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Religion and Early Marriage in the United States: Evidence from the Add Health Study

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Abstract

Early marriage has important consequences for individuals in the United States. Several studies have linked religion to early marriage but have not examined this relationship in depth. Using data from Waves 1, 3, and 4 of the National Longitudinal Study of Adolescent Health, I conduct multilevel event-history analysis to examine how religion, at both individual and contextual levels, is associated with early marriage. Further, I test mediators of the religion-early marriage relationship. I find significant variation in early marriage by religious tradition, religious service attendance, religious salience, belief in scriptural inerrancy, and religious context in high school. The individual religious effects—but not the school context effects—are explained in part by differential attitudes toward marriage and cohabitation.

Keywords

marriage; religion; family formation

Introduction

One of the key changes in American family life over the past half century has been the steadily increasing age at first marriage. Nevertheless, a significant minority of the young adult population marries early in the life course. Recent estimates suggest that about one quarter of women marry at or before age 22 (Uecker and Stokes 2008) and about one third marry at or before age 24 (Schoen, Landale, and Daniels 2007). Early marriage can have negative consequences on a number of outcomes for individuals, including educational attainment, earnings, health, and marital stability (Dupre and Meadows 2007; Loughran and Zissimopoulos 2008; Marini 1985; Teachman, Polonko, and Scanzoni 1986; Whitehead and Popenoe 2001). These negative effects associated with early marriage are a stark contrast to the typically positive effects observed for marriage in general (Waite and Gallagher 2000);

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Supporting Information

The following supporting information is available for this article:

Appendix 1. **Life Table Estimates of Probability of Marriage at or before Ages 18–25 by Adolescent Religious Characteristics**

Appendix 2. **Life Table Estimates of Probability of Marriage at or before Ages 18–25 by Adolescent Religious Context**

Supporting Information may be found in the online version of this article at wileyonlinelibrary.com.

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they affirm the life-course perspective's claim that "the timing of an event may be more consequential than its occurrence" (Elder 1995:114). Given these challenges associated with early marriage, it is important to understand why some people continue to marry young.

Many studies seeking to explain marriage timing have appeared in the last few decades, the most developed of which identify economic factors as the primary determinants of marriage timing. For example, Oppenheimer's (1988) theory of marital timing linking men's and women's marriage timing to the economic prospects of young men has garnered a great deal of empirical support (e.g., Lloyd and South 1996; Oppenheimer, Kalmijn, and Lim 1997; Xie et al. 2003). Other recent work suggests that although young men's earning potential is important, other socioeconomic factors such as women's economic standing are becoming more important for marital timing than they once were (Sweeney 2002; Sweeney and Cancian 2004).

In contrast to these economic explanations, other scholars argue that cultural factors play an important role in the timing of marriage (e.g., Lesthaeghe 1995; Lesthaeghe and Surkyn 1988; Thornton, Axinn, and Xie 2007; Xu, Hudspeth, and Bartkowski 2005). In this vein, the current study examines the role of religion, as a cultural institution, in early marriage in the contemporary United States. In treating religion as a cultural institution I follow Friedland and Alford (1991), who conceive of institutions as having central logics made up of both symbolic systems and material practices. Thus, multiple measures of religion are used in order to show how various dimensions of religion are associated with early marriage.

A growing body of research provides evidence that religion is related to marriage timing, especially earlier marriage. Analyses of several large-scale surveys suggest that religious affiliation, religious commitment, and religious beliefs are associated with marital timing (Eggebeen and Dew 2009; Lehrer 2000, 2004; Thornton, Axinn, and Xie 2007; Uecker and Stokes 2008; Xu, Hudspeth, and Bartkowski 2005). The pattern across religious traditions is generally consistent across studies: Mormons and conservative Protestants are the earliest to marry, followed by mainline Protestants and Catholics, and then Jews and the religiously unaffiliated (Lehrer 2000; Xu, Hudspeth, and Bartkowski 2005). Those who are more committed religiously (in terms of both religious service attendance and self-reported importance of religion), irrespective of religious tradition (Eggebeen and Dew 2009), and those who believe the Bible is authoritative, are also more likely to marry earlier (Thornton, Axinn, and Xie 2007). The current study adds to these existing studies in five ways. First, I focus only on early marriage as opposed to general marital timing as the relationship between religion and marriage timing is not necessarily consistent across the life course. Second, I situate the study in a theoretical framework that accounts for religion's multidimensionality. Third, I examine empirically which of these dimensions of religion are associated with early marriage, as well as how certain aspects of religion may explain the effects of other religious characteristics. Fourth, I expand the study of religion and marriage timing to include measures of religious context—here measured as the religious characteristics of one's schoolmates during adolescence. I include five measures of religious context in the multivariate regression analyses. As research in religion and delinquency has noted, religion may operate not only at the individual level, but also as a group-level phenomenon (Regnerus 2003; Stark 1996). Fifth, and finally, I test how differences in

socioeconomic factors and family attitudes and behaviors—understood as schemas—may explain the association between religion and early marriage.¹ To do this, I rely on recent and prospective data from the National Longitudinal Study of Adolescent Health, a large, nationally representative panel study of American young adults as they transition from adolescence to adulthood. Before turning to the present analysis, I elaborate on the empirical and theoretical relationships between religion and marriage timing generally, and potential explanations for these effects.

Religion as Symbolic Systems and Material Practices

Religion, like other institutions, is simultaneously comprised of both symbolic systems and material practices (Friedland and Alford 1991). Religion provides individuals with both cultural schemas with which to interpret the world and the social relations and rituals (examples of what have been referred to variously as “resources” or “materials”) that instantiate those schemas (Giddens 1984; Johnson-Hanks et al. 2011; Sewell 1992). According to Blair-Loy (2001:689), cultural schemas are “ordered, socially-constructed ... framework[s] for understanding and evaluating self and society, for thinking and for acting.” These schemas provide scripts for how to think and act in a given situation, and they tell us what is good, right, and true (Johnson-Hanks et al. 2011; Sewell 1992). Of course, a religious schema is only one of multiple schemas available to individuals in any given situation, and these schemas can be both overlapping and contradictory. Schemas, though, are only relevant to an individual to the extent that they are lived out in social relationships. Attendance at religious services integrates individuals into religious social networks—with both older adults and peers—that serve as reference groups (Hackett 2008; Zhang 2008) and provide role models (Smith 2003) for individuals who are “choosing” (perhaps, but not necessarily, consciously) among competing schemas. Attendance at religious services also exposes people to religious rituals that assert the primacy of the family and importance of family roles (e.g., wedding ceremonies, bar/bat mitzvahs, infant baptisms or dedications: Wilcox 2006). Thus, religious institutions hold sway not only by providing frameworks with which to understand one’s life and the larger world, but also by providing the resources or materials that make those frameworks plausible. Indeed, schemas and materials make each other possible—schemas are internalized from their manifestation in materials, and materials are only valuable in relation to schemas (Johnson-Hanks et al. 2011). The interplay of these schemas and materials in individuals’ lives leads to the formation of identities that help people move through social space (Johnson-Hanks et al. 2011).

