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Predicting Attitude Toward Sex Education in Public Schools

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by

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ABSTRACT

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According to the National Center for Health Statistics, the teen pregnancy rate rose by 3% between 2005 and 2006, presenting the first increase since 1991. These findings are troubling in light of the consequences of teen pregnancy to teen mothers, their children, and society in general. Many commentators suggest that one method of reducing the rate of teen pregnancies is through sex education programs, particularly in the public school system. However, despite the fact that discussions of sex education in public school have been present since the 1920s, polls indicate that there is still a portion of the public that is unsupportive of these programs. The present study seeks to fill a gap in the literature by investigating predictors of support for sex education in public schools using data from the 2006 *General Social Survey*. It has been over 25 years since this topic has been examined in the social science literature. Guided by the seminal work of sexuality theorist Ira L. Reiss, I examine the impact of labor shortages, religiosity,

militarism, gender egalitarianism, regulation of sexuality, and a naturalistic view of sexuality on attitudes toward sex education. Results suggest that a number of Reiss's theoretical concepts are predictive of attitude toward sex education in public schools. Hispanics, those with high levels of religiosity, those who perceived that it would be difficult to find a job, and those who supported regulation of sexuality were shown to be significantly less likely to support sex education in public schools. When compared to previous research, the findings from this study show that predictors of attitude toward sex education have changed over the last 25 years. Finally, due to the overwhelming support for sex education observed in this study, future research should examine predictors of attitude toward the content of sex education programs instead of general support or opposition.

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CHAPTER I

INTRODUCTION

The last few decades have seen considerable change in the rates of teen pregnancies, births, and abortions in the United States. A report from the *Alan Guttmacher Institute* (2006) showed that from 1986 to 2002, the teen pregnancy rate per 1000 women aged 15 to 19 declined from 106.7 to 75.4, the teen birth rate declined from 50.2 to 43.0, and the teen abortion rate declined from 42.3 to 21.7. These findings appear to show improvement; however, the picture becomes much bleaker when the U.S. rates are compared to those of other industrialized nations. Using data collected from the United States, France, Germany, and the Netherlands, Feijoo (2001) found that the rates of teen pregnancies, births, abortions, and sexually transmitted infections in the United States remain higher than the rates observed in the other countries examined.

While there are many possible explanations as to why the United States trails European countries in the previously mentioned areas, some researchers suggest that abstinence-only sex education programs may be a

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This thesis follows the format requirements of the *American Sociological Association Style Guide*.

contributing factor (Rose 2005). These programs present abstinence as the only option for teens, and methods of birth control are only discussed in terms of failure rates. Abstinence-only sex education programs, utilized and promoted in the United States since the 1980s, have been shown to be largely ineffective, and this may contribute to the differences seen between the United States and European countries with regard to teen pregnancies, births, STD infections, and abortions (Rose 2005; Hauser 2004; Kirby 2002). Others suggest that sex education should be comprehensive, where abstinence is not presented as the only option for preventing pregnancy and STDs (National Guidelines Taskforce 2004; Kirby 2002). Regardless, sex education in public schools has existed in some form since the 1920s, and it continues to spark controversies and debates even today (Rose 2005; Campos 2002). Because public opinion is a powerful determinant of public policy, it is important to examine predictors of support and opposition toward sex education.

There have only been a handful of studies looking at predictors of attitude toward sex education in public schools. The last of these studies was published in 1981 by Richardson and Cranston. The current study attempts to revisit this issue and apply theory to a body of research

that has lacked theoretical guidance in the past (Measor, Tiffin, and Miller 2000). The *General Social Survey* for 2006 is utilized to address the research question. Guided by Reiss's (1980) theory regarding sexual permissiveness, variables measuring religiosity, militarism, labor shortages, attitude toward gender egalitarianism, attitude toward regulation of sexuality, view of sexuality as natural, as well as general demographic variables, are examined. First, a brief review of the literature is presented to provide the reader with a better understanding of the issue of sex education in public schools.

CHAPTER II

REVIEW OF LITERATURE

HISTORY OF SEX EDUCATION

The issue of sex education in public schools has a long and complex history in the United States that has often been molded and directed by current social and political environments (Rose 2005; Donovan 1998). As Carter (2001:214) discusses, "the history of sex education can be seen as the story of shifting strategies aimed at discouraging people from having sex outside of marriage."

The movement for sex education in public schools began in the 1920s when scholars first published articles that considered the integration of sex education curricula (Campos 2002). As Campos (2002) points out, the *Journal of Social Hygiene* was one publication where discussions and research related to sex education were published. During the 1920s, a number of studies were published in this journal that dealt directly with the issue of sex education (e.g., Curtis 1920; White 1920; Achilles 1923; Christian Register 1929). One such article contained the work of Maurice A Bigelow (1924), who presented 21 points of social hygiene education. Many of the ideas contained within Bigelow's work are still relevant to current sex education.

Two such ideas include the view that sex education should be integrated into existing public school curricula, and that providing sex education in schools ensures that students receive accurate information.

The development and evolution of sex education continued through the 1960s when the *Sex Education and Information Council of the United States* (SEICUS) was formed by a group of professionals, including a physician, a lawyer, a sociologist, a family life educator, a clergyman, and a public health educator (SEICUS 2004). This interdisciplinary group of professionals helped promote sex education in public schools with a goal of providing youth the necessary knowledge and skills to make informed decisions about sex (Campos 2002). Support for sex education was also seen among school administrators during this period. The support was evidenced in a study by Johnson and Schutt (1966) who found that among 18 superintendents and 67 school board members in Maryland, approximately 84% supported sex education in public schools.

By the end of the 1960s, however, groups that opposed sex education in public schools began to organize. Groups such as the *John Birch Society* and *Christian Crusade against Communism* rallied against both SIECUS and schools

that had sex education programs (Campos 2002). The director of *Christian Crusade* even stated that SIECUS was a "communist front apparatus designed to erode the moral fiber of youth" (Toohey 1969:70). It was believed by these opponents that sex education was detrimental to youth and that it produced higher rates of illegitimacy, promiscuity, and sexual neurosis (Campos 2002; Donovan 1998). The backlash against sex education that began in the late 1960s continued into the 1970s, and by the end of the decade, only Kentucky, Maryland, New Jersey, and the District of Colombia required sex education in their public schools (Kenny and Alexander 1980). During the 1970s, 20 states passed legislation to either restrict or abolish sex education in public schools (Donovan 1998).

A shift, however, was made in attitude toward sex education in the 1980s with the onset of the acquired immune deficiency syndrome (AIDS), a newly discovered, and frighteningly deadly, sexually transmitted disease (Campos 2002; Donavon 1998). The support for sex education was seen at the highest levels of government when Surgeon General C. Everett Koop (1986:61) discussed the issue in his report on AIDS, stating,

> Education concerning AIDS must start at the lowest grade level possible as part of any health and hygiene program...There is now no doubt that we need sex

> education in schools and that it must include information on heterosexual and homosexual relationships. The threat of AIDS should be sufficient to permit a sex education curriculum with a heavy emphasis on prevention of AIDS and other sexually transmitted diseases.

Research examining the state of sex education programs in the 1990s found a considerable amount of change in the content of these programs. In their research on the changing emphasis in sex education, Lindberg et al. (2006) concluded that a marked decrease in formal education about birth control was seen between 1995 and 2000. Birth control education declined for both males and females from 1995 to 2000, with the percentage of adolescents reporting formal instruction on birth control dropping 15% for males and 17% for females. Similarly, Darroch, Landry, and Singh (2000) found that teachers responsible for teaching sex education in 1999 were significantly more likely to identify abstinence as the most important topic than were teachers in 1988. These most recent changes in sex education show a need for continuing research in the area of sex education in public schools. Sex education has continually evolved and changed since it began in the 1920s, and continued research is needed to assess changes that will, no doubt, continue to occur.

IMPORTANCE OF SEX EDUCATION

Sex education is an area of concern for parents, educators, students, and the healthcare system. One aspect that is central to the issue is teen sexuality. In particular, sex education is seen as a tool to protect youth from the negative consequences that may arise from engaging in sex. Two consequences that are often evaluated and discussed in association with sex education are teen pregnancy and sexually transmitted diseases (STDs) (Donovan 1998).

Teen Pregnancy

While there has been an almost continual decrease in the percentage of teens giving birth among all races and ages over the last ten years, the United States continues to have the highest rate of teen births among industrialized nations (Boonstra 2002; UNICEF 2001). A UNICEF (2001) study reported that the teen birth rate for the United States was 52.1 births per 1000 teens aged 15 to 19 years old. The next highest rate was in the United Kingdom where there were only 30.8 births per 1000 teens. Many countries included in the study had teen birth rates lower than 10 births per 1000 teens aged 15 to 19 (e.g., Korea, Japan, Switzerland, Netherlands, Sweden, Italy,

Spain, Denmark, Finland, France, Luxembourg, and Belgium). Compared to these countries, the teen birth rate for the United States is over 5 times as high. Even with the decrease in teen birth rates over the past century, it is clear that there is still much progress needed to see rates that are comparable to those of other industrialized nations (Boonstra 2002).

The importance of reducing the rates of teen births becomes apparent when examining the possible consequences of teen girls having children. Teen mothers experience a variety of problems, including higher high school drop out rates and increased likelihood of being on welfare (Maynard 1996; Hoffman, Foster, and Furstenberg 1993; Congressional Budget Office 1990). Some researchers, however, have argued that the negative consequences seen for teen mothers have been overstated, and these effects are attributable to unmeasured family background variables (Geronimus and Korenman 1992). Hoffman et al. (1993), however, found that controlling for previously unmeasured and unobserved family background variables did not eliminate the effects of being a teen parent. In fact, it was found that the effect of teenage parenthood on high school graduation, family size, and economic status remained statistically significant even after controlling for background.

