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Religion and Marriage Timing: A Replication and Extension

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Abstract: Previous studies have revealed denominational subculture variations in marriage timing in the U.S. with conservative Protestants marrying at a much younger age than Catholics and the unaffiliated. However, the effects of other religious factors, such as worship service attendance and religious salience, remain overlooked. Informed by a theoretical framework that integrates the denominational subculture variation thesis and the gendered religiosity thesis, this study replicates, updates, and extends previous research by examining the effects of religiosity on the timing of first marriage among 10,403 men and 12,279 women using pooled cross-sectional data from the National Survey of Family Growth, 2006–2010. Our survival regression models indicate that: (1) consistent with previous research, Protestants in general, and conservative Protestants in particular, marry earlier than the religiously unaffiliated; (2) irrespective of denominational affiliation, increased frequency of worship service attendance decreases age at first marriage for both men and women, whereas religious salience is associated with earlier marriage only for women; (3) among Catholics, as worship service attendance increases, the waiting time to first marriage decreases; and (4) among Protestants, however, worship service attendance decreases age at first marriage for men who are affiliated with mainline and non-denominational Protestant churches, while for women the decrease in age at first marriage associated with worship service attendance is found for those who report a conservative Protestant affiliation. The complex intersections of denominational affiliation, frequency of worship service attendance, religious salience, and gender are discussed.

Results suggest that religion continues to exert influences on marriage timing among recent birth cohorts of young Americans.

1. Introduction

The past several decades have witnessed a remarkable growth in scholarly research on marriage timing [1,2]. A particular stream of this burgeoning body of research has focused on the role of religion and documented denominational subculture variations in marriage timing in the U.S., with conservative Protestants marrying at a much younger age than Catholics and the unaffiliated [3–5]. Though previous studies have revealed notable religious subculture variations in marriage timing in the U.S., the effects of other religious factors such as worship service attendance and religious salience are understudied. Informed by a theoretical framework that integrates the denominational subculture variation thesis and the gendered religiosity thesis, this study replicates and extends previous research by examining the effects of religiosity on the timing of first marriage among recent birth cohorts of American young adults using pooled cross-sectional data from the National Survey of Family Growth, 2006–2010. In particular, this study addresses the following research questions: (1) Does religion continue to exert influences on marriage timing among recent birth cohorts of young Americans? (2) If so, are there denominational subculture variations as exhibited in previous research net of other religious factors? (3) Are worship service attendance (*i.e.*, religious network integration) and religious salience (*i.e.*, the internalization of religious norms and values) associated with marriage timing? (4) If so, do these associations vary across diverse faith traditions as expected by the denominational subculture variation thesis? (5) And finally, do these religious effects on marriage timing, if uncovered, vary by gender?

This study makes significant contributions to family and religious studies in several important ways. First, denominational subculture variations in marriage timing as reported by previous studies are largely based on survey data collected in the late 1980s and early 1990s. The present study explores whether these denominational subculture variations are still present among young Americans who were surveyed in the 21st century. This replication effort is warranted in light of recent social trends. Young Americans are increasingly experiencing multiple life course transitions in union formation, especially pre-marital cohabitation, which is known to delay entry into first marriage [6]. In addition, religiosity in terms of worship service attendance, prayer, belief in afterlife, and scriptural literalism (or scriptural inerrancy) among American adults has steadily declined across birth cohorts [7]. Given the trends toward delayed marriage and away from religious involvement, it is important to examine whether or not previously documented relationships between religion and marriage timing are still at work in the population.

Second, there is a lack of critical and rigorous validity checks in previous studies on denominational subculture variations in marriage timing. Previous studies examining the influence of denominational affiliation on marriage timing used a measure of denominational affiliation during adolescence [3].

While the use of denominational affiliation in adolescence meets the criterion of causal reasoning, adolescent religious affiliation may not truly reflect individuals' religiosity at the time of first marriage. In effect, it may reflect individuals' parental expectations and/or family religious traditions [8,9]. Given these oversights, this study extends the denominational subculture variation thesis by using denominational affiliation in both adolescence and adulthood. This comparative and fuller approach provides an ideal test for the robustness of the denominational subculture variation thesis in the context of change and continuity in religiosity across the individuals' life course.

