

LEARNING FROM THE BEST: A CASE STUDY
OF NEW HAMPSHIRE STATE
SEX EDUCATION POLICY

by

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ABSTRACT

This project uses a case study approach to examine the state sex education policy of New Hampshire, the state with the lowest teenage birthrate. The purpose is to determine a causal mechanism between sex education policy and the effect on teenage birthrate. The findings show areas of the policy that are effective in lowering teenage birthrates, while other areas are not as significant.

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INTRO/ RESEARCH QUESTION

According to a recent U.S. Department of Agriculture report, it costs an average of \$241,080 to raise one child to the age of 18 years in the United States. Yet, over 300,000 women ages 15-19 give birth to children every year. This can clearly be a tumultuous time to enter into a quarter of a million dollar commitment. Since 1991, the average teen birthrate of the US has been on a steady decline. The direct cause of this decline remains unclear. Many believe that the key to reaching these teenagers is through curriculum at the schools in which they spend most of their waking hours. Are these efforts fruitful, or are there demographic factors that have such a strong effect that any form of sexual education falls on deaf ears? More specifically, how does a state's sex education policy affect that state's teenage birthrates?

The purpose of this study is to evaluate how different state sex education requirements affect the teen birthrates among students in America. Typically, debate on the answer to this question in America focuses on the content of the sexual education courses. More specifically, it focuses on whether a course is more oriented towards teaching abstinence or towards a more comprehensive approach. This scope overlooks key aspects that may have a large effect on the success of the programs to lower the rate of teen pregnancies in the area. These aspects include but are not limited to the requirements of schools in a state to have a health education coordinator, to teach certain topics pertaining to sex education, and to fund these programs.

In the first section of this paper, I examine the most recent studies conducted regarding sex education and/or teenage pregnancy, divide them into separate theories, and briefly examine the efficacy of each. Next, I pinpoint the aspect of the discussion I

believe has been left out of past research, as I state my own theory and hypothesis.

KEY VARIABLES: EXAMINING THE MANY POTENTIAL CAUSES
OF TEEN PREGNANCY

Because the teenage birthrate in the United States has been in a steady decline since 1991, it can be perceived as a problem already resolved. However, the birthrate in the United States is still much higher than any other industrialized Western nation, and is therefore an issue that needs to be and has been studied recently (Kearney & Levine, 2012, p.141). The relevant literatures (while still overlapping) can be divided into arguments based on socioeconomic and cultural factors, abortion policies, and sexual education policy.

The argument involving socioeconomic and cultural factors is inevitably researched in most of the scholarly writings because of the large discrepancies between teenage birthrates of Hispanics, African Americans, and Whites (Hispanics being the highest and Whites being the lowest). It is very difficult to pinpoint the exact causal mechanisms in the theory because it seems to be a difference in cultural norms. The most compelling argument in the matter comes from Kearney and Levine (2012). This article essentially seeks to operationalize “hopefulness” in regards to what an individual foresees as future opportunities. In other words, does the individual have the tools necessary to develop and achieve career aspirations beyond motherhood? It argues that if the “hopefulness” for a career is low, it will increase the desire to enter motherhood at a young age, which in turn increases teenage birthrates. A weakness in this argument lies on the assumption that it is the lack of economic opportunity, as opposed to religious or cultural factors, that primarily drives the person to have a child. Regardless, this approach

does not get to the center of my question, as it gets caught in a subset of the population while ignoring the fact that the majority of teenage pregnancies are unwanted (Coles, 2009, p. 4).

Coles (2009) delves into the unintended teen births and focuses on the state abortion statutes. It argues that it is in fact restrictive abortion laws that block teenagers from terminating their pregnancies that has led to a slower decline in some areas than others. In particular, it looks at parental involvement laws, mandatory waiting periods, and restrictions on funding that make abortion inaccessible or undesirable to some teenagers. Although the conclusions of major research in this area do see a positive correlation between more restrictive abortion laws and an increase in unwanted pregnancy, it is not necessarily causal. For this to be causal, it would rely on an assumption that teenagers were well aware of their state abortion laws, and that this had an effect on their decision to engage in unprotected intercourse. While most people would probably assume an increased abortion rate results in decreased birthrates, this is not the case. Teenage abortion rates over the past few decades have been positively correlated with teenage birthrates (Kearny & Levine, 2012, p. 145). In addition, this theory still does not tackle the question of what is the root cause of high teenage birthrates. The most obvious direct antecedent to teenage birthrate is teenage pregnancy rate. There is not a significant causal link between more restrictive abortion policies and higher teen pregnancies. Most teenagers probably do not take into consideration their own state's abortion policies before they accidentally get pregnant.

