Nagel 2003; Roberts 1997; Takagi 1996; Bettie 2003). These stereotypes have deep cultural roots in American history. Constructions of female sexuality in early U.S. history were heavily influenced by Victorian ideology, which constructed white women as pure, passionless, and asexual and black women as promiscuous and immoral (Collins 1990, 2005; Hammonds 1999). Critical race theorists argued that sexuality was not only a site for gender oppression, but for racial oppression as well (Nagel 2003; Collins 2005; Takagi 1996). People of color were (and continue to be) subject to racist sexual ideologies that are reproduced through the proliferation of "controlling images" in

American culture. These cultural stereotypes justified the continued sexual exploitation of black women by white men and the lynching and abuse of black men, in addition to continued political oppression through the denial of the right to vote (Collins 2005; Hammonds 1999). The pervasive use of controlling images in popular culture persists today, and contributes to what Hammonds calls the "politics of silence" (1999:97), in which women of color feel less entitled to express their own sexual desires and fantasies for fear of being judged.

In addition to the legacy of racial stereotypes, class stigma also influences the sexuality of disadvantaged teenagers (Tolman 1996; Pyke 1996; Bettie 2003; Lopez 2003). For example, Tolman describes the ways racial and classed stereotypes influence the definition of the "urban girl:"

> She is the daughter of a single mother. She is incapable of delaying gratification, fails in school, does not secure employment, and most of all she is sexually promiscuous, lacking in morality or family values, and out of control. She is at risk and at fault. She embodies the problem of teen pregnancy (1996:255).

Tolman's research on adolescent sexual desire demonstrates the specific ways these racialized and classed stereotypes affect girls' perceptions of sexuality and pleasure (1994, 1996, 2002). Tolman found that disadvantaged girls, living in concentrated areas of poverty, told stories of sexuality that were filled with concerns of physical, emotional, and economic safety. Unlike their more privileged counterparts, disadvantaged girls spent much time thinking about how to balance their sexual desires with the negative stereotypes of their sexuality and their practical safety concerns.

On the other hand, scholars have also argued that lower-strata teenagers tend to give greater importance to romantic and sexual relationships than educational and career ambitions since the chances of getting out of poverty seem small (Thompson 1995; Luker 1996; Edin and Kefalas 2005; Anderson 1999; Giordano et al. 2009). Qualitative research has shown how sexuality can be a powerful tool for creating distinct identities for disadvantaged teens. For example, in *Women Without Class* (2003), Bettie describes how lower socioeconomic status high school girls (both white and Mexican) rejected the white, middle-class norms of adolescence in favor of emphasized performances of femininity and sexuality. These girls used makeup, dress, and speech to distinguish themselves from the "preps," middle and upper class girls who focused most of their time and attention to academic achievement.

In addition to creating identities distinct from other classes, disadvantaged girls also use gender and sexuality as a means of achieving adult status (Edin and Kefalas 2005; Bettie 2003). As Bettie writes, "For them [lower-SES girls], expressions of sexuality, and by extension motherhood, operated as a sign of adult status and served to reject teachers' and parents' methods of keeping them childlike" (2003:61). Edin and Kefalas (2005) also explored the connection of motherhood to adult status in their ethnography of poor women in Philadelphia. The women in their study embraced young motherhood as an opportunity to improve their lives, become more responsible, and gain social capital among their peers. This stands in contrast to the sexual norms of middle- and upper-class girls who delay motherhood and marriage to invest in education in the hopes that the sacrifice will pay off with future career success and earnings (Luker 1996).

Classic research on disadvantaged neighborhoods has also examined the influence of race and class on adolescent male sexuality (Anderson 1999; Wilson 1987, 1997). Researchers argue that like emphasized femininity, disadvantaged boys may be more likely to invest in a presentation of hegemonic masculinity (Connell 1995; Connell and Messerschmidt 2005), which sexual prowess enhances (Giordano et al. 2009). Elijah Anderson (1999) broadly defined the "player" as a young black male, living in the inner-city who places a high value on casual sex as a way to gain status among his peer group. Just as their female counterparts used motherhood as a way to gain social capital when educational and career opportunities were blocked, the "player" uses sex in the same way.

From these works, one could conclude that disadvantaged teens put more of an emphasis on sexual and romantic relationships, and thus may feel more likely to expect sex to be pleasurable. However, alternative conclusions can also be drawn. As Bettie (2003) notes, many of the girls that were most reliant on the outward expressions of femininity purposely distanced themselves from sexual relationships with boys. Edin and Kefalas (2005) also note that women in their study delayed marriage precisely because they knew they could not rely on men to provide for them. Other research has found that, in general, middle-class girls have more positive attitudes toward sexuality than their working-class counterparts (Tolman 1994, 2002), which could be explained by the greater attention to individual self-improvement that permeates middle-class culture. Researchers also hypothesize that middle-class girls may be more subjective at the outset because of their greater focus on educational and extracurricular activities that foster confidence and agency. Working-class girls, who have fewer opportunities to participate

in these activities, may place more emphasis on their boyfriends and ideal love, which may make them more likely to have unwanted sex (Thompson 1995).

More recently, qualitative sociologists have examined high school and college-age men's attitudes toward sexuality (Pascoe 2003, 2007; Wilkins 2008, 2009). In contrast to work on female adolescent sexuality, which paints adolescent sexual development as an internal struggle between sexual desires and social norms of "proper" femininity, male sexuality development has largely been defined as part of an external gender performance for other men or boys (Kimmel 1994, 1996; Connell 1995). For example, Amy Wilkins (2008, 2009) examined the ways to groups of college-aged men in different social groups (Goths and Christian) used alternative forms of sexuality to reconstitute hegemonic masculinity, not in the eyes of the women in their lives, but in relation to other men. However, even among these men, the freedom to use alternative presentations of heterosexuality was stratified by race. As Wilkins writes:

> [W]hile boys of color may accrue status through the performance of hypermasculine traits associated with being cool, men of color are marginalized for those same performances…Thus, as white middle-class boys enter adulthood, they have new and enhanced, opportunities for the performance of esteemed masculinities and more to gain from distancing themselves from elements of the masculinities associated with racially and socioeconomically subordinated men (2009:350).

Like their female counterparts, white males have more flexibility to define masculinity using alternative sexual identities that will still serve to reaffirm masculinity, even in cases that seem to contradict the tenets of hegemonic masculinity, including abstinence from sexual intercourse (Wilkins 2009).

To summarize, these racial, structural, and cultural theories lend support to the importance of social and cultural capital (or lack thereof) in forming sexual attitudes and behaviors. Other social forces such as family structure, religious affiliation, school type, and region may also influence and reinforce this dialectical relationship. However, most researchers have been unable to bridge the methodological divide and combine the insights from qualitative work on sexual attitudes and context and the quantitative work on larger patterns of behaviors (Tolman and Szalacha 1999). The next section will explore this divide in more depth.

2.8 The Research Divide in Adolescent Sexuality

The bulk of past research on adolescent sexuality has focused on the influences of sexual debut for young women and men. This research is guided by the assumption that the younger the age of first sex, the more susceptible a teenager is to negative long-term outcomes, especially for females and teens at younger ages (Billy et al. 1988; Sabia 2007a, 2007b; Rector and Johnson 2005; Kim and Rector 2010; Hallfors et al. 2005; Simmons, Rosenberg, and Rosenberg 1973; Joyner and Udry 2000; Rudolph 2002; Newcomb and Bentler 1988; Jessor and Jessor 1977). The causal relationship between early sex and adverse educational, health, and achievement outcomes is premised on three assumptions. The first is that involvement in sexual activity is a significant distraction in a teenager's life. The emotional time and energy used in the management of sexual and romantic relationships is a problem, these authors argue, because it distracts students from focusing their full attention on their success in school (Billy et al 1988; Rector and Johnson 2005; Frisco 2008).

The second assumption is that sex is not only a distraction, but an inherently traumatic and disruptive distraction in a developmental period that is already rife with emotional and physical changes (Rector and Johnson 2005; Rosenberg 1965; Simmons et al. 1979; Simmon, Rosenberg, and Rosenberg 1973; Alsaker and Olweus 1992). These researchers argue that teens who are involved in sexual relationships are more likely to experience depression, especially after the relationship ends. The third assumption is based on the connection between adolescent sexual activity and adverse health outcomes, most importantly, teen pregnancy and sexually transmitted diseases. Sociological research has demonstrated the negative connection between teen pregnancy and educational attainment (Hoffman, Foster, and Furstenberg 1993). Although it is obvious how an unintended pregnancy negatively impacts multiple later life outcomes, it is still unclear whether adolescent sexual activity itself, has demonstrated negative effects.

Although the studies referenced above found relationships between sexual intercourse in adolescence and educational attainment (Bingham and Crockett 2000; Miller and Simon 1974; Miller and Sneesby 1988; Schvaneveldt et al. 2001), criminal activity (McCarthy and Casey 2008), and depression (Billy et al. 1988; Joyner and Udry 2000; Monahan and Lee 2008), it is virtually impossible to establish a direct causal relationship from sexual activity to these outcomes. This has led to substantial methodological critiques from sociologists and public health scholars.

Critics claim that the connection between sexual activity and delinquency could be explained by selection bias. They argue that the same teenagers who have sex at earlier ages are already more likely to engage in problem behaviors that significantly reduce the likelihood of educational success (Bingham and Crockett 2000; Halpern et al.

2000). Researchers have also found that the negative associations between sexual intercourse and later life outcomes differ by a variety of factors including: age, gender, race, peer and family norms, and context of the sexual activity (relationship or non-relationship) (McCarthy and Grodsky 2011; Meier 2007; Harden et al. 2008; Haynie et al. 2005; Shoveller et al. 2004). For example, McCarthy and Grodsky (2011) found that when relationship context was taken into account, there were no significant differences in educational outcomes between respondents who had sex within a relationship and those who had never had sex. These findings follow similar outcomes from a variety of studies that found that respondents who had sex were more susceptible depression and delinquent behaviors such as substance use and crime only if the sexual activity occurred outside of a romantic relationship (Monahan and Lee 2008; Grello et al. 2006; Meier 2007).

Additionally, these researchers have advocated taking a more nuanced approach to studying the differences in outcomes and sexuality by social and cultural context. Research using the "risk" approach to sexuality makes the assumption that above all else, age will virtually always have a connection between sexuality and delinquency, in that the younger the age of sexual debut, the more at risk an adolescent is for negative outcomes associated with sexual behavior. However, taking context into account modifies the so-called "universal" age effect. As Meier argues: "…[T]he mental health effects of intimate relationships may not necessarily hinge on an *absolute* age and its corresponding developmental markers; rather, they may hinge on a *relative age* benchmarked against social norms that can vary on any number of characteristics and across contexts" (2007:1835). Therefore, the appropriate time to engage in sexual activity differs by gender, race, and socioeconomic status, among other individual and cultural

factors (Longmore et al. 2004; Geronimus 1996; Edin and Kefalas 2005; Anderson 1999). Age grading becomes significant only when teens engage in "off-time" life transitions that are uniquely defined within their social, cultural, and peer groups (Thoits 1983; Neugarten 1979; Settersten 2003).

2.9 The Normative, Developmental Perspective of Adolescent Sexuality

As described in previous sections, much of the qualitative work on adolescent sexuality has focused on the ways girls and boys make sense of their sexuality and sexual desire (Thompson 1995; Tolman 1994, 1996, 2002; Martin 1996; Schalet 2000, 2010; Bettie 2003; Carpenter 2005; Pyke 1996; Pascoe 2007; Wilkins 2008). These results have primarily been used to support the recognition and acceptance of positive attitudes toward sexuality and the importance of context in shaping those attitudes and behaviors. In contrast, most quantitative work on adolescent sexuality has focused primarily on outcomes associated with adolescent sexual behaviors (Bearman and Brückner 2001; Bearman, Moody, and Stovel 2004; Brückner, Martin, and Bearman 2004; Brückner and Bearman 2005; Longmore et al. 2004; Frisco 2008; Meier 2007; McCarthy and Casey 2008; Sabia and Rees 2008). Results from many of these studies have been used to support the so-called "risk" approach to adolescent sexuality, which suggests that teen sex is dangerous, or at least detrimental, to future health and achievement outcomes.

As described above, much of the previous research on adolescent sexuality is based on the assumption that having sex is a risky behavior that hinders success in the same way drug and alcohol use, violence, truancy, and other deviant behaviors do. In response to the proliferation of studies that take the risk approach to adolescent sexuality,

there has been a rise in theory and research advocating for reframing adolescent sexuality as a normative, healthy part of development from adolescence to adulthood (Harden et al. 2008; Shoveller et al 2004; Smith, Guthrie, and Oakley 2005). Advocates of a normative sexuality perspective argue that this approach reduces shame and stigma in talking about sexuality and contraception. In addition, these scholars argue that a normative approach improves overall health and development as well.

McCarthy and Grodsky, who have studied the impact of adolescent sex on a number of outcomes including mental health, criminal activity, and educational attainment, argue that the risk approach, itself, and the anxiety, shame, and guilt associated with it, may be doing more harm than the actual sexual activity. They articulate the basis of the normative development perspective, arguing that:

> Sexuality is an integral part of the maturation process; pretending that it is otherwise harms adolescents who engage in normatively sanctioned sex without helping those who do not. At worst, denying the normative dimension of adolescent sex creates unnecessary associations between sexuality and adverse outcomes; associations that may result in a self-fulfilling prophecy… (2011:230).

Therefore, the normative developmental framework counters the risk approach in that it is not the sexual activity itself, but the surrounding negative context that influences negative outcomes. For example, in an interview study, Shoveller et al. (2004) found that children of parents who had negative views of sex and sexuality were more likely to turn to peers for information about sexuality and contraception and were less likely to discuss sexuality with adults in their lives. It can be argued that a similar process is at work for adolescents who take virginity pledges. In their seminal work on abstinence-pledgers and

sexual activity, Bearman and Brückner (2001) found that although pledgers waited later to have sex for the first time than non-pledgers, they were less likely to use contraception. Subsequent studies have replicated these findings (Trenholm et al. 2008; Ashbee 2007; Sabia 2006).

Cross-cultural work by Amy Schalet (2000, 2004, 2010) also demonstrates how the normative development approach to sexuality works in practice. Schalet found that, in contrast to American parents, Dutch parents deliberately fostered open communication about sexuality with their teenage children who, in turn, would consult with their parents about sexual and romantic relationships. This stands in contrast to American parents, who emphasized sexual behavior as taboo, especially for girls, which led teens to keep their sexual lives a secret.

In terms of quantitative studies, social psychologists have led the way in exploring various aspects of sexual self-concept. These studies have examined such outcomes as: sexual self-concept in adolescent girls and college aged women (O'Sullivan, Meyer-Bahlburg, and McKeague 2006; Impett and Tolman 2006; Vickberg and Deaux 2005), sexual anxiety (Janda and O'Grady 1980), gender ideology (Tolman and Porche 2000; Chu, Porche, and Tolman 2005), body objectification (Molloy and Herzberger 1998; Mendelson et al. 2001) and self-silencing in relationships (Jack and Dill 1992).

Of particular interest to the study of positive attitudes toward sexuality, Horne and Zimmer-Gembeck (2006) operationalized sexual agency by constructing the Female Sexual Subjectivity Inventory (FSSI) which captured five "intraindividual aspects of sexuality, including self-perceptions and related cognitions" (2006:125). The authors

tested the validity of the FSSI in a sample of 214 Australian girls ranging in age from 17 to 22 years old (defined as the period of late adolescence and early adulthood). The measure included 20 items which tapped into aspects of adolescent girls' levels of sexual body-esteem, sexual self-pleasure, partner pleasure, self-efficacy, and sexual self-reflection. The authors argue that social-psychological aspects of female sexuality should be studied in this way "as a step towards hypothesis testing related to female sexual health, and particularly, whether girls, despite socio-cultural obstacles, can experience and manage their sexuality in positive, pleasurable, self-protective, efficacious, and planned ways..." (2006:126). Studies like these advance our understanding of the psychological aspects of sexuality but they often rely on small, homogenous samples and do not fully incorporate social determinants that would be of interest to sociologists. Therefore, we are still unable to make conclusions about broader patterns in differences in attitudes toward sexuality.

Although these studies in social psychology have primarily focused on girls, researchers have also begun to examine the determinants of boys' sexual attitudes and behaviors, like body image (Schooler et al. 2008). These researchers have found that social factors, like perceptions of their bodies, do affect boys like they do girls. From previous research on gender and sexuality, I can expect large gender differences between men and women in terms of their attitudes toward sexual pleasure. Additionally, I can also expect attitudes toward sexual pleasure to be stratified by racial background and socioeconomic status for men. Despite this, recent research has challenged assumptions about boys and heterosexuality and found that girls and boys may be more similar than

they are different in terms of emotional connection and relative perception of power in a relationship (Giordano, Longmore, and Manning 2006; Schalet 2012).

2.10 Adolescent Sexuality and the Empowerment Debate

Following the work cited above, more and more scholars in sociology, public health, and education have begun to theorize and test the assertion that positive attitudes toward sexuality are integral to normative adolescent development (Tolman 2002, 2012; Tolman and McClelland 2011; Fine 1988; Schalet 2010). In conjunction with this trend, a fierce debate has erupted around the definition of sexual empowerment among feminist scholars as to whether or not promoting sexual empowerment is beneficial, especially for girls (Lamb 2010a, 2010b; Peterson 2010; Lamb and Peterson 2011; Gavey 2012; Levy 2005; Sarracino and Scott 2008; Paul 2005).

The group of scholars engaged in this debate argue that teenagers, and girls in particular, are likely to be confused as to what counts as sexual empowerment with the massive amount of information they receive about sexuality on a daily basis. At one extreme, for example, teens receive messages about abstinence pledges, chastity balls, and secondary virginity. At the other extreme, teens may believe that they are in control of their "emboldened sexuality" by performing "porn acts" like lap dances, stripping, and flashing (Lamb 2010a:301).

Secondly, scholars argue that advocating for adolescent sexual empowerment is especially problematic for disadvantaged teens. According to Lamb (2010a), the ideals of sexual empowerment encompass a balance of desire, pleasure, and autonomy, which may be largely unrealistic for teens from disadvantaged backgrounds. Like their more

advantaged counterparts, these teenagers may learn and explore the physical pleasure of sex that their bodies are biologically capable of. Unlike their privileged counterparts, however, they may lack access to alternative ways of defining their femininity or masculinity. As a result, sexually "empowered" teens from disadvantaged backgrounds may develop a feeling of agency from sexual activity without the balance of selfhood development in other aspects of their lives.

Third, the diffusion of sexual empowerment may be unequal across social strata. Multiracial, intersectional, and post-colonial feminist theorists often criticize the ideals of gender empowerment advocated by the mainstream feminist movement, which focuses solely on cross gender relations as the most important category of difference and inequality (Collins 1990). By failing to take into account other salient identities such as race, sexual orientation, class, or nationality (Collins 1990; Crenshaw 1991; hooks 2000; Yuval-Davis 2006; Zinn and Dill 1996; Brah and Phoenix 2004; Combahee River Collective 1982; McCall 2005), sexual empowerment is largely confined to white, middle-class men and to a lesser extent, white women.

Social reproduction theorists offer additional conceptual tools to understand the unequal distribution of sexual empowerment. For many feminists, the gender empowerment movement serves as a great equalizer by promoting the self-awareness of women while, to a lesser extent, forcing men to acknowledge women's socially and historically oppressed status. Considering the deterministic factors in social structures and the relative autonomy of individuals in their own cultural settings, however, reproduction theorists may argue that individuals from lower social strata are more likely than those from advantaged backgrounds to preserve existing cultural values and fulfill

predefined roles that ensure the perpetuation of status quo. Bourdieu (1986) further suggests that elite groups often possess *habitus* that disadvantaged groups do not have access to.

In the same way, sexual empowerment may also be understood as part of the elite culture that is not accessible to everyone, even though the movement purports it to be. As gatekeepers of this elite culture, individuals from privileged groups can suppress the diffusion of sexual empowerment to people from disadvantaged backgrounds and reinforce racialized and classed norms of sexuality. This gatekeeping process prevails not only in informal cultural practices, but also in official policymaking. Abstinence-only education, marriage promotion programs, and welfare family caps, for example, restrict the reproductive liberty of disadvantaged women while reinforcing the notion that they are too irresponsible to be in control of their sexuality (Roberts 1997).

On the other hand, the prevalence of early sex among disadvantaged teenagers may lead researchers to conclude that teenagers from racial minority backgrounds and/or poor families are more likely to feel sexually empowered. This perception is consistent with the image constructed by the mass media, which disproportionately portrays disadvantaged teenagers as hypersexual (Levin and Kilbourne 2008; American Psychological Association 2007). By this assumption, sexual pleasure and sex are closely associated to each other. By having more early sex, therefore, disadvantaged teens may also have a higher expectation of sexual pleasure.

To the extent that positive attitudes toward sexuality improve randomly or unilaterally among adolescents across all social strata, however, it is difficult to discern how expectations of sexual pleasure may differentially affect teenagers of disadvantaged

and advantaged backgrounds. This dissertation will begin to explore the differences in expectations to sexual pleasure by key sociodemographic characteristics in addition to gender. In this study I argue that the development of positive attitudes toward sexuality, and, in particular, the expectation that sex will be pleasurable, is contingent upon the degree that a particular adolescent is socially disadvantaged.

CHAPTER 3: DATA AND METHODS

3.1 Introduction

Within the sociology of sexualities there is a large disjuncture between current theoretical developments and the meaningful application of these concepts in large-scale quantitative research. This divide is most starkly evident in the research on adolescent sexual attitudes and behaviors. The insights and concepts developed by feminist, critical race, and queer sexuality theorists are largely absent from quantitative sexualities research. At the same time, qualitative sexuality research is limited in its ability to make claims about large-scale sexual attitudinal and behavioral patterns which inform policies and funding for sex education and sexual health organizations. Although a few researchers have begun to incorporate qualitative concepts in quantitative sociology (see for example, Giordano et al. 2009 and Harnois 2005, 2010), the bulk of research has not merged the strengths of these two methodologies for understanding adolescent sexuality.

This dissertation attempts to bridge this gap through the use of an intersectional framework in order to understand the ways that differentially located adolescents construct attitudes toward sexual pleasure. This is a move away from the prevailing assumptions employed in quantitative research which often use gender as a dichotomous category that is imbued with assumptions about innate gender difference. Secondly, by testing expectations of sexual pleasure, I intend to move away from the risk-framework that has defined adolescent sexuality research. Using insights from feminist standpoint

epistemology and intersectional methodological perspectives (Smith 1987, 2004; Harding 1991; Collins 1990; Crenshaw 1991; hooks 2000; Yuval-Davis 2006; Zinn and Dill 1996; Brah and Phoenix 2004; Combahee River Collective 1982; McCall 2005), I hope to more fully capture the lived realities of marginalized groups of adolescents in large-scale quantitative work in order to more accurately understand their sexual attitudes and behaviors (Sprague 2005; Tolman and Szalacha 1999).