Third, the effects of worship service attendance and religious salience on marriage timing have been understudied. In fact, one of the frequently cited studies even overlooked other religious factors including worship service attendance and religious salience [5]. The current study fills this research void by investigating: (1) denominational subculture variations in marriage timing net of worship service attendance and religious salience; (2) independent or net effects of worship service attendance and religious salience on marriage timing after controlling for denominational affiliation; and (3) intersectional or multiplicative effects of worship service attendance and/or religious salience and denominational affiliation on marriage timing.

Finally, the current study explores the effects of religiosity on marriage timing by gender. Though previous studies have examined the links between religion and marriage timing separately by gender [3,5], no explicit and systematic efforts have been made to understand gender differences in marriage patterns. Informed by previous scholarship that deems both religion and family as gendered institutions [10–12], this study examines the gendered effects of religious denominational affiliation, worship service attendance, and religious salience on marriage timing.

2. Review of Literature and Research Hypotheses

The denominational subculture thesis was initially developed by religion scholars to: (1) rank-order religious denominations along a liberal-moderate-conservative continuum; and (2) assess the consistency of these rankings across a range of "pro-family" issues, with special attention to both between-denominational differences and within-denominational homo/heterogeneity [13]. Utilizing this theoretical perspective, recent scholarship has highlighted distinctive denominational subculture variations in marriage timing. Mormons (the Latter-day Saints), moderate Protestants, and conservative Protestants marry earlier than Jews or their unaffiliated counterparts. Catholics fall right in the middle of this marriage-timing spectrum by differentiating themselves from the early marrying Latter-day Saints and conservative Protestants and the late marrying unaffiliated and Jews [3,5].

These denominational differences in marriage timing are often accounted for by their distinctive subculture variations in theological beliefs and religious norms pertaining to pro-family attitudes, fertility patterns, gender differences in educational attainment and labor force participation, as well as gender ideologies [3,5]. Mormons and conservative Protestants, for example, place a primacy on marriage and family life and emphasize family roles as a source of sanctification and fulfillment. The subcultural emphasis on traditional family life encourages and supports marriage at younger ages [3,5]. The average age of first marriage for Catholics falls between Protestants and Mormons on one end and Jews and the unaffiliated on the other. Like Protestants, Catholics also espouse a pro-family theology that might lead to earlier marriage. However, the fact that the average age of first marriage among

Catholics is later than that of Protestants may be related to the contours of the Catholic respondents. Catholicism is viewed by many as an integral part of their cultural and family identity. These individuals may identify themselves as Catholic on a survey even if they are not religiously engaged, thereby being called "cultural Catholics." Individuals who were raised in a Protestant tradition but are no longer religious are less likely to maintain their Protestant identity and therefore more likely to move into the unaffiliated category. As a result, the Catholic category of respondents includes larger numbers of nominally religious respondents as compared to Protestants, and therefore Catholics may be less distinct from the religiously unaffiliated than Protestants [8].

Though the denominational subculture variation thesis is informative in identifying and explicating the multifaceted linkages between religion and marriage timing, this line of research is not without limitations. After carefully reviewing this body of literature, several weaknesses are noteworthy. First, previous studies relied heavily on respondents' denominational affiliation during adolescence [3,5]. This operationalization practice makes sense in temporal order but can be problematic and misleading. It has been argued that adolescent denominational affiliation may not accurately reflect individuals' religious identities and commitment as their religious identities and beliefs continue to be shaped and reshaped by their own discoveries as they age [8,9]. Therefore, denominational affiliation during one's upbringing or adolescence can result in inconsistent and inaccurate measures of the subcultural contexts that influence the marriage timing of young adults. To rectify this research limitation, current denominational affiliation or, more ideally, denominational affiliation at first marriage should be used to serve as a critical check.

