Conservative Protestantism and Church Attendance Effects on Teen Pregnancy and Pregnancy Outcomes

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Abstract

This paper investigates the effect of conservative protestant upbringing and church attendance on teen pregnancy and pregnancy outcomes for a cohort of non-Hispanic White women who were at risk teen pregnancy during the early 1980s. Multivariate models show that lower teen pregnancy rates are associated with frequent church attendance for all religious groups (including those who do not express a religious affiliation). Among the major religious categories considered here we find that conservative protestants generally have higher rates of teen pregnancy than other groups. Devout conservative Protestants showed the lowest rates of teen pregnancy.

Introduction

There is a longstanding interest in adolescent pregnancy and its consequences. A growing body of literature explores the role of religion, as summarized in the 2001 report by the National Campaign to Prevent Teen Pregnancy (Whitehead et al. 2001). However, few studies actually focus on pregnancy or pregnancy resolution –most examine teen sexual activity (virginity status, age at first intercourse, etc.). Moreover, most studies use cross-sectional data, and problematic conceptualization and measurement of religious involvement. This paper uses longitudinal data from the National Longitudinal Survey of Youth, and detailed information on religious background and frequency of participation in religious services to estimate the effects of religion and attendance on the risks of teen pregnancy. Pregnancies and pregnancy outcomes experienced by the young women in the NLSY sample take place in the context of increasing national teen pregnancy rates, prior to widespread public concern about HIV/AIDS, and during a time when religious conservatives were expressing increasing concern about rising rates of teen pregnancy. This analysis provides insight into the nature of the religious and attendance effects, how these effects operate over the teenage years, and how these effects are mediated by other factors. We also examine pregnancy outcomes, but find relatively weak religious/attendance effects.

Background Issues

Religious participation has been shown to have general influence on sexual restraint. Specific religious subcultures may have particularly strong proscriptive sexual norms –e.g., Conservative Protestantism, Catholicism. However, there exists a potential for amplification or bifurcation effects (i.e., high participation within a proscriptive subculture) and a potential for non-linear ("hydraulic") effects within proscriptive subcultures that could result from

stigmatization of behavior, lack of information, support, absence of role models of open, responsible moderation, fatalism regarding temptation, and human frailty.

Whitehead et al. (2001) find support for the idea that religiosity (variously defined) is associated with delayed sexual activity among some groups of teens, while at the same time suggesting that some religious teens may be less likely to use contraception when they do begin sexual activity. However, they note that definitive conclusions are limited due to the generally poor state of research in this area. Some limits of past research on religion and teen pregnancy include the lack of a primary focus on religion and attendance and the use of cross-sectional data to draw inference about the effects of religion on dynamic life-course outcomes. Moreover, much of the focus centers on attitudes rather than specific outcomes and behaviors.

Data and Methods

This analysis uses the 1993 wave of the National Longitudinal Survey of Youth (NLSY). The NLSY is a nationally representative sample of approximately 13,000 youth aged 14-21 in 1979. Retrospective information about timing (age) of first intercourse, pregnancy, birth, and marriage are available in later years of the survey. We focus on age of first teen pregnancy, defined here as a pregnancy occurring while unmarried prior to age 20 (i.e., first premarital teen pregnancy). Thus, the event histories represented in this analysis reflect the early sexual, childbearing experiences of a cohort of young women from 1979 until 1986, at which time the youngest member of the entering cohort would be about 20 years old.

Although seldom exploited, the NLSY contains detailed information about religion and church attendance. Approximately 80 distinct detailed religions are coded. We construct the categories for Catholic, Conservative Protestant, Other, and None (no affiliation) based on the respondent's report of the religion practiced by her family during her childhood and early adolescence. Fifty religions in the detailed list can be classified as Conservative Protestant.

Minor additions and deletions to this list were tested, all of which yielded similar substantive conclusions. Frequency of church attendance (frequency of attending religious services while growing up) is also based on retrospective information. The major categories (collapsed from the original 8 categories) are: *less than monthly*, *monthly*, and *weekly or more frequent* attendance. We are not aware of studies that have used the detailed religion categories available in the NLSY to assess the impact of religion on teen pregnancy. Although numerous studies control for religion in multivariate models, in most of studies a dummy variable for Catholic religion is used to capture religious heterogeneity.