The following sections of this chapter provide details of the data, measures, and analytic strategy used in this dissertation. First, I describe the history of the National Longitudinal Study of Adolescent Health (Add Health) and situate it in its political, social, and cultural context. I move on to describe how the data were collected and describe its strengths and weaknesses. I then detail the dependent, key control and independent variables I use from Waves I, III, and IV of Add Health. Lastly, I provide an overview of the analytic samples and strategy of analyses, which are also described in more depth in their respective chapters.

3.2 Data

3.2.1 History of the National Longitudinal Study of Adolescent Health

In this dissertation I use data from Waves I, III, and IV of the 1994-2008 National Longitudinal Study of Adolescent Health (Add Health) (Harris 2009). Add Health is one of the largest, most comprehensive nationally representative studies on adolescent health and behavior ever conducted. The original goal of the Add Health project was to examine the social factors that influence health and risk behavior across the life span. Research was initiated in 1994 and data collection was 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, 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 (Harris et al. 2009). In order to understand the fundamental research questions and assumptions that guide the creation and collection of a quantitative dataset like Add Health, it is necessary to examine the political and social influences of the time and how preliminary studies influenced the question formation for Wave I of Add Health.

Because of the need for large amounts of funding, methodological and theoretical considerations of surveys on adolescent sexuality cannot be divorced from the political climate of the time period, which focused on teen pregnancy as a primary cause of the rise in poverty beginning in the 1980s (Luker 2006). We can see the legacy of J. Richard Udry's sociobiological perspective (1995, 2000, 2001a, 2001b) reflected in specific questions about pubertal development and physical attractiveness, as well as the singular focus on heteronormative definitions of sex (which were not modified until Wave III was collected in 2001-02.) Despite this, Add Health is unique in the types of questions asked about sexual attitudes and behaviors as well as its ability to examine underrepresented adolescent populations through strategic oversampling.

The smaller-scale studies that preceded Add Health provide some insight into the final questions used in the larger Add Health survey. Preceding studies were guided by the sociobiological assumption that teenage sexual activity is heavily dependent on natural sexual development (Udry 1995, 2001a, 2001b). Therefore, questions about onset of puberty and secondary sex characteristics were viewed as integral to understanding

which adolescents were more likely to have sex and why. In addition to biosocial factors, questions regarding the sociological influences of sexuality were also included. Respondents were asked about their personal sexual experiences, the sexual behaviors of their friends, and how they perceived their parents' attitudes toward sex. In other follow-up studies, questions on motivation, attractiveness, and other social determinants such as parental, peer, and community attachment were also included.

Although questions about puberty and sexual development are still included in the Add Health data set, many more questions on the contextual factors that influence health are included. Researchers have used Add Health to examine multiple influences of adolescent sexual behavior including peers (Cavanagh 2007), family (Fingerson 2005), schools (Wilkinson and Pearson 2009), community (Harding 2007; Brewster 1994; Brewster, Billy, and Grady 1993), and religion (Bearman and Bruckner 2001, 2005; Meier 2003). Many interpersonal and identity factors such as intelligence, self-esteem and self-efficacy (Pearson 2006), same-sex attraction (Bearman and Brückner 2002), and disability status (Cheng and Udry 2002) have been tested as well.

In addition to the determinants of adolescent sexual behavior, the longitudinal design of Add Health allows researchers to examine the connection of adolescent sexual attitudes and behaviors to long-term outcomes such as sexually transmitted infections (Bearman, Moody, and Stovel 2004), educational attainment and criminal behavior (McCarthy and Casey 2008; McCarthy and Grodsky 2011; Harden et al. 2008), and mental health and well-being (Sabia and Rees 2008; Meier 2007).

3.2.2 Description of the Data

The first wave of Add Health data collection (Wave I) began in 1994 and proceeded in two stages (Harris 2011). First, a random sample of all high schools in the United States (that had an 11^{th} grade and at least 30 students) and their feeder middle-schools were selected and stratified into 80 clusters. These schools were further stratified by region, urbanicity, school-type and racial composition. The survey was administered in the selected schools from September 1994 to April 1995. All students completed the self-administered questionnaire during a 45 or 60 minute class period if they were present at school on the one day the survey was distributed. Students were asked approximately 70 questions about their basic demographic and family characteristics, to identify and describe interactions with their network of friends, school involvement, and general questions about their health status and related behaviors. This resulted in a sample size of over 90,000 respondents for the "In-School" survey. One hundred and forty-three school administrators were also surveyed in Wave I. Results from the School Administrator survey are used to determine school size, region, and urbanicity, among other school-level characteristics. Although a sub-sample of students from the Wave I sample were reinterviewed in Wave II in 1996, I exclude them from this research because of the small sample size and close time proximity to Wave I collection.

In the second stage of analysis, students were chosen from the rosters of the schools that participated in the In-School survey to participate in a 90 minute in-home interview. Students who did not complete the in-school survey the day it was administered were still eligible to participate in the in-home survey. Approximately 200 students were randomly selected from each middle and high school, resulting in a sample

size of 12,105. Additionally, two large schools and 14 small schools were surveyed with attention to complex friendship and romantic networks. These two datasets combine for a total sample size of 20,745 respondents who completed the "In-Home" survey.

The in-home survey included sensitive and detailed questions about relationships with family, friends, and teachers as well as in-depth questions about attitudes toward pregnancy and contraception and romantic relationships. A detailed history of the students' physical and mental history was also included. Add Health is especially unique in the breadth and depth of coverage of sensitive topics such as drug and alcohol use and sexual and contraceptive behavior. The in-home interview was collected using the audio-Computer-Assisted Self-Interviewing technology (CASI). This method of data collection is optimal for several reasons. First, this method is expected to increase respondents' feelings of privacy and anonymity, therefore minimizing social desirability bias and increasing the validity and reliability of responses. A second advantage is that the respondent controls the pace of the survey. This gives the student as much time necessary to read and process the question. Additionally, since the computer controls any skip patterns, the CASI technology makes it easier for the respondent to answer complex questions (de Leeuw, Hox, and Kef 2003). The audio version on CASI also improves upon previous computer assisted programs in that the respondent not only reads the question on the screen but hears the question read aloud into their headphones. One drawback to CASI is respondents' familiarity with computers. If a respondent does not feel comfortable using a computer, they may become frustrated and not complete the survey.

Students who completed the Wave I in-home interview were interviewed (if they

could be located) for Wave III in 2001-2002, when most respondents were aged 19 to 24. Since most of the respondents were out of high school, Wave III also included additional questions about postsecondary education and labor force participation. In addition, questions on attitudes toward marriage, pregnancy, and cohabitation were also included. A sample of Wave I respondents were interviewed again in 2007-2008 when they were aged 24 to 32 years old, which comprises the Wave IV dataset. The age distributions for Waves I, III, and IV are presented in Tables 3.1, 3.2, and 3.3.

Due to its longitudinal nature, Add Health is one of the only datasets in which the influence of adolescent attitudes and behaviors can be tested on future sexual and other health outcomes. Therefore, in contrast to cross-sectional data on sexual attitudes and behavior, Add Health provides the opportunity to link attitudes formed during a crucial stage of adolescent development to health, behavior, and other outcomes at different stages of the life course.

In this dissertation I use the restricted-use version of the Add Health data which was obtained by contractual agreement from the Inter-University Consortium for Political and Social Research (ICPSR). The restricted-use data set includes sensitive information about respondents such as contextual geo-coded spatial identifiers, network pair data, and biospecimen data. Researchers who obtain the restricted-use data must agree to stringent security procedures and have a data security plan approved by their institutional review board. These precautionary measures are in place to ensure privacy, security, and confidentiality of the restricted data. This includes human subjects' approval, signed contracts by the primary investigator and other researchers, placement of the data on an

encrypted external hard drive, locked storage for the external hard drive, secure passwords, and the submission of a security plan for the use of the data.

3.2.3 Missing Data

To accommodate the complex sampling design of Add Health, I exclude respondents who have missing values in sampling weights, clusters, and strata, resulting in a sample of 15,206 in Wave I, 15,197 in Wave III, and 15,701 in Wave IV. This ensures that the patterns are representative of the target population. In order to account for missing data, I use the standard multiple imputation procedure (*mi*) across all three waves of data. Using Stata 11, the *mi* command works with the user-written program *ice* (Imputation by Chained Equations) to estimate multiple datasets with imputed values on the missing data (Royston 2007; StataCorp 2009). Then, a series of OLS, ordinal logistic, multinomial logistic, or negative binomial regressions are run on each of the imputed datasets. To obtain reliable and valid inference from this procedure, I used 20 imputations throughout (Royston, Carlin, and White 2009).

The *mi* method improves upon previous methods for dealing with missing data such as *impute*, mean or modal substitution, and list-wise deletion. The *mi* process creates multiple datasets using all of the variables in the dataset, rather than one single imputed dataset based on a select number of variables, which better captures the uncertainty of missing data. The final sample sizes in each analysis vary by the missing values in specific outcome measures.

3.2.4 Strengths of the Data

There are several important advantages to using Add Health. First, and foremost, it is one of the only nationally-representative studies to include questions on sexual behavior and attitudes of adolescents. Add Health also uses the innovative CASI technology which improves the reliability and validity of the measures on this sensitive topic. The survey also has more relevant control variables than other datasets on this topic and over-samples certain racial groups, which will be useful for my analyses. The dataset also has a longitudinal component that enables researchers to track respondents from ages 15 to 34, which allows for investigation of the enduring, yet contingent, effects of attitudes toward sexual pleasure on adult outcomes.

3.2.5 Limitations of the Data

The Add Health data set has two primary limitations. The first is the way the Hispanic category was coded across Waves. The Wave I In-Home survey used the same categories as the 1990 Census, treating Hispanic as an ethnic category. This means that Hispanic or Latino/a respondents who answered "yes" to this question were required to also choose a racial category (white, black or African American, American Indian or Native American, Asian or Pacific Islander, other or multiple racial backgrounds). Due to this coding scheme (Hispanic white, Hispanic Asian American, etc.), it is very difficult to construct a category in which Hispanic/Latino/a is the primary racial/ethnic identifier.

In addition, the Add Health surveys to do not measure race consistently across Waves I, III and IV. Wave III diverges from the Census model and omits the "other" category and Wave IV did not include a racial measure. I decided to use the coding

scheme from Wave I throughout the analyses because it most closely follows the Census coding at the time. Although Hispanic respondents are not excluded in this analysis, specific conclusions about this group cannot be made. This results in the lack of sufficient analysis of a significant racial/ethnic group in the United States. For further discussion of racial/ethnic categorization in Add Health, see Cheng and Powell 2011.

The second limitation is the restriction of the analyses to heterosexual adolescents. Like the racial and ethnic variables, this limitation is a result of the changing nature of identity categorizations across the social and political climate in which the different Waves were collected. In Wave I, there were no questions about sexual identification or sexual preferences. There were two questions to assess same-sex attraction, but upon further review, the reliability and validity of these measures to determine gay and lesbian respondents ex post facto could not be established. These questions were: "Have you ever had a romantic attraction to a female/male?" and "Gender of romantic or sexual partner." Of those who responded that they had an attraction to the same sex in Wave I, 27% of these respondents reported same sex attraction in Wave III, whereas 28% of them reported that they were "entirely heterosexual" in Wave III (Himmelstein and Brückner 2011). The key measure of sexuality from Wave I, is also asked in a very narrow way, defining sex as "…when a male inserts his penis into a female's vagina" which excludes any other kinds of sexual activity.

3.3 Measures

3.3.1 Expectations of Sexual Pleasure

The key concept tested in this research is expectation of sexual pleasure. Entitlement to sexual pleasure has been included in the broad concept of sexual empowerment along with other components like: sexual agency, sexual communication, sexual body-esteem, and sexual safety. How many of these components are included varies based on academic discipline, theoretical orientation and/or methodology. Following Martin (1996) and Tolman's (1994, 2002) conceptualization of sexual subjectivity (which I understand as analogous to sexual empowerment), Horne and Zimmer-Gembeck were one of the first researchers to operationalize sexual subjectivity in quantitative research (2005, 2006). Because they are able to construct their own inventory, they measure sexual subjectivity along three distinct components including: 1.) sexual body-esteem; 2.) sexual desire and pleasure; and 3.) sexual self-reflection (2006:136).

Add Health includes a large variety of sexual attitudinal questions to choose from that could potentially capture positive attitudes toward sexuality or empowerment: They include: "If you had sexual intercourse, it would give you a great deal of physical pleasure," "If you had sexual intercourse, it would relax you;" "If you had sexual intercourse, your friends would respect you more," "If you had sexual intercourse, you would feel less lonely," and "If you had sexual intercourse, it would make you more attractive to men/women." However, in preliminary factor analysis, the sexuality questions that focused on positive attitudes were not correlated with one another.

Add Health also included questions about shame and guilt: "If you had sexual intercourse, afterward, you would feel guilty," "If you had sexual intercourse, your partner would lose respect for you," and "If you had sexual intercourse, it would upset

your mother" that could potentially be reverse coded to capture empowerment. However, these measures are framed in the risk-perspective, which is antithetical to the aim of this dissertation, which is to test the normative, developmental perspective. Therefore, the normative perspective is captured most directly in the sexual pleasure question, which matches most closely to the second component of sexual empowerment as defined by Horne and Zimmer-Gembeck (2006).

The sexual pleasure question was only asked in the Wave I In-Home interview to unmarried respondents that were 15 years of age or older. The question asks: "If you had sexual intercourse, it would give you a great deal of pleasure," which was coded as 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, to 5=strongly agree. I use expectations of sexual pleasure as both a dependent variable, when predicting determinants of expectations of sexual pleasure in Wave I, and as an independent variable when predicting long-term sexual health and well-being in Waves III and IV.

Of the girls who were interviewed in the Wave I interview, 3,099 were coded as "legitimate skip" because they were under the age of 15 or married at the time of the interview. I also excluded 231 girls who answered "don't know" (n=168), "not applicable" (n=3) or "refused to answer" (n=60) as well as those with missing values on the sampling weights. This leads to a final sample of 6,622 girls for the Wave I sexual pleasure analysis. Among the male respondents, 2,653 boys were coded as a "legitimate skip." Additionally, 178 boys were dropped from the analysis because they refused to answer (n=61) or answered "don't know" (n=116) or "not applicable" (n=1). This leaves 6,763 respondents in the male sample.

3.3.2 Key Control Variable

Chapter 4 explores the determinants of expectations of sexual pleasure for adolescent girls and boys in Wave I. It can be assumed that previous sexual experience will be directly related to attitudes toward pleasure. As described in Chapter 2, gender interacts with the ability to express feelings of sexual pleasure. For girls, expressions of sexual pleasure and desire may be restricted by societal norms that encourage girls to maintain a virginal, good-girl image. In contrast, boys' sense of self and masculinity are generally enhanced through sexual experience and expressing sexual prowess. Unlike cross-sectional studies of sexual attitudes and behavior, the longitudinal design of Add Health provides me the ability to examine the differences between respondents who have had sex and those who have not yet had sex prior to the survey. I code respondents who have had sexual intercourse as 1 and 0 otherwise using the question "Have you ever had sexual intercourse?" from the Wave 1 interviews. It is also important to note that this analysis is limited to (presumably) only heterosexual relationships since the sexual intercourse variable in Wave I is defined as sexual intercourse as "when a male inserts his penis into a female's vagina."

Other sexual behaviors were addressed in a series of questions asked to pairs of respondents who were in romantic relationships. Respondents were asked to rank their "ideal" and "actual" relationship steps. The questions that specifically addressed sexual behavior are: 1.) We kissed; 2.) We touched each other under our clothing or with no clothes on; 3.) We had sexual intercourse; 4.) We touched each other's genitals (private parts). Although other types of sexual activity are certainly important in shaping sexual attitudes, I choose to focus on sexual intercourse as the primary definition of a "sexually

active" teenager. Supplementary analyses that coded prior sexual intercourse from these questions show consistent findings.

3.3.3 Additional Wave I Independent Variables

In addition to the key control of previous sexual experience, I also include potential individual and structural determinants of sexual pleasure measured in the Wave I survey. These include ten traditional sociodemographic variables: race, family income, parental education level, age, religious group membership, academic achievement, family structure, mother's employment status, school context, and region of the country. Race is measured by the respondents' racial self-identification in Wave I. Respondents were asked "What is your race? You may give more than one answer." Respondents selected from five categories: white, black, American Indian or Native American, Asian or Pacific Islander, and other. Dummy variables for white, Black, and Asian or Pacific Islander were created and the American Indian or Native American, Asian or Pacific Islander, and other racial categories were combined into the "Other racial minorities" category due to small sample sizes. In the full sample of boys and girls, about 58% of the respondents are white, 21% are African American, 14% are other racial minorities, and 7% are Asian American.

Socioeconomic status is measured using two indicators: highest parental education (measured by years of schooling) and annual family income (in thousands of dollars). Age is measured in years, with a mean of 16 years old for both male and female respondents. Religious affiliation is coded as 1 if the adolescent is a member of a religious group and 0 if the adolescent had no religious affiliation. Academic

achievement is measured using the average of the respondents' reported letter grades from the previous academic year in English, math, social studies, and science coded on a four-point scale from 1=D, 2=C, 3=B to 4=A. Family structure is measured using dummy variables for two-biological-parent, two-other-parent families, with single-parent families as the reference category.

Additionally, there has been research on a mother's unique influence on her daughter's sexual attitudes and behavior (Fingerson 2005). Therefore, a separate measure of mother's employment status is included using the question "Does she [resident mother] work for pay?" Responses are coded as 1=yes and 0=no. Finally, I include measures of school context using dummy variables for private and urban schools, as well as dummy variables for region, coded into four dummy variables: West, Midwest, and South, with Northeast as the reference category. Table 3.4 reports the frequency distributions for all the Wave I variables.

3.3.4 Sexual Health Outcomes

Chapter 5 examines the effects of expectations of sexual pleasure on sexual health outcomes in Waves III and IV. Wave III questions include: number of times the respondent has had sex, total number of sexual partners, frequency of using birth control and frequency of using condoms. The number of times a respondent has had sex is measured by the question "How many times have you had sexual intercourse in the past 12 months?" Number of sexual partners is measured by the question "With how many sexual partners have you ever had vaginal intercourse, even if only once?" Birth control use is measured using the question: "On how many occasions of vaginal intercourse in

the past 12 months did you or your partner use any form of birth control?" Responses to this question are coded on a five-point scale from 0=none, 1=some, 2=half, 3=most, to 4=all. Finally, condom use is measured using a similar question: "On how many occasions of vaginal intercourse in the past 12 months did you or your partner use a condom?" Responses again are coded on a five-point scale from 0=none, 1=some, 2=half, 3=most, to 4=all.

In Wave IV, respondents were aged 24 to 32 years old and were asked about concurrent sexual partners, total number of sexual partners, birth control and condom use, and if they have been diagnosed sexually transmitted disease. Respondents were asked about concurrent sexual partners using the question: "In the past 12 months, did you have sex with more than one partner at around the same time? (1=yes, 0=no). Respondents were also asked to report the number of sexual partners they had in the past year with the question: "Considering all types of sexual activity, with how many male and female partners have you had sex in the past 12 months, even if only one time? If you don't know, what is your best estimate?" These two sexual experience questions are intended to measure increased sexual health risk. I also include two questions on birth control and condom use with the question: "In the past 12 months, did you or your partner(s) use [birth control] or [a condom for birth control or disease prevention]?" Responses are coded as: 1=used birth control/condom; 2= had sex, but did not use birth control/condom; 3=no sex in the past 12 months. Wave IV also asks respondents whether or not they have been diagnosed with a sexually transmitted disease in the past 12 months. Responses are coded as 1=yes, 0=no.

For all Wave III and IV outcomes, I excluded respondents who refused to answer

or were a legitimate skip as well as those who answered "don't know" or "not applicable" and those with missing values on the sampling weights.

3.3.5 Wave IV Outcomes

Chapter 6 includes general health and well-being outcomes measured in Wave IV. Mental health is measured by the CES-D depression scale constructed by Add Health, based on five items: 1) During the past seven days, you were bothered by things that usually don't bother you; 2) you could not shake off the blues; 3) you had trouble keeping your mind on what you were doing; 4) you felt depressed; and 5) you felt sad. Higher values in this variable indicate more depressive symptoms. Physical health is measured using the body mass index scale (BMI). BMI is calculated using the formula (weight in pounds × 4.88) ÷ (height in feet).[2] Respondents who were overweight or obese according to the BMI were coded as 1, and all else coded as 0. I also include a measure of interpersonal support using number of close friends. This is measured using the question: "How many close friends do you have? Close friends include people whom you feel at ease with, can talk to about private matters, and can call on for help." This variable is coded on a 5-point scale (1=one friend, 5=ten or more friends). I also measure achievement outcomes in young adulthood using educational attainment in years of schooling and personal income in thousands of dollars. Table 3.5 presents the question wording and coding for all the variables in Waves I, III, and IV that are included in this dissertation.

3.4 Overview of Samples and Analyses

As described above, this research uses data from Add Health Waves I, III, and IV in-home interviews. Wave I data is used in Chapters 4 and the impact of Wave I attitudes on Waves III and IV outcomes are analyzed in Chapters 5 and 6. Chapter 4 examines the determinants of expectations of sexual pleasure among girls and boys in Wave I. Because so little is known about the differences among girls with regard to positive attitudes toward sexual pleasure, I begin by presenting descriptive statistics of group differences by sexual experience (whether or not girls and boys in each group have had sexual intercourse prior to Wave I) and their expectations of sexual pleasure. In addition to racial self-identification, differences in groups of respondents are presented by parental education, family income, and school-performance, which are all divided into quartiles for ease of comparison. Also included are differences in whether the respondent's mother has a paid job, family type, religious affiliation, region, school type (private, urban, and/or large school).

I then move on to the multivariate analysis of the determinants of expectations of sexual pleasure using a series of ordinal logit regressions. Model 1 tests the singular effect of sexual experience on expectations of sexual pleasure. Next, in Model 2, I isolate the effects of racial background on expectations of sexual pleasure, holding sexual experience constant. Model 3 tests the effects of socioeconomic status, measured by highest parental education and family income, holding sexual experience and race constant. In Model 4, I include age, whether or not the respondent is a member of a religious group, average grade point average (GPA) in high school, mother's employment status, family structure (single parent versus biological two-parent or other two-parent

family), school type (urban or suburban and private or public) and geographic region (Northeast, West, Midwest or South), again holding sexual experience, race, and SES constant. Finally, Model 5 tests the effects of all the independent variables on separate models for respondents who have sex and those who have not to examine the differential effect of sexual experience and other independent measures on sexual pleasure attitudes.