Second, by default, the denominational subculture thesis is predicated on the theological beliefs and religious norms of the religious traditions. As such, it overlooks possible denominational variations in other measures that gauge either public or private religiosity. Two such measures that can potentially affect marriage timing across various denominational families are worship service attendance and religious salience. As a measure of public religiosity, frequency of worship service attendance can shorten marriage timing in three significant ways: (1) those who attend worship services frequently can regularly receive a moral proclamation of the importance of marriage and other pro-family, pronuptial, and pronatal messages and teachings; (2) frequent attendance at worship services can provide opportunities to cultivate religious capital or networks through which one can interact with co-religionists to enhance their views of marriage and/or to dissuade or sanction those who stray from the religious teachings; and (3) frequent attendance at worship services can also serve as an indication of religious commitment, particularly commitment to marriage and family life. In a similar fashion, religious salience, as a measure of private religiosity, can affect marriage timing as well. Religious salience is a subjective measure of how important religion is to a person and the extent to which they have internalized the religious norms, values, and teachings of their religious community [14]. Individuals who report high levels of religious salience are more likely to internalize and adopt their religion's norms and values pertaining specifically to marriage and family life. They may also be more inclined to consult or use religious teachings to inform major life decisions. Religious salience is less tangible than worship service attendance in terms of religious commitment and the sacrifice of time, energy, or income. However, religious salience represents similar commitment based on subjective assessment of internalized importance of religion. There are good reasons to believe that both frequent worship service attendance and heightened religious salience can affect marriage timing directly. The

mechanism of influence for each factor, however, is dependent upon the religious context where the individual is interacting with co-religionists or internalizing religious teachings. As such, attendance and salience may affect marriage timing differentially across denominational families because of different levels of strictness in religious ideologies, expectations, and practices. For example, these religious effects can be stronger for conservative Protestant denominations for their higher levels of biblical literalism, theological conservatism, and more frequent religious service attendance [13].

A third limitation of previous research is that in spite of the widely recognized gender differences in marriage timing and religiosity [5,10–12,15], prior studies on marriage timing have taken these differences for granted. Little, if any, attention has been given to the gendered effects of religion on marriage timing. This oversight is unfortunate because both marriage and religion have long been viewed as gendered institutions [10–12]. With reference to gendered marriage, the most widely canvassed explanation offered by Jessie Bernard is that there are two different marital realities, his and hers, such that marriage benefits husbands more than wives [16]. Recent scholarship continues to document gendered boundaries, segregated roles, and gender-differentiated meanings in marriage [10]. Turning to the gendered character of religion or religiosity, scholars of religion have concluded that women are more religious than men on a wide range of measures [11,12]. Scholars of religion offer three types of explanations for this gendered religiosity: (1) women are psychologically or naturally more inclined towards religion (psychological explanation); (2) women are predisposed to such religious values as nurturance, submission, and gentleness during their childhood socialization (socialization explanation); and (3) women's structural locations in society, such as childrearing roles, lack of labor force participation experiences, and their prioritization of family life, lead to a stronger religious orientation than their male counterparts (social location explanation). These two bodies of literature jointly suggest that denominational subculture differences and other religious variations in marriage timing can be different across the two gender groups.

Guided by the literatures reviewed above, the following hypotheses are formulated:

Hypothesis 1: Those who are affiliated with a faith tradition are more likely to marry at a younger age than those who are unaffiliated (Hypothesis 1A). Moreover, among Protestants, conservative Protestants will display the earliest entrance into marriage, followed by mainline Protestants (Hypothesis 1B). Catholics, on the other hand, are expected to be between the early marrying conservative Protestants and the late marrying religiously unaffiliated (Hypothesis 1C). Finally, denominational affiliation in adolescence will exhibit weaker and inconsistent subculture influences on marriage timing than denominational affiliation at young adulthood (Hypothesis 1D).

Hypothesis 2: Regardless of denominational affiliation, there will be a negative relationship between frequency of service attendance and marriage timing such that more frequent worship service attendance will be significantly associated with a younger age at first marriage (shorter waiting time to first marriage).

Hypothesis 3: Regardless of denominational affiliation, those who deem religion important in their lives will marry earlier than those for whom religion is viewed as unimportant.