We include in the analytic sample only non-Hispanic white females who were at risk of a first pregnancy as a result of being (or reporting to be) sexually active.[1] We fit a sequence of proportional hazards models to assess the effects of religion and frequency of attendance on the risk of teen pregnancy. In a subsequent analysis, pregnancy outcomes are determined from information on age at marriage, date of childbirth, and questions on whether on not this pregnancy terminated in stillbirth or abortion.[2] In a subsequent set of models, we discard the small number of stillbirths and focus on premarital birth, birth within marriage, and abortion, which are treated as "choices" in a discrete-choice/multinomial logit analysis. Prior to discussing each multivariate model, we provide a more general descriptive analysis.

Descriptive Results on the Effects of Religion and Attendance on Teen Pregnancy

[1] In the cases where a pregnancy was reported but information about age of first intercourse was missing, we imputed age at first intercourse accordingly.

[2] Numerous checks were carried out to match pregnancies with births or other pregnancy outcomes. In cases where a respondent reported a birth but were missing data on pregnancy, we imputed the pregnancy date accordingly. For a few cases, a teen pregnancy occurring close to age 20 could result in a live birth occurring up to about 9 months later. This information was used as a further check or imputation of the age at first pregnancy.

We begin with a descriptive analysis using a life table stratified by religion (*conservative Protestant* or *Other*) and church attendance (*weekly or more frequent* or *less than weekly*). The "*Other*" category includes respondents from other religions as well as those reporting no religious affiliation when growing up. More detailed categorizations of religion and attendance are used in our multivariate models.

Table 1 shows age-specific teen pregnancy rates by religious upbringing (raised conservative protestant vs other religion or no religion) and frequency of church attendance (weekly or more vs less frequently) for 2,277 non-Hispanic white women ages 14-20 in the 1979 cohort of the NLSY. This highlights the nature of the interaction between religion and frequency of attendance. This table also shows the number and percent pregnant and the number censored in each category.

[Table 1 About Here]

The highest estimated teen pregnancy rates of between 39.7 to 127.2 per thousand per year are found at older ages (in the 18-20 age interval) among young women who attend church less often than once per week (i.e., less devout). Within this group, the highest pregnancy rates occur among conservative Protestants (127 per thousand). Comparing less frequent churchgoers, we find that conservative Protestants face a risk of a first teen pregnancy that is uniformly higher than the less devout from other religious (and nonreligious) backgrounds. Specifically, the conservative Protestant risk is 1.5 times higher than the less devout from other religious backgrounds at younger ages (12-16 age interval). This relative risk for younger ages is not significantly different from 1. However, the pregnancy risk for conservative Protestants at older ages differs significantly, and is about twice that of the less devout from other religious (or nonreligious) backgrounds.

These relative risks (hazard ratios) are given in the first column of Table 2. The second column of Table 2 shows a similar comparison for the more devout. Within the more frequent churchgoing group, we find that the risk of a first teen pregnancy does not differ significantly

between religious categories, except in the middle-teen years (ages 16-18), in which the more devout conservative Protestants face a risk that is 1.88 times higher than the risk among the more devout from other religious backgrounds. The second panel of Table 2 shows how pregnancy risk differs between less frequent and more frequent churchgoers. Comparing the less frequent to the weekly churchgoing conservative Protestants, we find that risk of a first pregnancy among the less devout is 2.1 to 5.3 times higher depending on age. When comparing the less devout to the more devout from other religious backgrounds, those who attend church less often face uniformly higher relative risks of a first teen pregnancy at any age, from between 3.2 to 4 times higher depending on age.

[Table 2 About Here]

Figure 1 provides a plot of the empirical hazards for each of the four religion and church attendance groups obtained by smoothing the contribution to the cumulative hazard function at age t.[3] Consistent with the results of Table 1, we find higher hazard rates among conservative protestants, with a large protective effect associated with frequent church attendance. We also find that the age profile of the risk increases with age, but is rate of increase in the risk increases with age. Figures 2 and 3 show smoothed hazards plot separately by more detailed religious and attendance categories.

Multivariate Models of Teen Pregnancy

The results in Tables 1 and 2 are based on life tables for three time intervals of age at first pregnancy, with stratification by religion and church attendance. Log rank tests on the resulting

[3] The empirical hazard at age t is $\hat{h}(t) = \partial \hat{H}(t) / \partial t$, where $\hat{H}(t)$ is the estimated cumulative hazard function derived from a Kaplan-Meier estimator of the survivor function. Figure 1 reports smoothed empirical hazards, $\tilde{h}(t) = \text{ksm}[\hat{h}(t), b]$, based on a nonparametric regression (kernel smoothing) of $\hat{h}(t)$ on t, where a bandwidth parameter b controls the degree of smoothing.