The second step in the analysis is to see how expectations of sexual pleasure from Wave I impact sexual health outcomes in Waves III and IV (Chapter 5) and general health and well-being in Wave IV (Chapter 6). As described above, the various sexual health and other life outcomes are measured in a variety of ways. Therefore, I use OLS, binary logit, ordinal logit, multinomial logit, and negative binomial regression and conceptualize these models under the framework of the generalized linear model (GLM). In a generalized linear model, the right-hand-side equation is a linear combination of independent variables (i.e., $\beta_0 + \beta_1 x_1 + \ldots + \beta_K x_K + \varepsilon$), as commonly seen in OLS regression. This GLM framework serves well for the purpose of understanding whether or not sexual attitudes within adolescence affect sexual health and other outcomes in adulthood. In these models, all coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables.

Table 3.1 Age Distribution, Wave I, Full Sample[a]

1994-5	
Age	Percent
15	23.88
16	26.82
17	25.78
18	20.08
19	2.88
20	0.45
21	0.11

Note: *N* =15,206

[a]Excludes respondents under the age of 15 since they did not answer sexuality questions.

Table 3.2 Age Distribution, Wave III, Full Sample

2001-02	
Age	Percent
18	0.98
19	9.48
20	13.20
21	16.10
22	18.99
23	19.10
24	16.13
25	5.15
26	0.72
27	0.14
28	0.01

Note: *N* =15,197.

Table 3.3 Age Distribution, Wave IV, Full Sample

2007-08	
Age	Percent
24	0.18
25	4.00
26	11.48
27	14.46
28	17.95
29	18.81
30	18.48
31	11.96
32	2.31
33	0.33
34	0.03

Note: *N* =15,701.

Table 3.4 Frequency Distribution of Dependent and Independent Variables, Add Health Wave I, 1994-5, Full Sample

Variable Name		Percent
Had sexual intercourse before Wave I survey?		
	Yes	40.36
	No	59.64
Race		
	White	57.74
	African American	21.27
	Asian American	6.56
	Other racial minorities	14.43
Parental education		
	Lowest quartile	34.17
	Lower-middle quartile	33.19
	Higher-middle quartile	18.45
	Highest quartile	14.19
Family income		
	Lowest quartile	25.34
	Lower-middle quartile	25.35
	Higher-middle quartile	28.55
	Highest quartile	20.77
School performance by GPA		
	Lowest quartile	29.97
	Lower-middle quartile	23.77
	Higher-middle quartile	22.86
	Highest quartile	23.40
Religious?		
	Yes	87.58
	No	12.42
Mother has a paid job		
	Yes	73.69
	No	26.31
Family type		
	Single-parent	23.28
	Two other parents	23.65
	Two biological parents	53.07
Attend a private school?		
	Yes	7.00
	No	93.00
Attend an urban school?		
	Yes	29.88
	No	70.12
Region		
	West	24.25
	Midwest	23.52
	South	37.65
	Northeast	14.58

Table 3.5 Description of Variables in the Analyses, National Longitudinal Study of Adolescent Health, Waves I, III, & IV, 1994-2008

	Question Wording (Coding)
WAVE I	
Expectation of sexual pleasure	If you had sexual intercourse, it would give you a great deal of physical pleasure. (1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree).
Had sex prior to Wave I	Have you ever had sexual intercourse? When we say sexual intercourse, we mean when a male inserts his penis into a female's vagina. (1=yes; 0=no).
White American	Self-identified as White (1=yes).
African American	Self-identified as African American (1=yes).
Asian American	Self-identified as Asian American (1=yes).
Other racial minorities	Self-identified as Native American, other, or multiracial (1=yes).
Highest parental education	Years.
Family income	Thousands of dollars.
Age in Wave I	Years.
Religious?	What is your religion? (1=yes; 0=not religious).
Average GPA in high school	Average GPA from English, math, social studies, and science (1=D; 2=C; 3=B; 4=A).
Mother has a paid job	(1=yes; 0=no).
Single-parent home	(1=yes; 0=no).
Two-biological-parent home	(1=yes; 0=no).
Two-other-parent home	(1=yes; 0=no).
Private school[a]	(1=yes, 0=no).
Urban school[a]	(1=yes; 0=no).
West[a]	(1=yes; 0=no).
Midwest[a]	(1=yes; 0=no).
South[a]	(1=yes; 0=no).
Northeast[a]	(1=yes; 0=no).
WAVE III	
Number of time had sex, past year	How many times have you had vaginal intercourse in the past 12 months?
Number sexual partners, lifetime	With how many partners have you ever had vaginal intercourse, even if only once?
Frequency of using birth control	On how many of these occasions of vaginal intercourse in the past 12 months did you or your partner use some form of birth control or pregnancy protection? (0=none; 2=half; 3=most; 4=all).
Frequency of using a condom	On how many of these occasions of vaginal intercourse in the past 12 months did you or your partner use a condom? (0=none; 2=half; 3=most; 4=all).
WAVE IV	
Multiple concurrent sex partners	In the past 12 months, did you have sex with more than one partner at around the same time? (1=yes; 0=no).
Number sexual partners, past year	Considering all types of sexual activity, with how many male and female partners have you had sex in the past 12 months, even if only one time? If don't know, what is your best estimate?
Frequency of using birth control	In the past 12 months, did you or your partner(s) use any methods for birth control or disease prevention? (1=no sex in past 12 months; 2=had sex, but no birth control; 3=had sex, used some form of birth control).

continued on next page…

Table 3.5 Description of Variables in the Analyses, National Longitudinal Study of Adolescent Health, Waves I, III, & IV, 1994-2008, continued

	Question Wording (Coding)
WAVE IV	
Frequency of using a condom	In the past 12 months, did you or your partner(s) use condoms for birth control or disease prevention? (1=no sex in past 12 months; 2=had sex, but did not use condom; 3=had sex, used a condom).
Diagnosed with STD, past 12 months	In the past 12 months, have you been told by a doctor, nurse, or other health professional that you had a sexually transmitted diseases? (1=yes; 0=no).
CESD Depression Scale	CESD depression scale constructed by Add Health based on the following five items: During the past seven days, (1) you were bothered by things that usually don't bother you; (2) you could not shake off the blues, even with help from your family and your friends; (3) you had trouble keeping your mind on what you were doing; (4) you felt depressed; and (5) you felt sad.
Overweight or obese	Overweight or obese based on body mass index. (1=yes; 0=no).
Number of close friends	How many close friends do you have? Close friends include people whom you feel at ease with, can talk to about private matters, and can call on for help. (1=none; 2=one or two friends; 3=three to five friends; 4=six to nine friends; 5=ten or more friends).
Years of schooling	Years.
Personal income	Thousands of dollars. How much income did you receive from personal earnings before taxes - that is, wages or salaries, including tips, bonuses, and overtime pay, and income from self-employment?

[a]From the School Administrator Dataset.

CHAPTER 4: DIFFERENCES IN EXPECTATIONS OF SEXUAL PLEASURE BY GENDER

4.1 Introduction

As discussed in Chapter 2, entitlement to sexual pleasure has been hypothesized as an integral component of sexual well-being and empowerment (Tolman 2004; 2012). Feminist scholars argue that both men and women should feel entitled to sexual pleasure and feel able to communicate with their partner to enhance pleasurable experiences if they are not satisfied. Due to the pervasive double standard regarding male and female sexuality, however, feminist scholars argue that sexual pleasure and desire are suppressed if not, actively denied to women (Fine 1988). Additionally, as multiracial and intersectional scholars argue, access to entitlement to sexual pleasure may be stratified along racial, class, and other sociodemographic lines (Collins 1990; Crenshaw 1991; hooks 2000; Yuval-Davis 2006; Zinn and Dill 1996; Brah and Phoenix 2004; Combahee River Collective 1982; McCall 2005). This begs the question of whether or not the continued focus on sexual inequality by gender is masking more significant differences *among* men and women by race, class, and other measures of social disadvantage. Although one could argue that sexual pleasure is generally not restricted to men in the same way it is to women, researchers may be overlooking important patterns among men with the continued focus on male-female difference.

4.2 Research Questions and Hypotheses

The majority of past research on the determinants of sexual attitudes has focused on specific intraindividual traits that affect various conceptualizations of sexual self-concept, including: gender ideology, body objectification, self-silencing and sexual anxiety (Tolman and Porche 2000; Chu, Porche, and Tolman 2005; Molloy and Herzberger 1998; Mendelson et al. 2001; Jack and Dill 1992; Janda and O'Grady 1980). In contrast, this dissertation focuses on specifically sociological determinants, which are often overlooked as important factors in the development of sexual selfhood. Therefore, I test two competing hypotheses. The first focuses on the connection of sexual experience to expectations of sexual pleasure. Although some sociological studies have examined the causes and consequences of certain sexual and pregnancy attitudes (Meier 2003; Harding 2007; Giordano, et al. 2009; Pearson 2006), few quantitative analyses examine the variations in attitudes toward sexuality *among* girls and boys using an intersectional perspective. This informs the second hypothesis, which explores the connection between racial and socioeconomic disadvantage and entitlement to sexual pleasure.

Regarding the first hypothesis, in the absence of clear evidence, many theorists and researchers may rely on the sexological explanation that sexuality is biologically instinctual, and conclude that attitudes towards sexuality and sexual behaviors are closely associated with each other. For example, for teenagers who have not yet had sex, we can assume that the experience is shrouded in mystery. This negative view of sex is reinforced for teen girls, who constantly receive the message that sexual intercourse will be physically painful and possibility emotionally damaging. Teen boys face the opposite message; that there is something wrong with them if they are a virgin, despite their fears

and uncertainties about sexual intercourse (Carpenter 2002, 2005). However, we can assume that the more experience a teen has and the more information they accrue, the more likely they will expect sex to be a pleasurable experience.

Taking this assumption a step further, researchers may hypothesize that because teens from socially disadvantaged backgrounds are more likely to have early sexual experiences than their more advantaged counterparts (CDC 2009, 2011), they are also more likely to assess sex as pleasurable. This view is consistent with the media's portrayal of disadvantaged teens' hyper-sexuality (Weekes 2002; Sharpley-Whiting 2007). This informs the first hypothesis.

> Hypothesis 1: Adolescents who are more sexually experienced (as measured by having sex prior to Wave I) will be more likely than those who have not yet had sex to have positive expectations of sexual pleasure.

However, as discussed in Chapter 2, scholars have argued that sexual empowerment and, in particular, positive expectations of sexual pleasure, are similar to other forms of social capital that are largely restricted from disadvantaged adolescents. The forces that restrict this access come from various sources. First, considering the deterministic factors in social structures and the relative autonomy of individuals in their own cultural settings, social reproduction theorists may argue that individuals from lower social strata are more likely than those from advantaged backgrounds to preserve existing oppressive values and fulfill predefined roles that ensure the perpetuation of the status quo (Bourdieu 1977).

Second, Bourdieu (1986) further suggests that elite groups often possess *habitus* that disadvantaged groups have no access to. In the same way, entitlement to sexual pleasure may also be understood as part of the elite culture that is not accessible to

everyone. As gatekeepers of this elite culture, individuals from privileged groups sometimes suppress the diffusion of social capital in the sexual realm, which reinforces racialized and classed norms of sexuality. This forms the basis for the second hypothesis regarding the influences of expectations of sexual pleasure:

> Hypothesis 2: Despite having more sexual experience, disadvantaged adolescents will be less likely to feel entitled to sexual pleasure.

In order to move away from the homogenous and gender-stereotyped conception of adolescent sexuality for both females and males, this research begins with the assumption that the differences among women and men are meaningful and significant because of differential experiences with racism, class position, cultural expectations, etc. (Collins 1990, 2005). Despite notable exceptions (e.g. Harnois 2005, 2010), an intersectional perspective is rare in quantitative sexualities research. The following analyses will begin to explore these questions.

4.3 Sample Characteristics

The samples used in this chapter are composed of girls and boys who participated in the Wave I in-home interviews, were unmarried, and 15 years of age or older at the time of the interview. The sample is also limited to respondents who had valid responses for the sexual pleasure question. Among the 6,853 valid female respondents, 231 girls were dropped from the analysis because they refused to answer (n=60) or answered "don't know" (n=168) or "not applicable" (n=3). This leaves 6,622 respondents in the female sample. Among 6,941 male respondents, 178 boys were dropped from the

analysis because they refused to answer (n=61) or answered “don’t know” (n=116) or “not applicable” (n=1). This leaves 6,763 respondents in the male sample.

Table 4.1 presents the frequency distribution of responses to the sexual pleasure question by gender. As anticipated, there are large differences in the distribution of responses by gender. Whereas 22.7% of girls either “strongly disagree” (8.6%) or “disagree” (14.1%) that sexual intercourse would give them a great deal of pleasure, only 9.8% of boys “strongly disagree” (2.9%) or “disagree” (6.9%) with this question. Boys were also more than two times more likely than girls to “agree” or “strongly agree” that sexual intercourse will be pleasurable (62% versus 30.1%).

There are also notable differences in the ambivalent response category, defined as those who answered that they “neither agree nor disagree” that sex will give them pleasure. For the female sample, the majority of respondents fall into this category (47.2%). For boys, only 28.2% of respondents answered this way. This pattern follows qualitative research on girls’ ambivalence toward expressing sexual desire and pleasure (Muehlenhard and Peterson 2005).

Table 4.2 compares the means or proportions and standard deviations for the unweighted female and male samples used in the analyses. The descriptive statistics for the dependent and independent variables in the female and male samples are generally similar. As anticipated, male respondents are more likely to have higher mean responses for the sexual pleasure question than female respondents (3.70 versus 3.08). Boys are also more likely to have had sex in adolescence and are slightly older than female respondents. Finally, female respondents are more likely to have higher GPAs than the male respondents (means of 2.90 versus 2.69, respectively).

4.4 Analytic Strategy

Each of the following analyses is conducted using separate samples for girls and boys. I begin by comparing the response characteristics of respondents who have not had sex with those who have had sex prior to Wave I by race, family socioeconomic status and the other independent variables with separate samples for girls and boys. For ease of analysis, I condensed the sexual pleasure question from a five to three category variable, combining the "strongly disagree" and "disagree" categories into "disagree" and the "agree" and "strongly agree" categories" into "agree." I use the three category variable in all subsequent analyses.

I then move on to the multivariate analysis of the determinants of expectations of sexual pleasure using a series of ordinal logit regressions. Model 1 tests the singular effect of sexual experience on expectations of sexual pleasure. Next, in Model 2, I isolate the effects of racial background on expectations of sexual pleasure, holding sexual experience constant. Model 3 tests the effects of socioeconomic status, measured by highest parental education and family income, holding sexual experience and race constant. In Model 4, I include age, whether or not the respondent is a member of a religious group, average grade point average (GPA) in high school, mother's employment status, family structure (single parent versus biological two-parent or other two-parent family), school type (urban or suburban and private or public) and geographic region (Northeast, West, Midwest or South), again holding sexual experience, race, and SES constant. Finally, Model 5 tests the effects of all the independent variables using separate models for respondents who have sex and those who have not to examine the differential effect of sexual experience and other independent measures on sexual pleasure attitudes.

The standard procedure for multiple imputation of missing cases was used in all of the models (m=20).

4.5 Results

4.5.1 Descriptive Results for the Female Sample

Table 4.3 reports the cross-tabulations of expectations of sexual pleasure and sexual experience prior to the Wave 1 in-home interview by the independent variables. For ease of comparison, all continuous variables are divided into quartiles. The left column compares the frequency distributions for sexual intercourse prior to Wave I. The column on the right presents the frequency distributions by response category of the sexual pleasure question ("disagree," "neither," or "agree"). Unweighted analyses show consistent patterns.

For girls who were 15 years of age and unmarried at the time of the Wave I in-home survey, 38.49% have had sex prior to Wave I. Of the female respondents who have had sex, more girls agreed than disagreed that sexual intercourse would give them a great deal of pleasure (38.53% versus 16.28%). However, the majority of female respondents who have had sex still answered that they neither agreed nor disagreed that sexual intercourse will be pleasurable (45.18%). Among the girls who have not had sex prior to Wave I, 48.68% of the respondents answered neither agree nor disagree to the sexual pleasure question. Similar to the sample of girls who have had sex, the ambivalent category again has the largest number of respondents. In contrast to the girls who have had sex, substantially fewer girls who have not had sex reported that they thought sexual intercourse would give them a great deal of pleasure (21.70%). Far more girls who had

not yet had sex disagreed that sex would be pleasurable than the girls who have had sex (29.63% versus 16.28% respectively).

When comparing female respondents in different racial groups, Asian American girls are the least likely to have had sexual intercourse prior to Wave I (31.09%), followed by other racial minorities (46.35%), white (47.54%), and African American respondents (59.09%). African American girls also represent the only racial category in which the majority of female respondents have had sex (59.09%) versus those who have not (40.91%) by Wave I. When examining the responses to the sexual pleasure question by sexual experience, the results are similar to the full sample of girls. The majority of respondents across all racial groups answered that they neither agree nor disagree that sexual intercourse will give them a great deal of physical pleasure. In terms of the girls that had positive expectations of sexual pleasure, white girls had the highest percentage of respondents who agreed that sex would be pleasurable, with other racial minority girls being the least likely to agree. Additionally, whereas African American girls were the most likely to have sex, they are the most likely to disagree that sex will give them pleasure.

Moving on to socioeconomic status, the higher the level of parental education and family income, the less likely a girl is to have sex prior to Wave I (except for the lower-middle quartiles, which are higher than the lowest quartile for both variables). When examining the differences in sexual pleasure responses by SES, this pattern is essentially reversed. Again, the majority of respondents selected the ambivalent category, however across the "agree" responses, the higher the SES (both parental education and family income), the more likely the female respondents is to agree that sex will be pleasurable.

The same pattern exists for the "disagree" responses: the higher the SES, the less likely the respondent is to disagree that sex will be pleasurable. School performance, as measured by average GPA in high school, follows a pattern for likelihood of having sexual experience prior to Wave I. Girls in the higher quartiles for GPA are less likely to have had sex before Wave I. In contrast, the higher a girl's GPA, the more likely she is to agree that sex will be pleasurable, although the differences are small when comparing across quartiles. The patterns for the remaining sociodemographic variables are less straightforward than those for race, SES, and student performance.

The frequency distribution for sex and sexual pleasure and religious group membership follow anticipated patterns. Among girls who are members of a religious group, 46.96% have had sex versus 61.89% of girls who are not members of a religious group. A similar pattern exists for responses to the sexual pleasure question. Whereas 28.71% of religious group members agreed that sex will be pleasurable, 40.76% of non-religious group members agreed that sex will be pleasurable. Moving to mother's employment status, differences in sexual experience by mother's employment status vary slightly, with girls' whose mothers have paid jobs being more likely to have sex before Wave I (47.75% versus 44.75% respectively). There are also small differences in the distribution of responses of the sexual pleasure question by mother's employment status.

In terms of family type, girls from two-biological parent families are much less likely to have had sex than girls from single-parent and other two-parent families. However, this pattern does not seem to be the result of number of parents in the household (two versus one-parent families), since the percentages of girls who have had sex in those groups are virtually the same. In terms of the distributions of responses to the

sexual pleasure question, there is not a great deal of variation between family types. Girls in other-two parent family types who were the most likely to have sex are also the most likely to agree that sex will give them pleasure. However, girls from two biological parent families, who were the least likely to have had sex, have the lowest percentage of disagreement with the sexual pleasure question, but also have the highest percentage of ambivalent respondents.

Next, I examine differences in sexual experience and expectations of sexual pleasure, by various school characteristics. Girls who attend private schools were the least likely of any group (among all the independent variables) to have had sex prior to Wave I (28.10%). However, this group has the second highest percentage of agreement that sex will be pleasurable with 39.05% (non-religious girls were only slightly higher at 40.76%). The differences between girls in urban versus suburban schools are interesting in light of public and scholarly rhetoric about the sexual lives of the "urban girl" (Tolman 1996). In contrast to the image of the hypersexualized urban girl, in this sample, urban girls are less likely than suburban girls to have sex prior to Wave I (44.31% versus 50.33%). In terms of responses patterns to the sexual pleasure question, urban girls are more likely to agree that sex will be pleasurable (31.35%), but are also more ambivalent than suburban girls.

Finally, the responses by region are also mixed. Female respondents from schools in the West are the least likely to have had sex (44.27%), while girls from the South were the most likely to have sex prior to Wave I (51.20%). In terms of expectations of sexual pleasure, girls from the Northeast are the most likely to agree that sex will give them pleasure (35.82%). In contrast, girls from the South, who are the most likely to have had

sex are the least likely to agree with that sex will give you a great deal of pleasure (27.04%). Considering some of the stark differences between sexual experience, social disadvantage, and expectations of sexual pleasure, I now move to the male sample to examine whether or not similar patterns exist.

4.5.2 Descriptive Results for the Male Sample

Table 4.4 reports the cross-tabulations of expectations of sexual pleasure and sexual experience prior to the Wave 1 in-home interviews by the independent variables for the male sample. Of the boys who were 15 years of age or older and unmarried during the Wave I in-home survey, 42.28% have had sex prior to Wave I. This is slightly higher than the percentage of girls who had sex prior to Wave I (38.49%). When comparing the frequency distributions of expectations of sexual pleasure, boys who have had sex are more likely to agree that sexual intercourse will give them pleasure (69.94%) than those who have not yet had sex (53.57%). Despite this sixteen percentage point difference, the majority of the sample of boys expects that sex will be pleasurable. This stands in contrast to the female sample, where the majority of both groups of girls neither agreed nor disagreed that sex will give them pleasure.

Although the frequency distribution for boys in the ambivalent category is much smaller than it was for girls, there is still a twelve percentage point difference between boys who have had sex (22.40%) and those who have not (34.20%). The "disagree" category has the smallest number of male respondents, with only 7.66% of boys who have had sex and 12.23% of boys who have not had sex disagreeing that sex will be pleasurable.

In terms of racial differences in sexual experience, African American boys are the most likely to have had sex prior to Wave I (71.17%), Asian American boys are the least likely (30.06%), with white and other minority boys falling in between (45.62% and 56.61% respectively). When comparing sexual experience and expectations of sexual pleasure by race, the differences between groups are much smaller. The majority of boys across all racial groups agree that sex will be pleasurable. In contrast to the response patterns for girls across race and sexual experience, African American boys, who are most likely to have had sex prior to Wave I, are also more likely to expect sex to be pleasurable. Again, the "disagree" response category is the smallest across all racial groups, ranging from a low of 8.8% of white male respondents to a high of 11.44% of Asian American boys disagreeing that sex will be pleasurable.