Hypothesis 4: Worship service attendance and religious salience will affect marriage timing differently across faith traditions, with the strongest effects being observed for conservative Protestants.

Hypothesis 5: Given women's higher levels of religiosity and a stronger orientation towards family life, the religious effects on marriage timing will be stronger for women than for men.

3. Research Methods

3.1. Data

To test the hypotheses delineated above, this study used data from the 2006–2010 cycles of the National Survey of Family Growth (NSFG 2006–2010). These surveys were designed to provide reliable national data on cohabitation, marriage, divorce, remarriage, contraception, infertility, and the health of women and infants in the United States. The pooled NSFG 2006–2010 sample was nationally representative of the civilian, non-institutionalized population, consisting of 10,403 men and 12,279 women ages 15–44. The NSFG has consistently surveyed young Americans aged 44 or younger because of its focus on reproductive health. This age truncation may limit the estimation of the religious effects on marriage timing due to its disproportionate inclusion of unmarried young respondents, thus hampering the potential to generalize the study findings to other populations (e.g., older populations). In spite of this limitation, however, the NSFG contains excellent life course transition questions pertaining to cohabitation and marriage, making the data suitable for the current study. In addition, given the analytical focus of this study on early marriage among young Americans, especially those who are religious, the pooled NSFG data are well suited for this purpose.

The NSFG 2006–2010 used a complex survey design and oversampled underrepresented groups, including African Americans and Hispanics. The survey was conducted by the Institute for Social Research (ISR) at the University of Michigan, from June 2006 through June 2010 under contract from the National Center of Health Statistics. The merged public-use data and the codebook were downloaded from the Centers for Disease Control and Prevention by the first author.

3.2. Dependent Variable: Waiting Time to First Marriage

Taking a cue from previous research, this study used an event history approach to analyze the survey data [5]. Within this analytical framework, the dependent variable was conceptualized and operationalized as the waiting time to first marriage, which was constructed via two different procedures. First, for respondents who were ever married, the waiting time to first marriage was calculated by subtracting date of birth from date of first marriage (in century month = year × 12 + month). Second, for respondents who were unmarried, their waiting time was calculated by subtracting date of birth from date of interview (in century month calculated similarly as before). Respondents who were unmarried at the time of interview represent censoring cases in this study, which is one of the major advantages of using event history methods for data analysis. In other words, those who were not married at the time of interview will not be excluded from the current study because they may marry at a later time. As displayed in Table 1, the average waiting time for women is 24.4 years and for men 25.2 years, respectively, a year older for women and 3 years younger for men compared to Xu *et al.*'s study [5]. It is worth noting that one of the striking differences in this sample from Xu *et al.*'s study is the larger number of individuals who reported never being married at the time of interview. In this sample, approximately 55% of women and 64% of men reported never being married as opposed to

21% of women and 27% of men in their study based on the first wave of the National Survey of Families and Households.

Table 1. Sample Characteristics by Gender.

Variables	Women		Men	
	n	*Percentage*	*n*	*Percentage*
Waiting time	12,279	24.36 (M)	10,403	25.15 (M)
		6.31 (SD)		6.83 (SD)
Event				
Ever married	5,534	45.10	3,735	35.90
Never married	6,745	54.90	6,668	64.10
Adolescent Religious Affiliation				
Not affiliated	1,227	10.00	1,114	10.80
Catholic	4,138	33.80	3,681	35.50
Mainline Protestant	1,438	11.70	1,201	11.60
Conservative Protestant	3,030	24.70	2,296	22.10
Other Protestant	1,333	10.90	1,188	11.50
Other religion	1,090	8.90	882	8.50
Current Religious Affiliation				
Not affiliated	2,347	19.20	2,538	24.50
Catholic	3,127	25.50	2,728	26.30
Mainline Protestant	1,101	9.00	871	8.40
Conservative Protestant	2,610	21.30	1,843	17.80
Other Protestant	2,034	16.60	1,534	14.80
Other religion	1,031	8.40	856	8.20
Worship Service Attendance				
More than once a week	1,204	9.80	813	7.80
Once a week	2,553	20.80	1,719	16.50
2–3 times a month	1,519	12.40	1,092	10.50
Once a month	986	8.00	769	7.40
3–11 times a year	1,378	11.20	1,164	11.20
Once or twice a year	1,763	14.40	1,847	17.80
Never	2,865	23.40	2,989	28.80
Religious Salience				
Important	9334	94.10	7019	89.30
Not important	586	5.90	839	10.70
Race/Ethnicity				
White	6,301	51.30	5,448	52.30
Black	2,535	20.60	1,854	17.80
Hispanic	2,723	22.20	2,409	23.20
Other	720	5.90	692	6.70
Premarital Cohabitation				
Yes	6,450	52.50	4,758	45.70
No	5,829	47.50	5,645	54.30