The possible consequences of teen births can be seen in the children born to teen parents as well. Morre, Morrison and Greene (1996) found that children born to teen mothers had more negative effects in both the home environment and cognitive development. Additionally, the negative effects did not stop with the first child, but continued on to subsequent children as well. This is especially true when the mother was less than 17 years of age at first birth. A number of other studies have shown negative consequences for children of teen mothers, including a higher likelihood of substantiated child abuse/neglect, increased risk for female children becoming teen mothers as well, and a higher likelihood of male children being incarcerated (George and Lee 1996; Grogger 1996; Maynard 1996). Interestingly, Grogger (1996) found that if a woman were to delay childbearing until after her eighteenth birthday, the incarceration risk for her son would fall by approximately 6%.

While it is difficult, if not impossible, to obtain an accurate measure of the total non-monetary costs these consequences have on society, the *National Campaign to Prevent Teen Pregnancy* estimates that the comprehensive monetary cost of teens having children totaled $161 billion from 1991 to 2004 (Hoffman 2006). This figure demonstrates

that teen births are not just a family or individual level problem, but an issue that can have far reaching effects throughout society.

Sexually Transmitted Diseases

In addition to teen pregnancies, sexually transmitted diseases (STDs) are important to consider when discussing teen sexuality. Researchers estimate that teenagers comprise 20 to 25% of reported STD cases (NIAID 2006; Forsyth 2000). While many STDs can be treated medically, the contraction of HIV/AIDS can lead to years of medical treatment and early death. The issue of adolescents contracting HIV has gained the attention of researchers who estimate that the number of newly reported HIV infections in the United States among those aged 13 to 21 ranges between 13 and 25% (CDC 2005; Chabon and Futterman 1999). Additionally, while the incidence of AIDS is decreasing in the United States, the number of newly diagnosed cases of HIV among adolescents has remained constant (Forsyth 2000). The absence of a decrease in HIV cases in adolescents may point to the need for education about sex and safe sex practices.

Having sex education in public schools provides the opportunity to educate and empower adolescents so they can

become sexually responsible in both adolescence and adulthood. By having the necessary knowledge about sex to make responsible decisions, youth can prevent the possible consequences associated with sexual activity.

CURRENT STATE OF SEX EDUCATION

Local and state governments have enacted many policies and programs aimed at educating teens about sex, including methods of preventing unwanted pregnancies and STDs. The variation among sex education programs, however, makes it difficult to discern a precise definition. The issue of sex education is surrounded by controversies, and as such, there are many differing views and definitions of sex education. Drawing from the work of previous researchers, Campos (2002) presents a broad definition of sex education. He states that sex education is a curriculum that teaches adolescents about aspects of sex, the sexual self, the opposite sex, sexual behavior of others, or sex as a part of life.

Adding to the difficulties in pin-pointing a definition of sex education, there is no national mandate requiring sex education in public schools. However, the level of support for sex education in schools is high, despite the absence of a national mandate. A 1999 Gallop

Poll found that 60% of adults supported mandatory sex education programs in schools while 32% supported sex education but believed that is should not be mandatory (Crabtree 2005).

While there is widespread approval of public school based sex education programs, the curriculum that is taught varies widely from state to state (Landry et al. 2003; Welbourne-Moglia and Moglia 1989). As with most decisions concerning public education, sex education decisions are left to local legislatures and school districts. Most of the school based sex education programs, however, follow one of three formats: abstinence-only, abstinence plus, or comprehensive.

Abstinence-only

Abstinence-only programs present abstinence as the only option for teens. They either do not discuss any other forms of birth control or present them as ineffective. The abstinence-only approach has received a large amount of attention from politicians in recent years. Abstinence-only sex education was officially recognized and promoted by politicians with the *Adolescent Family Life Act* passed by Congress in 1981. This act provided funding to local programs that encouraged "chastity and self-

discipline" (Dailard 2001). Dailard (2001) discusses how the funding for abstinence-only programs continued into the late 1990's when Congress gave $440 million dollars to support such programs. More recently, President Bush increased funds for abstinence-only programs by $39 million in the 2006 budget, bringing the total funding to $206 million for 2006 (Guttmacher 2005). Critics of this format argue that there is no data to indicate that abstinence-only programs delay initiation of sex or prevent teen pregnancy (Kirby 2002).

Abstinence Plus

The abstinence plus format also emphasizes abstinence, but introduces other forms of protection against pregnancy and sexually transmitted diseases. This format of sex education is identified as a midpoint between abstinence-only and comprehensive formats along the continuum of sex education programs (Campos 2002). In his discussion of abstinence plus programs, Kirby (2000) argues that these programs are very effective in positively affecting sexual behavior. Additionally, Kirby (2000:73) points out that abstinence plus programs do not "hasten the onset of intercourse, increase the frequency of intercourse, or increase the number of sexual partners."

Comprehensive

The final format is the comprehensive format that discusses abstinence as one of a number of possible options of preventing pregnancy and STDs. Unlike the abstinence plus format, it does not emphasize abstinence as the best option. The *National Guidelines Taskforce* (2004) has published a guide to developing a comprehensive sex education program. The guide establishes six key concepts of comprehensive sex education, including human development, relationships, personal skills, sexual behavior, sexual health, and society and culture. By teaching all of these aspects of sexuality at age appropriate levels from kindergarten through high school, the *National Guidelines Taskforce* (2004) argues that adolescents will acquire the necessary skills to adopt healthy life behaviors in adulthood.

The prevalence of the three formats of sex education programs can vary widely from region to region. In a nationally representative sample of 825 public school districts, Landry, Kaeser, and Richards (1999) examined the content of sex education programs. They found that 35% had abstinence-only programs, 51% had programs that emphasized abstinence but still presented information on other forms of contraception, and only 14% had comprehensive programs

that taught different forms of contraception without emphasizing abstinence. While the majority of schools across the United States had programs that stressed abstinence while still providing information on other forms of birth control and STD protection, there was wide variation between regions in regards to what type of program was most common. For example, Landry et al. (1999) found that the abstinence-only format was overwhelmingly used in the South with 55% of districts employing this type of program. This was in sharp contrast to the other three regions, with the Midwest having 35% of programs abstinence-only, the West having 29%, and the Northeast having 20%.

PREDICTING SUPPORT FOR SEX EDUCATION

With the long-standing history and controversies surrounding sex education in public schools, there is, not surprisingly, a large body of literature related to the subject. An area that has been neglected by researchers, however, is the study of characteristics that predict an individual's support or non-support for sex education in public schools. While there is some research examining this topic, a search of the literature revealed no studies

after 1981. The few studies that do examine predictors of attitude toward sex education will briefly be examined.

The first of these studies was conducted by Snyder and Spreitzer (1976) and used data from the *General Social Survey* to examine correlates of attitude toward sex education. The researchers looked at ten different background variables and found that age, years of education, occupational level, marital status, religion, church attendance, and political orientation were all significantly correlated with attitude toward sex education. It was found that individuals who were older, had lower levels of education, and lower occupational levels held less favorable attitude toward sex education. Additionally, individuals who were politically liberal, less religious, and never married had more favorable attitudes toward sex education. Snyder and Spreitzer (1976) also found that sex, race, and income level were not significantly correlated with attitudes toward sex education.

Following up on, and adding to the research from Snyder and Spreitzer (1976), Mahoney (1979) conducted a discriminate analysis of characteristics that predicted an individual's stance on sex education in public schools. Like Snyder and Spreitzer, Mahoney conducted his research

using the *General Social Survey*, however, additional variables were included that Snyder and Spreitzer did not examine. Mahoney looked at nine different variables including political orientation, religious orientation, attitude toward the traditional family, premarital sexual values, attitudes toward women's roles, age, social class, gender, and general attitude toward education. The results of Mahoney's (1979) analysis showed that people opposed to sex education in public schools differed from those who supported it in the areas of traditional orientation toward the family, traditional views regarding women's roles, and traditional attitudes toward premarital sex. It was these three variables, more than any others, which distinguished those who support sex education from those who oppose it. Factors that showed no ability to distinguish supportive individuals from unsupportive individuals were right-wing political views, religious fundamentalism, and age. Mahoney's findings contradict some of the findings of Snyder and Spreitzer (1976), including the finding that age is not a significant predictor of attitude toward sex education.

The final study that examined correlates of opposition or support for sex education was conducted by Richardson and Cranston (1981). Like both previous studies, data from

the *General Social Survey* were employed. In this study, however, different variables were examined than those by both Snyder and Spreitzer (1976) and Mahoney (1979). Richardson and Cranston (1981) performed a regression analysis to determine predictors of stance on sex education. Their analysis revealed that attitude toward premarital sex, attitude toward race integration of schools, an interaction variable based on farm/small town origins, being supervised at work, and low educational attainment were most predictive of attitude toward sex education. Like Mahoney (1979), Richardson and Cranston (1981) found attitude toward premarital sex is a significant predictor of attitude toward sex education in public schools.

Drawing on the findings of the previous studies, and incorporating a theoretical framework, this study will update and add to these studies. The research question to be examined is: what characteristics distinguish individuals who support sex education in public schools from those who do not support sex education? Consistent with the previous research studies, the *General Social Survey* will be used to address the research question.

THEORETICAL FRAMEWORK

The application of theory when conducting research is a necessary component to aid in gaining a deeper understanding of social phenomena. However, as Measor et al. (2000:2) point out, "much of the research that is done on sex education is untheorized." It is not clear why there is a lack of theoretically driven research on sex education, but the current analysis relies on theory from the field of sexuality.

The theoretical perspective employed in this study is drawn from the work of sexuality theorist Ira L. Reiss. In his earlier studies on sexuality, Reiss (1967) examined the impact that societal level factors have on individual level attitudes toward sexuality and sexual permissiveness (Burr 1973). In his pursuit to better understand this relationship, Reiss conducted research in Sweden that included a review of relevant literature, personal observations, and discussions with colleagues and experts. From this, he constructed a theory explaining why Sweden has more permissive attitudes toward sexuality. Reiss (1980) discussed how Sweden leads the West, including the United States, in gender role equality and sexual permissiveness. This is seen especially in the area of premarital sex. In Sweden, there is both a universal

occurrence and expectation of premarital coitus. Reiss described Swedes as being "less obsessive and compulsive about premarital sex" (Reiss 2006:77).