Similar to the female sample, the higher a boys' socioeconomic status is (measured by both parental education and family income), the less likely a boy is to have had sex prior to Wave I. The reverse is true for expectations of sexual pleasure. Although the majority of respondents agree that sex will be pleasurable, the higher the SES, the more likely a boy is to agree that sex will be pleasurable across parental education and family income.

The relationship between grade point average and sexual experience follows the same pattern. The lower a boy's average GPA, the more likely he is to have had sex prior to Wave I. For example, there is a thirty point percentage difference between the highest quartile, (31.13% of boys have had sex) and the lowest GPA quartile (60.52% have had sex prior to Wave I). Despite the differences in sexual experience by GPA, however, the distribution of responses to the sexual pleasure question are virtually the same across all

four quartiles. About 60% of all boys agree that sex will be pleasurable, around 25% neither agree nor disagree, and about 10% disagree that sex will be pleasurable.

Boys who are members of a religious group are slightly less likely to have sex prior to Wave I, but again, those differences do not translate into large differences in expectations of sexual pleasure. The results show that 65.34% of non-affiliated boys and 61.60% of boys affiliated with a religious group expect sex to be pleasurable. Boys' whose mothers had a paid job are slightly less likely to have sex prior to Wave I, but are more likely to expect sex to be pleasurable. In terms of family type, boys in two-biological parent families are the least likely have sex before marriage and also the least likely to expect sex to be pleasurable. These patterns are similar to the female sample.

When examining school characteristics, the differences between private and public school respondents reveal interesting patterns. Like the female sample, boys in private schools are one of the least likely groups to have sex prior to Wave I (34.57%). This group also represents the highest percentage of boys who expect sex to be pleasurable at 73.92%. These differences in school type are not evident for boys in urban and suburban schools, who have virtually the same percentages of sexual experience and expectations of sexual pleasure.

Similar to the female sample, boys from the South are the most likely to have had sex prior to Wave I and are the least likely to agree that sex will be pleasurable. Boys from the Northeast are the most likely to expect sex to be pleasurable, representing a ten point difference from boys in the south (68.04% versus 58.80% respectively). Whereas the distribution of the ambivalent category is similar across region, the South again is an outlier in the "disagree" category with 12.30% of respondents, (versus 7.66% in the

Northeast, 7.83% for Midwest, and 9.16% for boys in the West).

These results demonstrate the clear gender, racial, and class differences in expectations of sexual pleasure. In terms of gender, consider, for example, the difference between the highest percentages of respondents who agreed that they expect sex to be pleasurable. Girls who are not affiliated with a religious group have the highest percentage of agreement that sex will be pleasurable at 40.76%. Despite representing the largest group among all independent variables in the female sample, it is still not the majority response within that category, which is "neither agree nor disagree" with 43.12%. Compare this to the male sample in which the "agree" category represents the majority response across all independent variables and does not drop below 53.57% (for boys who have not yet had sexual intercourse). However, these gender differences should not mask the differences among females and males that exist along racial and socioeconomic status lines. The next section explores whether or not these patterns persist in multivariate analyses.

4.5.3 Multivariate Results for the Female Sample

Table 4.5 presents the results of ordinal logit regression analyses of expectations of sexual pleasure for the female sample. Model 1 tests the singular impact of sexual intercourse prior to Wave I. The results show that prior sexual experience significantly increases the odds of agreeing that sexual intercourse will be pleasurable by a factor of 2.19 times ($= e^{.785}$; $p<.01$). This finding lends support to the sexual experience hypothesis which argues that the act of having sex would reduce the potentially negative expectations of sexual intercourse.

Model 2 tests the effect of a girl's racial background on expectations of sexual pleasure while holding prior sexual experience constant. In this model, the effect of prior sexual intercourse remains significant and, in fact, increases slightly in magnitude. Having sex prior to Wave I increases the odds of expecting sexual intercourse to be pleasurable by 2.27 times (= $e^{.821}$; $p<.01$). Holding sexual intercourse constant, being white has a positive effect on expectations of sexual pleasure compared to the three other racial groups. Among racial groups, being African American or a member of the other racial minority group versus being white, significantly decreases the odds of expecting sexual intercourse to be pleasurable. Being African American versus white decreases the odds of positive expectations of sexual pleasure for girls by 37% ([$1-e^{-.456}$] × 100%; $p<.01$). Being a member of the other racial minority group decreases the odds of agreeing that sex will be pleasurable by 25% ([$1-e^{-.283}$] × 100%; $p<.05$). Similar findings in these two categories make sense considering the majority of the "other" category is made of respondents who are black and another racial category. Although the effect of being Asian American versus white is not significant for girls in Model 2, it is negative throughout subsequent models. The negative effects of racial background lend support to part of the social disadvantage hypothesis, in that social capital, in the form of positive expectations of sex, is restricted to girls who are members of racial minority groups.

Model 3 tests the effects of socioeconomic status on expectations of sexual pleasure for girls, measured by two variables: highest parental education (measured in years of schooling) and family income (measured in thousands of dollars). For every year increase in parental education, the odds of expecting sex to be pleasurable increase by a factor of 1.10 times (= $e^{.092}$; $p<.01$). Although family income is also positive, it is not

significant in this model, which may be due to the effect of including both parental education and family income in the model. The significant effect of parental education also lends support to the social disadvantage hypothesis, albeit at a smaller magnitude than racial background. Additionally, sexual experience prior to Wave I remains positive and significant and again increases in magnitude (= $e^{.879}$; p<.01). The effect of being African American remains significant in Model 3, but decreases slightly in magnitude. In Model 3, being African American versus white decreases the odds of expecting sex to be pleasurable by 30% ([1–$e^{-.363}$]; p<.01), while the effect of being a member of the other minority group disappears.

Model 4 includes the remaining independent variables of interest including age, religious group membership, school performance, mother's employment status, family structure, and school characteristics (private/public, urban/suburban, and region). As expected, age has a positive and significant effect on expectations of sexual pleasure for girls. With every year increase in age, the odds of agreeing that sexual intercourse will be pleasurable increases by a factor of 1.19 times (= $e^{.173}$; p<.01). I would argue that this finding may work similarly to the effect of sexual experience. As girls age, they become more comfortable, confident, and knowledgeable about their sexuality. It is interesting, however, that the effect of sexual intercourse experience is so much larger than the age effect.

The additional independent variables generally have expected effects. Previous research has demonstrated the link between religiosity and negative sexual attitudes and beliefs (Meier 2003; Rostosky, Regnerus, and Comer Wright 2003). My results mirror those findings. Being a member of a religious group decreases the odds that a girl will

agree that sex will be pleasurable by 31% ([1−$e^{-.375}$] × 100%; p<.01). In terms of family structure, girls from two parent families (both biological and other two-parent) are more likely than girls from single-parent families to disagree that sex will be pleasurable. Two-parent families have similar negative effects on sexual pleasure expectations: living in a two-parent biological family reduces the odds of positive expectations by 16% ([1−$e^{-.170}$] × 100%; p<.05), while living in a two other-parent family reduces the odds by 18% ([1−$e^{-.194}$] × 100%; p<.05). It is unclear exactly how family structure influences individual expectations of sexual pleasure. Following the social disadvantage hypothesis, one could argue that living in a two-parent household provides significant social advantages in general, which adds to a girl's overall feeling of confidence. On the other hand, perhaps two-parent families discourage positive sexual attitudes in order to prevent or delay sexual initiation of their daughters. Two other measures of advantage, average GPA and mother's employment status are positively related to expectations of sexual pleasure, but have insignificant effects.

In terms of the effects of school type, attending an urban school or a school in the West has no significant effect on expectations of sexual pleasure. However, attending a private school is significantly associated with positive expectations of sexual pleasure. Attending a private school increases the odds of agreeing that sex will be pleasurable by a factor of 1.52 times (= $e^{.421}$; p<.05). Throughout all the models in Table 4.5, the positive effect of attending a private school is second only to prior sexual experience. In terms of regional effects, girls who attend schools in the Midwest and South versus the Northeast are more likely to disagree that sex will be pleasurable, with the South effect being much larger. Living in the Midwest versus the Northeast decreases the odds of agreeing that sex

will be pleasurable by 19% ([1−$e^{-.216}$] × 100%; $p<.05$), whereas living in the South versus the Northeast decreases the odds of agreeing that sex will be pleasurable by 35% ([1–$e^{-.438}$; $p<.01$) . This significant negative result is interesting in light of the higher frequency of sexual experience of girls from the South as demonstrated in Table 4.3.

Across Models 1 through 4, prior sexual experience remains one of those most significant influences of positive expectations of sexual pleasure. Due to its strong influence, it is possible that some of the independent variables tested in this analysis affect girls who have not had sexual experience differently than those who have had sex. Therefore, Model 5 separates female respondents into two samples based on sexual experience. The left-hand column includes girls who have not had sex prior to Wave I and the right-hand column is restricted to girls who have had sex prior to Wave I.

Age, parental education level, and attending a private school all significantly affect expectations of sexual pleasure among both groups of girls. In turn, being a member of a religious group and attending a school in the South versus the Northeast both negatively affect expectations of sexual pleasure, regardless of whether or not a girl has had sex prior to Wave I. Among the significant independent variables in Models 1 through 4, racial background is the only factor that influences girls differently based on their sexual experience. The effect of being African American versus white is significant and negative across Models 2, 3, and 4. However, when African American girls are separated into samples by sexual experience, we can see that being African American is not significant until the girls in this group have had sexual intercourse. A similar pattern exists for Asian American girls, a group who did not have significant effects across Models 2 through 4. Among Asian American girls who have not had sex, the influence of

racial status is positive, but not significant. However, among Asian American girls who have had sex, the effect of racial background becomes negative and significant. Among Asian American girls versus white girls who have had sexual intercourse, the odds of expecting sexual to be pleasurable decreases by 52% ($[1-e^{-.737}] \times 100\%$; $p<.01$). In sum, having sex significantly and negatively affects the sexual pleasure attitudes of African American and Asian American girls. This finding will be explored further in the results section. The following section presents the multivariate results of expectations of sexual pleasure for the male sample

4.5.4 Multivariate Results for the Male Sample

Table 4.6 presents the ordinal regression analyses of expectations of sexual pleasure for boys in Wave I. Model 1 tests the impact of sexual experience prior to Wave I on boys' expectations of sexual pleasure. Similar to the female sample, having sex prior to Wave I significantly increases the odds of agreeing that sexual intercourse will give you a great deal of pleasure. In contrast to the female sample, however, the magnitude of the impact of prior sexual experience is smaller. Whereas prior sexual experience increases the odds of agreeing that sex will be pleasurable for girls by 2.19 times, sexual experience increases the odds only by 1.94 times for boys ($=e^{.663}$; $p<.01$).

Model 2 is where we see the most striking differences in the factors that affect boys' and girls' expectations of sexual pleasure. Although all three of the racial categories are negative, none of them are significant in Model 2 or subsequent models for the male sample. This stands in stark contrast to the female sample where race had a significant impact across the full sample as well as for the samples of girls with and

without sexual experience. Therefore, I can tentatively conclude that the social disadvantage hypothesis does not hold in the case of race and sexual attitudes for boys. Despite this difference between boys and girls, the influence of socioeconomic status works similarly across gender. For boys, every year increase in parental education increases the odds of agreeing that sex will be pleasurable by 1.10 times ($=e^{.0.96}$; $p<.01$). These results were virtually the same as the female sample.

Model 4 includes the remaining independent variables. Age is again significantly and positively associated with sexual pleasure attitudes ($=e^{.126}$; $p<.01$), but the effect is slightly smaller for boys than for girls. Interestingly, for boys, being a member of a religious group is not significantly associated with a decreased likelihood of agreeing that sex will be pleasurable as it was for girls. Also unlike the female sample, average GPA is significantly associated with agreeing that sexual intercourse will be pleasurable ($=e^{.086}$; $p<.05$). In terms of the influence of family structure, being from a two-parent biological and two-other parent family both negatively affect the odds of agreeing that sex will be pleasurable. But in contrast to girls, only living in a two-parent biological family is significant ($=e^{-.159}$; $p<.05$). Similar to the female sample, boys who attend a private school are significantly more likely to expect sex to be pleasurable ($=e^{.245}$; $p<.01$). Again, this variable has one of the strongest positive effects on expectations of sexual pleasure, second only to prior sexual intercourse.

The effect of regional differences for boys follows similar patterns as the female sample, with boys from the Northeast having more positive expectations of sexual pleasure than boys from the West, Midwest, and South. Whereas there are virtually no differences between girls and boys in terms of how living in the South negatively affects

expectations of sexual pleasure, living in the West and Midwest does affect boys and girls differently. Whereas living in the West does not significantly affect girls' expectations of sexual pleasure, it is significant for boys. For boys, living in the West decreases the odds of expecting sex to be pleasurable by 34% ([1–$e^{-.421}$; p<.01) and living in the Midwest does not significantly affect expectations of sexual pleasure.

Model 5 compares the differences between boys who have had sex prior to Wave I in the left-hand column and boys who have not in the right-hand column. In contrast to the female sample, there are fewer differences in the way that sex affects boys and their sexual pleasure attitudes. For example, whereas having sex negatively affected the expectations of sexual pleasure for African American and Asian American girls, there are no differences among boys in these racial groups by sexual experience.

There are also some other interesting patterns among boys in these two groups. Boys who are members of a religious group who have not yet had sex have *increased* odds of agreeing that sex will be pleasurable (=$e^{.001}$; p<.05). Once a boy does have sex, however, being a member of a religious group decreases the odds of expecting sex to be pleasurable, although the impact is not significant. This differential effect may work similarly to the race effect for girls in that once a religious boy has sex, he may experience external or internal sanctions that would negatively affect his views on sexuality and sexual behavior. This differential effect is also true for boys living in the West.

4.6 Discussion

This chapter identifies some of the sociological factors that influence expectations of sexual pleasure among girls and boys. In order to do so, I addressed two research questions. First, does sexual behavior significantly influence sexual pleasure attitudes, and if so, what is the magnitude of this effect compared to other sociodemographic characteristics? Initial multivariate results affirm the link between sexual experience and positive expectations of sexual pleasure. However, when other sociodemographic factors are taken into account, interesting patterns arise for boys and girls from different racial and sociodemographic backgrounds. This leads to the second research question: Do expectations of sexual pleasure differ by racial and class background?

For the female sample, the results show that although girls from racial minority backgrounds are more likely to have sex in adolescence than white girls, they are significantly more likely to disagree that sex will be pleasurable. This is especially true for African American and Asian American girls who have had sex versus those who have not. However, it is unclear what causes these differences. One could speculate from a multiracial feminist perspective, that it may be the case that persistent cultural norms regarding the female sexuality of racial minority girls become more salient in their lives once a girl has sex. Girls may become more aware of media portrayals of women of color as hypersexual (in the case of African Americans) and/or asexual (as in the case of Asian Americans). African American girls may also receive messages from their families to fight back against the hypersexualized image by erring on the side of not expressing any sexual desire at all. Whatever the mechanism, racial minority girls are being affected by external or internal forces that tell them, either overtly or covertly, that their sexuality is deviant. This in turn may affect girls' feelings of entitlement to sexual pleasure. Although

white girls may also receive messages that make them feel shameful or guilty about exploring their sexuality, they arguably have much more leeway in expressing their sexual desire than girls of color (Bettie 2003). In contrast to the female sample, there are no significant racial differences in sexual pleasure attitudes among boys. In general, there are far fewer forces that negatively affect expectations of sexual pleasure for boys, which affirms the perception that masculinity and sexuality are closely linked (Tolman et al. 2004; Pleck, Sonenstein, and Ku 1993, 1994).

Parental education level positively affects expectations of sexual pleasure for both boys and girls, holding sexual experience, racial background, and all other independent variables constant. Additionally, in contrast to racial background, family income affects girls who have had sex and those who have not in the same way. Therefore, the fact that the universal effect of class and differential effect of racial norms coexist, suggests that the two social statuses do not always operate to affect girls' entitlement to sexual pleasure in the same way.

It is also important to explore the other two positive influences of sexual pleasure: age and attending a private school. It seems reasonable to understand the positive influence of age on sexual pleasure as a developmental effect. However, the strong, positive effect of attending a private school is interesting, considering this group is the least likely to have sex prior to the survey among both boys and girls. Attendance at a private school remains significant holding other socioeconomic indicators of social advantage such as race, parental education, family income, and family structure constant. Therefore, we can conclude that the effect goes beyond just privilege. Perhaps, despite the low levels of sexual experience, entitlement to sexual pleasure is just another aspect

of social capital that girls and boys in this group expect as they grow older. Further inquiry into the specific sexual attitudes and norms fostered among students who attend private schools is needed to fully understand this phenomenon.

In conclusion, this chapter demonstrates the importance of sociological factors such as race and class status for the development of positive attitudes toward sexual pleasure. I find that African American and Asian American girls are significantly disadvantaged when it comes to developing positive attitudes compared to white girls. The second goal of this dissertation is to examine whether or not positive attitudes toward sexual pleasure impact long-term outcomes as feminist sexuality scholars argue. Therefore, the next chapter will examine the impact of positive sexual pleasure attitudes on sexual health outcomes for girls and boys in young adulthood.

Table 4.1 Frequency Distribution for Expectation of Sexual Pleasure by Gender, Add Health, Wave I, 1994-5

If you had sexual intercourse, it would give you a great deal of physical pleasure.	Girls		Boys	
	Percent	(Total)	Percent	(Total)
1. Strongly disagree	8.6%	(568)	2.9%	(194)
2. Disagree	14.1%	(935)	6.9%	(465)
3. Neither agree nor disagree	47.2%	(3,126)	28.2%	(1,910)
4. Agree	23.6%	(1,563)	39.8%	(2,694)
5. Strongly agree	6.5%	(430)	22.2%	(1,500)
Total	100 %	(6,622)	100 %	(6,763)

Table 4.2 Descriptive Statistics for Dependent and Independent Variables, Add Health, Wave I, 1994-95

	Girls		Boys	
	Mean or Prop.	Std. Error	Mean or Prop.	Std. Error
DEPENDENT VARIABLE				
Expectation of sexual pleasure	3.08	0.03	3.70	0.02
KEY CONTROL VARIABLES				
Sexual Experience				
Had sex prior to Wave I	0.37	0.02	0.40	0.02
Race				
White American	0.70	0.03	0.70	0.03
African American	0.15	0.02	0.15	0.02
Asian American	0.03	0.01	0.04	0.01
Other racial minority	0.11	0.01	0.12	0.01
Socioeconomic Status				
Highest parental education	13.52	0.13	13.53	0.14
Family income	45.10	1.73	45.27	1.84
OTHER INDEPENDENT VARIABLES				
Age	15.89	0.12	16.04	0.12
Member of a religious group?	0.88	0.01	0.86	0.01
Average GPA in high school	2.90	0.02	2.69	0.02
Mother has a paid job	0.73	0.01	0.73	0.01
Two-biological-parent family	0.47	0.01	0.48	0.01
Two other-parent family	0.19	0.01	0.19	0.01
Single-parent family	0.19	0.01	0.18	0.01
Attend a private school	0.06	0.02	0.07	0.02
Attend an urban school	0.26	0.04	0.26	0.04
West region	0.17	0.01	0.16	0.01
Midwest region	0.32	0.02	0.30	0.02
South region	0.38	0.02	0.39	0.02
Northeast region	0.13	0.01	0.14	0.01

Table 4.3 Sexual Experience and Expectations of Sexual Pleasure by Selected Socioeconomic Characteristics, by Row Percentage, Add Health Wave I, 1994-5, Girls Only

	Had sexual intercourse before Wave 1 survey?		*Sex gives a great deal of physical pleasure.*		
	No	Yes	Disagree	Neither	Agree
Sex gives a great deal of physical pleasure			22.70	47.21	30.10
Had sexual intercourse before Wave 1 survey?					
Yes	61.51	38.49	16.28	45.18	38.53
No			29.63	48.68	21.70
Race					
White American	52.46	47.54	19.62	48.99	31.40
African American	40.91	59.09	28.79	42.35	28.86
Asian American	68.91	31.09	26.42	45.35	28.30
Other racial minorities	53.65	46.35	24.03	48.06	27.92
Parental education					
Lowest quartile	49.66	50.34	27.19	45.71	27.10
Lower-middle quartile	47.60	52.40	21.33	50.05	28.62
Higher-middle quartile	55.03	44.97	20.67	45.65	33.69
Highest quartile	67.27	32.73	16.87	48.13	34.99
Family income					
Lowest quartile	45.52	54.48	26.97	45.46	27.56
Lower-middle quartile	50.81	49.19	24.47	46.57	28.96
Higher-middle quartile	54.02	45.98	19.27	50.19	30.54
Highest quartile	56.66	48.33	18.05	48.17	33.78
School performance by GPA					
Lowest quartile	41.83	58.17	23.33	46.30	30.36
Lower-middle quartile	48.17	51.83	23.02	46.87	30.12
Higher-middle quartile	53.52	46.48	22.91	45.88	31.21
Highest quartile	65.46	34.54	21.32	50.89	27.79
Religious?					
Yes	53.04	46.96	23.54	47.75	28.71
No	38.11	61.89	16.12	43.12	40.76
Mother has a paid job					
Yes	52.25	47.56	21.82	48.89	29.29
No	55.25	44.75	26.08	45.62	28.31
Family type					
Single-parent	43.85	56.15	23.34	47.25	29.42
Two other parents	42.88	57.12	24.84	43.75	31.41
Two biological parents	61.36	38.64	21.73	49.98	28.29
Attend a private school?					
Yes	71.90	28.10	17.62	43.44	39.05
No	50.00	50.00	23.03	47.49	29.48
Attend an urban school?					
Yes	55.69	44.31	24.13	44.22	31.35
No	49.67	50.33	22.11	38.31	29.58
Region					
West	55.73	44.27	23.62	46.48	29.90
Midwest	49.94	50.06	18.04	50.64	31.31
South	48.80	51.20	27.17	45.78	27.04
Northeast	52.58	47.42	17.96	46.22	35.82

Note: Analyses are adjusted by survey sampling design. Unweighted statistics show consistent patterns.