survival functions showed significant differences in survival curves by strata. The preceding discussion provides details about the nature of these differences. Figure 1 provides an alternative summary. This approach, while useful in a descriptive preliminary analysis, is not suited for assessing the behavior of religion and attendance effects in the presence of many control variables. This section examines multivariate models that control for region/residence and family background. We estimate a series of proportional hazards models that introduce various controls and assess the impact of these variables on religion and attendance effects. A set of preliminary analyses revealed evidence of departure from proportionality in the effects of monthly, and weekly church attendance, and for those individuals reporting no religious affiliations (*none*). Therefore, we fit models in which the effect of weekly and monthly attendance (relative to less than monthly attendance) and no religious affiliation (relative to other religion) on teen pregnancies occurring at ages younger than 17 are allowed to differ from the effects of these variables on teen pregnancies at older ages (i.e., these variables are introduced into the model as time-varying covariates). Accounting for age-variation in the risk departs from the usual assumptions of the proportional hazards model, but provides a more realistic depiction of a process in which background effects might be more or less pronounced at different ages.[4]

Table 3 shows relative risks estimates from several proportional hazard models. In the course of examining the effects of religious background and church attendance, we will control for a number of variables that have been widely used in past research (see e.g., Udry , Kovenock, and Morris 1996), including region and residence, family socioeconomic background, mother's education, number of older siblings, family structure and family changes. Standard errors are

[4] The standard proportional hazard expresses the hazard rate for the *i*th individual's event at the *j*th event time as a function of the baseline hazard common to all individuals at time t_j, $h_0(t_j)$ and an individual's "risk score" $\exp\{X_{ij}\beta\}$ at that time (as a function of covariates) as $h(t_{ij}) = h_0(t_j)\exp\{X_{ij}\beta\}$. This model assumes that the effects of covariates are constant over time. We modify the model to allow for non-proportionality in certain effects as follows: $h(t_{ij}) = h_0(t_j)\exp\{X_{ij}\beta(t_j)\}$.

adjusted for clustered data at the family level (i.e., about 30 percent of this sample have sisters appearing in the sample).

Model 1 includes measures of religion with categories *Conservative Protestant*, *Catholic*, *None* vs *Other* as reference category, frequency of attendance (*monthly* and *weekly or more* vs *less than monthly* as a reference category), interaction terms to capture the protective effect of attendance for conservative Protestants, and terms to accommodate the non-proportional effects of attendance and no religious affiliation. The results from Model 1 mirror those obtained from the analysis of the stratified life table and show significant effects of conservative Protestant upbringing, weekly (or more frequent) church attendance, in addition to a marginally significant interaction effect for conservative Protestants who are weekly churchgoers. We find that attending church monthly or more often lowers the risk of a teen pregnancy occurring prior to age 17 by about half, relative to those attending less frequently and those older than 17. Thus, we find that protective effects of attendance are more evident at younger ages. Although conservative Protestants face a risk of teen pregnancy that is over twice that of young women from other religions (or non-religious) backgrounds, for those attending church weekly more face a 33 percent lower risk compared to those from other religious backgrounds. Those who report no religious affiliation when growing up face a marginally higher risk of a first pregnancy than conservative Protestants. However this is only evident for those under age 17. The crossing of the empirical hazards in Figure 3 for the "None" category provides evidence that the unconditional hazard (relative to the "Other" category) differs by age.

Model 2 adds residential effects, which include dummy variables for region (*Southern, Western,* and *North Central*, vs North Eastern U.S. residence as a reference category) and *urban* residence. We find no evidence of interactions involving region or urban residence with any religion/attendance measures. The risk of a teen pregnancy in the North Eastern or Western U.S. more is than 1.6 times higher than in the north central US. Conditional on other factors, white urban teenagers face about the same pregnancy risk as rural youth.

Model 3 adds a number of family background measures that are widely used in studies of adolescent fertility. We add several measures that capture socioeconomic status including mother's education (< *high school* and > *high school* vs *high school*), *mother's employment at age 14* (coded 1 or 0), and *family income* (in thousands in 1979 adjusted by family size), *reading materials in the home* (newspapers +magazine+books, coded 0-3) as well as family structure (*number of changes in family structure to age 14* and *intact family structure at age 14* (defined as living with both biological parents at age 14). Additionally, we control for possible socialization/role modeling effects with *number of older siblings* present in 1979. Of these effects, adjusted family income, mother's postsecondary education, living in an intact family at age 14, and reading materials in the home provide protective effects by lowering the risk of teen pregnancy at any age. Family change and low mother's education contribute to increased risks of a teen pregnancy. In all of the models in Table 4, the religion and attendance effects remain strong in the presence of other controls. The decrease in the conservative Protestant effect may be attributed to controlling for the number of family changes.