Much of the research on religion and marriage timing is interested in differences across major religious traditions (e.g., Lehrer 2000; Xu, Hudspeth, and Bartkowski 2005). It is of course important to know whether these religious institutions do actually influence marriage timing. However, to conclude that these differences across affiliations are the result only of schematic elements (e.g., differences in beliefs or attitudes) ignores the material aspects of

¹For descriptive purposes, and to better understand the bivariate relationships between the religion variables and early marriage, I also include appendices presenting life table estimates of the probability of marriage by each age (in years) up to age 25 by individual religious characteristics and contextual religious characteristics.

religion as a cultural institution, and the way in which identities are formed by the interaction of schemas and materials.

In other words, the clear differences in marriage timing across religious groups do not necessarily owe to differences in religious schemas about marriage. Some scholars have argued that tradition-specific distinctions are losing their significance for demographic processes—specifically fertility (Hayford and Morgan 2008; Wuthnow 1988)—and this might also be the case for early marriage. Differences across traditions may instead be about differences in adherents' *exposure* to their tradition's schemas and the relative levels at which adherents value and enact these schemas as a result of differential exposure. As adherents to certain early-marrying religious groups (e.g., evangelicals and Mormons) are also more integrated into religious congregations (Putnam and Campbell 2010; Steensland et al. 2000), it may be this social aspect of religion—and not particular doctrinal teachings—that explain these between-tradition differences.

Religious service attendance—as a proxy for the material practices of religious institutions—may be related to early marriage through both religious and nonreligious mechanisms. On one hand, social relationships with co-religionists and religious leaders, and rituals themselves may lead individuals to form a religious identity, which in turn leads them to value religious schemas and enact those schemas in their behaviors, as described above. In general, religious marriage schemas might all be classified as “pro-marriage” despite the differences elaborated above. In their examination of religion and marriage timing, Xu, Hudspeth, and Bartkowski point out that despite denominational distinctions, most Christian groups (which comprise most of the religious population in the United States) “uphold marriage and family life as a desirable outcome” (2005:587). Hayford and Morgan (2008) point out that there is a great deal of overlap in the narratives about what it means to be a religious person (generally) and family values. In other words, the salience of religious faith—or the extent to which individuals adopt a religious identity, irrespective of the particular tradition—may explain some of why religious service attendance is associated with early marriage. On the other hand, individuals embedded in religious communities may merely behave in ways that are consistent with their peers in order to fit in, or because—as reference group theory would suggest—they believe certain non-normative behaviors (i.e., early marriage) are actually normative. In the case of early marriage, religious communities may also serve as marriage markets themselves wherein people are exposed to potential partners.

Certain religious schemas or cultural orientations that transcend religious traditions may also influence the enactment of religious *marriage* schemas. One such cultural orientation is biblical inerrancy, or the belief that one's scripture is the word of God without error.² Biblical inerrantists have more restricted social networks that exclude individuals from outside their religious communities (Sherkat 2010). Biblical inerrantists are also less like to trust ideas from sources outside their faith; this suggests that religious schemas may hold

²Although biblical literalism is often associated with conservative Protestantism, this approach to understanding the Bible spans religious traditions. Only a little more than half of conservative Protestants are biblical literalists, compared to about one quarter of mainline Protestants and Catholics, and about eight percent of Jewish Americans (Hoffmann and Bartkowski 2008).

particular sway among biblical inerrantists because contradictory messages are considered sinful or untrustworthy. Here a particular religious schema regarding trustworthy sources of truth restricts one's exposure to materials that might make a nonreligious marriage schema plausible. Belief in inerrant scripture is itself a schema (itself sustained by materials), but it may also influence individuals in *material* ways—that is, by devaluing interactions with people and ideas outside the religious community. Schemas and materials are always occurring simultaneously and are always influencing one another.

Materials and resources found outside of religious congregations may also reinforce religious schemas, particularly (for adolescents and young adults who are forming attitudes about marriage) school networks. Peer groups comprised of more religious young people, like social relationships developed in religious communities, could serve as plausibility structures (Berger 1967) that create and reinforce a moral worldview or schema that values marriage more highly (either absolutely or relative to other common goals in young adulthood). Thus, young adults who attended high school with more religious peers or more Mormon or conservative Protestant peers (who marry earlier than others according to previous research)—may be more willing to marry sooner themselves. As with those who attend religious services, even those young adults who do not find the religious marriage schemas of their peers compelling may adopt the attitudes and behavior of their peers in order to maintain their constructed self-identity and to fit in with their peers (Adamczyk 2009). So even if young adults' own religious characteristics are not shaping their approach to family life, the religious characteristics of those around them may. Indeed, religious contexts—both friends' religiosity and schoolmates' religiosity—have been shown to influence family-related behaviors such as sexual behavior and abortion decisions (Adamczyk 2006, 2009). These findings are consistent with the “moral communities hypothesis” (Regnerus 2003; Stark 1996) wherein religion is thought to operate as a group-level phenomenon. Attending religious schools may also expose youth to religious schemas, both in the official curricula of these schools and among their more religious peers (Uecker 2008b, 2009), and attendance at evangelical schools and Catholic schools has been linked to differences in marriage timing (Uecker and Hill 2014).

Schematic Mechanisms of Religious influence on Marriage Timing

To this point, I have emphasized how the material practices of religious institutions may influence early marriage, and how materials and schemas work together to create religious identities that individuals draw upon in making decisions about marriage. I now turn to more detailed explanation of the schemas through which religion may be linked to early marriage: (1) beliefs about and prioritization of higher education and career, and (2) approaches to marriage, cohabitation, and premarital sex. Religion may foster these ideas and values that translate to differential marriage timing.

Beliefs and Prioritization of Education and Career

Religion may influence beliefs about the prioritization of education and career vis-à-vis marriage. Scholars have noted the role conflict between marriage and higher education (Thornton, Axinn, and Teachman 1995). Marriage is commonly viewed as an adult role that follows educational attainment. However, if educational attainment is devalued among

certain religious groups, marrying may be less problematic in early adulthood. Research has linked different religious characteristics to educational aspirations. Religiosity is typically associated with *higher* levels of educational aspirations and expectations (Muller and Ellison 2001; Pearce and Hardie 2008; Regnerus 2000). Educational aspirations likely vary by religious tradition, however. Xu, Hudspeth, and Bartkowski (2005) report that mainline Protestantism, Mormonism, and Judaism are the traditions that most encourage pursuit of a college degree, followed by Catholicism, and then by conservative Protestantism. Conservative Protestants are thought to view secular education as being at odds with their faith and therefore to discourage educational pursuits (Darnell and Sherkat 1997; Sherkat and Darnell 1999). Educational aspirations and encouragement from parents may suppress some of the influence of religious commitment on early marriage, even as it may mediate or explain the lower age at marriage among conservative Protestants. Mormons, the other religious group with especially low ages at first marriage, are generally thought to place a high premium on higher education (Xu, Hudspeth, and Bartkowski 2005); thus, educational aspirations are not likely to explain their earlier age at marriage.