NEW THEORY: FOCUSING ON STATE SEX EDUCATION POLICIES

While existing literature solely highlights sexual education in the classroom there is good reason to believe that previous studies have generally ignored a potentially important intervening variable that explains this correlation, and also leads down the pathway of my story with sex education. The focus of recent studies lies on the types of sex education classes implemented by each classroom or school district. However, I would like to shift the focus to the step that leads up to what occurs in the classroom. More specifically, I want to examine the sex education policy at the state level. This is significant because it is most often state legislators that are expected or called upon to make policy regarding the sexual education requirements. It is this legislation that may restrict or encourage a certain type of program to be implemented in a district or school. See Figure 1 for the causal overview which includes all three theories, with my focus, sexual education highlighted.

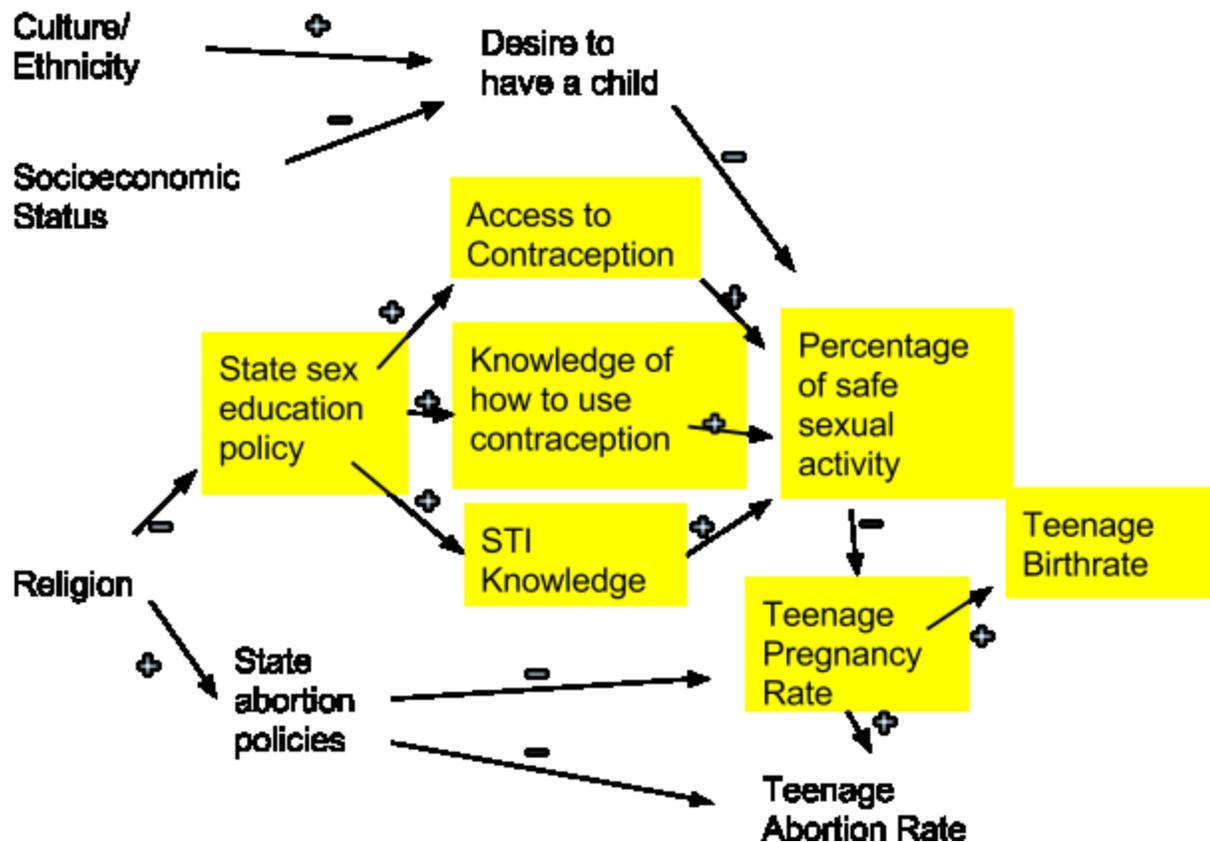


Figure 1: Overview of Theory

The highlighted track above outlines the third basic theory that explains high teenage birthrate. It links sex education policy through a series of causal mechanisms and ends with teenage birthrate. My theory begins at the state sex education policy. The literature available that delves into this subject does a longitudinal study of every state's policy and the effect it has on the teenage birthrate. Like the model shows, a more extensive sex education policy eventually yields a lower teenage birthrate. However, the author's find the conclusion less compelling when the results disappear when controlling for factors such as political ideology and socioeconomic status that suggest sexual education might not be as important (Cavazos-Rehg et al., 2012). I believe that a quantitative approach to studying this question might not be effective in resolving the different arguments presented because it brushes over significant causal mechanisms.

This is why I will be doing a case study focusing solely on one state to see if my theory actually persists.

When state sex education policy is more comprehensive, a state is allowed and encouraged to implement more effective sex education curriculum in classrooms. As discussed by Markham et al. (2011) this in turn leads to increased contraceptive use and knowledge of STIs, as shown in my chart. These can be attributed to the rise in safe sexual activity as discussed by Kearney and Levine (2011). The rest of the chart follows common sense as more safe sex leads to fewer pregnancies, and fewer pregnancies are followed by fewer births.

Why are these teenagers still getting pregnant when they don't want to? The answer with the most logical causal mechanism is that they don't know enough about sex and the consequences. If states implement an effective sex education policy, students can potentially gain knowledge of what sex is, what the consequences are, and how to practice it safely. This will increase the likelihood the percentage of teenagers practicing safe sex, and in turn decrease the amount of teen pregnancy and birthrates. My hypothesis that I will test is the more structured a state's sex education policy is, the lower its teenage birthrate will be.