Table 4.4 Sexual Experience and Expectations of Sexual Pleasure by Selected Socioeconomic Characteristics, by Row Percentage, Add Health Wave I, 1994-5, Boys Only

	Had sexual intercourse before Wave 1 survey?		*Sex gives a great deal of physical pleasure*		
	No	Yes	Disagree	Neither	Agree
Sex gives a great deal of physical pleasure			9.74	28.24	62.01
Had sexual intercourse before Wave 1 survey?					
Yes	57.72	42.28	7.66	22.4	69.94
No			12.23	34.2	53.57
Race					
White American	54.38	45.62	8.84	28.85	62.31
African American	28.83	71.17	10.92	25.40	63.69
Asian American	69.94	30.06	11.44	33.39	55.17
Other racial minorities	43.39	56.61	10.79	26.77	62.44
Parental education					
Lowest quartile	44.50	55.50	13.04	29.16	57.80
Lower-middle quartile	47.70	52.30	8.97	29.31	61.73
Higher-middle quartile	56.29	43.71	8.46	28.15	63.39
Highest quartile	62.95	37.05	5.78	23.36	70.86
Family income					
Lowest quartile	41.36	58.64	13.88	28.88	57.24
Lower-middle quartile	47.62	52.38	9.88	32.13	57.99
Higher-middle quartile	54.70	45.30	8.01	27.63	64.36
Highest quartile	58.11	41.89	6.30	24.44	69.27
School performance by GPA					
Lowest quartile	39.48	60.52	9.56	23.38	62.06
Lower-middle quartile	46.74	53.26	10.09	29.00	60.91
Higher-middle quartile	56.25	43.75	9.45	29.27	61.28
Highest quartile	68.87	31.13	9.18	27.90	62.92
Religious?					
Yes	50.61	49.39	9.88	28.52	61.60
No	41.06	58.94	8.40	26.26	65.34
Mother has a paid job					
Yes	51.52	48.48	8.97	28.47	62.55
No	49.92	50.08	12.31	29.33	58.36
Family type					
Single-parent	41.84	58.16	9.56	26.03	64.42
Two other parents	43.87	56.13	10.00	28.11	61.89
Two biological parents	58.12	41.88	9.62	29.55	60.83
Attend a private school?					
Yes	65.43	34.57	8.01	18.07	73.92
No	47.96	52.04	9.88	29.03	61.09
Attend an urban school?					
Yes	49.97	50.03	9.94	26.37	63.69
No	48.93	51.07	9.67	28.96	61.37
Region					
West	51.24	48.76	9.16	29.21	61.63
Midwest	52.97	47.03	7.83	28.63	63.54
South	43.67	56.33	12.30	28.90	58.80
Northeast	53.10	46.90	7.66	24.29	68.04

Note: Analyses are adjusted by survey sampling design. Unweighted statistics show consistent patterns

Table 4.5 Ordinal Logit Coefficients for Expectations of Sexual Pleasure by Girls' Characteristics, Add Health Wave I, 1994-5

	Model 1			Model 2			Model 3			Model 4			Model 5					
													No sex in adolescence			Had sex in adolescence		
	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.
Had sex in adolescence	.785	2.19	(.075)**	.821	2.27	(.074)**	.879	2.41	(.069)**	.755	2.13	(.070)**						
Race																		
African American				-.456	0.63	(.108)**	-.363	0.70	(.101)**	-.283	0.75	(.117)*	-.151	0.86	(.169)	-.379	0.68	(.136)*
Asian American				-.035	0.97	(.153)	-.030	0.97	(.147)	-.199	0.82	(.122)	.067	1.07	(.181)[a]	-.737	0.48	(.202)**[a]
Other racial minorities				-.283	0.75	(.133)*	-.107	0.90	(.124)	-.113	0.89	(.108)	-.034	0.97	(.149)	-.183	0.83	(.159)
Socioeconomic Status																		
Highest parental education							.092	1.10	(.016)**	.090	1.09	(.016)**	.089	1.09	(.020)**	.091	1.09	(.022)**
Family income							.001	1.00	(.001)	.001	1.00	(.001)	.001	1.00	(.001)	.000	1.00	(.001)
Other																		
Adolescent's age										.173	1.19	(.032)**	.151	1.16	(.036)**	.191	1.21	(.034)**
Religious										-.375	0.69	(.114)**	-.425	0.65	(.158)*	-.335	0.72	(.154)*
Average GPA in high school										.001	1.00	(.046)	.013	1.01	(.059)	-.010	0.99	(.070)
Mother has a paid job										.021	1.02	(.080)	.033	1.03	(.108)	.007	1.01	(.106)
Two-biological-parent family										-.170	0.84	(.067)*	-.182	0.83	(.105)	-.132	0.88	(.097)
Two other-parent family										-.194	0.82	(.080)*	-.146	0.86	(.146)	-.207	0.81	(.113)
Attend a private school										.421	1.52	(.160)*	.408	1.50	(.160)*	.484	1.62	(.233)*
Attend an urban school										-.034	0.97	(.095)	-.109	0.90	(.122)	.026	1.03	(.110)
West region										-.163	0.85	(.113)	-.336	0.71	(.170)*	.060	1.06	(.186)
Midwest region										-.216	0.81	(.110)*	-.239	0.79	(.172)	-.185	0.83	(.177)
South region										-.438	0.65	(.103)**	-.508	0.60	(.154)**	-.358	0.70	(.170)*
τ_1		-2.051			-2.153			-.850			1.270				.857			
τ_2		-.947			-1.041			.275			2.405				1.992			
τ_3		1.200			1.122			2.476			4.647				4.238			
τ_4		3.079			3.005			4.377			6.582				6.177			
N		5,937			5,937			5,937			5,937				5,937			
F-value		108.93			36.80			39.20			23.10				20.66			

Note: *p < .05, **p < .01 (2-*tailed*). Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). [a] Difference between had-sex and had-no-sex groups significant at the .05 level (2-tailed).

Table 4.6 Ordinal Logit Coefficients for Expectations of Sexual Pleasure by Boys' Characteristics, Add Health Wave I, 1994-5

	Model 1			Model 2			Model 3			Model 4			Model 5					
													No sex in adolescence			Had sex in adolescence		
	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.	β	exp(β)	S.E.
Had sex in adolescence	.663	1.94	(.077)**	.686	1.99	(.076)**	.782	2.19	(.074)**	.733	2.08	(.077)**						
Race																		
African American				-.210	0.81	(.142)	-.128	0.88	(.137)	-.120	0.89	(.135)	.196	1.22	(.200)	-.227	0.80	(.152)
Asian American				-.207	0.81	(.177)	-.202	0.82	(.177)	-.236	0.79	(.171)	-.146	0.86	(.169)	-.560	0.57	(.320)
Other racial minorities				-.029	0.97	(.112)	.138	1.15	(.113)	.112	1.12	(.115)	.119	1.13	(.152)	.136	1.15	(.167)
Socioeconomic Status																		
Highest parental education							.096	1.10	(.013)**	.093	1.10	(.013)**	.111	1.12	(.017)**	.077	1.08	(.021)**
Family income							.001	1.00	(.001)	.001	1.00	(.001)	.001	1.00	(.001)	.000	1.00	(.002)
Other																		
Adolescent's age										.126	1.13	(.033)**	.082	1.09	(.036)*[a]	.158	1.17	(.036)**[a]
Religious										.006	1.01	(.100)	.011	1.01	(.132)*	-.004	1.00	(.137)
Average GPA in high school										.086	1.09	(.045)*	.080	1.08	(.063)	.085	1.09	(.054)
Mother has a paid job										-.214	0.81	(.097)	.003	1.00	(.112)	.050	1.05	(.117)
Two-biological-parent family										-.159	0.85	(.097)*	-.331	0.72	(.131)*	-.134	0.87	(.128)
Two other-parent family										-.081	0.92	(.109)	-.410	0.66	(.141)*[a]	.148	1.16	(.159)[a]
Attend a private school										.245	1.28	(.089)**	.194	1.21	(.141)	.327	1.39	(.202)
Attend an urban school										.102	1.11	(.095)	.207	1.23	(.113)	-.013	0.99	(.120)
West region										-.421	0.66	(.146)**	-.211	0.81	(.151)	-.646	0.52	(.189)**
Midwest region										-.244	0.78	(.156)	-.138	0.87	(.174)	-.366	0.69	(.202)
South region										-.424	0.65	(.149)**	-.384	0.68	(.165)*	-.500	0.61	(.187)**
τ_1		-3.179			-3.212			-1.840			.065				-.420			
τ_2		-1.828			-1.861			-.476			1.432				.950			
τ_3		-.130			-.161			1.254			3.182				2.707			
τ_4		1.667			1.699			3.085			5.039				4.572			
N		5,874			5,874			5,874			5,874				5,874			
F-value		73.87			22.10			30.06			14.62				9.72			

Note: $*p < .05$, $**p < .01$ (2-*tailed*). Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). [a] Difference between had-sex and had-no-sex groups significant at the .05 level (2-tailed).

CHAPTER 5: EFFECTS OF EXPECTATIONS OF SEXUAL PLEASURE ON LONG-TERM SEXUAL HEALTH OUTCOMES

5.1 Introduction

The previous chapter explored the sociological factors that influence expectations of sexual pleasure among adolescents. I found that race and socioeconomic status impact these attitudes in different ways by gender and sexual experience. As discussed in Chapters 2 and 4, past studies have examined the connection between attitudes toward sexuality and sexual outcomes, such as sexual debut, contraceptive use, and pregnancy (Santelli et al. 2006; Meier 2003; Pearson 2006; Harding 2007; Bruckner, Martin and Bearman 2004). Although these studies found significant relationships between sexual attitudes and behavior, many of them are unable to delineate whether the attitude was formed before the behavior or if the behavior influenced the attitude. Therefore, it is still unknown whether attitudes formed in adolescence will have significant effects on long-term adult sexual outcomes.

As feminist sexuality and public health scholars have argued, developing a positive sexual self-concept is a key part of the foundation of long-term sexual health and well-being (World Health Organization 2006; Welsh, Rostosky, and Kawaguchi 2000; Russell 2005; Dennison and Russell 2005; Tolman and McClelland 2011). Scholars in social psychology in particular, have examined the ways positive sexual self-concept

affects sexual health and behavior, especially in regard to contraceptive use (Buzwell and Rosenthal 1996; Tolman and Porche 2000; Vickberg and Deaux 2005; Horne and Zimmer-Gembeck 2005, 2006; O'Sullivan, Meyer-Bahlburg, and McKeague 2006; Pleck. Sonenstein, and Ku 1993, 1994; Chu, Porche, and Tolman 2005; Brafford and Beck 1991; Rosenthal, Moore, and Flynn 1991). However, these studies have been primarily limited to cross-sectional, homogenous samples of college-age students.

Within sociology, researchers have extensively documented the negative effects of certain adolescent sexual behaviors on health and later life outcomes (Bearman and Brückner 2001; Brückner and Bearman 2005; Frisco 2008; Longmore et al. 2004; McCarthy and Casey 2008; Meier 2007; Sabia and Rees 2008). The underlying assumption in these studies is that sexual activity is an additional negative distraction in adolescence (especially at earlier ages), a time already rife with emotional and physical changes. The political and cultural popularity of abstinence-only sex education, chastity balls, and secondary virginity in the past fifteen years highlights the risk-centered approach of much of this research.

This limited focus overlooks the possibility that healthy sexual *attitudes* in adolescence may have differential effects than sexual *behavior* on outcomes in adulthood. In contrast to the traditional risk-centered approach to adolescent sexuality, the normative developmental sexuality framework argues that positive sexual self-concept, which includes feelings of entitlement to sexual health, pleasure, and safety, may reduce the potential negative outcomes associated with sexual behavior, and, at the same time lessen inequality in sexual health and access to pleasurable sexual experiences (Martin 1996; Schalet 2009; 2010; Tolman 1994, 2002).

Most importantly, failing to acknowledge the difference between behaviors and attitudes overlooks adolescent sexual selfhood as an important determinant of inequality in adult sexual outcomes. This chapter seeks to explore these possibilities by testing the longitudinal effects of expectations of sexual pleasure from Wave I on sexual health and behavior outcomes in Wave III, when the majority of respondents were 19 to 24 years old, and in Wave IV, when the majority of respondents were aged 24 to 32 years old.

5.2 Research Questions and Hypotheses

As referenced above, past studies have explored the connection between various attitudes toward sexuality and certain sexual outcomes using cross-sectional data. However, the longitudinal effects of sexual attitudes on sexual behaviors are largely unknown. Therefore, the questions that guide this chapter are primarily exploratory. Additionally, it is difficult to define what counts as a "positive" or "healthy" outcome for specific sexual behavior variables in the Add Health dataset, such as number of times a respondent had sex in the past year and total number of sexual partners in Wave III, since these outcomes could be interpreted in multiple ways depending on the context in which the behaviors are taking place. For instance, one might interpret a higher number of times a respondent has had sex in the past twelve months as a negative health outcome. However, it is difficult to argue that frequency of sex is necessarily a risky activity if the respondent is in a monogamous relationship and/or uses contraceptive correctly and consistently, which we are unable to know from the data. Therefore, in lieu of making specific hypotheses, I am broadly interested in two patterns regarding the sexual behavior variables: 1.) Whether or not attitudes toward sexual pleasure in adolescence significantly

impact sexual behaviors in adulthood, and 2.) Whether or not the effect differs from the effect of sexual experience prior to Wave I.

I am able to make more specific predictions about the relationship between positive sexual attitudes and contraceptive use. Following the findings from social psychological research, I would expect positive attitudes toward sexual pleasure in adolescence to increase the likelihood of contraceptive use (both in general and condom use, specifically) in adulthood. Following the healthy sexuality framework we can hypothesize that:

> Hypothesis 1: Positive attitudes toward sexual pleasure in adolescence will increase the likelihood of contraceptive use in young adulthood.

Additionally, as mentioned above, this research contends that positive attitudes toward sexuality may not have the same effects as sexual behavior, and that adolescents are entitled to, and should be encouraged to develop positive attitudes towards sexuality, regardless of the decision to actually engage in sexual intercourse. This leads to the second hypothesis:

> Hypothesis 2: Sexual behavior and attitudes toward sexual pleasure in adolescence will have differential effects on long-term sexual health outcomes.

However, as discussed in Chapter 2, there has been an ongoing debate among feminists regarding whether or not adolescents are "truly" sexually empowered, due to their limited life experience and maturity level (Lamb 2010a; Peterson 2010; Lamb and Peterson 2011). This debate has been primarily taken place in the academic publication *Sex Roles*. The scholars engaged in the discussion of adolescent sexual empowerment disagree as to

whether teenage girls are truly empowered if they feel more sexual within a cultural climate which privileges male sexual pleasure (Lamb 2010a; Peterson 2010; Lamb and Peterson 2011). This provides the foundation for the third hypothesis regarding gender differences in expectations of sexual pleasure:

> Hypothesis 3: Expectations of sexual pleasure in adolescence will have no effect for girls' sexual outcomes in young adulthood.

5.3 Sample Characteristics

The samples used in this chapter come from Waves I, III, and IV of the Add Health restricted datasets. The samples are also limited to respondents who had valid answers for the sexual pleasure question. Although Waves III and IV include hundreds of sociodemographic, health, and behavior variables, I selected only the sexual behavior and contraceptive use variables for this analysis. The Wave III sample consists of respondents who completed the Wave I in-home interview and were reinterviewed in 2001 or 2002 if they could be located. Sexual behavior is measured using two variables in Wave III. Number of times a respondent has had sex in the past year is a continuous measure using the question: "How many times have you had sexual intercourse in the past 12 months?" Total number of sexual partners is also a continuous variable: "With how many sexual partners have you ever had vaginal intercourse, even if only once?"

Contraceptive use is measured using two questions from Wave III. General contraceptive use is measured using the question: "On how many occasions of vaginal intercourse in the past 12 months did you or your partner use some form of birth control or pregnancy protection?" Responses ranged from 0=none, 2=half, 3=most, and 4=all.

Since the question does not specify types of birth control use, it can be assumed that this includes condom use as well. Additionally, a separate variable is included to measure condom use specifically: "On how many occasions of vaginal intercourse in the past 12 months did you or your partner use a condom?" Responses again ranged from 0=none, 2=half, 3=most, and 4=all.

In Wave IV, Wave I respondents were reinterviewed in 2007 to 2008, if they could be located. Again, I include two questions to measure sexual behavior. The first asks respondents about concurrent sexual partners using the question: "In the past 12 months, did you have sex with more than one partner at or around the same time?" (0=no; 1=yes). Wave IV also includes a question about number of sexual partners in the past 12 months. The Wave IV survey includes the same questions about contraceptive and condom use, but with different response categories than the Wave III variables. The responses for these two variables are: 1=no sex in the past 12 months; 2=had sex, but no birth control; and 3=had sex, used some form of birth control. For these two variables I excluded the group who had not had sex in the past year.

Table 5.1 compares the means or proportions and standard deviations for the unweighted sexual health and behavior variables from Waves III and IV, using separate samples for women and men. Among the sexual outcomes in Wave III, young women have a higher mean number of times having had sex in the past year than young men (58.15 versus 56.23). However, male respondents have a higher average total number of sexual partners (means of 6.20 versus 4.99). The mean number of times a respondent has used any type of contraceptive during intercourse in the past twelve months is similar for the female (2.73) and male samples (2.75). Male respondents also have a higher average

number of times using a condom during sexual intercourse over the past twelve months (1.99 versus 1.62). This difference is not surprising given the nature of condom use, which is male controlled versus other contraceptives (oral contraceptives, etc.) which are female controlled.

Among the Wave IV sexual health outcomes, male respondents are more likely to report having multiple concurrent sexual partners than female respondents (0.17 versus 0.10) and a higher mean number of sexual partners in the past twelve months (1.91 versus 1.30). Female and male respondent have similar means for contraceptive use in the past twelve months, although the mean for male respondents is slightly higher for both general contraceptive use (2.58 versus 2.52) and for condom use (2.37 versus 2.24). Female respondents also reported higher means for likelihood of having a sexually transmitted disease in the past twelve months (0.14 versus 0.05). This finding is also not surprising given that the symptoms of many sexually transmitted diseases do not manifest in men. As such, women are more likely to seek out a health professional and get an official diagnosis (CDC 2011).

5.4 Analytic Strategy

Because the various sexual outcomes variables from Waves III and IV are measured as in multiple ways, I use linear regression, logistic regression, multinomial logistic regression, and negative binomial regression to understand the magnitude and direction of the effects of expectations to sexual pleasure in adolescence. Therefore, I conceptualize these models under the framework of the generalized linear model (GLM). In a generalized linear model, the right-hand-side equation is a linear combination of

independent variables (i.e., $\beta_0 + \beta_1 x_1 + \ldots + \beta_K x_K + \varepsilon$), as commonly used in OLS regression. This GLM framework serves well for exploring the general effects of adolescent sexual pleasure attitudes and their relationship to long-term outcomes and whether or not the relationship is positive or negative. In all of the models, in addition to sexual pleasure attitudes and sexual intercourse prior to Wave I, I control for the same independent variables used in Chapter 4, including: race (African American, Asian American, and other racial minorities with white as the reference group), socioeconomic status (measured by highest parental income and family income), age in Wave I, religious group membership, average GPA in high school, whether your mother had a paid job, family structure (two-biological parents, two other parent, and single parent), whether the respondent attended a private or urban school, and whether the school was located in the West, Midwest, or South region (with Northeast as the reference group). All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20).

5.5 Results

5.5.1 GLM Results for the Female Sample

Table 5.2 presents the results of the generalized linear model of the determinants of sexual health and behavior for the female sample in Wave III. Model 1 predicts the effects of expectations of sexual pleasure in adolescence, while holding the other independent variables constant. Both sexual pleasure attitudes and having sex in adolescence are significantly related to the number of times a young woman has had sex in the past twelve months, although the effect of sexual behavior is much stronger than

that of sexual pleasure attitudes. In terms of predicting the of number of sexual partners in the past year by race of the respondent, African American, Asian American, and other minority women have significantly fewer recent sexual partners than white female respondents in young adulthood. In terms of socioeconomic status, the higher a woman's parental education status in adolescence, the more sexual partners she is likely to have in the previous 12 months. Finally, the younger a female respondent was in Wave I, the fewer sexual partners she will have in Wave III ($p<.05$). None of the other Wave I independent variables are significantly related to number of sexual partners a young woman has had that year.

Model 2 presents the determinants of total number of sexual partners in a woman's lifetime. In contrast to Model 1, there are many more significant associations with number of lifetime sexual partners among the Wave I measures. Again, having sex in adolescence and expectations of sexual pleasure are both significantly associated with total number of sexual partners. In contrast to Model 1 however, being African American is positively associated with number of sexual partners, although not significant, while being Asian American and other minority, as opposed to white are negatively associated with total number of sexual partners ($p<.01$). This finding makes sense following the Wave I results, wherein Asian American and other minority girls were the least likely to have had sex prior to Wave I.

In terms of socioeconomic status, the higher the respondent's parental education in Wave I, the more sexual partners a young woman is likely to have in her lifetime ($p<.01$). This stands in contrast to the results of prior sexual experience measured in Wave I, in which lower SES girls were more likely to have had adolescent sex. This

finding follows prior research on sexuality and disadvantage, which describes how economic resources and opportunity structures impact decision-making regarding sexual activity (Brewster 1994; Harding 2007; Edin and Kefalas 2005). As Brewster argues, disadvantaged children have a greater "likelihood of growing up in a community context in which the early adoption of 'adult' behaviors provides clear benefits and few immediate costs" (1994:421). When adolescent sexual activity is perceived to pose a substantial cost to future outcomes, as may be the case for children growing up in advantaged neighborhoods and households, sexual debut is delayed.

My findings also follow previous work on the sexual and romantic trajectories of women from different SES backgrounds, namely, women who have the opportunity to attend college versus those who do not. The privilege to engage in hook-up culture in college may be one of the reasons for this difference in number of sexual partners in the past 12 months (Bogle 2008; Armstrong, England and Fogarty 2010, 2012). Therefore, although low SES girls have sex earlier, higher SES girls delay sex, but have more sex in their late teens and early 20s (presumably within the college hook-up culture). In terms of the additional independent variables, being a member of a religious group in adolescence is negatively associated with total number of sexual partners in a young woman's lifetime ($p<.01$). Finally, average GPA in high school and growing up in a two-biological parent family are both associated with fewer lifetime sexual partners.

Model 3 predicts how many times a young woman reports using birth control during sexual intercourse over the past year. In contrast to the first two models, where sexual intercourse history and sexual pleasure attitudes have similar effects on the dependent variable in terms of direction and significance level, in Model 3, sexual

behavior and sexual attitudes affect contraceptive use in different ways. In Model 3, young women who have had sex prior to Wave I are less likely to use any form of contraception during sexual intercourse ($p<.01$). In contrast, positive attitudes toward sexual pleasure in adolescence do not negatively affect contraceptive use. This finding provides support for Hypothesis 2, that sexual behavior and sexual attitudes have differential effects.

Among the different racial groups, African American and Asian American women are significantly less likely to have used any form of contraception during sex than white women, holding all other variables constant. Measures of social capital such as higher parental education level, family income level, and average high school GPA all positively predict contraceptive use during sex in the past twelve months.