These religious differences in educational aspirations, if they exist, should manifest themselves in differences in educational *attainment*. Educational aspirations are the typical explanation given for these differences in attainment (Darnell and Sherkat 1997; Glanville, Sikkink, and Hernandez 2008; Sherkat and Darnell 1999). Following the patterns seen in educational aspirations, more religiously committed adolescents do better in school (Muller and Ellison 2001; Regnerus 2000) and accumulate more years of schooling (Loury 2004). Conservative Protestants and biblical literalists, on the other hand, have lower educational attainment (Darnell and Sherkat 1997; Glass and Jacobs 2005; Keysar and Kosmin 1995).

Religion may also diminish the importance of financial stability and career establishment as prerequisites for marriage in the minds of young adults. The majority of young adults agree that a person should be financially set and established in their career before marrying (Gibson-Davis, Edin, and McLanahan 2005; Smock, Manning, and Porter 2005; Whitehead and Popenoe 2001). More religious young adults (especially women) and those with traditional gender ideologies, however, are less likely to hold this view (Denton, Pearce, and Gooding 2009). Moreover, religious involvement is negatively associated with materialistic values (Flouri 1999; Lee, Rice, and Gillespie 1997), which could translate into lower standard-of-living requirements and a willingness to live with less. Also, the scriptures of the Christian religion—to which most Americans ascribe in one of its forms—can be (and often are) interpreted to warn believers against worrying about financial security. One passage, for example, reads: “So do not worry, saying ‘What shall we eat?’ or ‘What shall we drink?’ or ‘What shall we wear?’ For the pagans run after all these things, and your heavenly Father knows that you need them. But seek first his kingdom and his righteousness, and all these things will be given to you as well” (Matthew 6:31–33). Bradshaw and Ellison point out that religious messages and teachings may buffer against the negative mental health effects of financial distress because they “shift the focus of attention and energy away from competition for material success or prestige to other types of life goals and purposes ... [and] congregations may tend to encourage non-material standards for evaluating the self and others” (2010:202). Similarly, young people may pursue marriage

even before they have a secure financial future because their attention has been shifted to other goals.

Approaches to Marriage, Cohabitation, and Premarital Sex

A second explanation through which religion may influence marriage timing is by altering schemas about marriage, cohabitation (marriage's chief "rival" in early adulthood), and premarital sex. This is usually the explanation given for linking affiliation with different religious traditions to differential marriage timing (Xu, Hudspeth, and Bartkowski 2005). Premarital cohabitation is now common for young adults (Schoen et al. 2007). Religious traditions in the United States, however, nearly universally proscribe premarital sex and, by extension, cohabitation. This proscription manifests itself in the attitudes of religious young people. Young adults who are more religiously committed are less likely to agree that living together outside of marriage is acceptable (Pearce and Thornton 2007). Committed conservative Protestants are the most likely to oppose cohabitation without plans to marry, standing out from even committed mainline Protestants and committed Catholics—as well as less committed religious young adults—in this regard (Eggebeen and Dew 2009). There is no difference between committed conservative and mainline Protestant young adults in their cohabitation *behavior*, however, and committed Catholics are less likely than conservative Protestants to cohabit. Less religious conservative Protestants, mainline Protestants, and Catholics are more likely to cohabit than committed conservative Protestants (Eggebeen and Dew 2009). If cohabitation is an alternative to marriage among some young adults, those who do not see it as an option may be more likely to marry earlier. Similarly, Mormons and young adults with higher levels of religiosity are less likely to have premarital sex (Uecker 2008a); if proscriptions against sex outside of marriage lead young adults to marry, those who do not have premarital sex may be more likely to marry early.

Religion may also encourage early marriage by devaluing nonmarital childbearing. Edin and Kefalas argue that poor women view marriage as a luxury but childbearing as “a necessity, an absolutely essential part of a young woman’s life, the chief source of identity and meaning” (2005:6). Many men feel similarly (Augustine, Nelson, and Edin 2009). Religion, in accordance with its proscription of premarital sex, does not sanction this perspective on family life. Religious institutions tend to present marriage as the optimal environment for childbearing (Wilcox and Wolfinger 2007). If childbearing is viewed by some as a necessity, and religion defines childbearing as appropriate only within marriage, this may encourage marriage, including “shotgun” marriage, among the religiously committed.

Lastly, major religious traditions in the United States promote an ideology of familism, the idea that family life is sacred and more important than other domains of life (Ammons and Edgell 2007; Wilcox 2004). Young adults who are exposed to these religious teachings and who are in networks with others who feel this way may be more likely to expect to marry young because they view marriage as an integral part of “the good life.” Given the detailed summary of different approaches to marriage included in Xu, Hudspeth, and Bartkowski (2005), an in-depth discussion of religious marriage schemas is not warranted here. But it is clear from their analysis that conservative Protestants and Mormons emphasize so-called “traditional” family life to a degree not typically seen in other traditions in the United States

—the latter even including eternal families in its doctrine and teaching. Even though mainline Protestant congregations often encourage these same married, two-parent approaches to family life, a significant minority of mainline congregations—congregations that also happen to be large and therefore contain a disproportionate number of mainline adherents—adopt a progressive approach to family life that is more accepting of diverse family forms (Edgell 2005). And US Catholic churches, despite Catholic hierarchical statements in favor of “traditional” families, have de-emphasized these teachings in recent years (Xu, Hudspeth, and Bartkowski 2005). Black Protestant churches, a category included in one widely used religious affiliation classification system because of their unique social history (Steensland et al. 2000), have not been studied in previous research on marriage timing. Black churches are often considered to be more accepting of nonmarital childbearing and to affirm and accept people as they are (Ladner 1986; Lincoln and Mamiya 1990), which could translate into acceptance of family diversity and delayed marriage or nonmarriage among adherents. Other evidence, however, suggests that black churches retain “traditionalist” rhetoric and emphasize the supremacy of two-parent families (Edgell and Docka 2007). Despite these distinctions, however, some studies suggest involvement in *any* religious group is positively associated with pro-marriage attitudes and placing a higher premium on marriage (Ellison, Burdette, and Glenn 2011; Pearce and Thornton 2007).

Belief in biblical inerrancy may also provide individuals with a unique marriage schema. These individuals may believe scripture issues clear directives regarding marriage and family life in which individuals with a different cultural orientation may interpret differently. For example, a biblical inerrantist may be convinced early marriage is appropriate “it is not good for man to be alone” (Genesis 2:18), or because it gives people what they believe is the appropriate context in which to bear children and the Bible commands humans to reproduce (e.g., Genesis 1:28: “Be fruitful and multiply”). They may also hold a traditional gender role ideology that leads (especially women) to forgo the pursuit of higher education and a career in the labor force in favor of marriage (e.g., Ephesians 5:24b: “...wives should submit to their husbands in everything”) (Lehrer 2000; Xu, Hudspeth, and Bartkowski 2005).