Reiss (1980) proposed that low levels of religiosity, low levels militarism, and labor shortages all contribute to greater gender equality. These structural level characteristics, combined with high levels of gender egalitarianism, few institutional regulations toward sexuality, and a view of sex as a natural act contribute to greater sexual permissiveness. While Reiss applied his theory at the national level, Weinberg, Lottes, and Shaver (2000:44) point out that "all of these characteristics are said to exist in individual attitudes as well as in institutional practices." The present study applies Reiss's theory to the subject of sex education based on the assumption that those who are sexually permissive will also support sex education. Indeed, Reiss (1980:202) discusses that, in Sweden, "The schools have a long-standing program of sex education... (and) teach the fundamentals of contraception to the early teenagers." Reiss (1980:202) also makes the point that, "Since it is accepted that intercourse will occur, focus of attention then is upon the conditions under which it occurs."

Religiosity

The first variable Reiss (1980) discussed in relation to higher levels of sexual permissiveness is the low level of religiosity in Sweden. At birth, Swedes gain automatic membership into the Lutheran church and 1.5% of their income is given to the church. However, the church has little influence on an individual's day-to-day life, and the money given to the church is used mainly for record keeping (Weinberg et al. 2000). The church has little control or cultural influence in Sweden, and, according to Reiss (1980), this makes it easier for Swedish culture to reject the unequal and segregated views propagated by organized religion. Reiss (1980) discussed how organized religion is a more prominent fixture in Western society, and how traditional gender ideals, where the man is the breadwinner and the woman takes care of the home, are promoted through organized religion. Reiss (1980) argued that in societies where organized religion has more influence and power, the traditional views of gender roles will be harder to reject and overcome.

Consistent with Reiss's proposition, DeLameter (1989) discussed how religion, and Christianity in particular, has a large influence on views toward sexuality in the United States. DeLameter (1989:264) stated,

> Most religions in the United States continue to espouse a procreational, somewhat ascetic, and pro-family perspective. Thus, persons who belong to or attend a Christian church are regularly exposed to such a perspective, learn the associated norms, and are likely to adhere to them.

Researchers have consistently found an inverse relationship between religiosity and attitude toward non-marital sexuality, leading Cochran and Beeghley (1991) to qualify the relationship as an "empirical generalization". Additionally, Wang and Buffalo (2004) used Reiss's theory to predict attitude toward abortion and found that fundamentalist beliefs significantly predicted negative attitudes toward abortion.

Militarism

The second area that Reiss discussed in relation to attitude toward sexual permissiveness is the lack of militarism in Swedish society. Reiss (1980) argued that higher levels of militarism in society often correlate with high levels of male dominance which leads to greater gender inequality and lower levels of sexual permissiveness. Reiss argues that the level of militarism in Sweden is very low, and this is reflected in Sweden's non-involvement in wars since 1809 and low levels of government spending on the military. In contrast, a large portion of the national

budget in the United States is used to fund the military, and since 2001, defense spending, not including funds for homeland security, has risen by 40%. In fact, the total amount spent on defense for 2006 was 410.7 billion dollars (Office of Management and Budget 2007).

Labor Shortages

Another area addressed in Reiss's theory is the role that labor shortages played in the progression toward gender equality and sexual permissiveness in Sweden. The labor shortage, Reiss (1980) argued, was a result of a number of factors, including the mass migration to America in the late nineteenth century, the expansion resulting from industrialization, traditionally low birth rates, and a high proportion of individuals who never marry. Due to the labor shortages created by these factors, women had more opportunities to enter the labor force. As a result, women were given greater economic opportunity which led to greater gender equality and sexual permissiveness.

Gender Egalitarianism

Reiss's theory also examined gender role equality. In addition to the influence that religiosity, militarism, and labor shortages have on gender equality, Reiss (1980)

points to gender equality in other social institutions, such as the legal system. Reiss (1980) discussed how laws were passed in Sweden between 1915 and 1920 that granted more rights to women by revoking a husband's guardianship status over his wife and allowing for mutual consent divorce. By revoking these laws, women were given greater power and control over their own lives, and Reiss argues that higher levels of gender equality result in higher levels of sexual permissiveness. Reiss (1980:209) reminded readers, however, that there is a definite distinction between attitudes and behaviors: "The fact that Sweden is much more equalitarian in attitudinal beliefs than in actual relationships among people is a crucial point."

The view of greater gender equality and empowerment of women leading to sexual permissiveness is also supported by feminist literature. In her account of the sexual revolution, Rubin (1990) discusses how feminism and the advancements in gender equality have broadened views regarding acceptable sexual behaviors. Specifically, Rubin found that teenagers were particularly accepting of a wide range of sexual behaviors.

Regulation of Sexuality

Reiss's theory also included the concept of sexual regulation as a predictor of sexual permissiveness. Swedish law has little in the way of regulations governing sexual behavior, with the exception of setting age of consent (age 15) and laws forbidding incest (Reiss 1980). In contrast to the United States, Sweden has not traditionally had laws against prostitution, although they have recently passed a law that criminalizes the customer of the prostitute, but not the prostitute (Weinberg et al. 2000). Reiss (1980:201) stated, "Prostitution on a one-on-one basis is accepted...because in that form it is a private arrangement." This lack of regulation stems from the intense sense of privacy associated with sexual behavior, and while privacy is valued in the United States, sexuality is still seen as an area that the government can intervene via laws (Reiss 1980).

In a study replicating Reiss's work, Weinberg et al. (2000) use measures associated with legal restrictions on abortion, homosexuality, and pornography to operationalize the concept of regulation of sexuality. The researchers describe how these items were designed using topics from Reiss's descriptions. Weinberg et al. (2000) found that the variables of religiosity, gender egalitarianism,

naturalistic view of sexuality, and non-regulatory views of sexuality explained 41% of the variance in permissive attitudes toward sex.

Naturalistic View of Sexuality

The final concept presented by Reiss is the idea that sex is a natural aspect of life, and this view is reflected in the widespread acceptance of premarital sexuality among Swedes. Reiss (1980:200) discussed how it is "understood that if a couple get to like each other, they will naturally have intercourse." Swedes retain the view that individuals will seek out forms of sexual excitement and that these feelings are natural. Reiss argued that it is this acceptance of sexuality that leads to greater sexual permissiveness.

HYPOTHESES

Based on Reiss's theory and findings from Snyder and Spreitzer (1976), Mahoney (1979), and Richardson and Cranston (1981), we can expect the following with regard to attitude toward sex education in public schools.

(1) Individuals with higher levels of religiosity will be less supportive of sex education in public schools.

(2) Individuals who support higher levels of militarism will be less supportive of sex education in public schools.

(3) Individuals who perceive labor shortages will be more supportive of sex education in public schools.

(4) Individuals who hold traditional attitudes toward gender roles will be less supportive of sex education in public schools.

(5) Individuals who support government regulation of sexuality will be less supportive of sex education in public schools.

(6) Individuals with a more naturalistic view of sexuality will be more supportive of sex education in public schools.

CHAPTER III

METHODOLGY

DESCRIPTION OF DATA

The purpose of this study is to determine what factors predict an individual's attitude toward sex education in public schools. The data used in this study come from the 2006 *General Social Survey* (GSS) that is administered and compiled by the *National Opinion Research Center* (NORC). The survey employs a national probability sample of English and Spanish speaking individuals living in the United States who are at least 18 years of age and non-institutionalized. Additionally, a sub-sample of non-respondents is utilized to reduce possible biases resulting from non-response (Davis 2007). The data were collected between January and June of 2006 using both face-to-face interviews and computer assisted personal interviews that lasted, on average, 90 minutes (Roper Center 2007).

The full sample for 2006 consisted of 4510 respondents; however, due to the rotation and double sample design employed by NORC, respondents were not asked every question included in the survey. Permanent items, such as demographic variables, are asked on every version of the survey, and the remaining questions are rotated in such a

way that at least two-thirds of the sample receives a survey containing any particular question (Davis 2007). Due to this rotation of questions, the sample for this study contained 300 respondents. When the demographics of the full sample of 4510 are compared to the sample of 300 used in this study, two differences are seen. First, the sample used in this study appears to contain more respondents who are college educated, with 44% of the sample reporting at least a two-year degree, compared to the full sample which had 34% reporting at least a two-year degree. Secondly, a difference in age between the two samples was observed with a mean age of 47.35 for the full sample and a mean age of 40.98 for the sample used in the present study. The remaining demographic variables did not show significant differences between the two samples.

DEPENDENT VARIABLE

The dependent variable examined is attitude toward sex education in public schools. The variable was measured by asking the respondents "Would you be for or against sex education in the public schools?" The responses were coded as 1 for favor, 2 for oppose, and 8 for don't know. The variable was recoded as a dummy variable (with 1 for favor and 0 for oppose), so logistic regression will be employed.

THEORETICAL VARIABLES

Based on the concepts presented in Reiss's (1980) theory, a number of theoretical variables were assessed including religiosity, militarism, labor shortage, gender egalitarianism, regulation of sexuality, and naturalistic view of sexuality.

Religiosity

Two variables were used to measure religiosity. Based on the work of other researchers who have tested Reiss's hypotheses, religiosity was measured by both the level of fundamentalism and the frequency of church attendance (Wang and Buffalo 2004; Weinberg et al. 2000). In this study, the first variable measured the fundamentalism of the respondent's religion. Based on what religious affiliation the respondent indicated in a previous question, the interviewer designated whether the respondent's religion was fundamentalist (coded as 1), moderate (coded as 2), liberal (coded as 3), or no answer (coded as 9). This variable was recoded into a dichotomous variable to indicate fundamentalist or not fundamentalist by combining the categories for "moderate" and "liberal". The variable was coded as a dummy variable with 0 indicating not fundamentalist and 1 indicating fundamentalist.