Table 1. *Cont.*

Variables	Women n	Women Percentage	Men n	Men Percentage
Educational Attainment				
Less than high school	3,455	28.10	3,469	33.30
High School	2,946	24.00	2,529	24.40
More than high school	5,878	47.90	4,405	42.30
Employment Status				
Yes	7,722	62.90	7,319	70.40
No	4,557	37.10	3,084	29.60
Biological Two-parent Family at Age 14				
Yes	7,479	60.90	6,798	65.30
No	4,800	39.10	3,605	34.70
Family on Public Assistance				
Yes	4,503	36.70	2,643	74.60
No	7,776	63.30	7,760	25.40
Residence				
Metro	10,441	85.00	8,901	85.60
Non-metro	1,838	15.00	1,502	14.40
Year of Survey				
2006	3,106	25.30	2,504	24.10
2007	2,761	22.50	2,371	22.80
2008	3,142	25.60	2,657	25.50
2010	3,270	26.60	2,871	27.60
Total *n*	12,279		10,403	

3.3. Key Covariates: Religious Variables

In the current study, religious denominational affiliation, frequency of worship service attendance, and religious salience were used as covariates to replicate, update, and extend previous research on marriage timing. Consistent with previous research, denominational affiliation reported by respondents was employed to operationalize denominational subculture variations [5,13]. But due to possible changes in religiosity over the life course of respondents [8,9], two versions of the religious denominational affiliation variables were used: (1) respondents' denominational affiliation as an adolescent and (2) respondents' current (at the time of study) denominational affiliation. Because the National Center of Health Statistics did not release the original denominational affiliation variables with detailed denominational membership, the denominational affiliation variables available in the public use data filewere pre-collapsed, thus incongruent with previous studies that utilized detailed denominational membership. These variables were dummy-coded into five broader faith traditions: Catholic, conservative Protestant (Baptists and other fundamentalist Protestants), mainline Protestant (Methodists, Lutherans, Presbyterians, and Episcopal groups), other Protestant (non-denominational or Protestant groups not listed in the survey), and other religions (Muslims, Jews, Latter-day Saints and Jehovah Witnesses) with the unaffiliated serving as the reference group.

The NSFG 2006–2010 also included frequency of worship service attendance and religious salience. Worship service attendance was recorded as an ordinal variable to indicate respondents' public religiosity, with seven response categories ranging from 1 = "never attend" to 7 = "attend more than once a week." For ease of interpretation in the models, worship service attendance was treated as a continuous measure (a categorical version of the variable was experimented but no difference surfaced). While previous research used frequency of worship service attendance at age 14 [3], this study made use of current worship service attendance instead because of excessive missing data in the adolescent worship service attendance variable (missing data were observed for the vast majority of respondents).

Finally, the NSFG 2006–2010 included religious salience. This measure was used to gauge respondents' private religiosity. The NSFG 2006–2010 asked how important religion was in respondents' daily life, which was dummy-coded with 1 = salient ("very important" and "somewhat important") and 0 = not salient ("not important"). The category of "not salient" was used as the reference.