On Selection

The relationship between religion and marriage timing could also be spurious, and thus it is important to account for a number of factors that may covary with religious characteristics and marriage timing and potentially obscure the association between religion and marriage timing. Demographic factors like gender (Fitch and Ruggles 2000; Miller and Stark 2002), race (Glick et al. 2006; Smith et al. 2002, 2003; Teachman, Tedrow, and Crowder 2000), and region (Smith et al. 2002, 2003; Uecker and Stokes 2008) are known to covary with religion and marriage timing, as are family background factors like family (of origin) socioeconomic status (Pyle 2006; South 2001; Thornton 1991), and family (of origin) structure (South 2001; Wolfinger 2003; Zhai et al. 2007).

Current Study

In this study, I explore how each aspect of religion discussed above may function to influence early marriage. Because my sample is very large, I am able to include several

religion measures in the same models. I focus on early marriage in particular—rather than marriage timing in general—because of the generally negative outcomes associated with it. I also explore the potential schematic mechanisms (e.g., attitudes toward and behaviors regarding careers and family) that may explain religious influence on early marriage. By including these schematic mediators in nested regression models, I am able to tease out how much of the association between the religion variables and early marriage is attributable to differences and schemas and how much may be attributable to more material aspects of religion.

Data

The data for this study come from Waves 1, 3, and 4 of the National Longitudinal Study of Adolescent Health (Add Health). Add Health was funded by the National Institute of Child Health and Human Development (NICHD) and 23 other federal agencies. It is a school-based panel study of health-related behaviors and their causes, with emphasis placed on social context and social networks. Wave 1 was conducted in 1994 and 1995 and consisted of in-depth interviews with 20,745 American youth in grades 7 – 12. Schools included in the study were chosen from a sampling frame of U.S. high schools and were nationally representative with respect to size, urbanicity, ethnicity, type (e.g., public, private, religious), and region. A total of 132 schools participated in the study, ranging in size from 100 to over 3000 students. Wave 3 was conducted in 2001 and 2002, when respondents were 18 – 28 years old, and consisted of interviews with 15,197 of the Wave 1 respondents. Wave 4 was collected in 2007 and 2008 and included interviews with 15,701 of the original respondents. Respondents were 24 – 34 years old in this wave. For this study, I restrict the sample to those who have a valid Wave 4 sample weight and full information on their age at marriage ($N = 14,711$). Missing values for all independent variables were imputed using multiple imputation. I imputed 10 data sets using the *ice* command in Stata 12 and used the *mim* command for analyses. More information about Add Health is online at www.cpc.unc.edu/addhealth.

Measures

Dependent Variables

The dependent variable for this study is a binary measure of whether or not the respondent married in a given person-year. Respondents reported the month and year of their first marriage. This information was compared to their date of birth to determine if the respondent married in a particular person-year. Those who married in that person-year were coded 1 and censored beyond that point; those who had not married were coded 0. Respondents who married at an age younger than 18 ($n = 146$) are grouped with those who married at age 18. Because the focus is on early marriage, I only include person-years up to age 25. Although the definition of “early marriage” is debatable, I use age 25 because the median age at first marriage for women is now 26.5 (United States Census Bureau 2011). Thus, marriages prior to age 26 are statistically early for all respondents. Additionally, one of the mediating variables, described below, asks about the likelihood of marriage by age 25.

Key Independent Variables

The key independent variables for this study are measures of adolescent religious characteristics at both the individual and contextual levels. These Wave 1 measures may yield conservative estimates of religion's effect for two reasons. First, the majority of young adults decline in religiosity from adolescence to young adulthood, when most marriages are taking place (Uecker, Regnerus, and Vaaler 2007). Second, as Eggebeen and Dew (2009) note, it is difficult to sort some Wave 1 Protestants into mainline and conservative categories because a large proportion (10.67% of all respondents) identified as "Christian Church (Disciples of Christ)," a small mainline denomination that in 2002 had just 786,334 members (Mead, Hill, and Atwood 2005). In this study, these respondents are classified as conservative Protestants.³ If conservative Protestants are marrying earlier than mainline Protestants and these respondents are actually mainliners, this will lead to more conservative estimates of conservative Protestantism's effect on marriage timing. Despite these limitations, Wave 1 measures are necessary to establish time-order, especially since marriage heightens religiosity (Stolzenberg, Blair-Loy, and Waite 1995).

I include four individual religious measures from the Wave 1 survey: religious affiliation, religious service attendance, religious salience, and scripture beliefs. Following the RELTRAD method for classifying respondents in religious traditions (Steensland et al. 2000), I grouped respondents into one of eight categories based on their response to the question, "What is your religion?": conservative Protestants, black Protestants, mainline Protestants, Catholics, Mormons, Jews, those from "other" religions, and the nonreligious. Respondents could indicate four levels of religious service attendance: never attending, attending less than once a month, attending one to three times a month, and attending weekly or more. These are included as a series of dummy variables with never attending suppressed as the reference group. Religious salience also had four response categories. This measure is based on the question, "How important is religion to you?" Possible responses included "not important at all" (1), "fairly unimportant" (2), "fairly important" (3), and "very important" (4). These are included in models as a series of dummy variables with not important at all suppressed as the reference group. The last measure, scripture beliefs, is a dummy variable tapping agreement with the statement, "Do you agree or disagree that the sacred scriptures of your religion are the word of God and are completely without any mistakes?" Those who agree are coded 1; those who disagree or whose religion does not have sacred scriptures are coded 0. Importantly, respondents who said they did not have a religious affiliation were skipped out of the subsequent religion questions and thus coded as the lowest categories of attendance and salience, and to disagree with the statement about scriptural inerrancy.

The religious context variables are school-level variables tapping the percentage of the respondents' schoolmates who were conservative Protestants and Mormons,⁴ the average

³The results for conservative Protestants do not change substantively when these respondents are excluded. When they are included with mainline Protestants, mainline Protestants are more likely to marry than nonreligious respondents in Model 1 and marginally less likely to marry in Model 5 of Table 2.

⁴I include this measure of conservative Protestant and Mormon context because existing studies consistently find these respondents to be the earliest marriers. This variable mostly reflects the percentage of schoolmates who were conservative Protestants, as Mormons do not make up a large percentage of students at any school.

level of schoolmates' religious service attendance at Wave 1 (averaging students' reports of attendance on a scale of 1–4, with higher numbers indicating more frequent attendance), the average level of schoolmates' importance of religion at Wave 1 (averaging students' reports of salience on a scale of 1–4, with higher numbers indicating more salience), and the percent of schoolmates who believe in scriptural inerrancy at Wave 1. I also include dummy variables indicating whether students attended a non-Catholic religious school or a Catholic school at Wave 1.

Mediating Variables

I explore the mediating role of socioeconomic attitudes and behaviors and family behaviors and attitudes. The socioeconomic factors include educational attainment and belief in the importance of money for a successful relationship. To measure educational attainment, I include a dummy variable from Wave 4 for whether they ever completed one or more years of college. Unfortunately, Add Health does not include full educational histories, so delineating between two- and four-year colleges is not possible, and the timing of education vis-à-vis marriage cannot be determined. Still, going to college after marrying would indicate an emphasis on (and opportunity for) educational attainment that is thought to be lacking among conservative Protestants. Notably, variables tapping respondents' educational aspirations, their mother's disappointment should they not graduate from college, Peabody Vocabulary Test scores, and high school GPA did not explain religious differences in marriage timing in ancillary analyses.