The results above are based on models for teen pregnancy among those at risk, and are estimated on the relevant sample of sexually active teens. This strategy does not explicitly account for the fact that–except for the case of involuntary sex–pregnancy depends first on the decision to become sexually active, and that becoming sexually active depends on many of the same factors (including religion and attendance) that affect teen pregnancy. It is then reasonable to examine the sensitivity the effects of religion and attendance on teen pregnancy when the risk of first intercourse is taken into account. There are several possible strategies, each of which yields similar adjusted estimates of the effects of interest. Model 3a includes each individual's estimated risk score of first intercourse in the teen pregnancy equation and treats this as a known relative risk.[5] We find a 16 percent decrease in the conservative Protestant effect, and

[5] The model for first sex is estimated on the full sample of women. Nonproportional effects of religion, attendance, and several other variables are estimated using time-varying

attenuation of age-varying church attendance effects. The effects from Model 3a may be regarded as being adjusted for measured and unmeasured factors that jointly affect sexual initiation and teen pregnancy. As would be expected, we find that risk ratios are shifted toward 1.

Models of Pregnancy Outcomes

Premarital teen pregnancies can be resolved in several ways including, "legitimation" through marriage, premarital birth, abortion, or stillbirth. Using information on the timing of first marriage and birth, we are able to match all but 3 pregnancies to one of these outcomes. Of the 493 pregnancies among non-Hispanic whites in the NLSY sample, marriage and abortion are the most common modes of pregnancy resolution. Table 4 provides descriptive information on the number (and percentage) of respondents of each of the religion and attendance categories used earlier. We find the highest percentage of marital birth among conservative Protestants. The highest percentage in the sample (50%) occurs among the small number of conservative Protestants who attend church weekly or more often. The highest percentages of premarital births are found among the less devout conservative Protestants. This group tends to resemble the frequent churchgoers from other religious backgrounds, which may reflect a generally more pro-natalist/pro-life orientation. Individuals from these groups may face less stigma associated with out-of-wedlock childbearing if a marriage to legitimate a birth is anticipated in the foreseeable future. Lower ages at marriage for these individuals may reflect this tendency (see discussion below). The lowest incidence of premarital birth is found among those from other religious (or nonreligious) backgrounds who attend church less often. In this group, the percentage of women

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covariates. Letting $\hat{w}_{Si} = \exp\{X_{ij}\hat{\alpha}\}$ denote the risk score from a proportional hazard model for first sex, we treat this as a known relative risk in a proportional hazard model for the risk of teen pregnancy, as $h(t_{ij}) = h_0(t_j)\exp\{X_{ij}\beta(t_j)\}\hat{w}_{Si}$.

having premarital births is close to that of the devout conservative Protestants. However, the pattern in the resolution of pregnancies is distinct. The less devout from other religious backgrounds experience the highest abortion rates, whereas the most devout conservative Protestants exhibit much higher marriage rates. The median age at marriage is 17 years for conservative Protestants compared to 21 years for respondents from other backgrounds. Among those who experienced a first premarital pregnancy and later married, the average age at marriage was 19.32 years for conservative Protestants compared to 20.64 years for other groups. Moreover, among conservative Protestants the average waiting-time between pregnancy and marriage was 2.15 years compared to 3.25 years for other groups, a difference that is significant at less than the 0.005 level.

We now examine multivariate models to assess the effects of religion, attendance, region, and family background. This analysis also incorporates information on the use of contraceptives during pregnancy, which is available from the sample of pregnant NLSY respondents. Multinomial logit models for response the categories *premarital birth*, *abortion*, and *marital birth* are estimated, with marital birth as the baseline for comparison. We exclude the 34 stillbirths from the sample and caution that some effects may be estimated with poor precision due to small cell/sample size. Models are fit in the same manner as previously by estimating a series of nested models. Model 1 includes religion, church attendance, and contraception measures; Model 2 adds region/residence, and family background measures.

Model 1 shows evidence of the protective effect of conservative Protestant upbringing on the odds of abortion vs marital birth; conservative Protestant are 64% less likely to resolve pregnancies via abortion. Stated differently, conservative Protestant teens are nearly 3 times more likely to legitimate a teen pregnancy (and an anticipated birth) through marriage. The effects of frequency of church attendance, including the interaction of conservative Protestant upbringing and weekly attendance have signs in the expected direction, but these effects fail to reach

statistical significance at conventional levels. Young women who use contraceptives during pregnancy are over 1 and 2/3rd times more likely to terminate a pregnancy compared to nonusers.