The second question measured the respondent's attendance at religious services. The question asked the respondent "How often do you attend religious services?" The responses were coded as 0 for never, 1 for less than once a year, 2 for once a year, 3 for several times a year, 4 for about once a month, 5 for 2-3 times a month, 6 for nearly every week, 7 for every week, 8 for several times a week, and 9 for don't know or no answer. For this study, however, the variable was recoded into three categories coded as 0 for once a year or less (rarely), 1 for several times a year to two 2-3 times a month (sometimes), and 2 for nearly every week or more (often). For analysis, a series of dummy variables was created with separate variables for rarely, sometimes, and often.

Militarism

To measure militarism, the respondent was asked "Are we spending too much, too little, or about right on the military, armaments, and defense?" The response categories were coded as 1 for too little, 2 for about right, 3 for too much, 8 for don't know, and 9 for no answer. A series of dummy variables was created for analysis purposes for too little, about right, and too much.

Labor Shortages

To measure labor shortage, the question "About how easy would it be for you to find a job with another employer with approximately the same income and fringe benefits you now have? Would you say very easy, somewhat easy, or not easy at all?" The responses were coded as 1 for very easy, 2 for somewhat easy, 3 for not easy, 8 for don't know, and 9 for no answer. The variable was recoded into a dichotomous variable by combining "very easy" and "somewhat easy" into one response for "easy", coded as 1, and "not easy", coded as 0. If a respondent answered that it would be easy to find another job, it implies that there is a labor shortage, and if he or she answers that it is not easy to find another job it indicates that there is not a labor shortage.

Gender Egalitarianism

A scale was constructed to measure traditional attitudes toward gender roles. The respondents were asked to indicate their level of agreement or disagreement to the following three statements: "A working mother can establish just as warm and secure relationship with her children as a mother who does not work", "It is much better for everyone involved if the man is the achiever outside

the home and the woman takes care of the home and family", and "A preschool child is likely to suffer if his or her mother works." The responses were coded as 1 for strongly agree, 2 for agree, 3 for disagree, 4 for strongly disagree, and 8 for don't know.

In order to construct the scale, the responses were recoded for the questions "It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family", and "A preschool child is likely to suffer if his or her mother works." The responses were recoded as 1 for strongly agree, 2 for agree, 3 for disagree, and 4 for strongly disagree. For the question "A working mother can establish just as warm and secure relationship with her children as a mother who does not work" the responses were coded as 1 for strongly disagree, 2 for disagree, 3 for agree, and 4 for strongly agree. Mean substitution was employed for respondents who were missing an answer for any of the three questions used to construct the scale.

The scale variable was created by adding the three scores together, so a higher score on the scale indicated greater support for gender egalitarianism. The scores ranged from 3, indicating low levels of support for gender egalitarianism, to 12, indicating high levels of gender

egalitarianism. The items loaded .60 or above on the factor in a factor analysis.

Regulation of Sexuality

Reiss's concept of regulatory views toward sexuality was examined by looking at the level of support given to institutionally established laws and regulations that intervene in the sexual affairs of individuals. To measure this concept, a question regarding the right to distribute pornographic materials was used. This question is consistent with the measure used in another study testing Reiss's hypothesis (Weinberg et al. 2000).

The question used to measure attitude toward the right to distribute pornographic material asked the respondent to indicate "Which of these statements comes closest to your feelings about pornography?" The response categories were "There should be laws against the distribution of pornography whatever the age", "There should be laws against the distribution of pornography to persons under 18", and "There should be no laws forbidding the distribution of pornography." The response categories were recoded into a dummy variable where 0 indicated "there should be laws against the distribution of pornography

whatever the age" and 1 indicated that "there should be either no laws or laws only for those under 18."

Naturalistic View of Sexuality

To measure the concept of a naturalistic view of sexuality, a question asking the respondent's attitude toward premarital sex was included. The question asked the respondent "If a man and woman have sex relations before marriage, do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all." The responses were then coded as 1 for always wrong, 2 for almost always wrong, 3 for wrong only sometimes, 4 for not wrong at all, 8 for don't know, and 9 for no answer. The variable was then recoded into a dichotomous variable with 0 indicating "always wrong" and "almost always wrong" and 1 indicating "wrong only sometimes" or "not wrong at all."

DEMOGRAPHIC VARIABLES

General demographic variables were examined to gain an idea of the sample characteristics, as well as to see if these variables contributed to the respondent's attitude toward sex education. These variables include age, gender, marital status, race, education level, total family income, and political views.

Age

Respondents were asked to indicate their current age in number of years. The variable was treated as a continuous variable in the analysis. The values ranged from 18 to 79.

Gender

The gender of the respondent was recorded by the interviewer as either male or female. Males were coded as 0 and females were coded as 1.

Marital Status

In order to discern marital status, respondents were asked to respond to the question "Are you currently married, widowed, divorced, separated, or have you never been married?" The responses were coded as 1 for married, 2 for widowed, 3 for divorced, 4 for separated, 5 for never married, and 9 for no answer. The variable was recoded into a dummy variable with never married coded as 0 and has been/is married (including married, widowed, divorced, and separated) coded as 1.

Race

The variable of race was measured by asking the respondent "What is your race? Indicate one or more races

that you consider yourself to be." This measurement is consistent with the new standards set by the United States Census Bureau that allows a respondent to indicate more than one racial category. For this study, however, the variable of race is measured by taking only the first race mentioned by the respondent. The GSS data has 18 possible racial categories, but the variable was recoded for this study to include only 4 categories. The categories are White, coded as 1, Black or African American, coded as 2, Hispanic, coded as 3, and other (including American Indian or Alaska Native, Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and Other Asian, Native Hawaiian, Guamanian or Chamorro, Samoan, and Other Pacific Islander) coded as 4. The response of "don't know" was treated as missing. The variable was also recoded into a series of three dummy variables with variables for White, Black/African-American, and Hispanic.

Education Level

This variable was measured by asking the respondent to indicate their highest degree earned. Respondents chose from the categories "less than high school" coded as 0, "High school" coded as 1, "Associate/Junior College" coded as 2, "Bachelor's" coded as 3, "Graduate" coded as 4,

"Don't know" coded as 8, and no answer coded as 9. A dichotomous variable was created with 0 indicating no college degree (including "less than high school" and "High school") and 1 indicating college degree (including "Associate/Junior College", "Bachelor's", and "Graduate").

Total Family Income

Respondent's income was measured by asking "In which of these groups did your total family income, from all sources, fall last year-2005-before taxes, that is?" There were 27 response categories given ranging from "Under $1000" to "$150,000 or over"; however, the responses were recoded into fewer categories for this study. The categories consisted of "under $20,000" which was coded as 1, $20,000-34,999" coded as 2, "$35,000-59,999" coded as 3, "$60,000-89,999" coded as 4, and "$90,000 or over" coded as 5. The categories were created to represent the socioeconomic levels of poor, working class, middle class, upper middle class, and upper class. Poverty level was determined using the guidelines from the U.S. Department of Health and Human Services for 2006 (USDHHS 2007). A series of five dummy variables was also created for this variable.

Region of Interview

The interviewer recorded the region of interview at the time of the interview. The regions were broken up into New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont) coded as 1, Middle Atlantic (New Jersey, New York, Pennsylvania) coded as 2, East North Central (Indiana, Illinois, Michigan, Ohio, Wisconsin) coded as 3, West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota) coded as 4, South Atlantic (Delaware, District of Colombia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia) coded as 5, East South Central (Alabama, Kentucky, Mississippi, Tennessee) coded as 6, West South Central (Arkansas, Louisiana, Oklahoma, Texas) coded as 7, Mountain (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming) coded as 8, and Pacific (Alaska, California, Hawaii, Oregon, Washington) coded as 9. The division of states among the different regions is based upon the division of states by the United States Census Bureau.

The variable was recoded into Northeast (including New England and Middle Atlantic) coded as 1, South (including South Atlantic, East South Central, and West South Central) coded as 2, Midwest (including East North Central and West

North Central) coded as 3, and West (including Mountain and Pacific) coded as 4.

For analysis purposes, a series of dummy variables was created for the different regions where 1 indicated resident of region and 0 indicated not a resident of region.

Political Views

Political views were measured by asking the respondent "I'm going to show you a seven-point scale which the political views that people might hold are arranged from extremely liberal—point 1—to extremely conservative—point 7. Where would you place yourself on this scale?" The response categories were 1 for extremely liberal, 2 for liberal, 3 for slightly liberal, 4 for moderate, middle of the road, 5 for slightly conservative, 6 for conservative, 7 for extremely conservative, 8 for don't know, and 9 for no answer.

The variable was recoded into the three categories of liberal, moderate, and conservative. Liberal was coded as 1 and included the responses of "extremely liberal", "liberal", and "slightly liberal", moderate was coded as 2 and included the response "moderate, middle of the road", and conservative was coded as 3 and included "slightly

conservative", "conservative", and "extremely conservative." Additionally, a series of three dummy variables was created to represent liberal, moderate, and conservative.

ANALYTIC PLAN

The SPSS statistical software package was used to run all the statistical procedures used in this study. To provide a general description of the sample, descriptive statistics were employed. Bivariate and multivariate analyses were used to test the hypotheses. Specifically, crosstabulation with chi square, independent t-test, and logistic regression were used to test the hypotheses.

Bivariate Analysis

To test the hypotheses, crosstabulation with chi square and independent t-test was used. Crosstabulation was used to test for an association between attitude toward sex education and all the independent variables except age. For the variable age, an independent samples t-test was used to determine if there was a significant association because age is a continuous variable making crosstabulation inappropriate.