Differences in marriage timing may be explained by attitudes and beliefs about economic factors. Marriage timing may also be affected by young adults' beliefs about the need for having enough money in order to make a marriage or committed relationship successful. At Wave 3, Add Health asked respondents to rate the importance of having enough money for a successful marriage or committed relationship on a scale ranging from 1 to 10. I retain this coding.

The measures of family behavior and attitudes include cohabitation history, premarital sexual behavior, attitudes toward premarital cohabitation, attitudes toward nonmarital births, and marital expectations. To tap cohabitation history, I include a dichotomous measure of whether the respondent ever cohabited with a partner for one month or more prior to their first marriage. Respondents were asked, "How many romantic or sexual partners have you ever lived with for one month or more? By 'lived with' we mean that neither of you kept a separate residence while you were living together." Never-married respondents were coded as having cohabited premaritally if they indicated having one or more cohabiting partner. All respondents were asked about the month and year their cohabiting relationships with people they did not marry began, so for ever-married individuals I compared the century-month of their first cohabitation to that of their first marriage in order to exclude post-divorce cohabitations. Ever-married respondents were asked a separate question about if they cohabited with their spouse. Those who indicated they cohabited with their first spouse were also considered to have cohabited premaritally.

I also consider respondents' premarital sexual behavior. At Wave 4, respondents indicated their age at first sexual intercourse. For ever-married respondents, I compared this response

to each respondent's age at first marriage. Those who had sex at an age younger than their first marriage are coded as having had premarital sex. Additionally, never-married respondents were coded as having had premarital sex if they indicated ever having had sexual intercourse.

Family attitude measures are also taken into consideration. At Wave 3, Add Health respondents were asked about the acceptability of cohabitation without the intent to marry. Add Health asked, "How much do you agree or disagree with the statement 'It is all right for an unmarried couple to live together even if they aren't interested in considering marriage'?" Respondents could strongly disagree, disagree somewhat, neither agree nor disagree, agree somewhat, or strongly agree. Responses are coded from 1 to 5 such that higher scores indicate more agreement. Respondents were also asked at Wave 1 about whether or not they would ever consider having a nonmarital birth. Respondents could answer yes or no, and responses were coded such that 1=yes. Add Health also probed respondents' marital expectations. At Wave 1, respondents were asked how likely they were to be married by age 25. Respondents could respond from "almost no chance" (coded 1) to "almost certain (coded 5)."

There could be a problem with time order resulting from the use of Wave 3 variables. At Wave 3, some of these respondents were already married. If being married has affected their views on these issues, the effect could be in the reverse direction.

Control Variables

I include a measure of respondents' gender, age, their race and ethnicity (White, Black, Hispanic, Asian), their region of the country (South, Midwest, Northeast, West), and the urbanicity of their school (urban, suburban, rural). I also include controls for whether the respondent was a first-generation immigrant, a second-generation immigrant, or a third-or-higher-generation immigrant. Age is measured in years and serves as the duration variable (dummy coded) in the person-year analysis. The other demographic controls are binary variables. All demographic variables are from the Wave 1 survey.

I include several measures tapping young adults' family characteristics. Parent respondents at Wave 1 were asked to report their family income, educational attainment, and age at marriage (if married). I collapsed family income into 11 categories (less than \$10,000/year, \$10,000–19,999/year, \$20,000–29,999/year and so on through \$100,000/year or more). I created a dummy variable to indicate at least one resident parent having a college degree at the Wave 1 survey. I also created a series of dichotomous variables for parent respondent's age at marriage, which is gleaned from the parent survey at Wave 1. Categories were created for those whose parent respondent married at ages 0–18, 19 or 20, 21 or 22, 23–25, 26 or older, and never married. I also include a binary variable to indicate that the respondent's biological parents are still married at the Wave 1 interview. Lastly, in models with religious context variables I include contextual controls—the average family income of the respondent's schoolmates at Wave 1, the percentage of their schoolmates who were black, and the percentage of their schoolmates who had at least one parent with a college degree. Descriptive statistics for all study variables are listed in Table 1. Life table estimates

showing the probability of marriage at each age between 18 and 25 by individual and contextual religious characteristics are displayed in Appendix 1 and 2.

Analytic Approach

In Table 2, I display results from multilevel discrete-time proportional hazards models to predict the timing of first marriage among the full sample of young adults in Add Health ($N = 14,711$ individuals; 100,482 person-years). Because both individuals and schools are sampled from respective populations and these populations are the target of inference, I use random-effects models to allow intercepts to vary randomly across schools and to account for clustering within schools (Rabe-Hesketh and Skrondal 2008).

To perform these analyses, a person-year file was created containing multiple observations for each respondent, one for each year the respondent lived beyond their 18th birthday up through age 25 (e.g., an 18-year-old contributes one person-year, a 19-year-old contributes two person-years). The data are censored after first marriage, if applicable. I model the hazard as fully nonparametric, using a dummy variable for each year at risk from ages 19 – 25 (with age 18 as the reference category). I report odds ratios from a baseline multilevel logit regression model (using the `-xtlogit-` command in Stata 12) that includes the control variables and the religion tradition classification. Model 2 adds the religious service attendance variable, Model 3 the religious salience variable, Model 4 the scriptural inerrancy variable, and Model 5 the religious context variables. Model 6 adds the socioeconomic mediators, Model 7 the family behaviors and attitudes, and Model 8 includes all the mediating variables. This model-building strategy allows me to examine how the effects of the various aspects of religion may be explained by other religious characteristics, and how the schematic mediators explain the e

In Table 3, I report odds ratios from models with different combinations of the religious context variables. High school average religious service attendance, high school average importance of religion, and high school percent believes scriptures are the inerrant word of God are highly correlated, so this table shows how some contextual effects may be masked by inclusion of highly collinear variables. These models are similar to Model 5 in Table 2, but include only one or some of the contextual variables rather than all five.

Results

Table 2 presents odds ratios from discrete-time event-history logit regression models predicting timing of first marriage. Model 1 reveals differences between religious traditions and the nonreligious, net of individual-level controls. Compared to the nonreligious, Mormons have more than two times the odds of marrying in a person-year, and conservative Protestants have about 37 percent higher odds of marrying earlier. This is consistent with prior research that suggests these groups are the most likely to marry young. Adherents to “other religions” also have higher odds of marrying at an earlier age. Mainline Protestant, black Protestant, Catholic, and Jewish respondents, however, do not differ from the nonreligious in their propensity to marry early. Although Catholics and mainline Protestants have historically been found to be occupy a middle ground of sorts, Catholics and mainliners

in this cohort do not differ from the nonreligious in their marriage timing up to age 25, a finding which is consistent with other analyses of earlier waves of the Add Health data (Eggebeen and Dew 2009; Uecker and Stokes 2008). Instead, it is conservative Protestants, Mormons, and adherents to “other” religions that stand out as earlier marriers. Ancillary analyses reveal that all other groups—mainline Protestants, black Protestants, Catholics, Jews, and the nonreligious—are significantly less likely than conservative Protestants to marry in a given person-year, and Mormons are significantly more likely than conservative Protestants to marry earlier. Thus, on a spectrum from early to late marriage there are three groups: (1) Mormons, who are the most likely among young adults to marry young, (2) conservative Protestants and the imprecise “other” category, who occupy the middle, and (3) mainliners, Catholics, Jews, black Protestants, and the nonreligious, who are the least likely to marry early.