RESEARCH DESIGN

My project will be focused on a "Most-likely" case to see if my theory holds up in the state which consistently flaunts the lowest teenage birthrates: New Hampshire (CDC). Since the decline of US teenage birthrates began in 1991, New Hampshire has year after year shown the lowest birthrates of any state in the country (plus the District of Columbia). Most recently reported, the United States birthrate per 1000 15-19 year old

girls was 29.4, while New Hampshire sat at 13.8 (<http://thenationalcampaign.org>). Furthermore, roughly the same percentage of teenagers in New Hampshire reporting having sex in 2011 as in the United States as a whole: 47.5% and 47.4%, respectively (<http://www.dhhs.nh.gov>). The same report shows that a higher percentage of these students are practicing safe sex. Studying this case will provide a substantive analysis of my theory. If it aligns with my hypothesis, then the state sex education policy can be considered important along other aspects that cause teen pregnancy. If not, then it must be another theory, or combination of theories, that explain the low teenage birthrates.

Dependent Variable

The dependent variable for this study is the teenage birthrate and is defined as the amount of births per 1000 15-19 year olds in a defined area. This data is provided by the Center for Disease Control under the National Center for Health Statistics. These results include all registered births in the United States, and can be organized by numerous means such as state, age, race/ethnicity, etc. The only shortfall, though it is virtually irresolvable, is that it doesn't include unregistered births.

Independent Variables

The primary independent variable that will be studied is the state sex education policy. The only state health policy evaluation available is from the Center for Disease Control and is called the School Health Policies and Practices Study (SHPPS). This was used in part by Cavazos-Rehg et al., 2012 to measure their independent variable. This study is conducted every six years and is published two years following. The latest full information is available is from the 2006 survey (published in 2008), while preliminary results are available for the 2012 survey (published in 2014). The program publishes

“School Health Program Report Cards” for each state and district which they evaluate. These are only available from the 2006 study, so this will be included in my data set. The evaluation is to be filled out by a government official in each state responding to a series of Yes/No questions regarding health education. The full “report card” for New Hampshire is attached (see Appendix 1), but I only include the questions directly relevant to my study. There are 30 possible “Yes” responses that would make the state sex education policy more comprehensive, so I will be scoring this variable on a scale from 0-30. A 0-10 score represents low structure, an 11-20 score represents moderate structure, and a 21-30 score represents high structure. The following is a list of questions that I have deemed significant to the structure of a successful sexual education policy:

- Does the state require at the middle school and high school level?:
 - State health education coordinator
 - District health education coordinator
 - School health education coordinator
 - Districts or schools to follow national or state HED (Health Education) standards or guidelines
- Does the state policy address the following topics in setting goals and objectives?:
 - Accessing valid health information and health-promoting products and services
 - Advocating for personal, family, and community health
 - Analyzing influence of culture, media, and technology on health
 - Comprehending concepts related to health promotion and disease prevention
 - Practicing health-enhancing behaviors and reducing health risks
 - Using goal-setting and decision-making skills
- Does the state require schools to teach?:
 - Human sexuality

- Emotional and mental health
- HIV prevention
- Other STD prevention
- Pregnancy prevention
- Does the state require that students will be tested on health topics?
- Does the state require or recommend one particular curriculum for HED?
- Did the state provide the following information or materials for HED during the past two years?:
 - Chart describing scope and sequence of instruction
 - Lesson plans or learning activities
 - List of recommended curricula
 - List of recommended textbooks
 - Plans for how to assess or evaluate students
- Does the state have specified time requirements for HED?
- Does the state require newly hired HED teachers to have undergraduate or graduate training in HED?
- Does the state require newly hired HED teachers to be certified, licensed, or endorsed by the state?
- Has the state provided funding for staff development or offered staff development to HED teachers during the past two years on the following topics?:
 - Human sexuality
 - Emotional and mental health
 - HIV prevention
 - Other STD prevention
 - Pregnancy prevention

Methodology

In order to test my hypothesis, I will gather all of the data on the variables listed above for the state of New Hampshire. I will then look for consistency with the theory that state sex education policy lowers teen birthrates through a number of intervening ways, all of which primarily result in more contraceptive use. The dependent variable will be

low because the low rate of teenage pregnancy in New Hampshire is the primary reason for choosing it as the case to study. Because of the availability of data sets, all of the data will be gathered between 2006-2008.

I will primarily be looking for consistency with the independent variable of state sex education policy. A higher amount of regulation and requirements in state legislation (at least 21 of the 30 listed questions) for the state of New Hampshire is consistent with my hypothesis.

ANALYSIS

The first observed result is of the teenage birthrate in New Hampshire in 2006. This number is 18.7 of every 1000 15-19 year old females in New Hampshire gave birth that year. That number is 55% lower than the teenage birthrate of the United States of America the same year. (<http://www.dhhs.nh.gov/dphs/bchs/mch/documents/tb-data-brief.pdf>). This is an astounding number and was the lowest birthrate in the United States in 2006. The next part of the analysis involves measuring the independent variable of the state sex education policy in New Hampshire in 2006.

The expected results of this measurement were to see at least 2/3 of the guidelines of the Center for Disease control of making a structurally sound sexual education policy at a state level would be met. The actual results found when analyzing the School Health Program Report Card was that 18/30 (or 60%) of the standards were fulfilled in New Hampshire in 2006. This places it in the “Moderate Structure” category of my ordinal level operationalization. This result was unexpected, so I will analyze separately the significant areas that support the hypothesis, and those that debunk it.

Results which confirm theory

The first major pro that this study found for the structure of New Hampshire’s state sex education policy in 2006 is that it has a state health education coordinator. This means that there is at least one person involved at the state level that helps regulate the requirements for all of the districts and schools in the state. This is a core factor in the hypothesis that a strong state sex education policy yields a low teenage birthrate because without a responsible individual to coordinate at the top, it could potentially be a chaotic system throughout the country.

The next major positive factor that is consistent with the hypothesis is that New Hampshire addresses all of the major topics while setting its states goals and objectives that the School Health and Programs Study deems to be significant. To refresh, these include the following:

- Accessing valid health information and health-promoting products and services
- Advocating for personal, family, and community health
- Analyzing influence of culture, media, and technology on health
- Comprehending concepts related to health promotion and disease prevention
- Practicing health-enhancing behaviors and reducing health risks
- Using goal-setting and decision-making skills

It is impressive that New Hampshire takes all of these factors into consideration for its state sex education policy, and definitely could be a factor that makes it the state with the lowest birthrate. Specifically, the objective to promote accessing valid health information and health-promoting products and services, comprehending concepts related to health promotion and disease prevention, and practicing health-enhancing behaviors and reducing health risks are all factors that line up with my theory that more information leads to more contraceptive use. In addition, the advocating for personal, family and community health can have a big impact on students overall adolescent health. It has been shown that “a strong parent-child bond has a positive effect on a teen’s decision about sexual activity” (Ashley, 2007). Finding these factors to be present in New Hampshire may be a big factor in explaining the low teenage birthrate.