Model 2 adds the effects of region and urban residence. As earlier, there was no evidence of interaction of religious and attendance measures with region or urban residence. We find higher odds of premarital birth (vs marital birth) associated with residence in the West and North Central US and in urban areas and higher odds of abortion (vs marital birth) associated with residence in the Western US. We find moderately lower odds of abortion associated with residence in the North Central US as well marginally higher odds of premarital birth associated with urban residence.

We find that effects of family background overshadow religious and attendance measures. Family income increases the odds of abortion by about 8 percent per $1,000, whereas mother's employment lowers the odds of a premarital birth, but has no appreciable effect on the odds of abortion. Youngsters whose mothers attained less than a high school education are more than twice as likely as those with high-school only educated mothers to resolve a pregnancy via abortion rather than marriage. However, this effect is only marginally significant. Teens with more highly educated mothers also show a marginally significant increase in the odds of abortion (vs marital birth), but lower odds of premarital birth are associated with higher levels of maternal education. Therefore, higher socioeconomic status, as measured by income and maternal education, as well as lower maternal educational attainment, increase the odds of abortion relative to a marital birth. Mother's employment and higher attainment lower the odds of a premarital birth. This finding points to the salience of socioeconomic background on the propensity to resolve pregnancy through abortion among white teenagers in the 1980s. Intact family structure lowers the odds of a premarital birth (vs marital birth) by about half. The number of family changes has a significant effect of lowering the odds of abortion relative to marital birth by about 30 percent for each change in family structure up to age 14.

Conclusion and Discussion

This study offers new and significant evidence about the complex relationships between religious background and teen pregnancy and pregnancy resolution for a cohort of non-Hispanic white women who were at risk of pregnancy during from the early to mid 1980s. In models of teen pregnancy we find evidence of elevated risk of teen pregnancy for groups other than conservative Protestants and those who report no religion while growing up. More frequent church attendance is associated with a lower risk of pregnancy, but this effect is evident only at younger ages. Further research on race/ethnic differences in religious patterning, and information on the generalizability of findings across cohorts is needed. Models of pregnancy outcomes indicate that socioeconomic effects dominate the decision to terminate, legitimate through marriage, or give birth out-of-wedlock, but these results are based on small samples.

Overall, these findings may shed light on other important issues including the complex relationships between religion and deviance, the growing conservative Protestant alarm over teen pregnancy in 1980s, religious differences in early adult wealth accumulation, and elevated divorce rates throughout much of the Bible Belt.

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Table 1: Estimated Age-specific Estimated Hazard Rates per Thousand (std. errors) of First Teen Pregnancy by Religion Raised and Frequency of Church Attendance: 1979 NLSY.

	Religion Raised				
	Other		Conservative Protestant		
	Frequency of Attendance				
Age Interval	**Less than Weekly**	**Weekly or More**	**Less than Weekly**	**Weekly or More**	
[12-16)	11.2 (1.6)	5.3 (1.5)	17.1 (3.5)	3.3 (1.9)	
[16-18)	52.4 (5.2)	28.1 (5.1)	113.6 (14.5)	52.8 (11.5)	
[18-20)	64.4 (6.4)	38.5 (6.4)	127.2 (19.2)	39.7 (11.5)	
					Total
Pregnant	251 (22%)	78 (14%)	128 (34%)	36 (16%)	493 (22%)
Censored	846	496	244	198	1,784
Total	1,097 (48%)	574 (25%)	372 (16%)	234 (10%)	2,277

Table 2: Age-specific Relative Risks of a First Pregnancy by Religious Upbringing and Church Attendance: 1979 NLSY.

	Less than Weekly	Weekly or More	Conservative Protestant	Other
Age Interval	**Conservative Protestant vs Other Religion**		**Less than Weekly vs Weekly or More**	
[12-16)	1.527	0.623	**5.182**	**3.394**
[16-18)	**2.170***	**1.875***	**2.153**	**4.036**
[18-20)	**1.976***	1.032	**3.202**	**3.304**