Model 2 adds the religious service attendance variables measuring the “material” aspect of religion—social relationships and ritual. Religious participation is clearly associated with marriage timing in Model 2; even a modest tie to a religious community as an adolescent is associated with marrying earlier. Attending religious services a few times a year is associated with an 18% increase in the odds of marriage in a person-year, while attending one to three times a month is associated with a 15% increase, and attending weekly or more is associated with a 27% increase. Inclusion of the religious service attendance variables also reduces the effect of religious tradition on marriage timing. Although conservative Protestants are still more likely to marry earlier in Model 2, their odds of marriage in a person-year are only about 16% higher than the nonreligious (compared to 37% in Model 1). Mormons are also still more likely to marry earlier, but the odds ratio for this group shrinks to 1.785 from 2.169. Adherents to other religions no longer remain more likely to marry earlier in Model 2. After including religious service attendance in the model, Catholics are actually less likely to marry earlier than are the nonreligious. In other words, the religious service attendance of Catholics suppresses the effect of Catholic affiliation on early marriage. Once participation in a religious community is controlled, Catholics are less likely to marry early than the nonreligious (though the difference is only marginally significant). Thus, Model 2 suggests religious tradition differences do not appear to be *only* about differences in schemas, but also in material aspects of religion.

In Model 3, I test whether embeddedness in a religious community is explained by a religious mechanism: leading adherents to internalize and enact schemas. In this model, only those who report the highest level of religious salience differ in their marriage timing from those who report religion was not at all important to them. The effect of religious service attendance is, however, reduced in Model 3, but those who attended religious services a few times a year and those who attended weekly or more continue to have higher odds of earlier marriage. This suggests that religious service attendance is associated with early marriage not only through its association with heightened religious salience, but also through other mechanisms that are not explicitly religious in nature. Additionally, in Model 3 the effect of being a conservative Protestant is eliminated when both religious service attendance and religious salience are included in the model. Conservative Protestants’ earlier marriage—vis-à-vis the nonreligious—appears to be a function of their heightened religiosity and not

anything in particular about their marriage schemas. Interestingly, however, in ancillary analyses not shown (with conservative Protestants as the suppressed reference category), even net of religious service attendance and religious salience, conservative Protestants are significantly more likely to marry in a person-year than are black Protestant (at $p < .10$), mainline Protestant, Catholic, and Jewish respondents—and less likely to marry than Mormons. In other words, the difference between conservative Protestants and the nonreligious is a function of religiosity, but the difference between conservative Protestants and other religious groups appears to be a function of particular schematic differences. It is also significant to note that net of religiosity, Catholics are less likely to marry in a person-year than are the nonreligious at $p < .05$, as are Jewish respondents (at $p < .10$).

Model 4 includes a binary variable tapping respondents' belief that the scriptures of their religion are the inerrant word of God. This is a cultural orientation associated with valuing one's religious schema and devaluing secular schemas. Those who believe scripture is inerrant have about 18% higher odds of marrying in a person-year than those who do not, net of religious tradition, religious service attendance, and religious salience. Thus, particular religious beliefs and their concomitant cultural orientation have an independent influence on marriage timing. Belief in scriptural inerrancy also mediates the effect of reporting that religion was very important, reducing its effect to nonsignificance. Scripture beliefs also suppress the effects of mainline Protestantism on marriage timing. Once inerrancy is controlled, mainline Protestants are less likely than the nonreligious to marry in a person-year. Mormons are still more likely to marry in a person-year in Model 4, though Mormons have just 47% higher odds of marriage in a person-year in Model 4, compared to 57% in Model 3. As in the previous model, conservative Protestants are more likely to marry in a person-year than are mainline Protestants, Catholics, black Protestants (again at $p < .10$), and Jews (at $p < .10$), and less likely to do so than are Mormons (results not shown).

Religious context is considered in Model 5. The only context variable that is significant in Model 5 is the percent of schoolmates who were conservative Protestant or Mormon. For each percentage point increase in the percent of schoolmates who were conservative Protestant or Mormon, there is a .9 percent increase in the odds that a young adult will have married in a person-year. This variable ranges from 0 to 96.94, so attending the most conservative Protestant school is associated with 2.39 times the odds of marrying in a person-year compared to attending the least conservative Protestant school ($e^{(96.94-0)*.009} = 2.393$). Thus, exposure to religious networks even outside the confines of religious institutions is related to early marriage. The religious context variables do little to mediate the individual-level religious effects. In ancillary analyses, conservative Protestants continue to distinguish themselves in terms of marriage timing from mainline Protestants and Catholics, but the difference between conservative Protestants and black Protestants and Jewish respondents in Model 5 is no longer statistically significant.

Model 6 examines the mediating effects of socioeconomic behavior and attitudes. Though both of these variables—educational attainment and importance of money for relationships—are associated with marriage timing in the expected ways (college-educated less likely to marry earlier and those placing higher importance of money for successful relationships less

likely to marry earlier), these variables do very little to alter the religious effects seen in Model 5.

Model 7 includes the family behaviors and attitudes. Neither the cohabitation nor the premarital sex variables are significant predictors of earlier marriage.⁵ Two of the three attitudinal variables are associated with marriage timing in the expected directions, and these do seem to mediate many of the religious effects in Model 5. Once family attitudes are controlled, the effect of weekly religious service attendance is no longer significant. Belief in scriptural inerrancy remains a significant predictor of marriage timing, though its size is somewhat diminished from Model 5, suggesting that part, but not all, of its association with early marriage is schematic. The effect of going to school with a higher proportion of conservative Protestants and Mormons is unchanged with the inclusion of these variables. Mormons are only marginally more likely to marry once these variables are considered. The differences between conservative Protestants and mainline Protestants and Catholics (in ancillary models) also remain but are somewhat reduced. The findings from Model 7 suggest that religious marriage schemas that proscribe cohabitation and valorize marriage explain much, but not all, of religion's association with early marriage.

Finally, in Model 8 both sets of mediators—socioeconomic factors and family attitudes—are included. These odds ratios are similar to those found in Model 7, though the marginally significant mainline Protestant effect is no longer significant.