3.4. Other Covariates: Control Variables

To conduct the statistical analysis, the following control variables (covariates) were included to avoid possible spurious effects of religiosity on marriage timing. Race/ethnicity was dummy-coded into Black, Hispanic, and other race/ethnicity, with white serving as the reference category. Premarital cohabitation was also dummy-coded into 1 = "ever had premarital cohabitation" and 0 = "never had premarital cohabitation" (the reference category). Current educational attainment, in actual years, was dummy-coded into two variables: high school and more than high school with less than high school serving as the reference group. Because respondents' employment status at time of marriage was unavailable, current employment status was used and dummy-coded with 1 = employed and 0 = otherwise. Family structure at age 14 was used and dummy-coded into 1 = biological two-parent family and 0 = other family arrangement. Current family resources were measured by whether the family received public assistance, which was dummy-coded into 1 = "yes" and 0 = "no". Since region of residence was not provided in the public use data, metro statistical area was used and dummy-coded into 1 = urban and 0 = rural to control for marriage market differences. Finally, years of survey were dummy-coded into three variables: 2007, 2008, and 2010, with 2006 serving as the reference category.

3.5. Analytic Strategies

Following previous studies, the effects of the religious variables on marriage timing were analyzed by using a series of log-logistic parametric survival models (selected as the best fitting model among five different types of parametric survival models; not shown but available upon request). This modeling strategy has several advantages, including but not limited to: (1) censored observations for those who were not married at the time of study were incorporated into the analysis; (2) the waiting time to first marriage with flexible distributions was accounted for; and (3) fuller information was used for statistical modeling; and (4) a direct comparison with previous studies, such as Xu *et al.*'s study published in 2005, was possible.

To test study hypotheses, a nested modeling technique was used such that Model 1 was a replication model that included denominational affiliation and all of the control variables. Each model was run

once with the adolescent affiliation variables and once with the current affiliation variables in order to allow a comparison of the two different measures of denominational affiliation. Models 2 and 3 were extension models that included worship service attendance and religious salience, respectively, while controlling for denominational affiliation and other covariates. Model 4 was the full model that combined all religious variables. It is important to note that these models were estimated separately for men and women in order to explore gender differences. In addition, the effects of worship service attendance and religious salience, along with statistical controls, were estimated separately for each of the five denominational families by gender. In essence, these models assessed complex moderating or intersectional effects of denominational subculture, worship service attendance or religious salience, and gender on marriage timing. It should be noted that all of these models were estimated by using the complex survey and multiple imputation procedures in Stata 13 to adjust for design effects and missing values [17,18].

4. Results

4.1. Denominational Subculture Variations in Marriage Timing

Model 1 of Tables 2 and 3 show general support for Hypothesis 1A. Consistent with previous studies, the negative and significant regression coefficients displayed in survival regressions indicate that the waiting time until first marriage was shorter for those who were affiliated with any faith tradition than for those who were unaffiliated. In other words, religiously affiliated respondents were more likely to marry at a younger age. This pattern generally holds for both denominational affiliation during adolescence and adulthood as shown in Tables 2 and 3.

While all religious groups marry younger than the unaffiliated, Hypothesis 1B suggests that conservative and mainline Protestants will report the earliest entries into marriage, respectively. As shown in the tables (Models 2–4), net of worship service attendance, religious salience, and other statistical controls, conservative Protestants exhibit the most consistent and early marrying effects (the negative and significant regression coefficients are observed across both versions of the denominational affiliation variables). These findings offer partial support for Hypothesis 1B pertaining to distinctive conservative Protestantism. However, in contrast to Hypothesis 1B, mainline Protestants do not marry significantly earlier than the unaffiliated once all of the covariates are controlled for in the models. Hypothesis 1C statesthat Catholics will fall between the early marrying conservative Protestants and late marrying unaffiliated in marriage timing. As it turns out, Hypothesis 1C is supported only for current denominational affiliation but rejected for adolescent denominational affiliation (no statistical differences between Catholics and the unaffiliated are observed) if other religious factors are not considered (Model 1). Once additional religious factors are added to the models, however, there is no longer a significant difference in the marriage timing of Catholics and the religiously unaffiliated.

Table 2. Maximum Likelihood Parameter Estimates from Log-Logistic Survival (AFT) Regressions of Waiting Time on Religious Variables for Women.