Multivariate Analysis

A series of models is presented to discern the impact of each of Reiss's theoretical "groupings" on attitude toward sex education independently. First, a baseline is established using only demographic variables. Second, the structural level variables (religiosity, militarism, and labor shortages) are added to the baseline to assess their impact on attitude toward sex education. Then, the second level variables (gender egalitarianism, regulation of sexuality, and naturalistic view of sexuality) are added to discern their independent impact on attitudes toward sex education. Finally, a full model is used, including demographic and all theoretical variables, to determine which variables significantly predict attitude toward sex education.

CHAPTER IV

RESULTS

The data were analyzed using univariate, bivariate, and multivariate statistics. Univariate analysis was conducted to provide a general description of the sample, while bivariate and multivariate analyses were used to test the hypotheses.

UNIVARIATE ANALYSIS

Through the use of descriptive statistics, a general description of the sample was obtained. The results are displayed in Table 1 where the mean and standard deviation are given for each variable. Measures for the median and range are also given for the age variable. The age of the respondents ranged from 18 to 79 with a mean age of approximately 41 years and a median age of 40. The distribution of the sample in regards to gender was approximately equal with females comprising 51% of the sample and males comprising 49%. A large portion of the sample (72%) are either currently married or have previously been married (including widowed, separated, or divorced) while 28% have never married. Also, the sample was largely White (68.3%) with Black/ African-American

(17%) and Hispanic (10.3%) substantially represented as well. The remaining 4% of the sample consisted of American Indian or Alaskan Native, Asian, Pacific Islander, or Other. Additionally, 55.7% of the sample had a high school degree or less, and 44.3% had at least a two year degree. The income levels among the sample varied widely with 18% making less than $20,000 a year, 13% making $20,000 to 34,999, 24% making $35,000 to 59,999, 22% making $60,000 to $90,000, and 22% making $90,000 or more. The sample also had a large number of respondents from the South (37.7%), followed by the Midwest (25.7%), the West (20.3%), and the Northeast (16.3%). The majority of the sample identified themselves as having moderate political views (38%) while 32% identified themselves as conservative, and 30% identified themselves as liberal.

Descriptive statistics were also obtained for the theoretical and dependent variables. The measures of religiosity showed that 29% of the sample was fundamentalist. Also, 49% of the sample rarely attended church, 23% attended church sometimes, and 28% attended church often. A large majority of the sample had either moderate or high support for gender equality, comprising 65% and 27% of the sample, respectively. Over half of the sample (64%) also believed that pornography should be

Table 1. Descriptive characteristics.
(n=300)

Variable	Mean	SD
Age	40.98	12.24
Median=40		
Range=18-79		
Gender		
female	.51	.50
Marital status		
married	.72	.45
Race		
White	.69	.47
Hispanic	.10	.30
Black/African American	.17	.38
Education		
college degree	.44	.50
Income		
less than $20,000	.18	.38
$20,000-34,999	.13	.34
$35,000-59,999	.24	.43
$60,000-90,000	.22	.42
$90,000 or over	.22	.42
Region		
Northeast	.16	.37
South	.38	.49
Midwest	.26	.40
West	.20	.46
Political Views		
liberal	.30	.46
moderate	.38	.49
conservative	.32	.47
Fundamentalism		
fundamentalist	.29	.45
Church Attendance		
rarely	.49	.50
sometimes	.23	.42
often	.28	.45
Military funding		
too little	.23	.42
about right	.32	.47
too much	.45	.50
Ease of finding job		
easy	.65	.48

Table 1. Continued.

Variable	Mean	SD
Gender Equality		
low support	.09	.28
moderate support	.65	.48
high support	.27	.44
Regulation of Pornography		
legal	.64	.48
Attitude toward premarital sex		
sometimes wrong or not wrong at all	.68	.47
Attitude toward sex education		
support	.91	.29

legal. In regards to premarital sex, 51% believed that it was not wrong at all, while 25% believed it was always wrong. The descriptive statistics also showed that 23% felt that the amount spent on the military is too little, 32% felt it is about right, and 45% felt it is too much. A large portion of the sample (65%) also indicated that finding a job with pay and benefits equal to their current job would be easy. Finally, the descriptive statistics indicated that a large majority of the sample (91%) supported sex education in public schools.

BIVARIATE ANALYSIS

Crosstabulations were used to determine if there was a statistically significant relationship between the demographic and theoretical variables and attitude toward sex education. Chi square tests were used to see if there was a statistically significant relationship between the variables. The test compares observed cell frequencies to the frequencies that would be expected if there was not a significant relationship between the two variables (Knoke, Bohrnstedt, and Mee 2002).

Due to the properties of the age variable, chi square analysis would not be appropriate, so an independent samples t-test was performed to determine if there was a

significant difference, in regards to age, between those who oppose sex education and those who favor sex education. The t-test is a significance test that is used when dealing with continuous variables to see if there is a significant difference between groups (Knoke et al 2002).

Demographic Variables

The results for the crosstabulation with chi square and independent samples t-test are displayed in Tables 2 and 3. Table 2 shows the results of the crosstabulation and chi-square for each demographic variable, and Table 3 shows the results of the independent samples t-test for the age variable. Overall, there were few significant relationships between demographic variables and attitude toward sex education. The analysis indicates that those from the South show significantly less support for sex education in public schools (X^2=4.989). In fact, 14.2% of respondents from the South opposed sex education while only 6.4% of respondents from all other regions opposed sex education.

Political views also showed a strong relationship with attitude toward sex education. In particular, liberals are significantly more supportive of sex education (X^2=7.909) while conservatives are significantly less supportive

Table 2. Crosstabulation for demographic variables by attitude toward sex education. (n=300)

Variable	Oppose n (%)	Favor n (%)	Chi Square	Sig.
Gender			3.512	.061
Male	9 (6.1)	138(93.9)		
Female	19(12.4)	134(87.6)		
Marital status			.662	.416
Never married	6 (7.1)	78(92.9)		
Married	22(10.2)	194(89.8)		
White			3.221	.073
White	15 (7.3)	190(92.7)		
Not white	13(13.8)	81(86.2)		
Hispanic			1.865	.172
Hispanic	5(16.1)	26(83.9)		
Not Hispanic	23 (8.6)	245(91.4)		
Black/African-American			1.378	.240
Black/African American	7(13.7)	44(86.3)		
Not Black/African-American	21 (8.5)	227(91.5)		
Education			.027	.869
No degree	16 (9.6)	151(90.4)		
College degree	12 (9.0)	121(91.0)		
Less than $20,000			.158	.691
less than $20,000	5(10.6)	42(89.4)		
Other	19 (8.8)	197(91.2)		
$20,000-34,999			.567	.452
$20,000-34,999	2 (5.7)	33(94.3)		
Other	22 (9.6)	206(90.4)		
$35,000-59,999			.843	.358
$35,000-59,999	4 (6.3)	60(93.8)		
Other	20(10.1)	179(89.9)		
$60,000-89,999			.777	.378
$60,000-89,999	7(12.1)	51(87.9)		
Other	17 (8.3)	188(91.7)		
$90,000 or over			.100	.752
$90,000 or over	6(10.2)	53(89.8)		
Other	18 (8.8)	186(91.2)		
Northeast			.714	.398
Northeast	3 (6.1)	46(93.9)		
Other	25(10.0)	226(90.0)		

Table 2. Continued

Variable	Oppose n (%)	Favor n (%)	Chi Square	Sig.
South			4.989	.026
South	16(14.2)	97(85.8)		
Other	12 (6.4)	175(93.6)		
Midwest			.291	.590
Midwest	6 (7.8)	71(92.2)		
Other	22 (9.9)	201(90.1)		
West			1.764	.184
West	3 (4.9)	58(95.1)		
Other	25(10.5)	214(89.5)		
Liberal			7.909	.005
Liberal	2 (2.2)	88(97.8)		
Not Liberal	26(12.6)	180(87.4)		
Moderate			1.052	.305
Moderate	8 (7.2)	103(92.8)		
Not moderate	20(10.8)	165(89.2)		
Conservative			14.705	.000
Conservative	18(18.9)	77(81.1)		
Not conservative	10 (5.0)	191(95.0)		

Table 3. T-test for demographic variable age. (n=300)

	Mean	SD	t	df	Sig.
Age			.641	298	.522
Oppose	42.39	13.270			
Favor	40.83	12.147			

(X^2=14.705). Only 2.2% of respondents who identified their political views as liberal opposed sex education while 12.6% of respondents who were not liberal (moderate or conservative) opposed sex education. For respondents who identified themselves as having conservative political views, 18.9% opposed sex education while only 5% of respondents who were not conservative (liberal or moderate) opposed sex education.

Gender and race also approached statistical significance with females opposing sex education more frequently than males and non-whites opposing sex education more frequently than whites. The remaining demographic variables displayed in Tables 2 and 3, including age, marital status, Hispanic, Black/African-American, education, income level, Northeast, Midwest, West, and moderate political views showed no statistically significant association or difference with attitude toward sex education.