Table 3 explores the possibility of multicollinearity among the religious context variables. Three of these variables—high school average religious service attendance, high school average importance of religion, and high school percent believes scriptures are the word of God without mistakes—are highly correlated with each other, meaning their inclusion in the same model may obscure their effects.⁶ Indeed, in the first four models of Table 2, each of the religious context measures except attending a Catholic school is associated with marriage timing (such that more religious contexts are associated with earlier marriage) when entered separately in models. Conservative Protestant and Mormon context seems to explain most of the religious context findings. The relationship between non-Catholic religious school attendance and earlier marriage is fully attenuated when the school religious tradition variable is included in the model. Similarly, the religious service attendance context variable and the religious salience context coefficients are no longer significant once school percent conservative Protestant and Mormon is controlled. The correlation between school percent conservative Protestant and Mormon and school average religious service attendance is only .12, and the correlation between school percent conservative Protestant and Mormon and school average religious service attendance is only moderately strong ($r = .22$), so collinearity is likely not driving these findings. The scriptural inerrancy context variable remains significant when included with the conservative Protestant and Mormon

⁵When these variables are entered separately as mediators, both are negatively associated with the odds of marriage but neither is statistically significant.

⁶Pearson's r for high school average religious service attendance and high school average importance of religion is .93. Pearson's r for high school average religious service attendance and high school percent believes scriptures are the word of God without mistakes is .80. Pearson's r for high school average importance of religion and high school percent believes scriptures are the word of God without mistakes is .90.

context variable in Model 9, suggesting there is some sort of relationship between peers' belief in scriptural inerrancy and early marriage. Scriptural inerrancy is no longer significant when entered in a model with both school religious salience and the conservative Protestant and Mormon context measure. However, because the school-level inerrancy and salience variables are highly correlated, it is difficult to say with certainty that school-level inerrancy does not matter.

Because marriage timing varies considerably for women and men, with women tending to marry about two years earlier than men, I conducted the analysis with the sample split by gender. I also tested for significant differences in gender effects by including, in a full-sample model, interaction terms between gender and every independent variable in the model. There are few gender differences in religious effects. The only consistent gender interaction is for black Protestants. Black Protestant men are less likely than nonreligious men to marry in Models 4–6, but black Protestant women are more likely than nonreligious women to marry in Model 1 and do not differ in the other models. The gender-black Protestant interaction term is significant at $p < .10$ in all models.⁷

Discussion and Conclusions

This study sought to shed light on the symbolic systems (or schemas) and material practices that are associated with early marriage in the United States, a practice that is related to a number of negative outcomes. The results demonstrate that religion is associated with early marriage through both its schematic and material aspects. Mormons, conservative Protestants, and adherents to “other” religions (i.e., those not specified in the coding scheme employed here) have higher odds of early marriage than do those who are not tied to any religious tradition. These differences are attenuated, however, when the social (or material) aspects of religion are considered, as well as religious salience (which taps one's proclivity to enact a religious schema). Religious salience explains some of the association between religious service attendance and early marriage, and biblical inerrancy (which is associated with the elevation of a particular religious schema over other schemas) also explains why religious salience is associated with early marriage (as those with higher religious salience are also more likely to be biblical inerrantists). Even so, differences among religious traditions persist even after these elements of religion are included in multivariate models. Mormons remain distinct from other groups, and conservative Protestants are still more likely to marry earlier than mainline Protestants and Catholics. Religious contexts in high school are also associated with early marriage, as young adults who attended high school with more conservative Protestants and Mormons were more likely to marry themselves, even net of individual religious characteristics.

Schemas about cohabitation and early marriage itself explain much of the remaining religious differences in early marriage, though even net of these schemas, Mormons are most likely to marry to early, and conservative Protestants are more likely than mainline Protestants and Catholics to marry. So too are those who attended religious services only

⁷There is also a significant interaction between gender and attending a non-Catholic religious school, but the effect of attending such a school is not significant for either men or women.

occasionally as adolescents, those who believe their scripture is inerrant, and those who went to high school with a higher proportion of conservative Protestants and Mormons. Clearly, religion—as a cultural institution—is related to early marriage in numerous and complex ways, presumably including ways not detailed here. And, as the findings from the school context analysis show, this relationship extends beyond the doors of houses of worship.⁸

These findings also raise interesting new questions about the relationship between religion and early marriage. For example, why, net of their religiosity, do Catholic and mainline Protestants marry later than the religiously unaffiliated? Catholics have ascended the ranks of socioeconomic status in recent years and joined mainline Protestants as the most prosperous Americans (Davidson and Pyle 2011; Keister 2011). It could be that (once their religiosity is accounted for) these young people are more likely to value graduate degrees and career trajectories over marriage vis-à-vis the nonreligious. Ties to prosperous co-religionists may actually lead to delayed marriage among this group, again, only after their higher religiosity is controlled. The socioeconomic attitudes and behaviors in the models do attenuate the difference between these groups and the nonreligious slightly; it is possible that more detailed socioeconomic measures might further explain this relationship.

The story for black Protestants is also an interesting one. Although they share many beliefs with conservative Protestants in terms of both theology and family issues and are highly religious, they are less likely to marry early than are conservative Protestants. Once school-level variables are considered, however, including religious characteristics but also school-level race and socioeconomic characteristics, the difference is no longer statistically significant. This likely means that structural barriers to marriage experienced by black Americans (including poverty, high unemployment, high incarceration rates, etc.) can override the cultural encouragement to marry provided by religious institutions.

The findings regarding religious schoolmates are also important for understanding religion's role in family life. Even net of a host of individual religious characteristics, the religious characteristics of those in one's larger network are influential for marriage timing—particularly early marriage. The fact that the socioeconomic and family attitudes and behaviors fail to mediate this influence suggests that the effect of religious school contexts may be structural: Growing up in more committed religiously conservative environments may expose young adults to other young adults who are more willing to marry at younger ages. In other words, religious school contexts facilitate matching rather than changing attitudes. Certainly this explanation is speculative and should be tested with appropriate data. Nevertheless, these contextual findings—specifically that growing up in more conservative Protestant (and Mormon) communities contributes to early marriage—add to those of another recent study finding an association between conservative Protestant communities and divorce (Glass and Levchek forthcoming). Religious influence appears to operate at a group-level and is associated with the family processes of non-adherents as well as adherents.

⁸Because teenage marriages are particularly risky, especially in terms of marital success (Copen et al. 2012; Glenn, Uecker, and Love 2010), it is worth noting that the findings presented here are similar to those limiting the sample to person-years prior to age 20.

A caution about measurement issues is in order here. In addition to the issues discussed above with the measurement of the religion variables, there are other measurement issues that come with using the Add Health data for this analysis. First, the timing of the measurement of some of the mediating variables in this study may introduce error. For example, respondents who expressed certain attitudes at Wave 1 may have shifted their stance by the time they were getting married. If this is so, we would expect conservative estimates of these effects. Some of the mediating variables, such as the belief about the importance of money variable and the cohabitation attitudes variable, were taken from the Wave 3 survey. Some of the respondents had already married by Wave 3, and it is possible these measures may have changed as a result of marriage, and thus their role in explaining religious variation in marriage timing may be overstated. Since the first of these two variables does not appear to explain religious variation, this is a minor concern. The second variable, cohabitation attitudes, does explain religious variation in marriage timing, so this is more problematic. I assume stability over time in this measure, but to the extent that these attitudes change with marriage I may be overestimating their effect on the religion-marriage timing relationship.