	Model 1	**Model 2**	**Model 3**	**Model 4**
Adolescent Religious Affiliation				
Not affiliated (reference)				
Catholic	−0.022	−0.024	0.002	−0.001
Mainline Protestant	−0.039 *	−0.039 **	−0.012	−0.015
Conservative Protestant	−0.091 ***	−0.088 ***	−0.056 **	−0.057 **
Other Protestant	−0.061 ***	−0.061 ***	−0.034	−0.036
Other Religion	−0.084 ***	−0.085 ***	−0.057 **	−0.060 ***
Worship Service Attendance		−0.020 ***		−0.018 ***
Religious Salience			−0.112 ***	−0.079 **
Current Religious Affiliation				
Not affiliated (reference)				
Catholic	−0.040 **	−0.003	0.025	0.042
Mainline Protestant	−0.071 ***	−0.029	−0.005	0.016
Conservative Protestant	−0.118 ***	−0.067 ***	−0.049	−0.021
Other Protestant	−0.080 ***	−0.037 *	−0.012	0.010
Other Religion	−0.104 ***	−0.060 ***	−0.040	−0.017
Worship Service Attendance		−0.017 ***		−0.015 ***
Religious Salience			−0.105 ***	−0.080 **
Total *n*	12,279	12,279	12,279	12,279

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Race/ethnicity, premarital cohabitation, education, employment, family structure at age 14, poverty, urban-rural residence, and year of study are statistically controlled.

Table 3. Maximum Likelihood Parameter Estimates from Log-Logistic Survival (AFT) Regressions of Waiting Time on Religious Variables for Men.

	Model 1	**Model 2**	**Model 3**	**Model 4**
Adolescent Religious Affiliation				
Not affiliated (reference)				
Catholic	0.005	0.011	0.027	0.028
Mainline Protestant	−0.015	−0.006	0.012	0.015
Conservative Protestant	−0.093 ***	−0.082 ***	−0.053 *	−0.051 *
Other Protestant	−0.054 *	−0.042	−0.020	−0.017
Other Religion	−0.052 *	−0.042	−0.021	−0.019
Worship Service Attendance		−0.025 ***		−0.024 ***
Religious Salience			−0.058 **	−0.019
Current Religious Affiliation				
Not affiliated (reference)				
Catholic	−0.031 *	0.008	0.010	0.014
Mainline Protestant	−0.078 ***	−0.029	−0.054	−0.023
Conservative Protestant	−0.123 ***	−0.059 **	−0.096 **	−0.052 *
Other Protestant	−0.108 ***	−0.051 **	−0.082 **	−0.044 *
Other	−0.093 ***	−0.039	−0.068 **	−0.032
Worship Service Attendance		−0.022 ***		−0.022 ***
Religious Salience			−0.048 *	−0.015
Total *n*	10,403	10,403	10,403	10,403

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Race/ethnicity, premarital cohabitation, education, employment, family structure at age 14, poverty, urban-rural residence, and year of study are statistically controlled.

Hypotheses 1A–1D examined the denominational subculture variations in marriage timing. The results show that both adolescent and current religious affiliations are related to marriage timing, but as was expected, current religious affiliation is a stronger measure of the subcultural influences on marriage timing (somewhat consistent with Hypothesis 1D). In addition, the subcultural context that appears to have the most consistent and significant influence on early entry into marriage is that of conservative Protestantism.

Although we found some support for denominational subculture variation, some of these variations in marriage timing are mediated by both worship service attendance and religious salience (the ancillary regression analyses indicating significant mediating effects are not shown here but available upon request). In the case of current denominational affiliation for women, denominational subculture variations in marriage timing are completely mediated (or explained) away by religious salience (see Models 3–4 of Table 2). That is, after controlling for either worship service attendance or religious salience, denominational subculture variations in marriage timing become considerably weaker or even completely nullified as compared to one of the earlier studies [5] (once again, the ancillary regression analyses confirmed these significant mediating effects).