Model 4 presents the relationships between the independent variables and condom use during the past twelve months. Again sexual intercourse prior to Wave I is negatively associated with condom use ($p<.01$), while attitudes toward sexual pleasure have no significant effect. In contrast to the general contraceptive use question from Model 3, African American and other minority women are significantly more likely than white women to use condoms during sex, holding all other variables constant ($p<.01$). Similar to Model 3, the higher a girls' GPA in high school, the more likely she is to use condoms during sex in Wave III ($p<.05$). Finally, Model 4 is the only model in which any of the regional categories are significant. Women from the South are significantly less likely to use condoms during sex than women who went to high school in the Northeast, holding all other variables constant ($p<.01$). Although attitudes toward sexual pleasure do not negatively impact contraceptive use like sexual experience does in Models 3 and 4, the

insignificant effects provides some evidence for Hypothesis 3, that positive expectations of sexual pleasure in adolescence do not significantly affect women in young adulthood. Among both of the contraceptive use variables, I am hesitant to say that not using a condom is definitively associated with sexual risk, since I am unable to know the relationship context of the sexual activity.

Table 5.3 presents the coefficients from the generalized linear model of girls' expectations of sexual pleasure on long-term sexual health and behavior outcomes in Wave IV, when most respondents were aged 24 to 32 years old. Model 1 tests the effects of the independent variables on whether or not a female respondent has had multiple sexual partners at the same time at any point in the past twelve months. Similar to the Wave III results, Model 1 again shows that sexual experience in adolescence and sexual pleasure attitudes have differential effects. Whereas having sex in adolescence is positively associated with multiple concurrent sex partners, positive attitudes toward sexual pleasure are not significantly associated with this outcome. None of the race or socioeconomic status variables are associated with multiple sex partners, with the exception of average GPA in high school, which is negatively associated with having multiple sexual partners at or around the same time ($p<.01$). In addition, girls who went to schools in the West and South are significantly less likely than girls from the Northeast to have concurrent multiple sexual partners and the younger a girl was when she took the Wave I survey, the less likely she is to have multiple sex partners in the past year in Wave IV.

Model 2 asks women to report the number of sexual partners in the past twelve months in Wave IV. Similar to the Wave III outcomes, both sexual intercourse before

Wave I and expectations of sexual pleasure are significantly associated with total number of sex partners in the past year. In terms of racial group differences, African American women report having more sexual partners in the past year than white women. Additionally, similar to Wave III, the higher the parental education in adolescence, the more sexual partners a woman is likely to have in Wave IV.

Model 5 asks women about general birth control use in Wave IV. Although having sex is still negatively associated with using birth control in Wave IV as it was in Wave III, the association is no longer significant. In this model, sexual pleasure attitudes remain positive, but are not significant. Of those who have reported having sex in the past twelve months, African American women were significantly more likely than white women to use some form of birth control ($p<.01$). This stands in contrast to Wave III, when this group was significantly *less* likely to use birth control than white women. From this finding we can surmise that although African American women have had more sexual partners than white women in the past year, they are more likely to have protected sex. Similar to Wave III, the higher a girl's GPA in high school, the more likely she is to use birth control in Wave IV ($p<.05$). Interestingly, girls who were members of a religious group in Wave I are also more likely to use contraception in Wave IV ($p<.01$). Additionally, girls from urban schools and those whose mothers had paid jobs in adolescence were also more likely to use birth control during sex in the Wave IV sample. In terms of regional differences, girls from the Midwest and South were significantly less likely to use birth control than women from the Northeast.

Model 6 presents the effects of the independent variables on whether or not the respondent has used a condom during the times she had sexual intercourse in the past

twelve months. Similar to Wave III, having had sex prior to Wave I is negatively associated with using a condom ($p<.01$). Again, expectations of sexual pleasure in adolescence are positive, but not significantly associated with condom use. African American women are more likely than white women to use condoms ($p<0.1$), however, there are no other significant differences in condom use between Asian American or other minorities and white women. In terms of the remaining independent variables, women who grew up in other-two parent families in Wave I are less likely to use condoms in the past twelve months. Also, women who attended urban schools are more likely to use condoms than women who attended suburban schools in Wave I ($p<.01$).

Model 7 examines the relationship between the independent variables and the likelihood of being diagnosed with a sexually transmitted disease in the past twelve months. In contrast to the differential effects of sexual behavior and sexual pleasure attitudes in previous models, both of the variables are positively and significantly related to being diagnosed with an STD, making it the only negative effect of adolescent attitudes toward sexual pleasure on sexual outcomes in adulthood. However, this relationship disappears when controlling for contraceptive use. In terms of race, African American women are more likely than white women to be diagnosed with an STD in the past twelve months and women who went to school in the Midwest and South are less likely than females from the Northeast to be diagnosed with an STD.

5.5.2 GLM Results for the Male Sample

Table 5.4 presents the results from the generalized linear model of the determinants of sexual health and behavior outcomes for the male sample in Wave III.

Overall, the results of the effects of sexual intercourse prior to Wave I and sexual pleasure attitudes follow similar patterns to the female sample. For example, in the female and male sample, both sexual pleasure attitudes and having sex in adolescence are significantly related to the number of times a young man has had sex in the past twelve months. And, again, the effect of sexual experience prior to Wave I is much stronger than that of sexual pleasure attitudes. In terms of race, African American, Asian American, and other minority men report significantly fewer sexual partners in the past 12 months than white male respondents. In contrast to the female sample, age in Wave I has no significant effect on the number of sexual partners a young man will have in Wave III. Finally, men who grew up in two-biological parent families have fewer sexual partners in young adulthood ($p<.05$).

Model 2 tests the effects of the independent variables on a young man's total number of sexual partners in his lifetime. Again, sexual experience prior to Wave I and expectations of sexual pleasure are positively associated with total number of sexual partners ($p<.01$). African American respondents are significantly more likely than white male respondents to have more sexual partners in their lifetime and Asian American males have fewer sexual partners than white respondents ($p<.01$). In contrast to the female sample, there is no significant difference between other racial minority respondents and white male respondents. Similar to the female sample, higher parental education level in adolescence is positively associated with total number of sexual partners ($p<.01$). Additionally, average GPA in high school, growing up in a two-biological parent family, and attending a school in the West are negatively associated with a young man's total number of sexual partners by Wave III. In contrast, growing up

in a two-other parent family is positively associated with total number of sexual partners.

Model 3 estimates the relationship between the independent variables and how many times a young man has used any type of birth control during sex in the past twelve months. Having sex prior to Wave I is negatively associated with birth control use ($p<.05$), whereas sexual pleasure attitudes are positively associated with birth control use, though not significant. In terms of racial differences, African American, Asian American, and other racial minority men are less likely than white respondents to use any form of birth control. The relationship between sexual behavior and contraceptive use for African American men versus Asian American men is interesting. Whereas African American men have more sexual partners in their lifetime than white men and Asian American men have fewer sexual partners in their lifetime than white respondents, both groups are less likely than white respondents to use any form of birth control during sex.

In terms of socioeconomic status measures, the higher a boys' parental education level in adolescence, the more likely he is to use any form of birth control in young adulthood. Similar to the female sample, the higher a boy's GPA in high school, the more likely he is to use any form of birth control. Boys who went to school in the West are less likely than those from the Northeast to use birth control in young adulthood ($p<.05$).

Model 4 presents the estimates for the number of times a young man has used a condom during sexual intercourse over the past twelve months. Similar to the female sample, having sex prior to Wave I is negatively related to condom use, while sexual pleasure attitudes are positively associated with condom use, but not significant. The racial group differences for condom use are similar to the female sample. Both African American men and men from other racial minority groups are more likely than white men

to use a condom using sex ($p<.01$). The younger a boy was during the Wave I survey, the less likely he is to use a condom during sex in young adulthood ($p<.01$).

In contrast to the female sample, which has no significant associations among family type and condom use, boys who grew up in single-parent families are more likely than those from two-biological and two-other parent families to use condoms. Additionally, boys who attended an urban school are more likely than boys who attended suburban schools to use condoms in young adulthood. Also, boys who attended private schools are less likely than boys from public schools to use condoms ($p<.01$).

Table 5.5 presents the estimates from the generalized linear model of boys' expectations of sexual pleasure on long-term sexual health and behavior outcomes in Wave IV, when most respondents were aged 24 to 32 years old. Model 1 presents the relationship between the independent variables and whether or not a man has had multiple concurrent sexual partners. In contrast to the female sample, both sexual experience prior to Wave I and expectations of sexual pleasure are positively associated with having multiple sex partners ($p<.01$). African American men and men from other racial minority backgrounds are more likely than white men to have concurrent sexual partners. This is in contrast to the female sample in which there are no significant racial differences.

In terms of the remaining independent variables, parental education level in adolescence is positively associated with having multiple sex partners, while age in Wave I, average GPA in high school, and living in a two parent-biological family versus a single-parent family are all negatively associated with the likelihood of having multiple

concurrent sex partners for men. Additionally, in contrast to the female sample, there are no significant differences for men by region.

Model 2 estimates the total number of sexual partners male respondents have had in the past twelve months. Similar to the female sample, both having sex prior to Wave I and expectations of sexual pleasure are positively associated with number of sexual partners. African American men and men from other racial minority groups are also more likely to have more sexual partners in the past year than white male respondents ($p<.01$). There are no significant differences in number of sexual partners by socioeconomic status measures, but similar to Model 1, both age in Wave I and being from a two biological parent family are negatively associated with number of sexual partners ($p<.01$).

Model 5 estimates the likelihood that a male respondent used any form of birth control during sexual intercourse in the past twelve months. Like the female sample, neither sexual experience prior to Wave I nor expectations to sexual pleasure are significantly associated with general birth control use in Wave IV. Being African American, higher parental education and a higher average GPA in high school are all positively associated with the likelihood of using birth control in the past twelve months.

Model 6 estimates the likelihood of a male respondent using a condom during sexual intercourse in the past twelve months. Although sexual experience prior to Wave I and expectations to sexual pleasure are negatively associated with using a condom, the coefficients are not significant, which stands in contrast to the female sample in which having sex prior to Wave I was negatively associated with using a condom during sex. African American men and other racial minority men are more likely to use condoms during sex than white male respondents. Again, family structure is significant for men, in

that males living in a two other-parent family are less likely than males who grew up in a single-parent family to have used condoms during sex over the past twelve months.

Model 7 presents the coefficients for the associations of the independent variables and being diagnosed with a sexually transmitted disease in the past twelve months. In contrast to the female sample, only having sex prior to Wave I is significantly associated with being diagnosed with an STD, whereas expectations of sexual pleasure is not. African American males are more likely than white males to be diagnosed with an STD in the past year ($p<0.1$), whereas Asian American males are significantly less likely to be diagnosed with an STD than white male respondents. None of the other variables included from Wave I are significantly associated with being diagnosed with an STD in Wave IV.

5.6 Discussion

As described above, in the past decade or so, there has been a shift in the way researchers conceptualize adolescent sexuality and calls for a more positive, normative paradigm are no longer confined to feminist theorizing. Whereas Chapter 4 explored the different sociodemographic influences on the likelihood of having positive expectations of sexual pleasure, this chapter addresses the second question of interest in this research: How do attitudes toward sexual pleasure affect long term sexual health outcomes and, are these effects different from the effects of sexual behavior in adolescence? I examine both of these questions in separate samples for women and men in Waves III and IV.

A guiding framework of this chapter is the argument that sexual behaviors and sexual attitudes in adolescence will have differential effects on long-term sexual health

outcomes and that sexual pleasure attitudes will have positive or at least no negative effects on sexual health. However, for young men and women in Wave III, sexual behaviors and sexual pleasure attitudes do have similar significant effects on number of times a respondent has had sex in the past year and total number of sexual partners. Although this finding may seem to contradict the assertion that positive sexual attitudes are not detrimental to long-term sexual health, because respondents were young adults by Wave III (aged 19 to 24 years old), it may be inappropriate to argue the more times a person has sex is a negative outcome, especially if they are in a relationship. A similar, but less compelling case can be made to explain the positive effects of both prior sexual experience and sexual pleasure attitudes on total number of sexual partners in a respondent's lifetime. Although having more sexual partners may increase the chances of contracting an STD or having an unplanned pregnancy, the context surrounding these sexual encounters, especially regarding consistency of contraceptive, is essential to understanding whether or not more partners is associated with more risk.

The most important finding regarding the differential effect of adolescent sexual behavior and adolescent sexual attitudes are found in the models that estimate birth control use and condom use in Waves III and IV. For both young men and young women, having sex prior to the Wave I interview (when they were 19 years or younger), is significantly and negatively associated with birth control and condom use for both males and females. In contrast, expectations of sexual pleasure in adolescence do not have significant effects on contraceptive use. This finding demonstrates that although early sexual intercourse can have negative effects on long-term sexual health and behaviors, promoting positive sexual pleasure attitudes does not have the same negative effects.

Among the other independent variables, there are other notable findings regarding the relationship between social advantage and contraceptive use. Whereas African American men and women are significantly less likely than white respondents to use other forms of birth control, they are significantly more likely than whites to use condoms during sex. Without separating condom use and all other forms of birth control (oral contraceptives, barrier methods, etc.), this finding would have been masked. This finding is integral to understanding the sexual health behaviors of different racial groups, independent of the socioeconomic status indicators. For both men and women, higher parental education measured in Wave I, the more likely a respondent is to use birth control. Interestingly, however, both African American men and women are more likely to use any form of birth control than white respondents in Wave IV, demonstrating that the birth control/condom difference only exists when the respondents are younger.

The racial differences in STD diagnoses are also interesting. Although both African American males and females are more likely to use birth control and condoms than their white counterparts, they are also more likely to be diagnosed with an STD. These overall patterns lend support to the argument that positive sexual pleasure attitudes do not have the same effects as sexual intercourse in adolescence. My results further suggest that the effects of sexual pleasure attitudes on sexual behaviors and outcomes decrease over time and become almost negligible as young people reach their late twenties and early thirties.

Up until this point, the focus of intervention in sexual behavior of adolescents and young adults has focused primarily on sex education and the debate between the abstinence only and comprehensive curricula (Ashbee 2007; Chappell, Maggard, and

Gibson 2010; Gusrang and Cheng 2010; Irvine 2002; Lord 2010; McCarthy and Grodsky 2011; Luker 2006). These findings provide evidence that promoting positive attitudes toward sexuality, and expectations of sexual pleasure in particular, may have a more significant impact than information-based sex education. However, as previous work has demonstrated, sexual behavior in early adolescence not only impacts sexual behavior and health outcomes, but broader outcomes such as educational attainment, criminal activity, and mental health. The next chapter will explore the effects of sexual behavior and sexual pleasure attitudes on non-sexual health outcomes such as general health and achievement in Wave IV, when respondents were aged 24 to 32.

Table 5.1 Descriptive Statistics for Sexual Health Outcomes, National Longitudinal Study of Adolescent Health, Waves III and IV, 2001-2008

	Women		Men	
	Mean or Prop.	Std. Error	Mean or Prop.	Std. Error
WAVE III OUTCOMES				
Number of times had sex, past 12 montths	58.15	2.00	56.23	1.95
Number of sexual partners, lifetime	4.99	0.14	6.20	0.20
Use contraception during sex, past 12 months?	2.73	0.04	2.75	0.03
Use a condom during sex, past 12 months?	1.62	0.04	1.99	0.04
WAVE IV OUTCOMES				
Multiple sexual partners at the same time?	0.10	0.01	0.17	0.01
Number of sexual partners, past 12 months	1.30	0.03	1.91	0.07
Use contraception during sex, past 12 months?	2.52	0.02	2.58	0.02
Use a condom during sex, past 12 months?	2.24	0.02	2.37	0.02
Diagnosed with an STD, past 12 months?	0.14	0.01	0.05	0.00

Table 5.2 General Linear Model of Expectations of Girls' Sexual Pleasure on Sexual Health Outcomes, Wave III, 2001-02

	Model 1		Model 2		Model 3		Model 4	
	Number of times had sex, past 12 months		Total number of sexual partners, lifetime		How many times used birth control during sex		How many times used a condom during sex	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables								
Had sex in adolescence	27.688	(5.28)**	.746	(0.04)**	-.068	(0.02)**	-.220	(0.04)**
Sexual pleasure	7.888	(2.00)**	.126	(0.02)**	.011	(0.01)	-.027	(0.02)
Race								
African American	-40.054	(4.31)**	.015	(0.07)	-.097	(0.04)**	.458	(0.06)**
Asian American	-21.409	(4.98)**	-.448	(0.12)**	-.194	(0.08)*	.127	(0.11)
Other racial minorities	-11.659	(5.42)*	-.157	(0.06)**	.005	(0.04)	.209	(0.06)**
Socioeconomic Status								
Highest parental education	1.632	(0.77)*	.030	(0.01)**	.018	(0.01)**	.013	(0.01)
Family income	-.070	(0.05)	.000	(0.00)	.000	(0.00)*	.000	(0.00)
Other								
Adolescent's age	-4.101	(1.87)*	-.061	(0.02)**	.002	(0.01)	-.023	(0.02)
Religious	-2.869	(6.37)	-.269	(0.07)**	.015	(0.04)	.045	(0.08)
Average GPA in high school	-3.114	(3.18)	-.108	(0.02)**	.091	(0.02)**	.064	(0.03)*
Mother has a paid job	-6.155	(5.38)	.090	(0.05)	.013	(0.03)	-.030	(0.05)
Two-biological-parent family	-1.708	(4.57)	-.176	(0.05)**	.032	(0.03)	.032	(0.05)
Two other-parent family	11.153	(7.48)	.041	(0.06)	-.028	(0.04)	-.051	(0.06)
Attend a private school	1.064	(5.91)	.120	(0.07)	.057	(0.05)	-.015	(0.09)
Attend an urban school	-4.725	(4.52)	-.001	(0.06)	-.035	(0.03)	.051	(0.06)
West region	-3.198	(6.06)	.010	(0.08)	-.024	(0.05)	-.129	(0.08)
Midwest region	2.289	(5.30)	-.095	(0.07)	.003	(0.04)	-.049	(0.07)
South region	6.829	(5.27)	-.010	(0.07)	-.076	(0.04)	-.301	(0.07)**
N	4,460		4,963		4,122		4,129	
F-value	12.82		29.99		13.97		10.37	
Model	Linear Reg		Neg Bin Reg		Neg Bin Reg		Neg Bin Reg	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables ($m = 20$). *$p < .05$, **$p < .01$ (2-tailed).

Table 5.3 General Linear Model of Expectations of Girls' Sexual Pleasure on Long-Term Sexual Health Outcomes, Wave IV, 2007-08

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Multiple sex partners, past 12 months		Total number of sexual partners, past 12 months		Use birth control when having sex, past 12 months		Used a condom when having sex, past 12 months		Diagnosed with STD, past 12 months	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables										
Had sex in adolescence	.515	(0.15)**	.197	(0.04)**	-.077	(0.10)	-.255	(0.09)**	.344	(0.12)**
Sexual pleasure	.134	(0.08)	.052	(0.02)*	.002	(0.05)	.042	(0.04)	.119	(0.06)*
Race										
African American	.356	(0.18)	.093	(0.04)*	.369	(0.14)**	.676	(0.12)**	.429	(0.14)**
Asian American	.683	(0.45)	-.065	(0.09)	-.317	(0.33)	-.030	(0.28)	-.496	(0.45)
Other racial minorities	.259	(0.21)	.141	(0.11)	-.320	(0.19)	.121	(0.13)	.022	(0.15)
Socioeconomic Status										
Highest parental education	-.002	(0.02)	.016	(0.01)*	.027	(0.02)	.019	(0.02)	.020	(0.02)
Family income	-.002	(0.00)	.000	(0.00)	.002	(0.00)	.001	(0.00)	.000	(0.00)
Other										
Adolescent's age	-.227	(0.06)**	-.058	(0.01)**	-.080	(0.06)	-.122	(0.04)**	-.127	(0.07)
Religious	-.177	(0.22)	.000	(0.05)	.274	(0.13)**	.164	(0.13)	-.205	(0.14)
Average GPA in high school	-.212	(0.08)**	-.029	(0.03)	.222	(0.05)*	.098	(0.05)	-.117	(0.07)
Mother has a paid job	-.055	(0.19)	-.021	(0.05)	.106	(0.13)**	.018	(0.11)	-.043	(0.14)
Two-biological-parent family	-.033	(0.14)	-.035	(0.04)	-.048	(0.11)	.042	(0.09)	-.036	(0.14)
Two other-parent family	.044	(0.15)	-.030	(0.05)	-.112	(0.12)	-.181	(0.09)*	-.260	(0.16)
Attend a private school	.299	(0.21)	.063	(0.06)	.109	(0.25)	.008	(0.12)	-.049	(0.20)
Attend an urban school	.235	(0.14)	.031	(0.05)	.281	(0.13)*	.215	(0.08)**	.130	(0.10)
West region	-.523	(0.23)*	.005	(0.07)	-.088	(0.20)	.011	(0.16)	-.207	(0.18)
Midwest region	-.145	(0.19)	.017	(0.05)	-.365	(0.16)*	.055	(0.11)	-.371	(0.18)*
South region	-.665	(0.21)**	-.067	(0.04)	-.371	(0.14)**	-.096	(0.11)	-.298	(0.15)*
N	5,334		5,274		5,331		5,331		5,329	
F-value	6.54		4.98		5.48		5.45		2.83	
Model	Logistic Regression		Negative Binomial Regression		Multinomial Logistic Reg		Multinomial Logistic Reg		Logistic Regression	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). *p < .05, **p <.01 (2-tailed).