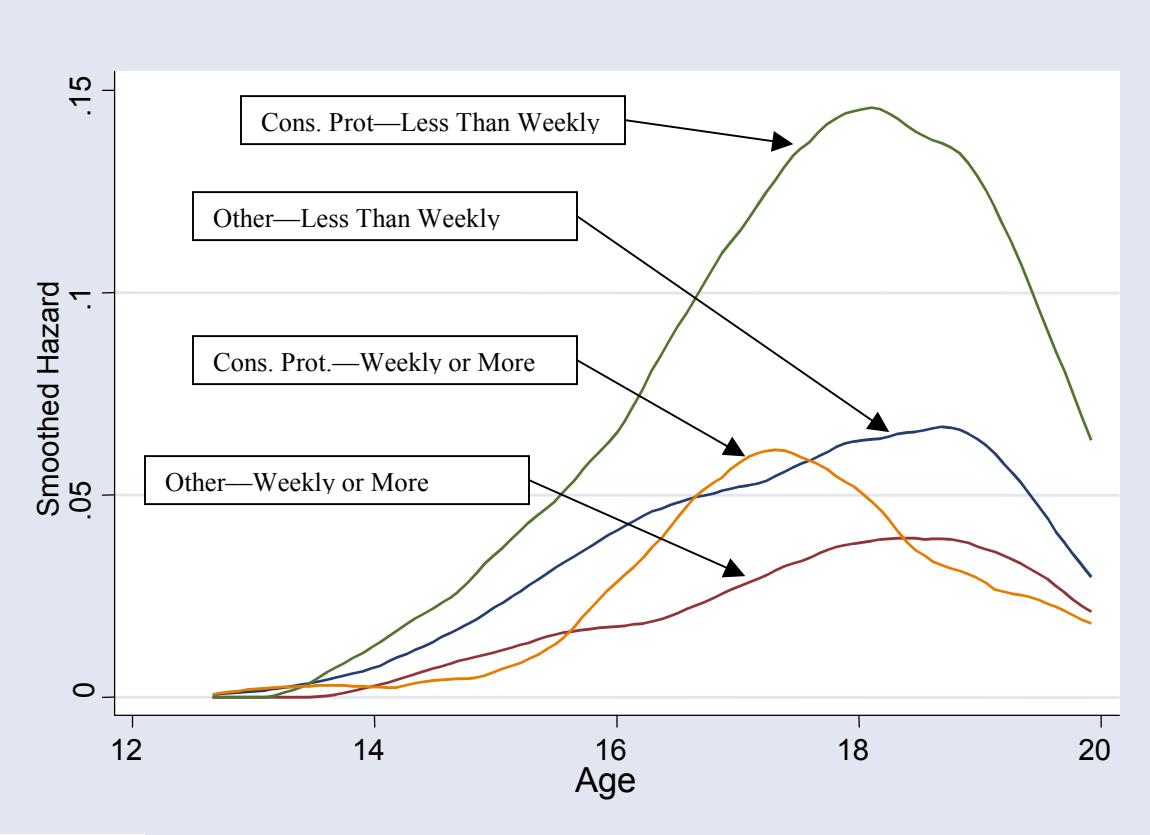

Figure 1: Smoothed Empirical Hazards of First Pregnancy by Religion Raised and Frequency of Church Attendance