Theoretical Variables

Table 4 includes the results of the crosstabulation analysis for the theoretical variables. There were several significant relationships observed at the bivariate level. *Religiosity and attitude toward sex education.* Two

Table 4. Crosstabulation for theoretical variables (n=300)

Variable	Oppose n (%)	Favor n (%)	Chi square	Sig.
Fundamentalism			1.387	.239
Fundamental	10 (12.3)	71(87.7)		
Not fundamental	16 (7.9)	187(92.1)		
Attend church rarely			7.021	.008
Rarely	7 (4.8)	139(95.2)		
Other	21 (13.7)	132(86.3)		
Attend church sometimes			2.778	.096
Sometimes	3 (4.3)	67(95.7)		
Other	25 (10.9)	204(89.1)		
Attend church often			20.554	.000
Often	18 (21.7)	65(78.3)		
Other	10 (4.6)	206(95.4)		
Military funding-too little			5.719	.017
Too little	11 (16.2)	57(83.8)		
Other	15 (6.7)	208(93.3)		
Military funding-about right			.019	.892
About right	8 (8.6)	85(91.4)		
Other	18 (9.1)	180(90.9)		
Military funding-too much			3.640	.056
Too much	7 (5.4)	123(94.6)		
Other	19 (11.8)	142(88.2)		
Ease of finding job			3.475	.062
Easy	13 (6.9)	176(93.1)		
Not easy	14 (13.5)	90(86.5)		
Gender equality-low support			1.232	.267
Low support	4 (15.4)	22(84.6)		
Other	24 (8.8)	250(91.2)		
Gender equality-moderate support			.002	.965
Moderate support	18 (9.3)	176(90.7)		
Other	10 (9.4)	96(90.6)		
Gender equality-high support			.433	.510
High support	6 (7.5)	74(92.5)		
Other	22 (10.0)	198(90.0)		

Table 4. Continued

Variable	Oppose n (%)	Favor n (%)	Chi square	Sig.
Regulation of Pornography			11.024	.001
Legal	10 (5.2)	183(94.8)		
Illegal	18(16.8)	89(83.2)		
Attitude toward premarital sex			18.240	.000
Wrong all or most of the time	18(19.4)	75(80.6)		
Wrong sometimes or not at all	8 (4.0)	190(96.0)		

variables were used to measure religiosity. The first variable measured the respondent's religious fundamentalism. This showed no significant relationship with attitude toward sex education. The second variable used to measure religiosity was frequency of church attendance, and a significant relationship was observed between this variable and attitude toward sex education. Respondents who attended church often expressed significantly less support for sex education in public schools (X^2=20.554). Of those respondents who attended church often, 21.7% opposed sex education while 4.6% of respondents who attended church only sometimes or rarely opposed sex education. This finding supports hypothesis 1; those with higher levels of religiosity will be less supportive of sex education in public schools.

Militarism and attitude toward sex education. Three dummy variables were used to test for an association between militarism and attitude toward sex education. The findings showed that those who felt that too little was spent on military, armaments, and defense showed significantly less support for sex education in public schools (X^2=5.719). This finding is consistent with Reiss's (1980) theory. Of those respondents who felt there was too little military funding, 16.2% opposed sex education;

however, only 6.7% of respondents who felt military funding was about right or too much opposed sex education. These findings support hypothesis 2; those who support higher levels of militarism will be less likely to support sex education in public schools.

Labor shortages and attitude toward sex education. The variable that was used to measure labor shortages was significantly associated with attitude toward sex education (X^2=3.475). The results in Table 4 show that 6.9% of respondents who felt it would be easy to find a new job opposed sex education while 13.5% who felt it would not be easy to find a new job opposed sex education. This is consistent with Reiss's (1980) theory. It supports hypothesis 3; those who perceive labor shortages will be more likely to support sex education in public schools.

Gender egalitarianism and attitude toward sex education. The variable that was used to measure gender egalitarianism showed no significant relationship with attitudes toward sex education. As seen in Table 4, none of the three dummy variables reflecting low, moderate, and high levels of support for gender equality showed a significant relationship with attitude toward sex education. With no significant relationship observed between sex education and gender egalitarianism, hypothesis

4, which predicted that those with more traditional views of gender roles will be less likely to support sex education, is not supported.

Regulation of sexuality and attitude toward sex education. The variable used to measure regulation of sexuality showed a statistically significant relationship with attitude toward sex education (X^2=11.024). The analyses showed that 16.8% of respondents who felt that pornography should be illegal to all opposed sex education while 5.2% of those who want partial or full legality opposed sex education. The findings are consistent with Reiss's (1980) theory, and support hypothesis 5, that those who support government regulation of sexuality will be less supportive of sex education in public schools.

Naturalistic view of sexuality and attitude toward sex education. A significant association was observed between attitude toward sex education and attitude toward premarital sex (X^2=18.240). Table 4 shows that 19.4% of respondents who felt premarital sex is always wrong or almost always wrong opposed sex education in public schools. Comparatively, only 4.0% of respondents who believed premarital sex is wrong only sometimes or not wrong at all opposed sex education in public school. These findings are consistent with Reiss's (1980) theory, and

hypothesis 6, which predicts that those with a more naturalistic view of sexuality will be more supportive of sex education in public schools, is supported.

MULTIVARIATE ANALYSIS

Logistic regression was conducted to evaluate the impact of demographic and theoretically relevant variables on attitude toward sex education. Social scientists recognize that single-cause explanations of social phenomena can never provide a complete explanation, and regression analysis allows the researcher to include a number of independent variables to estimate a relationship with a dependent variable (Knoke, Bohrnstedt, and Mee 2002). Logistic regression was used in the present study because the variable measuring attitude toward sex education was dichotomous. Logistic regression allows for the examination of the independent effects of variables while controlling for the other variables in the model.

Table 5 shows the results of the first model which illustrates the regression of the demographic variables on attitude toward sex education. This model can be seen as a foundation on which to build further models. Overall, this model explained approximately 22.7% of the variance observed in attitude toward sex education (R^2=.227). It is

seen in this model that gender, race, and political views significantly influenced attitude toward sex education. Female respondents, respondents who identified themselves as being Hispanic, and those with politically conservative views were all significantly less likely to support sex education in public schools. The odds of supporting sex education decreased by over 50% for being female, by 80% for being Hispanic, and by over 70% for being politically conservative.

The second model (see Table 6) includes demographics and the first level of variables from Reiss's theory that measure the concepts of religiosity, militarism, and labor shortages. This model explains approximately 35.4% of the variance in attitude toward sex education (R^2=.354). Results show that being female as well as being Hispanic remain statistically significant. Additionally, church attendance and perception of ease of finding a job significantly influenced attitude toward sex education. Those respondents who attended church often and felt that it would be difficult to find a replacement job were less likely to support sex education in public schools. It is interesting to note that those who felt that finding a replacement job would not be easy were almost 3.5 times more likely to oppose sex education than those who felt

Table 5. Logistic regression model predicting attitude toward sex education: Demographic variables(n=300).

	B	St. Error	Odds Ratio
Demographic Variables			
Age	-.013	.022	.987
Gender(1=female)	-.820	.485	.440*
Marital status(1=married)	-.135	.668	.873
Black/African-American	-.686	.680	.504
Hispanic	-1.612	.731	.199*
College(1=college degree)	-.630	.551	.533
$20,000-34,999	.844	.977	2.325
$35,000-59,999	.705	.870	2.042
$60,000-90,000	.310	.846	1.363
$90,000 or over	.311	.839	1.365
Northeast	.676	.862	1.965
Midwest	.614	.618	1.848
West	.957	.771	2.603
Liberal	1.146	.880	3.147
Conservative	-1.245	.572	.288*
Intercept	3.650	1.250	38.461*
Pseudo R-square	.227		

*p<.10; p-values computed for two-tailed significance tests

Table 6. Logistic regression model predicting attitude toward sex education: First level theoretical variables(n=300).

	B	St. Error	Odds Ratio
Demographic variables			
Age	-.008	.023	.992
Gender (1=female)	-1.351	.625	.259*
Marital status (1=married)	-.164	.753	.849
Black/African-American	-.273	.845	.761
Hispanic	-1.797	.947	.166*
College (1=college degree)	-.451	.616	.637
$20,000-34,999	.645	1.181	1.906
$35,000-59,999	.794	1.096	2.211
$60,000-90,000	.302	1.086	1.353
$90,000 or over	.043	1.066	1.044
Northeast	.707	1.022	2.028
Midwest	.513	.692	1.670
West	.878	.900	2.046
Liberal	1.070	.983	2.915
Conservative	-1.020	.681	.360
Theoretical variables			
Fundamentalism (1=fundamentalist)	.393	.667	1.481
Church Attendance (1=sometimes)	-.573	.916	.564
Church Attendance (1=often)	-2.084	.738	.124*
Military spending (1=too little)	-.275	.696	.760
Military spending (1=too much)	-.058	.762	.944
Finding job (1=easy)	1.202	.592	3.327*
Intercept	4.034	1.777	56.470*
Pseudo R-square	.354		

*p<.10; p-values computed for two-tailed significance tests

finding a job would be easy. These findings show support for Reiss's theory that religiosity and labor shortages influence attitude toward sex education. Militarism, as measured in this study, was not a significant influence, which is contrary to Reiss's theory.

Table 7 illustrates the third regression model which includes the demographic variables and the second level of theoretical variables. Overall, this model explained 33% of the variance observed in attitude toward sex education (R^2=.330). Being Hispanic and politically conservative remain significant, however, being Black/African-American shows significant influence that was not observed in the first two models. When compared to White respondents, African-American respondents are less likely to support sex education in public schools. There may be an interaction occurring between gender and race since gender does not retain its significance in this model, and being Black/African-American gains significance. Additionally, attitude toward the regulation of pornography and premarital sex significantly influence attitude toward sex education. Those who feel pornography should be legal and those who condone premarital sex are more likely to support sex education in public schools. In fact, respondents who believe pornography should be legal are 3.5 times more

Table 7. Logistic regression model predicting attitude toward sex education: Second level theoretical variables(n=300).

	B	St. Error	Odds Ratio
Demographic variables			
Age	-.009	.024	.991
Gender(1=female)	.063	.585	1.065
Marital status(1=married)	-.483	.749	.617
Black/African-American	-1.505	.800	.222*
Hispanic	-1.903	.826	.149*
College(1=college degree)	-.597	.621	.551
$20,000-34,999	1.157	1.027	3.180
$35,000-59,999	1.130	.989	3.094
$60,000-90,000	1.024	.976	2.784
$90,000 or over	.745	.985	2.107
Northeast	-.002	.967	.998
Midwest	.630	.782	1.878
West	.293	.876	1.341
Liberal	.774	.975	2.169
Conservative	-1.371	.702	.254*
Theoretical variables			
Gender equality(1=low support)	.112	.872	1.119
Gender equality(1=high support)	-.033	.670	.967
Regulation of pornography(1=legal)	1.266	.625	3.545*
Premarital sex(1=sometimes wrong or not wrong)	1.137	.622	3.116*
Intercept	2.264	1.475	9.621
Pseudo R-square	.330		

*p<.10; p-values computed for two-tailed significance tests

likely to support sex education while respondents who condone premarital sex are approximately 3 times more likely to support sex education. These findings support Reiss's theory that regulation of sexuality and a naturalistic view of sexuality significantly impact attitude toward sex education. Support, however, is not seen for the proposition that gender egalitarianism leads to greater support of sex education.