Table 5.4 General Linear Model of Expectations of Boys' Sexual Pleasure on Sexual Health Outcomes, Wave III, 2001-02

	Model 1		Model 2		Model 3		Model 4	
	Number of times had sex, past 12 months		Total number of sexual partners, lifetime		How many times used birth control during sex		How many times used a condom during sex	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables								
Had sex in adolescence	27.283	(3.25)**	.740	(0.03)**	-.050	(0.02)*	-.115	(0.03)**
Sexual pleasure	6.315	(1.55)**	.130	(0.02)**	.004	(0.01)	.001	(0.02)
Race								
African American	-32.918	(4.21)**	.166	(0.04)**	-.089	(0.03)**	.289	(0.04)**
Asian American	-28.072	(5.92)**	-.527	(0.07)**	-.103	(0.05)*	.038	(0.06)
Other racial minorities	-10.007	(4.61)*	.087	(0.05)	-.070	(0.03)*	.142	(0.04)**
Socioeconomic Status								
Highest parental education	.101	(0.56)	.020	(0.01)**	.016	(0.00)**	.005	(0.01)
Family income	-.029	(0.04)	.000	(0.00)	.000	(0.00)	.000	(0.00)
Other								
Adolescent's age	-2.212	(1.33)	-.021	(0.01)	-.012	(0.01)	-.066	(0.01)**
Religious	-7.238	(4.33)	.015	(0.05)	-.026	(0.03)	.036	(0.04)
Average GPA in high school	-2.449	(1.85)	-.063	(0.02)**	.065	(0.01)**	.019	(0.02)
Mother has a paid job	1.407	(3.57)	.060	(0.04)	.029	(0.02)	-.010	(0.03)
Two-biological-parent family	-6.814	(3.53)*	-.128	(0.04)**	-.014	(0.02)	-.068	(0.03)*
Two other-parent family	4.437	(4.36)	.094	(0.05)*	.005	(0.03)	-.126	(0.04)**
Attend a private school	7.246	(5.97)	.018	(0.06)	.024	(0.04)	-.227	(0.06)**
Attend an urban school	-.218	(3.46)	-.018	(0.04)	.013	(0.02)	.070	(0.03)*
West region	3.644	(5.28)	-.146	(0.06)*	-.073	(0.04)*	-.058	(0.05)
Midwest region	.869	(5.09)	-.081	(0.05)	-.001	(0.03)	-.087	(0.05)
South region	-2.159	(4.90)	-.022	(0.05)	-.047	(0.03)	-.059	(0.05)
N	4,583		4,866		3,835		3,862	
F-value	10.88		53.00		8.85		8.37	
Model	Linear Reg		Neg Bin Reg		Neg Bin Reg		Neg Bin Reg	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables ($m = 20$). *$p < .05$, **$p < .01$ (2-tailed).

Table 5.5 General Linear Model of Expectations of Boys' Sexual Pleasure on Long-Term Sexual Health Outcomes, Wave IV, 2007-08

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Multiple sex partners past, the 12 months		Total number of sexual partners, past 12 months		Use birth control when having sex, past 12 months		Used a condom when having sex, past 12 months		Diagnosed with STD, past 12 months	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables										
Had sex in adolescence	.510	(0.09)**	.203	(0.03)**	-.059	(0.09)	-.086	(0.07)	.430	(0.15)**
Sexual pleasure	.116	(0.04)**	.040	(0.02)*	.017	(0.04)	-.017	(0.03)	.031	(0.07)
Race										
African American	.786	(0.10)**	.510	(0.04)**	.461	(0.12)**	.959	(0.09)**	.763	(0.16)**
Asian American	-.372	(0.21)	-.090	(0.07)	-.204	(0.18)	.264	(0.14)	-1.051	(0.47)*
Other racial minorities	.388	(0.12)**	.313	(0.05)**	.084	(0.13)	.289	(0.10)**	.066	(0.21)
Socioeconomic Status										
Highest parental education	.034	(0.02)*	.010	(0.01)	.045	(0.02)**	.015	(0.01)	-.021	(0.03)
Family income	.000	(0.00)	.000	(0.00)	.001	(0.00)	.001	(0.00)	-.002	(0.00)
Other										
Adolescent's age	-.171	(0.04)**	-.043	(0.01)**	-.140	(0.04)**	-.149	(0.03)**	-.047	(0.06)
Religious	.027	(0.11)	.010	(0.04)	.022	(0.12)	-.043	(0.09)	.010	(0.19)
Average GPA in high school	-.098	(0.05)*	.019	(0.02)	.247	(0.05)**	.071	(0.04)	.022	(0.08)
Mother has a paid job	.044	(0.10)	.058	(0.04)	.013	(0.10)	.070	(0.08)	.236	(0.16)
Two-biological-parent family	-.258	(0.09)**	-.107	(0.04)**	-.121	(0.10)	-.129	(0.08)	-.296	(0.16)
Two other-parent family	-.049	(0.11)	-.016	(0.04)	-.224	(0.12)	-.176	(0.09)*	-.212	(0.18)
Attend a private school	-.001	(0.16)	-.031	(0.06)	-.026	(0.18)	-.048	(0.13)	.430	(0.25)
Attend an urban school	.052	(0.09)	-.011	(0.03)	.127	(0.10)	.054	(0.07)	.089	(0.15)
West region	-.137	(0.14)	.024	(0.05)	.016	(0.15)	-.046	(0.11)	-.100	(0.24)
Midwest region	-.049	(0.13)	.038	(0.05)	.002	(0.14)	-.016	(0.11)	.029	(0.22)
South region	-.134	(0.13)	.008	(0.05)	-.197	(0.14)	-.173	(0.10)	-.181	(0.21)
N	5,106		5,052		5,083		5,083		5,120	
F-value	11.63		18.52		4.89		6.74		3.91	
Model	Logistic Regression		Negative Binomial Regression		Multinomial Logistic Reg		Multinomial Logistic Reg		Logistic Regression	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). *p < .05, **p <.01 (2-tailed).

CHAPTER 6: EFFECTS OF EXPECTATIONS OF SEXUAL PLEASURE ON LONG-TERM HEALTH AND ACHIEVEMENT OUTCOMES

6.1 Introduction

In addition to the connection between adolescent sexual attitudes and behavior and long-term sexual outcomes, scholars have also hypothesized that adolescent sexuality has deleterious effects that extend beyond the sexual realm. Various studies have examined the impact of adolescent sexuality on various general life outcomes of interest to sociologists, such as mental health and psychological well-being (Billy et al. 1988; Joyner and Udry 2000; Rector and Johnson 2005; Meier 2007; Monahan and Lee 2008), delinquent behavior (Haynie et al. 2005; McCarthy and Casey 2007; Armour and Haynie 2007), and educational attainment (Waite and Moore 1978; Upchurch and McCarthy 1990; Schvaneveldt et al. 2001; McCarthy and Grodsky 2011). Adolescent sexual behavior, in these studies, is lumped in with other risk factors for delinquency such as drug and alcohol use, truancy, etc. Results from these studies have been used to bolster support for sexual abstinence until marriage or to at least delay adolescent sexual debut as long as possible.

Although these studies have found significant relationships between sexual intercourse in adolescence and certain negative outcomes, subsequent research has challenged the strength of this causal link based on the lack of contextual factors; one of

the most important being the relationship context in which adolescent sexual behavior takes place (Manning, Longmore, and Giordano 2005, 2006; Giordano, Longmore, and Manning 2006; Schalet 2000, 2010). For example, McCarthy and Grodsky (2011) found that when relationship context was taken into account, there were no significant differences in educational outcomes between respondents who had sex within a stable, romantic relationship and those who had never had sex. Relationship context was similarly important in moderating the relationship between adolescent sex and other negative outcomes such as psychological well-being and deviant behavior. When taking relationship context into account, respondents who had sex in adolescence were more susceptible to depression and involvement in delinquent behaviors such as substance use and crime *only* if the sexual activity occurred outside of a romantic relationship (McCarthy and Casey 2008; Monahan and Lee 2008; Grello et al. 2006; Meier 2007).

In addition to relationship context, other sociodemographic factors such as age, gender, race, socioeconomic status, and peer, family and cultural norms have been found to significantly moderate the effects that adolescent sex has on later life outcomes (Crawford and Popp 2003; Moore and Rosenthal 2006; Longmore et al. 2004; Geronimus 1996; Anderson 1999; Harding 2007; Harden et al. 2008; Kreager and Staff 2009; Sabia 2007a, 2007b). These studies call into question the assumption that adolescent sex has a direct, negative effect on long-term outcomes. Proponents of the normative, developmental approach to adolescent sexuality have argued that it is not necessarily adolescent sexual activity that is inherently negative, but whether or not the cultural, family, and peer norms surrounding adolescent sexuality are negative that determines whether or not sexual behavior influences negative outcomes. From this theoretical

standpoint, it is the stigma, shame, and guilt surrounding sexuality that is the mediator between adolescent sexual behavior and negative long-term outcomes (Tiefer 1994; McCarthy and Grodsky 2011; Tolman 1996; 2002; Thompson 1995).

This chapter tests a similar assumption regarding the connection between attitudes toward sexual pleasure and long-term general health and achievement outcomes. Feminist sexuality scholars have argued that in addition to its beneficial effects on sexual behavior and decision-making, positive attitudes toward sexuality, and expectations of sexual pleasure in particular, are beneficial for broader self-esteem and well-being (Martin 1996; Fine 1988; Debold 1996; Tolman 2002; McClelland 2010; Vrangalova and Savin-Williams 2011; Tolman and McClelland 2011). These scholars argue that sexual self-concept is an integral component of a person's sense of self, distinct from general self-esteem. However, these assumptions have yet to be empirically tested using national representative data. In this chapter I test the long-term effects of attitudes toward sexual pleasure and adolescent sexual behavior on long-term health and achievement outcomes.

6.2 Research Questions and Hypotheses

Considering the importance of context demonstrated by previous research, positive attitudes toward sexuality should have limited or no negative long-term effects for young men and women. The first aim of this chapter is to empirically test the assumptions put forth by the feminist sexuality scholars and proponents of the normative, developmental perspective of adolescent sexuality with regard to the beneficial effects of positive expectations of sexual pleasure. This informs the first hypothesis:

> Hypothesis 1: Positive attitudes toward sexual pleasure formed in adolescence will have positive effects on health and later life outcomes measured in adulthood.

Secondly, contextual factors cannot explain away all of the associations between adolescent sexuality and negative outcomes. Therefore, researchers and activists alike are still wary to aggressively promote positive sexuality for young people. The assumption remains that positive attitudes toward sexuality will lead to more adolescent sex, which in turn puts teens at a greater risk for some negative outcomes. Even if the risks are small and only applicable to certain groups, any potential for risk should be avoided at all costs. In contrast, my research proceeds under the assumption that sexual attitudes and sexual behavior will have discrete influences on later life outcomes. This informs the second hypothesis:

> Hypothesis 2: Sexual behavior and sexual pleasure attitudes will have differential and distinct effects on non-sexual health and well-being outcomes in adulthood.

Finally, as discussed in previous chapters, there continues to be debate about the utility of promoting sexual agency for young people (Lamb 2010a, 2010b; Peterson 2010; Lamb and Peterson 2011; Gavey 2012; Levy 2005). Feminists who are opposed to the promotion of sexual empowerment for teens argue that sexual agency is something that can only come from age, experience, and maturity, and that adolescents who say they are empowered, are most likely not "truly" empowered. This informs the third hypothesis:

> Hypothesis 3: Expectations of sexual pleasure in adolescence will have no significant long-term effects on health and achievement outcomes in adulthood.

This hypothesis assumes that although attitudes toward sexual pleasure may have short-term effects, no long-term impact will result from attitudes formed in adolescence.

6.3 Sample Characteristics

The samples used in this chapter come from Waves I and IV of the Add Health data set. Respondents who completed the Wave I in-home interview were reinterviewed in 2007 or 2008 if they could be located, when the majority of respondents was aged 24 to 32 years old. This chapter focuses exclusively on the connection between sexual pleasure attitudes formed in adolescence and general health and achievement outcomes in adulthood, when we can assume that educational and career trajectories are beginning to be solidified. I begin with general health measures.

Mental health is measured using the Center for Epidemiological Studies Depression Scale (CES-D). This scale was originally created to test for depressive symptoms in adults and more recently has been used with adolescent populations (Radloff 1977, 1991). The original CES-D scale used a 20 item inventory, however I use the abbreviated version constructed by Add Health, based on the sum of five items: "During the past seven days: 1) you were bothered by things that usually don't bother you; 2) you could not shake off the blues, even with help from your family and your friends; 3) you had trouble keeping your mind on what you were doing; 4) you felt depressed; and 5) you felt sad." Responses range from 0 to 3 for each question, with higher values indicating more depressive symptoms.

Physical health is measured using a dichotomous variable indicating whether or not the respondent was overweight or obese based on their body mass index score (BMI).

BMI is calculated using the following formula: (weight in pounds × 4.88) ÷ (height in feet)^2. Following the recommendation by the National Institutes of Health Clinical Guidelines (National Institutes of Health 1998), respondents with a score of 25 or above are then coded as overweight or obese.

In addition to mental and physical health, number of close friends is included as a measure of well-being in adulthood. This is measured using the question "How many close friends do you have?" This variable is coded on a 5-point scale from 1=1, 2=2, 3=3, 4=4 and 5=ten or more friends. Finally, standard achievement outcomes are measured by educational attainment in years of schooling completed and personal earnings in thousands of dollars. Table 6.1 compares the means and standard deviations for the unweighted Wave IV dependent variables for the male and female samples used in this chapter.

Among the Wave IV general health outcomes, female respondents are more likely to report higher scores on the CES-D depression scale than male respondents (2.86 versus 2.39). In contrast, male respondents are more likely to be overweight or obese than their female counterparts (0.68 versus 0.59). Male respondents are slightly more likely to have more close friends than female respondents (3.20 versus 3.07). In terms of socioeconomic status outcomes in adulthood, female respondents have a higher mean number of years of schooling than males (14.22 versus 13.72), but men have much higher personal incomes than females. The average male in the sample makes just over $40,000 per year while the average female reported making just over $28,000 per year.

6.4 Analytic Strategy

Similar to Chapter 5, I use linear regression, binary logit, and ordinal logit to estimate the effects of expectations of sexual pleasure in adolescence on long-term outcomes to accommodate the variety of ways the variables are measured in Wave IV. I conceptualize these models under the framework of the generalized linear model (GLM). In a generalized linear model, the right-hand-side equation is a linear combination of independent variables (i.e., $\beta_0 + \beta_1 x_1 + \ldots + \beta_K x_K + \varepsilon$), as commonly seen in OLS regression. This GLM framework serves well for this analysis because I am primarily interested in 1). whether or not expectations of sexual pleasure have any effect on long term outcomes; 2). whether or not the coefficients are negative or positive; and 3). whether or not the effects of adolescent sexual behavior differ from adolescent sexual attitudes.

In addition to sexual pleasure and sexual behavior measures, I control for all of the independent variables measured in Wave I in the models including: race (African American, Asian American, and other racial minorities, with white as the reference group), socioeconomic status (measured by highest parental education and family income), age measured during the Wave I survey, religious group membership, average GPA in high school, whether your mother had a paid job, family structure (two-biological parents, two other parent, and single parent), whether the respondent attended a private or urban school, or a school in the West, Midwest, or South region (with Northeast as the reference group). All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20).

6.5 Results

6.5.1 GLM Results for the Female Sample

Table 6.2 presents the estimates for the female sample. Among the general health outcomes, neither sexual behavior nor sexual pleasure attitudes significantly affect depression or obesity among women. In both models, African American and other racial minority women are significantly more likely than white women to be depressed and overweight or obese. In terms of socioeconomic status measures, higher parental education and family income are both negatively associated with the likelihood of being overweight and obese. Average GPA is also negatively associated with the likelihood of both depression and obesity for women in Models 1 and 2.

Model 3 presents the estimates for number of close friends in adulthood for female respondents in Wave IV. Whereas having sex prior to Wave I has a negative, but insignificant effect on number of close friends, expectations of sexual pleasure is positive and significantly associated with number of close friends for women, holding all other variables constant. Similar to Models 1 and 2, certain measures of social advantage in adolescence are positively associated with number of close friends in adulthood. Both parental education and family income are positively associated with number of close friends as well as average GPA in high school. None of the other Wave I independent measures are significant, except for being African American, which is negatively associated with number of close friends for women ($p<.01$).

Model 3 presents the relationship between the Wave I independent variables and years of schooling measured in Wave IV. These results show the starkest difference in the effects of sexual behavior versus sexual attitudes in adolescence. Women who had

sex in adolescence have significantly fewer years of schooling than women who had sex after Wave I ($p<.01$). Past research on neighborhood disadvantage and sexuality has demonstrated the different sexual and romantic trajectories of women (and men) in disadvantaged structural positions (Brewster 1994; Harding 2007; Edin and Kefalas 2005). Although I do control for racial background and class status in adolescence, the significant effect of sex before Wave I, may not be a function of sexual behavior, per se, but the fact that these girls were already disadvantaged prior to having sex. As Brewster found:

> Young women of both races show a greater propensity to engage in sexual activity when the potential consequences of such activity…appear relatively low. When the potential costs appear high, however, teens of both races are more likely to delay the initiation of coital behavior (1994:421).

The negative effect of sexual behavior prior to Wave I on educational attainment should also be considered in light of the research on the differential sexual trajectories for girls from advantaged versus disadvantaged backgrounds (Edin and Kefalas 2005). This research argues that more advantaged women delay marriage and childbearing because they have access to educational and career opportunities that would be negatively impacted by young motherhood. In turn, research has also shown that many advantaged women have the privilege to explore their sexuality within the hook-up culture of college (Bogle 2008; Armstrong, England, and Fogarty 2010, 2012). This stands in contrast to the patterns for disadvantaged women who do not have the same access to college and accrue adult status through childbearing (Edin and Kefalas 2005).

In contrast, women who have positive attitudes toward sexual pleasure in adolescence have significantly more years of schooling than women who had more

negative views toward sexual pleasure in adolescence. This finding is noteworthy considering that the sexuality variables remain significant holding traditional sociodemographic measures such as racial background, socioeconomic status, family structure, region, and all other independent variables constant. In addition to the sexuality questions, traditional determinants such as parental education, family income, and average GPA are all positively associated with years of schooling for women in Wave IV.

In contrast to Model 4, neither the sexual behavior nor sexual pleasure question is significantly associated with personal earnings for women. Highest parental education and being a member of the other minority group are associated with higher personal earnings for women. Again, average GPA in high school is significantly associated with higher personal earnings for women, net of all other independent variables ($p<.01$). The next section of this chapter examines the effects of attitudes toward sexual pleasure and the other independent variables for the male sample.

6.5.2 GLM Results for the Male Sample

Table 6.3 presents the results from the general linear model of expectations of sexual pleasure in adolescence on long-term outcomes in adulthood. Model 1 tests the associations between the selected Wave I independent variables and scores on the CES-D depression scale in adulthood for male respondents. Similar to the female sample, neither adolescent sexual experience nor attitudes toward sexual pleasure are significantly associated with depression in adulthood for men. In terms of the other independent variables, African American males are more likely than white male respondents to be

depressed in adulthood, which mirrors the finding in the female sample. Additionally, men with higher average GPAs in high school and higher parental education levels are less likely to have depressive symptoms in adulthood.

Model 2 estimates the relationship between the independent variables and being overweight or obese in adulthood. In contrast to the female sample, having sex prior to Wave I is positively associated with being obese or overweight in adulthood for males. Men from other racial minority groups and men who were members of a religious group in Wave I are also more likely to be overweight or obese in adulthood. Family structure is also significantly associated with obesity in adulthood. Men who grew up in two parent households (both biological and not) are more likely than men from single parent families to be obese in adulthood, holding all other variables constant. For males, family income in adolescence is the only variable that protects against obesity in adulthood ($p<.01$).

Model 3 presents the estimates for number of close friends in adulthood for men surveyed in Wave IV. In contrast to the female sample, sexual pleasure attitudes in adolescence are not associated with number of close friends in adulthood. However, men who had sex prior to Wave I have significantly fewer close friends than men who had sex after the Wave I interview. In terms of racial differences, African American and other racial minority men have fewer close friends than white males. Both socioeconomic status measures (highest parental education and family income) are positively associated with number of close friends in adulthood for men ($p<.01$). Men who reported being a member of a religious group in Wave I and those whose mother had a paid job are also more likely to have more close friends. Additionally, men who had higher average GPAs in high school and attended a private school have more close friends in adulthood than

men with lower GPAs and those from public schools. Finally, men who attended an urban school, and/or went to school in the West or South have fewer close friends than men who went to a suburban school and/or a school in the Northeast.

Model 4 presents the estimates for years of schooling for the male sample. Like the female sample, sexual behavior prior to Wave I has a significant negative impact on years of schooling ($p<.01$). In contrast, expectations of sexual pleasure in adolescence are positively associated with years of schooling for boys at the 0.01 level. Markers of social advantage such as socioeconomic status, higher average GPA, and attending a private school are all significantly associated with more years of schooling. In addition, being Asian American or a member of a religious group in adolescence are both positively associated with educational attainment. Men who went to school in the West and South also have fewer years of schooling than men who went to school in the Northeast.

Model 5 predicts personal earnings in adulthood by the independent variables from Wave I. While sexual behavior prior to Wave I is not significantly associated with personal earnings in adulthood, positive sexual pleasure attitudes are significantly associated with higher personal earnings for male respondents ($p<.05$). As expected, traditional social capital measures such as family income, average GPA, and attending a private school are all positively associated with personal income in adulthood for men. In terms of racial background, African American men have significantly lower personal earnings than white male respondents in the Wave IV sample ($p<.01$). Finally, men who went to school in the West, Midwest, or South have significantly lower personal earnings than those men who grew up in the Northeast ($p<.01$).

6.6 Discussion

Overall, the results in this chapter show that there are significant long-term benefits of positive attitudes toward sexual pleasure in adolescence for both men and women, confirming Hypothesis 1. In regards to Hypothesis 3, despite discussions about whether or not adolescents are "truly" empowered, positive expectations of sexual pleasure within adolescence have lasting, significant effects on long-term outcomes, above and beyond the traditional sociodemographic determinants.

For women, positive expectations of sexual pleasure significantly impacts number of close friends and educational attainment in adulthood, holding all other variables constant. The differential relationship between the two sexuality measures and educational attainment confirms Hypothesis 2; that sexual experience has a differential effect than attitudes toward sexual pleasure. As described above, however, the actual effect of sexual behavior must be considered in light of the fact that girls who are already disadvantaged to begin with are more likely to engage in early sex. Therefore, it is unclear whether or not it is the actual sexual activity or a priori disadvantage that is having the negative long-term effect on educational attainment.

For male respondents, again we see positive and distinct long-term effects of adolescent expectations of sexual pleasure versus adolescent sexual behavior. Similar to the female sample, expectations of sexual pleasure in adolescence have a significant and positive impact on educational attainment in adulthood. In contrast, sexual experience prior to Wave I has a significant and negative impact on years of schooling, again confirming Hypothesis 2 for male respondents. In addition to educational attainment, positive expectations of sexual pleasure in adolescence have a significant and positive

effect on personal earnings in adulthood for the male sample, whereas adolescent sexual experience is not significant. In fact, sexual behavior in adolescence has a negative effect on number of close friends and physical health (measured by BMI) for men in addition to years of schooling.