Despite these caveats, this study has advanced our knowledge of religion and early marriage using data from a contemporary cohort of young adults. It provides an in-depth empirical explanation of how religion, as a cultural institution, is related to early marriage in both schematic and material ways and at both the individual and contextual level. The results suggest religion continues to play a key role in early marriage in large part by shaping young adults' attitudes toward family life. These findings highlight the need to focus on cultural explanations for early marriage in addition to economic ones and show the ways in which cultural institutions are connected to demographic processes that may be harmful to one's socioeconomic, health, and marital outcomes.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Descriptive Statistics for Study Variables (Wave 1 unless noted)

	Mean	SD	Min. – Max.
Ever married, Wave 4	.50		0, 1
No religion	.12		0, 1
Conservative Protestant	.23		0, 1
Black Protestant	.17		0, 1
Mainline Protestant	.12		0, 1
Catholic	.26		0, 1
Mormon	.01		0, 1
Jewish	.01		0, 1
Other religion	.08		0, 1
Never attended religious services	.23		0, 1
Attended religious services less than once/month	.18		0, 1
Attended religious services 1-3x/month	.20		0, 1
Attended religious services weekly or more	.39		0, 1
Religion not important at all	.15		0, 1
Religion fairly unimportant	.06		0, 1
Religion fairly important	.36		0, 1
Religion very important	.43		0, 1
Believes scriptures are Word of God without mistakes	.66		0, 1
High school percent conservative Protestant/Mormon	24.65	17.42	0–96.94
Attended nonreligious school	.94		0, 1
Attended non-Catholic religious school	.03		0, 1
Attended Catholic school	.03		0, 1
School mean religious service attendance	2.74	.42	1.51–3.90
School mean importance of religion	3.06	.38	1.90–3.89
School percent believes scriptures are word of God without	65.57	14.83	15.38–100
Ever went to college, Wave 4	.66		0, 1
Money important for successful marriage/relationship, Wave 3	6.47	2.76	1–10
Cohabited with romantic/sexual partner prior to first marriage,	.70		0, 1
Had premarital sex, Wave 4	.91		0, 1
OK to cohabit without intending to marry, Wave 3	3.39	1.33	1–5
Would consider nonmarital birth	.23		0, 1
Likelihood of being married by age 25	3.24	1.11	1–5
Age, Wave 4	28.55	1.77	24–34
White	.56		0, 1
Black	.22		0, 1
Hispanic	.15		0, 1
Asian	.07		0, 1
First-generation immigrant	.07		0, 1
Second-generation immigrant	.11		0, 1

	Mean	SD	Min. – Max.
Third- (or higher) generation immigrant	.82		0, 1
Went to school in South	.38		0, 1
Went to school in suburban area	.54		0, 1
Went to school in urban area	.29		0, 1
Went to school in rural area	.17		0, 1
One or more parent has bachelor's degree	.33		0, 1
Natal family income	4.88	2.72	1–11
Parent married age 18 or younger	.27		0, 1
Parent married age 19–20	.23		0, 1
Parent married age 21–22	.19		0, 1
Parent married age 23–25	.15		0, 1
Parent married age 26+	.11		0, 1
Parent never married	.05		0, 1
Female	.53		0, 1
School percent black	21.72	26.12	0–99.05
School mean natal family income	4.89	1.30	2.49–9.56
School percent one or more parent has bachelor's degree	32.54	17.39	5.88–93.55

Table 2

Odds Ratios from Logit Regression Models Predicting Timing of First Marriage

	M1	M2	M3	M4	M5	M6	M7	M8
Conservative Protestant	1.366***	1.159*	1.034	.971	.948	.953	.937	.944
Black Protestant	1.142	.968	.858	.804	.819	.819	.830	.833
Mainline Protestant	1.090	.936	.842	.797*	.807†	.814†	.818†	.827
Catholic, Wave 1	1.027	.878†	.792*	.753*	.759*	.762*	.775*	.780*
Mormon (LDS)	2.169***	1.785***	1.573**	1.472*	1.510*	1.533**	1.348†	1.370†
Jewish	.798	.690	.626†	.608†	.638†	.648†	.689	.703
Other religion	1.306***	1.113	.996	.938	.940	.946	.924	.933
Attended religious services a few times a year		1.177**	1.146*	1.144*	1.150*	1.157*	1.126*	1.135*
Attended religious services 1–3 times a month		1.154*	1.097	1.083	1.088	1.102	1.061	1.076
Attended religious services weekly or more		1.266***	1.182**	1.160*	1.157*	1.177**	1.071	1.089
Religion fairly unimportant			1.040	1.037	1.039	1.041	1.041	1.044
Religion fairly important			1.146	1.095	1.090	1.097	1.075	1.081
Religion very important			1.234*	1.155	1.143	1.150	1.077	1.078
Believes scriptures are word of God without mistakes				1.176***	1.163***	1.158***	1.118**	1.110*
School percent conservative Protestant/Mormon					1.009***	1.009***	1.009***	1.009***
School mean religious service attendance					1.094	1.054	1.104	1.060
School mean importance of religion					.970	1.034	.914	.966
School percent believes scriptures are word of God without mistakes					1.004	1.004	1.004	1.005
Attended non-Catholic religious school					.914	.911	.854	.847
Attended Catholic school					.817	.832	.828	.850
Ever went to college, Wave 4						.828***		.806***
Money important for successful marriage/relationship, Wave 3						.968***		.966
Cohabited with romantic/sexual partner prior to first marriage for a month or more							1.022	.999
Had premarital sex (sex before age at marriage or before DOI if unmarried)							.946	.960
OK to cohabit without intending to marry, Wave 3							.892***	.889***
Would consider nonmarital birth							.991	.976

	M1	M2	M3	M4	M5	M6	M7	M8
Likelihood of being married by age 25							1.189***	1.192***

Note: N = 14,711 individuals, 100,482 person years, 132 schools;

*** p < .001

** p < .01

* p < .05

† p < .10.

Models control for age (duration), gender, race, natal family income, parent education, parent age at marriage, natal family structure, urbanicity of school, immigrant status, and region of school. Models 5–8 include controls for high school percent black, high school mean income, and high school percent college-educated parent. Reference groups are no religion, never attended religious services, and religion not important at all.

Table 3
Odds Ratios from Logit Regression Models Predicting Timing of First Marriage

	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
School % CP/Mormon	1.011***					1.011***	1.010***	1.010***	1.009***	1.009***
Non-Catholic religious school		1.528*				1.042				
Catholic school		.766				.881				
School mean attendance			1.317**				1.130			
School mean importance				1.492***				1.180		.971
School % believes scriptures are word of God without mistakes					1.011***				1.005*	1.006

Note: N = 14,711 individuals, 100,482 person years, 132 schools;

- *** p < .001
- ** p < .01
- * p < .05
- † p < .10.

Models control for age (duration), gender, race, natal family income, parent education, parent age at marriage, natal family structure, urbanicity of school, immigrant status, region of school, high school percent black, high school mean income, high school percent college-educated parent, Wave 1 religious affiliation, Wave 1 religious service attendance, Wave 1 importance of religion, and W1 believes scriptures are word of God without mistakes.