Next, the state sex education policy does have requirements for every school that in theory should help lower teenage birthrate, including: emotional and mental health and Human immunodeficiency virus prevention. The more prominent one is most likely the fact that each school requires a lesson taught on HIV prevention. This would help solve a problem sited in other articles on the topic in which a high percentage of minority students report never having learned about HIV or how to prevent it (YBBS). In addition to requiring these issues to be discussed, the Report Card reveals that they also back up these programs with funding. This is a significant factor that may often be overlooked in studying the subject of teenage birthrate. A state may have requirements for all of its

school, but the resources to execute those requirements are not always there. In the case of New Hampshire in 2006, it backed up its requirements. Additionally, it provides funding to discuss human sexuality and other STD prevention, although these topics are not required to be discussed at every school.

Finally, a significant finding in New Hampshire is that it requires newly hired health education teachers to have undergraduate or graduate training in health education, and to be certified, licensed, or endorsed by the state. This definitely lines up with my theory about strong structure in state sex education policy because it ensures at least some level of knowledge in the field of health education as well as streamlined process that allows consistency across the state in the execution of the state sex education policy.

Results which refute theory

The first result that weakens the theory that structure in state sex education policy results in a lower teenage birthrate is that in 2006 New Hampshire did not require that each district and school had a health education coordinator. This is surprising because it seems that the state with the lowest teenage birthrate in the country would have a highly sophisticated and structured sex education program including representatives at the district and school level. Possible explanations for this discrepancy are that the role of sex education coordination falls under a position that has other responsibilities aside from health education. Also, it may be that having an individual responsible at each level is not necessary to the implementation of a successful sexual education program.

The most surprising result that contradicts the theory presented is that middle schools and high schools are not required by the state to teach human sexuality, other sexually transmitted disease prevention, or pregnancy prevention. This is a very surprising result again as the state with the lowest teenage pregnancy rate. A possible explanation for this discrepancy is that just because the schools are not required by the state to teach these subjects specifically doesn't necessarily mean that these topics aren't being taught. In addition to this, the state does not provide funding for staff development or offer staff development to health education teachers in the topic of pregnancy prevention. Perhaps this topic is grouped in with another topic such as human sexuality, and does not require separate funding or development.

Finally, there are multiple suggestions from the Center for Disease control on implementing a successful program, although I find these somewhat menial compared to the other requirements. These include test requirement on health topics, one specific curriculum for the entire state, a time requirement for health education and a list of lesson plans, recommended curricula or list of recommended textbooks. Although these could arguably help a state lower its teenage birthrate, they do not by nature seem to be as critical as the other factors mentioned previously.

CONCLUSION

After analyzing the results of the case study, most of the conclusions point to suggestions for future research. The results gave merit to the hypothesis that a structured state sex education policy results in a lower teenage birthrate, however the question must be more focused. That is, what aspects specifically of the structured state sex education policy are going to be effective in lowering the teenage birthrate. Areas that my research indicate are more significant include having a person designated at the state level to coordinate health education, setting specific goals and expectations for the state curriculum, setting specific requirements for school and districts, as well as having training requirements for those teaching these subjects. An area that seemed not to be a vital is having a sex education coordinator at every school, as well as having specific requirements on sexually transmitted diseases and pregnancy prevention in particular. The normative significance of the results can be very influential, especially if further research is conducted. Often it is an issue of funding that may block a state from having stringent education requirements, however, analyzing the affective measures versus the ineffective can lead to a more targeted and successful budgets.

The limitations of this study are the typical restraints of doing a case study. There is great amount of internal validity because it focuses on the specific aspects of the New Hampshire requirements. However, it may in turn lack external validity. In other words, there may be some factor of New Hampshire's citizenry that would make these results inapplicable universally. That is why I suggest that future research takes the important suggestions of this paper, and apply it on a wider basis.

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