The effects of positive attitudes toward sexuality go beyond the benefits of general self-esteem, giving empirical justification for the theory that sexual pleasure (and sexual empowerment broadly) are integral to long-term well-being. In a supplementary analysis, I include a measure of global self-esteem, which is measured as a composite score of six items: 1) I have a lot of good qualities; 2) I have a lot to be proud of; 3) you like yourself just the way you are; 4) you feel like you are doing everything just right; 5) you feel socially accepted; and 6) you feel loved and wanted. Results show that both the magnitudes and the statistical significance of expectations of sexual pleasure attitudes remain the same. These findings add weight to the feminist contention that sexual empowerment and entitlement to sexual pleasure are integral for overall health and well-being beyond just the sexual realm.

These findings are an important addition to the debate over sexuality education in the United States. As described above, the general fear among parents, teachers, and policymakers was that any discussions of the positive aspects of sexuality would put teens at risk for negative short and long-term outcomes. Until now, those assumptions about positive attitudes toward sexuality have never been empirically tested using longitudinal data. Using a nationally representative data set such as Add Health allowed me to test whether or not advocating for positive attitudes toward sexuality has similar negative effects as adolescent sexual behavior. My results show a distinct difference

between the long-term effects of adolescent sexual attitudes and adolescent sexual behavior for both men and women. These findings can be used to bolster the argument that advocating for developmentally-appropriate sexuality education and fostering a positive, shame-free approach to adolescent sexuality is not detrimental to long-term outcomes. In fact, positive attitudes toward sexual pleasure have significant positive benefits for personal earnings for men and educational attainment for both men and women, above and beyond all independent controls.

Table 6.1 Descriptive Statistics for Long-Term Outcomes, National Longitudinal Study of Adolescent Health, Wave IV, 2007-08

	Women		Men	
	Mean or Prop.	Std. Error	Mean or Prop.	Std. Error
CESD depression scale	2.86	0.05	2.39	0.06
Overweight or obese?	0.59	0.01	0.68	0.01
Number of close friends	3.07	0.03	3.20	0.03
Years of schooling	14.22	0.10	13.72	0.10
Personal income	28.04	0.91	40.93	1.15

Table 6.2 General Linear Model of Expectations of Girls' Sexual Pleasure on Long-Term Outcomes, Wave IV, 2007-08

	Model 1		Model 2		Model 3		Model 4		Model 5	
	CESD Depression Scale		Overweight or Obese		Number of Close Friends		Years of Schooling		Personal Earnings	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables										
Had sex in adolescence	.070	(0.13)	.134	(0.09)	-.099	(0.09)	-.542	(0.07)**	-.495	(1.67)
Sexual pleasure	.018	(0.06)	-.029	(0.05)	.091	(0.04)*	.138	(0.03)**	-.106	(0.68)
Race										
African American	.410	(0.17)*	.681	(0.11)**	-.623	(0.08)**	.268	(0.14)	4.013	(2.22)
Asian American	.424	(0.31)	-.301	(0.22)	-.176	(0.17)	-.065	(0.19)	16.898	(12.89)
Other racial minorities	.497	(0.17)**	.352	(0.15)*	-.215	(0.13)	.078	(0.13)	4.607	(1.90)*
Socioeconomic Status										
Highest parental education	-.042	(0.02)	-.067	(0.02)**	.063	(0.02)**	.203	(0.02)**	1.069	(0.23)**
Family income	-.001	(0.00)	-.002	(0.00)*	.002	(0.00)*	.004	(0.00)**	.064	(0.03)
Other										
Adolescent's age	-.007	(0.05)	.036	(0.04)	.035	(0.03)	.138	(0.04)**	1.949	(0.68)**
Religious	-.133	(0.18)	.093	(0.11)	.147	(0.10)	.276	(0.10)**	-.498	(1.42)
Average GPA in high school	-.401	(0.07)**	-.240	(0.05)**	.255	(9.05)**	.905	(0.04)**	5.449	(0.63)**
Mother has a paid job	-.237	(0.01)*	.064	(0.13)	.235	(0.10)*	.299	(0.09)**	3.421	(1.79)
Two-biological-parent family	-.043	(0.12)	.042	(0.12)	-.041	(0.09)	.097	(0.08)	-.809	(2.90)
Two other-parent family	.270	(0.15)	-.147	(0.12)	-.283	(0.02)*	-.445	(0.10)**	-4.024	(2.47)
Attend a private school	-.111	(0.16)	.017	(0.15)	.410	(0.18)*	.326	(0.26)	-4.024	(7.38)*
Attend an urban school	-.043	(0.13)	-.192	(0.10)*	.037	(0.08)	-.027	(0.14)	-1.575	(1.75)
West region	-.033	(0.16)	.287	(0.14)*	.100	(0.11)	-.391	(0.16)*	-8.135	(4.11)*
Midwest region	-.018	(0.16)	.208	(0.15)	.043	(0.11)	-.407	(0.16)*	-9.968	(2.69)**
South region	.100	(0.16)	.233	(0.13)	-.249	(0.09)	-.675	(0.15)**	-11.832	(2.56)**
N	5,337		5,227		5,268		5,338		5,095	
F-value	5.73		11.99		20.26		79.17		21.56	
Model	Linear Reg		Logistic Reg		Ord Log Reg		Linear Reg		Linear Reg	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). *p < .05, **p <.01 (2-tailed).

Table 6.3 General Linear Model of Expectations of Boys' Sexual Pleasure on Long-Term Outcomes, Wave IV, 2007-08

	Model 1		Model 2		Model 3		Model 4		Model 5	
	CESD Depression Scale		Overweight or Obese		Number of Close Friends		Years of Schooling		Personal Earnings	
	b	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.	*b*	S.E.
Wave I Variables										
Had sex in adolescence	.082	(0.07)	.193	(0.07)**	-.124	(0.06)*	-.538	(0.06)**	.950	(1.55)
Sexual pleasure	.047	(0.03)	.006	(0.03)	.035	(0.03)	.164	(0.03)**	1.699	(0.75)*
Race										
African American	.380	(0.09)**	-.131	(0.09)	-.433	(0.07)**	.042	(0.07)	-9.942	(2.04)**
Asian American	.268	(0.14)	-.146	(0.13)	.207	(0.11)	.499	(0.11)**	5.011	(3.02)
Other racial minorities	.154	(0.10)	.493	(0.11)**	-.168	(0.08)*	-.055	(0.08)	-2.835	(2.22)
Socioeconomic Status										
Highest parental education	-.031	(0.01)*	-.020	(0.01)	.039	(0.01)**	.175	(0.01)**	.442	(0.28)
Family income	.000	(0.00)	-.003	(0.00)**	.003	(0.00)**	.005	(0.00)**	.088	(0.02)**
Other										
Adolescent's age	-.026	(0.03)	.082	(0.03)**	.000	(0.02)	.077	(0.02)**	1.427	(0.64)*
Religious	.033	(0.10)	.251	(0.09)**	.170	(0.08)*	.265	(0.08)**	.493	(2.07)
Average GPA in high school	-.277	(0.04)**	-.039	(0.04)	.211	(0.03)**	.901	(0.03)**	6.229	(0.88)**
Mother has a paid job	.017	(0.08)	-.023	(0.08)	.152	(0.06)*	.143	(0.06)*	-.179	(1.71)
Two-biological-parent family	-.122	(0.08)	.159	(0.08)*	.020	(0.06)	.070	(0.06)	2.054	(1.71)
Two other-parent family	.120	(0.10)	.243	(0.09)**	-.122	(0.08)	-.295	(0.08)**	-2.281	(2.08)
Attend a private school	-.047	(0.13)	.000	(0.13)	.266	(0.10)**	.503	(0.10)**	9.097	(2.87)**
Attend an urban school	-.089	(0.08)	.048	(0.07)	-.135	(0.06)*	.249	(0.06)**	.927	(1.66)
West region	.004	(0.12)	.082	(0.11)	-.208	(0.09)*	-.240	(0.09)**	-6.642	(2.55)**
Midwest region	-.075	(0.11)	.003	(0.11)	-.061	(0.09)	-.059	(0.09)	-7.306	(2.42)**
South region	-.038	(0.11)	.001	(0.10)	-.174	(0.08)*	-.255	(0.08)**	-6.814	(2.35)**
N	5,122		5,096		5,059		5,123		4,887	
F-value	6.94		5.65		16.08		141.73		13.54	
Model	Linear Reg		Logistic Reg		Ord Log Reg		Linear Reg		Linear Reg	

Note: Standard errors are in parentheses. All coefficients are adjusted by survey sampling design and multiple imputations for missing cases in the control variables (m=20). *p < .05, **p <.01 (2-tailed).

CHAPTER 7: CONCLUSION

7.1 Introduction

This dissertation had two main goals. The first was to test the sociological determinants of attitudes toward sexual pleasure among heterosexual adolescents. In particular, I was interested in the ways in which gender, racial background, and socioeconomic status influence expectations of sexual pleasure when respondents were 15 to 19 years old. The second goal was to then see whether or not attitudes toward sexual pleasure formed in adolescence affect long-term sexual and contraceptive behavior. Additionally, I tested whether attitudes toward sexuality formed in adolescence have any impact beyond the sexual realm to influence general health and achievement outcomes of interest to sociologists, such as mental and physical health and educational attainment and earnings, when these same respondents were in their 20s and early 30s. This chapter highlights the major findings and policy implications, discusses the limitations of the research, and proposes potential avenues for future research.

7.2 Main Findings

As described above, the first goal of this research was to explore differences in expectations of sexual pleasure across traditional sociological dimensions. Chapter 1 begins by presenting the significant differences in sexual pleasure attitudes between girls and boys. The results show that the majority of male respondents agree that sex will be

pleasurable, regardless of their sociodemographic characteristics. Although this finding is not surprising considering the persistent sexual double standard in the United States, the magnitude of this disparity is notable in light of recent claims that girls and boys are becoming more similar in terms of their sexual attitudes and behaviors (Schalet 2012). My results show that boys were over three times as likely to "strongly agree" that sex will be pleasurable than girls were. In fact, the majority of girls were unsure that sex would be pleasurable at all, answering that they "neither agree nor disagree." This finding confirms previous research on girls' reluctance to express their sexual desires for fear of peer, family, or cultural stigmatization (Fine 1988; Tolman 2002; Brückner, Martin, and Bearman 2004; Muehlenhard and Peterson 2005).

I also found large gender differences in expectations of sexual pleasure when I compared frequency distributions by other sociodemographic characteristics. For example, the *largest* percentage of the female sample who agreed that sex would be pleasurable was girls who were not a member of a religious group (40.76%). In contrast, the *smallest* percentage of boys who agreed that sex would be pleasurable was boys who had not yet had sex by Wave I (53.17%). These findings confirm the persistent gender differences in the expectations of sex, and that boys, as a whole, are much more certain that sex will be a positive experience. However, as the multivariate analyses show, there are significant differences *among* girls and boys that would have been overshadowed by the strong cross-gender differences.

Although previous sexual experience was a significant determinant of positive expectations of sexual pleasure for both girls and boys, results from the multivariate analyses show the differential influences of racial background and socioeconomic status

by gender. For girls, positive expectations of sexual pleasure are stratified along racial lines. The results from Chapter 4 show that African American girls are significantly less likely to expect sex to be pleasurable than white girls. Furthermore, when I separate African American girls into two samples based on their sexual experience, girls who have had sex prior to Wave I are significantly more likely to have negative expectations of sexual pleasure. This is in contrast to the non-significant effect of expectations of sexual pleasure for African American girls who have not yet had sex. This finding is different from the full sample, in which prior sexual experience is positively correlated with expectations of sexual pleasure throughout all of the models.

The same differential effect on expectations of sexual pleasure is evident for Asian American girls and sexual experience; in that being Asian American does not have a significant effect on expectations of sexual pleasure until a girl has had sex. In contrast to other variables in which sexual experience changes the expectation of sexual pleasure from negative to positive (like West region) or variables that remain positive or negative regardless of sexual experience (like being a member of a religious group or attending a private school), being African American and Asian American are the only variables in which sexual experience changes expectations of sexual pleasure from positive (or insignificant) to negative. These results show that among racial/cultural groups, expectations and attitudes toward sexuality differ significantly for girls who have had sex versus those who have not.

Chapter 4 also shows that higher parental education positively affects adolescent girls' expectations of sexual pleasure both before and after teenage girls experience sexual intercourse. The universal effect of socioeconomic factors and the differential

effect of racial minority background suggest that determinants of social disadvantage do not always affect attitudes toward sexuality in the same way.

The pattern for the male sample is more straightforward. The multivariate analysis for the male sample shows that racial background has no significant effect on expectations of sexual pleasure. In addition, there is no variation based on sexual experience. For boys, positive expectations of sexual pleasure are stratified not by race, but by traditional social capital measures such as parental education level, high school grade point average, and attending a private school, which are all positively associated with expectations of sexual pleasure. Although these results in no way confirm that racial/sexual stereotypes do not exist for boys, the findings suggest that the impact on girls is more salient. From this I can tentatively conclude that the importance of sexuality to masculinity may override negative sexual stigma associated with minority or lower SES male sexuality.

Results from the first section of this dissertation lend support to the importance of using an intersectional framework to understand differences in sexual attitudes and behavior, especially in quantitative work (Collins 1990; 2004; McCall 2005; Tolman and Szalacha 1999; McCall 2005; Sprague 2005; Harnois 2005). Multiracial and intersectional feminist scholars have advocated for a nuanced examination of sexuality that not only takes gender differences into account, but also incorporates racial, socioeconomic and other salient characteristics in order to fully understand what factors influence positive sexual attitudes. As described above, if the male and female samples were combined, the large gender differences would have most likely masked the important racial and socioeconomic differences *among* men and women that give us

insight into the ways in which expectations of sexual pleasure are suppressed or enhanced. This is especially true of the interaction between sexual experience and negative sexual pleasure attitudes for African American and Asian American girls. These findings further highlight the fact that social stratification may double-disadvantage the sexuality of lower-status girls. Lower SES girls and girls from racial minority backgrounds are more likely to engage in adolescent sexual intercourse earlier and more often than their more advantaged counterparts. At the same time, they have consistently more negative attitudes toward sex as a normative and pleasurable part of life. Further research is needed to understand the ways in which these attitudes turn from positive or neutral to negative for certain groups of girls but not others.

Chapters 5 and 6 explored the impact of adolescent expectations of sexual pleasure on sexual and other long-term outcomes when the respondents were in their late teens, twenties, and early thirties. In these two chapters I examined whether or not differences exist in the long-term impact of adolescent sexual behavior (which has been shown to have negative effects on various later life outcomes) and adolescent sexual attitudes (which have not been studied using nationally-representative, longitudinal data). Among the female sample, sexual experience and expectations of sexual pleasure in adolescence both positively impact the total number of sexual partners and number of times a woman has had sex in the past twelve months. Of greater interest, however, is the differential impact of adolescent sexual behavior and attitudes toward sexual pleasure on birth control and condom use. The results from Chapter 5 show that women who had sex prior to Wave I are less likely to use birth control and/or condoms during sex. In contrast, adolescent expectations of sexual pleasure do not have a negative influence on

contraceptive use. The same patterns hold when female respondents were surveyed again six years later. Despite this positive finding, Wave IV analyses reveal a significant correlation between expectations of sexual pleasure and likelihood of being diagnosed with a sexually transmitted disease. However, this relationship disappears when controlling for contraceptive use.

Analyses of the male sample show similar results for sexual health outcomes in young adulthood. For men, adolescent sexual experience and expectations of sexual pleasure both influence sexual behavior, but have differential effects on birth control and condom use. In contrast to Wave III, adolescent sexual experience has no significant effect on birth control or condom use for young men in Wave IV. Adolescent sexual experience still has a significant and negative effect on being diagnosed with an STD, but in contrast to the female sample, expectations of sexual pleasure in adolescence does not have a significant effect.

Arguably, the most striking case for the advocacy of positive attitudes toward sexual pleasure can be made using the Wave IV general health and achievement results. As described in previous chapters, the hesitancy to promote a positive, normative approach to adolescent sexuality was underlined by the fear that discussing the pleasurable aspects of sexuality would increase the likelihood that adolescents would have sex, which had been found to be significantly related to negative outcomes. For both the female and male sample, generalized linear models show that positive expectations of sexual pleasure either has no negative effect on long-term outcomes (such as mental health or obesity) or has a positive effect, holding all other traditional sociodemographic variables constant. For the female sample, positive expectations of sexual pleasure in

adolescence are associated with more close friends and higher educational attainment in adulthood. The effect on years of schooling is especially notable considering the significant *negative* effect of adolescent sexual behavior.

Among the male sample, adolescent sexual behavior is negatively associated with the likelihood of being overweight or obese in Wave IV. Male respondents who had sex prior to Wave I have significantly fewer close friends in adulthood than those who had not had sex prior to Wave I. Similar to the female sample, positive expectations of sexual pleasure are associated with higher levels of educational attainment for men. In contrast to the female sample, however, positive expectations of sexual pleasure are also associated with higher personal earnings in adulthood. These findings provide ample evidence to support the normative, developmental perspective of adolescent sexuality. The policy implications of these findings will be discussed in the following section.

7.3 Policy Implications

One of the key findings of this study is the importance of social disadvantage in shaping sexual behaviors and attitudes, especially for teen girls. Consistent with previous findings, my analyses show that girls from lower socioeconomic and racial minority backgrounds are more likely than their privileged counterparts to have teen sex. At the same time, however, these girls are also less likely to expect sexual intercourse to be pleasurable. These findings suggest that policy-makers, parents, and educators must distinguish between teen girls' sexual selfhood and their sexual behavior when designing sex education curriculum.

In contrast to the differential effects of racial minority status contingent upon previous sexual experience, the results show that higher parental education increases adolescent girls' positive expectations of sexual pleasure both before and after teenage girls experience sexual intercourse. This may suggest that parents with higher levels of education encourage their female children to develop healthy sexuality even before girls have their sexual debut. The fact that the universal effect of socioeconomic factors and the differential effect of racial minority background coexist also suggests that the two social statuses do not always operate in the same way in affecting adolescent girls' sexuality attitudes. Although there is less variation among boys, taken together, these findings suggest that parents and teachers in disadvantaged communities should assist both girls and boys in developing healthy sexual selfhood by acknowledging sexuality as a normative aspect of adolescent development.

Finally, a discussion of sexual selfhood may naturally raise concerns among scholars and policy-makers that fostering positive views toward sexual pleasure and desire may encourage adolescents to engage in more sexual activities, and thus increase the risk of casual, unsafe, or unwanted sex. My results suggest that while positive views toward sexual pleasure do increase young people's sexual activities and number of sexual partners from late teens to early thirties, they do not change the odds of having multiple concurrent sexual partners or increase the risk of unsafe sex. The analyses also show that, unlike teen sex, positive expectations of sexual pleasure may potentially have beneficial effects on educational attainment and number of close friends in adulthood for women and educational attainment and personal income for men. Overall, the findings suggest

that healthy sexual selfhood in adolescence may benefit adolescents' development of positive self-concepts into young adulthood.

7.4 Limitations

There are several important limitations of this study. The first is the measurement of the sexual pleasure and sexual behavior variables. Although there are a variety of attitudinal measures of sexuality to choose from in Wave I, the sexual pleasure variable used in this dissertation was the most straightforward measure of sexual pleasure available. However, this variable only measures the respondents' *expectations* of sex rather than their actual *experiences* of sexual pleasure, which may differ significantly. A second limitation exists in the narrow way sexual behavior is measured in Wave I. Since the sexual experience variable only measures penile/vaginal sexual intercourse, I am unable to determine if and how other sexual behaviors may influence attitudes toward sexual pleasure.

Additionally, although I identify significant influences of expectations of sexual pleasure in Wave I, I am unable to discern exactly *how* these factors influence sexual attitudes. Before conducting the empirical analyses, I assumed that racial and class disadvantage would work in similar ways in restricting positive attitudes toward sexual pleasure due to persistent sexual stereotypes for both girls and boys. However, as the results show, while there is a universal positive effect of parental education on expectations of sexual pleasure for boys and girls, racial background has a significant negative influence on expectations of sexual pleasure for African American and Asian American girls, holding all other sociodemographic variables constant. I can hypothesize

the ways in which parental, peer, or media messages interact with racial sexual stereotypes to negatively influence Asian American and African American girls' attitudes toward sexual pleasure. However, in-depth qualitative inquiry is needed to fully understand why their attitudes turn from negative to positive when these girls have sex.

A similar question exists regarding the significant relationship between adolescent attitudes toward sexual pleasure and long-term educational attainment and earnings. Although adolescent sexual pleasure attitudes are significantly related to long-term achievement outcomes for both boys and girls, holding traditional sociodemographic indicators such as racial background, family SES, and region constant, it is unclear exactly how positive attitudes toward sexual pleasure enhance these non-sexual outcomes.

The final limitations result from the way the Add Health data has evolved from Wave I to Waves III and IV. First is the change in the way in which racial background was coded across Waves, making it difficult to identify Hispanic respondents (Cheng and Powell 2011). Although respondents from Hispanic and Latino/a backgrounds are technically included in the analysis (since they were required to identify a racial identity in Wave I), conclusions about their specific sexual attitudes and behaviors cannot be determined since they cannot be separated from their racial classification. Further analysis is needed to fully understand the ways in which ethnicity, class, and religiosity interact to influence the sexual pleasure attitudes of this rapidly growing minority group.

Finally, this study was limited in its ability to examine the sexual pleasure attitudes of LGBTQ adolescents. Although Wave I does not include a specific question about sexual identity or sexual orientation like it does in subsequent Waves, there are two

questions in Wave I that could be used to determine sexual identity post-hoc: "Have you ever had a romantic attraction to a female/male?" and "Gender of romantic or sexual partner." However, data from Waves III and IV do not provide evidence for the validity or reliability of imposing sexual orientation of respondents in Wave I based on the answers to these questions. For example, of the respondents who said that they had an attraction to the same sex in Wave I, 27% of these respondents reported same sex attraction in Wave III and 28% of them reported that they were "entirely heterosexual" in Wave III (Himmelstein and Brückner 2011). This is a significant deficit in the scholarship of adolescent sexuality that must be examined in future research.

7.5 Future Directions

Future research should begin to analyze different groups of young people in more depth through an intersectional analysis of adolescent sexual pleasure, beginning with a category as simple as age. Along with age, regional and other contextual determinants should be included to further analyze the sociological determinants of expectations of sexual pleasure.

Additionally, as described above, actual sexual experience may influence adolescent girls' assessments and expectations of sexual pleasure. This is especially true of the interaction between sexual experience and negative sexual attitudes for African American and Asian American girls. Further research is needed to investigate exactly how this stigmatization process works.

Future research may also apply the normative developmental perspective of sexuality in an international context to examine the sexual selfhood development of

adolescents in other countries, where the racial and class norms for female and male sexuality may be more or less restrictive than the United States. It would be interesting to see whether the same racial and socioeconomic patterns exist among adolescents in different cultures and contexts.

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