Table 8 displays the results of the fourth and final model, which includes all of the demographic and theoretical variables. The full model explains 39.6% of the variance observed in attitude toward sex education (R^2 =.396). Hispanics, those who attend church often, and those who believe that finding a job would be easy all significantly influence attitude toward sex education. Respondents who were Hispanic and those who attended church often were significantly less likely to support sex education in public schools, while those who felt that finding a replacement job would be easy and pornography should be legal were more supportive of sex education. The odds of supporting sex education decreased by 85% for Hispanics and decreased 22% for those who attended church often. In contrast, those who felt that finding a job would be easy were almost three times more likely to

Table 8. Logistic regression model predicting attitude toward sex education: Full model(n=300).

	B	St. Error	Odds Ratio
Demographic variables			
Age	.001	.026	1.001
Gender(1=female)	-.464	.720	.628
Marital status(1=married)	-.409	.852	.664
Black/African-American	-.768	.959	.464
Hispanic	-2.013	.981	.134*
College(1=college degree)	-.512	.686	.599
$20,000-34,999	.369	1.191	1.446
$35,000-59,999	1.014	1.252	2.756
$60,000-90,000	.737	1.203	2.089
$90,000 or over	.322	1.164	1.380
Northeast	-.058	1.126	.944
Midwest	.701	.864	2.016
West	.401	.971	1.493
Liberal	.765	1.088	2.149
Conservative	-.931	.790	.394
Theoretical variables			
Fundamentalism(1=fundamental)	.446	.721	1.561
Church attendance (1=sometimes)	-.139	.995	.871
Church attendance(1=often)	-1.522	.830	.218*
Military spending(1=too little)	.267	.782	1.306
Military spending(1=too much)	.427	.893	1.533
Finding job(1=easy)	1.063	.661	2.896*
Gender equality(1=low support)	.303	.969	1.354
Gender equality(1=high support)	.310	.803	1.364
Regulation of pornography(1=legal)	1.350	.720	3.859*
Premarital sex(1=sometimes wrong or not wrong)	.938	.775	2.555
Intercept	1.680	2.043	5.365
Pseudo R-square	.396		

*p<.10; p-values computed for two-tailed significance tests

support sex education and those who felt that pornography should be legal were almost four times more likely to support sex education. These findings support Reiss's conclusions that religiosity, labor shortages, and attitude toward regulation of sexuality significantly impact attitude toward sex education, however, no support was seen for the concepts of militarism, gender egalitarianism, or naturalistic view of sexuality. Based on these results, hypotheses 1, 3, and 5 are accepted and hypotheses 2, 4, and 6 are rejected.

Overall, the conclusion can be made that individuals who are Hispanic, attend church often, feel that finding a job would be difficult, and think pornography should be illegal are less supportive of sex education in public schools. These findings are constant across all models. Very few demographic variables showed significance in the multivariate models, and only being Hispanic showed a significant effect in all four models. While gender had a significant effect in model 1 and 2, this was not observed in models 3 and 4. Perhaps the relationship seen between gender and attitude toward sex education observed in the first two models is better explained by attitude toward pornography. Women may be more supportive of regulation of pornography and making it illegal. Conservative political

views also show significance in models 1 and 3, however, it is not significant in models 2 and 4. A possible explanation for this is the inclusion of the variable for church attendance. Those who hold politically conservative views may be more likely to also attend church more often. Additionally, while attitude toward premarital sex is statistically significant in model 3, it is not significant in the full model. This may be due to the inclusion of church attendance in the full model. Those who attend church often may also be more likely to view premarital sex as wrong.

CHAPTER V

DISCUSSION

Sex education in public schools continues to ignite controversy among parents, politicians, and school administrators despite its long standing presence in public schools. The purpose of this study was to further explore what factors predict an individual's support for or opposition to sex education. Most research on the topic is dated and lacks a theoretical framework. This study updates this literature and adds theoretical guidance which previous studies on sex education lack.

Using data from the 2006 *General Social Survey*, the present study analyzed predictors of attitude toward sex education. The theoretical framework was developed from the work of sexuality theorist Ira L. Reiss (1980), and the variables of religiosity, militarism, labor shortages, gender egalitarianism, regulation of sexuality, and naturalistic view of sexuality were tested. Reiss (1980) proposed that low levels of religiosity, low levels of militarism, and labor shortages lead to higher levels of gender egalitarianism. Gender egalitarianism, coupled with few institutionalized regulations of sexuality and the view of sex as a natural act, Reiss (1980) argued, leads to a

society that is more sexually permissive. His theory implies that those who are more sexually permissive will also be more supportive of sex education.

Overall, findings suggested that approximately 9% of the sample opposed sex education in public schools. The findings from bivariate analysis for the demographic variables found that only region of interview and political views displayed a significant relationship with attitude toward sex education. Among the theoretical variables, church attendance, support of military funding, attitude toward finding a new job, attitude toward regulation of pornography, and attitude toward premarital sex were all shown to have a significant relationship with attitude toward sex education. These results support Reiss's theory that religiosity, militarism, labor shortages, regulation of sexuality, and naturalistic view of sexuality are significantly associated with attitude toward sex education. The results, however, did not support Reiss's assumption that gender egalitarianism would be predictive of attitude toward sex education. The findings that political orientation and church attendance are significantly associated with attitude toward sex education are consistent with previous findings from Snyder and Spreitzer (1976). However, Snyder and Spreitzer also found

significant relationships between sex education and age, years of education, and marital status which were not observed in the present study.

The multivariate analysis showed that race, church attendance, attitude toward finding a job, and attitude toward regulation of sexuality significantly predicted attitude toward sex education. Hispanics, those who attended church often, those who felt that finding a replacement job would be difficult, and those who felt that pornography should be illegal were significantly less supportive of sex education in public schools. The finding that Hispanics hold views regarding sex education that differ significantly from Whites may be due to the Hispanic-Catholic link, whereby, a large portion of the Hispanic population have strong ties to the Catholic Church.

Reiss's concepts of religiosity, labor shortages, and regulation of sexuality were all shown to significantly predict attitude toward sex education. However, the concepts of militarism, gender egalitarianism, and naturalistic view of sexuality, as operationalized in this study, did not significantly predict attitude toward sex education.

The results of the multivariate analysis showed inconsistencies with previous research. While the findings that age and political view are not significant predictors of sex education are consistent with Mahoney's (1979) findings, Mahoney observed that those who oppose sex education held more traditional orientation toward family, women's roles, and premarital sex. Mahoney (1979:264) concluded that "attitude toward sex education has more to do with views of the role of women, family, and sexuality, than with political-religious views." His conclusion seems to contradict the findings of the present study; however, the explanation for such dissimilarity may be accounted for by the almost 30 year difference between the samples. There have been significant societal level changes in the last 30 years, and the findings of the present study highlight that attitude toward sex education may have more to do with religious views than views of women's role or gender equality. Additionally, the questions used to measure gender equality in this study differed from those used by Mahoney.

Richardson and Cranston (1981) also found that attitude toward premarital sex was a significant predictor of sex education in schools. The present study found that, all else constant, neither attitude toward gender equality

nor attitude toward premarital sex significantly predicted attitude toward sex education. It is interesting to note, however, that attitude toward premarital sex was significant when the variables measuring religiosity, militarism, and labor shortages were excluded from the model. Religiosity shows significance in the full model indicating that perhaps it is high levels of religiosity that influence attitude toward sex education more so than attitude toward premarital sex.

There are a number of limitations present in the current study. The final sample used for analysis consisted of only 300 respondents. Additionally, of the 300 respondents only 28 indicated that they opposed sex education. The low level of variation within the dependent variable limits the generalizations that can be made to the larger population. Additionally, because the data was secondary, the operationalization of concepts was limited by available questions and data. One specific concern is the theoretical concept of regulation toward sexuality which was operationalized using a question about the legality of pornography. This may be troublesome because pornography raises issues among some groups who believe it should be illegal due to its degrading portrayal of women. Individuals may hold permissive views towards sexuality and

sex education but believe pornography should be illegal due to its misogynistic undertones.

While there are limitations of the current study, the study also contributes to the sex education literature. While previous research on sex education has not been theoretically guided, this study is guided by the work of sexuality theorist Ira L. Reiss (1980). Reiss's theory has not been extensively tested, and previous studies have not included all concepts of Reiss's theory. The current study study, therefore, presents the first analysis where Reiss's theory is tested in its entirety.

Due to the overwhelming support for sex education in public schools, as seen in this study, it may be more beneficial for future research to focus not on support or opposition in general, but on support or opposition for specific types or formats of sex education programs. It seems that the controversies that currently exist around the issue have more to do with what is taught and when the instruction should begin. With research continuing to discern which program types are successful in producing sexually responsible teens, it becomes necessary to determine what distinguishes supporters of the different sex education curricula. Public policies, including those that dictate sex education curricula, must gain public

support in order to be adopted. By examining the predictors of support by program type, policy makers will be better able to understand the underlying factors contributing to an individual's attitude toward sex education.

REFERENCES

Achilles, Paul S. 1923. "The Effectiveness of Certain Social Hygiene Literature." *Journal of Social Hygiene* 9:84-100.

Alan Guttmacher Institute. 2006. *U.S. Teenage Pregnancy Statistics: National and State Trends and Trends by Race and Ethnicity*. New York, NY: Guttmacher Institute.

Bigelow, Maurice A. 1924. "The Established Points in Social Hygiene Education." *Journal of Social Hygiene* 10:2-11.