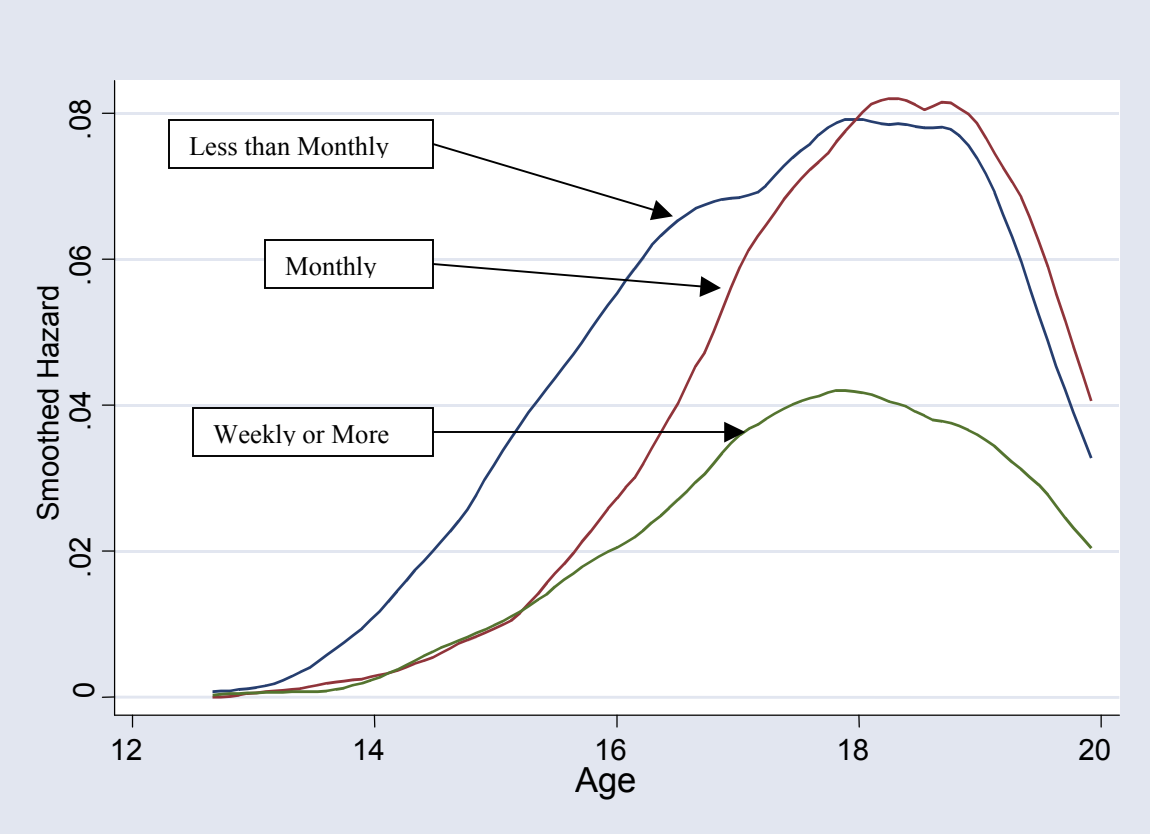

Figure 2: Smoothed Empirical Hazards of First Pregnancy by Frequency of Church Attendance

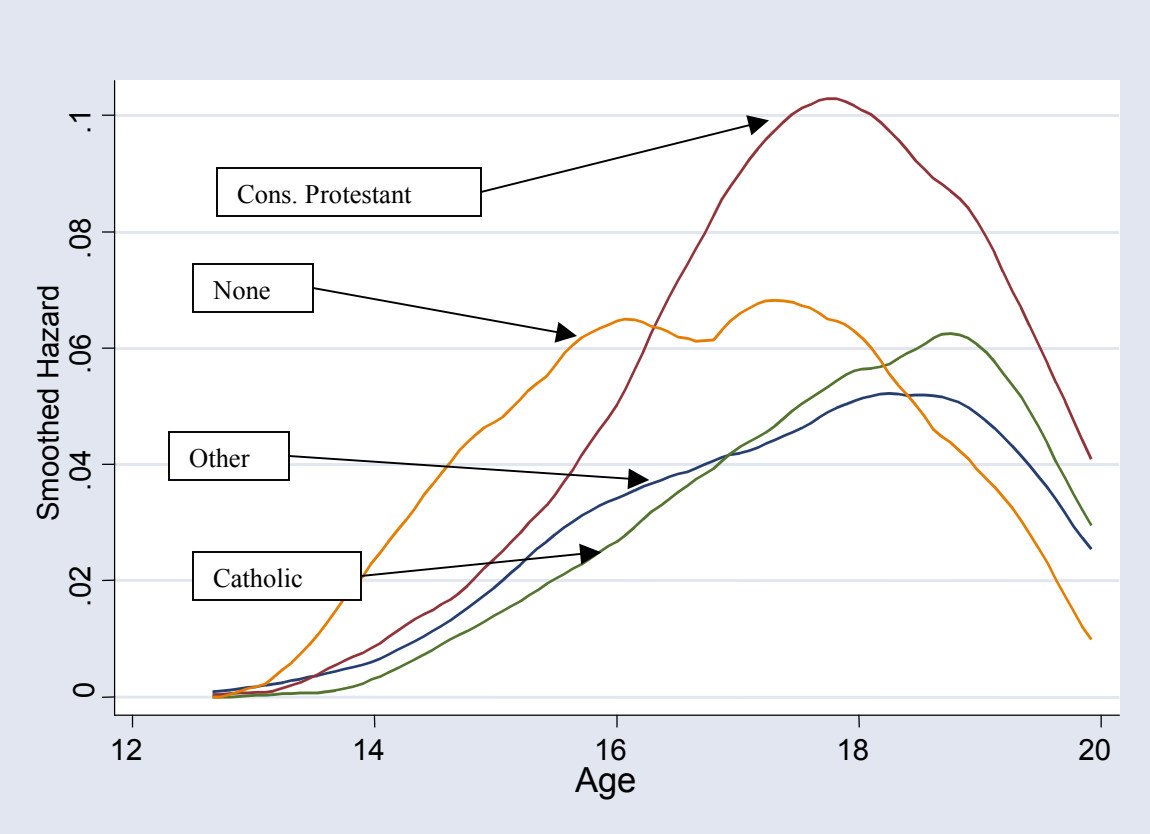

Figure 3: Smoothed Empirical Hazards of First Pregnancy by Religion Raised

Table 3: Hazard Ratios from Proportional Hazard Models of Teen Pregnancy – White Females (*n* = 1,816)