Boonstra, Heather. 2002. "Teen Pregnancy: Trends and Lessons Learned." *The Guttmacher Report on Public Policy* 5:7-10.

Burr, Wesley R. 1973. *Theory Construction and the Sociology of the Family*. New York, NY: John Wiley & Sons.

Campos, David. 2002. *Sex, Youth, and Sex Education*. Santa Barbara, CA: ABC-CLIO.

Carter, Julian B. 2001. "Birds, Bees and Venereal Disease: Toward an Intellectual History of Sex Education." *Journal of the History of Sexuality* 10:213-249.

Centers for Disease Control and Prevention (CDC). 2005. *HIV/AIDS Surveillance Report*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention.

Chabon, Brenda and Donna Futterman. 1999. "Adolescents and HIV." *AIDS Clinical Care* 11:9-16.

Christian Register. 1929. "Unitarians Favor Sex Education." *Journal of Social Hygiene* 15:424.

Cochran, John K. and Leonard Beeghley. 1991. The Influence of Religion on Attitudes toward Nonmarital Sexuality: A Preliminary Assessment of Reference Group Theory. *Journal for the Scientific Study of Religion* 30(1):45-62.

Congressional Budget Office. 1990. *Sources of Support for Adolescent Mothers*. Washington, DC: Congressional Budget Office.

Crabtree, Steve. 2005. *Teens on Sex Education: Abstinence-Only or Safe-Sex Approach?*. Washington, DC: The Gallup Organization.

Curtiss, Lucy S. 1920. "Sex Instruction through English Literature." *Journal of Social Hygiene* 5:263-272.

Dailard, Cynthia. 2001. "Sex Education: Politicians, Parents, Teachers and Teens." *The Guttmacher Report on Public Policy* 4:9-12.

Darroch, Jacqueline E., David J. Landry, and Susheela Singh. 2000. "Changing Emphases in Sexuality Education in U.S. Public Secondary Schools, 1988-1999." *Family Planning Perspectives* 32(5):204-11+265.

Davis, James A., Tom W. Smith, and Peter V. Marsden. 2007. General Social Surveys, 1972-2006 [Cumulative File]. Chicago, IL: National Opinion Research Center [producer]. Storrs, CT: Roper Center for Public Opinion Research, University of Connecticut/Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributors].

DeLamater, John. 1981. "The Social Control of Sexuality." *Annual Review of Sociology* 7:263-90.

Donovan, Patricia. 1998. "School-Based Sexuality Education: The Issues and Challenges." *Family Planning Perspectives* 30:188-193.

Feijoo, Ammie N. 2001. *Adolescent Sexual Health in Europe and the US—Why the Difference? The Facts*. 2d ed. Washington, DC: Advocates for Youth.

Forsyth, Brian W.C. 2000. "The AIDS Epidemic." *Child and Adolescent Psychiatric Clinics of North America* 9:267-277.

George, Robert M. and Bong J. Lee. 1996. "Abuse and Neglect of the Children." Pp. 205-230 in *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*, edited by Rebecca A. Maynard. New York: Robin Hood Foundation.

Geronimus, Arline T. and Sanders Korenman. 1992. "The Socioeconomic Consequences of Teen Childbearing Reconsidered." *The Quarterly Journal of Economics* 107: 1187-1214.

Grogger, Jeffery. 1996. "Incarceration-Related Costs of Early Childbearing." Pp. 232-255 in *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*, edited by Rebecca A. Maynard. New York: Robin Hood Foundation.

Guttmacher Institute. 2005. "President Bush's FY 2006 Budget: Increased Funding for Abstinence-Only Education Puts Teens at Risk." Retrieved November 26, 2007 (http://www.guttmacher.org/media/inthenews/2005/02/09/index.html).

Hauser, Debra. 2004. *Five Years of Abstinence-Only-Until-Marriage Education: Assessing the Impact*. Washington, DC: Advocates for Youth.

Hoffman, Saul D. 2006. *By the Numbers: The Public Costs of Teen Childbearing*. Washington, DC: National Campaign to Prevent Teen Pregnancy.

Hoffman, Saul D., E. Michael Foster, and Frank F. Furstenberg, Jr. 1993. "Reevaluating Costs of Teenage Childbearing." *Demography* 30:1-13.

Johnson, Warren R., and Margaret Schutt. 1966. "Sex Education Attitudes of School Administrators and School Board Members." *The Journal of School Health* 36:64-68.

Kenny, A.M. and S.J. Alexander. 1980. "Sex/Family Life Education in the Schools: An Analysis of State Policies." *Family Planning/Population Reporter* 9(3):44-52.

Kirby, Douglas. 2002. *Do Abstinence-Only Programs Delay the Initiation of Sex among Young People and Reduce Teen Pregnancy*?. Washington DC: National Campaign to Prevent Teen Pregnancy.

Knoke, David, George W. Bohrnstedt, and Alisa Potter Mee. 2002. *Statistics for Social Data Analysis*. Belmont, CA: Thomson Wadsworth.

Koop, C. Everett. 1986. *Surgeon General's Report on Acquired Immune Deficiency Syndrome*. Washington, DC: U.S. Public Health Service Office of the Surgeon General.

Landry, David J., Jacqueline E. Darroch, Susheela Singh, and Jenny Higgins. 2003. "Factors Associated with the Content of Sex Education in U.S. Public Secondary Schools." *Perspectives on Sexual and Reproductive Health* 35:261-269.

Landry, David J., Lisa Kaeser, and Cory L. Richards. 1999. "Abstinence Promotion and the Provision of Information about Contraception in Public School District Sexuality Education Policies." *Family Planning Perspective* 31:280-286.

Lindberg, Laura D., John S. Santelli, and Susheela Singh. 2006. "Changes in Formal Sex Education: 1995-2002." *Perspectives on Sexual and Reproductive Health* 38(4):182-89.

Mahoney, E.R. 1979. "Sex Education in the Public Schools: A Discriminate Analysis of Characteristics of Pro and Anti Individuals." *The Journal of Sex Research* 15(4):264-75.

Maynard, Rebecca A. 1996. *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*. New York, NY: Robin Hood Foundation.

Measor, Lynda, Coralie Tiffin, and Katrina Miller. 2000. *Young People's Views on Sex Education*. London, England: Falmer Press.

Moore, Kristen A., Donna R. Morrison, and Angela D. Greene. 1996. "Effects on the Children Born to Adolescent Mothers." Pp. 145-180 in *Kids Having Kids: A Robin Hood Foundation Special Report on the Costs of Adolescent Childbearing*, edited by Rebecca A. Maynard. New York: Robin Hood Foundation.

National Guidelines Taskforce. 2004. *Guidelines for Comprehensive Sexuality Education, Kindergarten Through 12th Grade*. 3rd ed. New York, NY: Sexuality Information and Education Council of the United States(SIECUS).

National Institute of Allergy and Infectious Diseases (NIAID). 2006. *HIV Infection in Adolescents and Young Adults in the U.S.* National Institutes of Health and U.S. Department of Health and Human Services.

Office of Management and Budget. 2007. "Protecting America." Retrieved November 27, 2007 (http://www.whitehouse.gov/omb/budget/fy2006/protecting.html).

Richardson, John G. and Julie E. Cranston. 1981. "Social Change, Parental Values, and the Salience of Sex Education." *Journal of Marriage and the Family* 43(3):547-58.

Reiss, Ira L. 1967. *The Social Context of Premarital Sexual Permissiveness*. New York, NY: Holt, Rinehart and Winston.

Reiss, Ira L. 1980. "Sexual customs and gender roles in Sweden and America: An analysis and interpretation." Pp. 191-220 in *Research on the Interweave of Social Roles: Women and Men*, edited by Helena Lopata. Greenwich, CT: JIA Press.

Reiss, Ira L. 2006. *An Insider's View of Sexual Science since Kinsey*. Lanham, MD: Rowman & Littlefield Publishers, Inc.

Roper Center. 2007. "General Social Survey 1972-2006." *University of Connecticut*. Retrieved October 19, 2007. (http://www.ropercenter.uconn.edu/data_access/data/datasets/general_social_survey.html).

Rose, Susan. 2005. "Going Too Far? Sex, Sin and Social Policy." *Social Forces* 84:1207-1232.

SIECUS. 2004. "About SIECUS." Retrieved October 21, 2007, from SIECUS Web site: (http://www.siecus.org/about/index.html).

Snyder, Eldon E. and Elmer Spreitzer. 1976. "Social Correlates of Attitudes Toward Sex Education." *Education* 96(3):222-25.

Toohey, J.V. 1969. "Sex education, water fluoridation and Dr. Sigmund Freud." *The Journal of School Health* 49:70-73.

UNICEF. 2001. *A League Table of Teenage Births in Rich Nations*. Florence, Italy: UNICEF Innocenti Research Centre.

USDHHS. 2007. "2006 Federal Poverty Guidelines". United States Department of Health and Human Services. Retrieved January 15, 2007 (http://aspe.hhs.gov/poverty/06poverty.shtml).

Wang, Guang-zhen, M.D. Buffalo. 2004. "Social and Cultural Determinants of Attitudes toward Abortion: A Test of Reiss' hypotheses." *The Social Science Journal* 41:93-105.

Weinberg, Martin S., Isla Lottes, and Frances M. Shaver. 2000. "Sociocultural Correlates of Permissive Sexual Attitudes: A Test of Reiss's Hypotheses about Sweden and the United States." *The Journal of Sex Research* 37(1):44-52.

Welbourne-Moglia, Ann and Ronald J. Maglia. 1989. "Sexuality Education in the United States: What it is; What it is Meant to Be." *Theory in Practice* 28(3):159-164.

White, H.F. 1920. "A motion picture curriculum of sex instruction." *Journal of Social Hygiene* 6:612-613.

Witte, Kim. 1997. "Preventing Teen Pregnancy Through Persuasive Communications: Realities, Myths, and the Hard-Fact Truths." *Journal of Community Health* 22:137-154.

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