	Model 1	Model 2	Model 3	Model 3a†
Religion Raised/ Church Attendance				
Conservative Protestant	2.137***	2.172***	1.679***	1.412***
Catholic	1.063	1.112	1.020	1.057
None ≥ Age 17	0.964	0.894	0.810	0.982
None < Age 17	2.221**	2.047**	1.827**	2.046**
Other	1	1	1	1
Attend Church Weekly or More ≥ Age 17	0.964	0.802	0.957	0.982
Attend Church Weekly or More < Age 17	0.532**	0.491**	0.641**	0.832
Monthly Church Attendance ≥ Age 17	1.052	1.069	1.237	1.309+
Monthly Church Attendance < Age 17	0.484***	0.491**	0.581**	0.614**
Conservative Protestant x Weekly Attendance	0.685+	0.723	0.721	0.796
Less Often than Monthly Attendance	1	1	1	1
Residence (1979)				
Southern US		1.180	1.150	1.128
Western US		1.677**	1.669**	1.464**
North central US		1.598**	1.554**	1.443**
North eastern US		1	1	1
Urban		0.915	1.057	1.004
Family Background				
Family Income 1979			0.967**	0.969**
Number of Older Siblings			1.039+	1.016+
Mother Employed (age 14)			1.071	1.057
Mother's Education < High School			1.340**	1.167**
Mother's Education > High School			0.617**	0.665**
Mother's Education = High School			1	1
Reading Materials in Home (0-3)			0.853*	0.916*
Intact Family age 14			1.021	1.121
Number of Family Changes by age 14			1.334***	1.232***
Likelihood Ratio Chi-square	85.55	107.93	293.20	99.24
df	9	13	22	22

*** $p < 0.001$
** $p < 0.005$
* $p < 0.05$
+ $p < 0.1$

Standard errors (significance tests) are adjusted for clustered data at the family level.

† Model includes a term for the estimated risk (individual risk score) from a similarly specified proportional hazard model of first intercourse as a known relative risk.

Table 4: Pregnancy Outcomes by Religious Upbringing and Church Attendance (*n* = 490).

	Religious Upbringing					
	Other		Conservative Protestant			
	Frequency of Attendance					
	Less than Weekly	Weekly or More	Less than Weekly	Weeky or More		
Pregnancy Outcomes	%	%	%	%	**Total**	%
Premarital Birth	21.77	26.92	30.47	22.22	122	24.90
Marital Birth	30.24	33.33	35.94	50.00	165	33.67
Abortion	43.50	29.49	26.56	22.22	169	34.49
Miscarriage/Stillbirth	6.5	10.26	7.03	5.56	34	6.94
Total	248	78	128	36	490	
%	50.61	15.92	26.12	7.35	100	

Table 5: Odds Ratios from Multinomial Models of Pregnancy Outcomes (n = 456).

	Model 1		Model 2	
Religion Raised/ Church Attendance	**Premarital Birth‡**	**Abortion**	**Premarital Birth**	**Abortion**
Conservative Protestant	1.074	0.479**	1.211	0.669
Catholic	1.256	0.837	1.343	0.841
Other/None	1	1	1	1
Attend Church Weekly or More	0.883	0.612*	0.961	0.578+
Monthly Attendance	1.183	0.827	1.276	0.724
Less than Monthly/Never	1	1	1	1
Contraceptive Use				
Used Birth Control	1.276	1.683**	1.184	1.515
Residence (1979)				
Southern US			2.131	0.665
Western US			5.461**	2.576*
North central US			2.912**	0.542+
North eastern US			1	1
Urban			1.815+	0.943
Family Background				
Family Income 1979			0.984	1.083*
Number of Older Siblings			1.033	1.055
Mother Employed (age 14)			0.586*	0.751
Mother's Education < High School			1.350	2.110+
Mother's Education > High School			0.714*	1.164+
Mother's Education = High School			1	1
Reading Materials in Home (0-3)			0.930	0.683
Intact Family age 14			0.458*	0.710
Number of Family Changes by age 14			0.802	0.710*
Likelihood Ratio Chi-Square	26.53		132.33	
df	14		40	

n = 456
Premarital Birth: n = 122
Marital Birth : n = 165
Abortion : n = 169
*** $p < .001$, ** $p < .005$, * $p < .05$, + $p < .1$
‡ baseline category is marital birth.