4.2. Worship Service Attendance, Religious Salience and Marriage Timing

Hypothesis 2 predicts that worship service attendance will be related to a shorter waiting time to first marriage. Models 2 and 4 in Tables 2 and 3 provide the opportunity to test this hypothesis as an extension of previous studies. As expected, the negative and statistically significant survival regression coefficients show that after controlling for denominational affiliation and other covariates, every unit increase in frequency of worship service attendance is associated with a younger age at first marriage (a shorter waiting time to first marriage). This robust pattern holds for both men and women, which strongly supports Hypothesis 2. Turning to religious salience as addressed in Hypothesis 3, Models 3 and 4 in Tables 2 and 3 suggest that those for whom religion was deemed salient married earlier than those who viewed religion as unimportant in their lives. The effects of religious salience are far more robust for women than for men. In Model 4, for example, religious salience is no longer statistically significant for men when worship service attendance is included in the model, but it continues to be significant for women. In light of these results, Hypothesis 3 is partially supported.

Turning to Hypothesis 4, we examine whether worship service attendance and religious salience operate differently across the different religious traditions in the study. Table 4 shows the coefficients for each of these two religious variables when the models are run separately by denomination and gender. The frequency of worship service attendance is systematically and negatively associated with time to first marriage for both male and female Catholics. Among Protestant groups, on the other hand, the negative association between worship service attendance and length of time to first marriage is not consistent across all of the models. Among conservative Protestants, there is a significant coefficient for attendance for females who were conservative Protestants in adolescence and those who are currently conservative Protestants. For the men, however, the relationship between attendance and marriage timing is only significant for those men who were conservative Protestant during adolescence. Among mainline Protestants, it is only the men for whom more frequent worship service attendance is significantly related to earlier marriage. Religious salience is significantly related to a

shorter time to first marriage only for female mainline Protestants and male Catholics. Thus, the moderating effects involving religious salience are minimal and not systematic. Taken together, the survival models featured in Table 4 lend some credence to Hypothesis 4 pertaining to worship service attendance. It appears that the way in which worship service attendance influences marriage timing does vary across religious traditions. And while the effect of attendance for conservative Protestants was expected, we also found that attendance has a strong influence on marriage timing among Catholics. The support for Hypothesis 4 related to religious salience is generally weak and in most cases, statistically trivial.

Table 4. Maximum Likelihood Parameter Estimates from Log-Logistic Survival (AFT) Regressions of Waiting Time on Religious Variables By Denomination and Gender.

	Catholic	Mainline Prot.	Cons. Prot.	Other Prot.	Other Religion
Women					
Adolescent Religious Affiliation					
Worship Service Attendance	−0.016***	−0.012	−0.021***	−0.028*	−0.014
Religious Salience	−0.044	−0.140	−0.041	−0.067	−0.124
Total *n*	4,138	1,438	3,030	1,333	1,090
Current Religious Affiliation					
Worship Service Attendance	−0.010*	−0.008	−0.017**	−0.020	−0.015*
Religious Salience	−0.054	−0.087*	−0.058	−0.143	−0.157
Total *n*	3,127	1,101	2,610	2,034	1,031
Men					
Adolescent Religious Affiliation					
Worship Service Attendance	−0.021**	−0.026*	−0.015**	−0.032**	−0.031*
Religious Salience	−0.027	−0.007	0.002	−0.100	0.042
Total *n*	3,681	1,201	2,296	1,188	882
Current Religious Affiliation					
Worship Service Attendance	−0.016*	−0.028***	−0.015	−0.025*	−0.025*
Religious Salience	−0.046**	0.022	0.046	−0.012	−0.012
Total *n*	2,728	871	1,843	1,534	856

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Race/ethnicity, premarital cohabitation, education, employment, family structure at age 14, poverty, urban-rural residence, and year of study are statistically controlled.

4.3. Gender Differences

As was predicted in Hypothesis 5, several gendered religious effects on marriage timing emerged from this study. The noteworthy results can be stated as follows: (1) denominational subculture variations in marriage timing (especially conservative Protestant affiliation) are more prominent and systematic for men than for women after controlling for worship service attendance and religious salience; (2) religious salience, a measure of private religiosity, is more robust in affecting marriage timing for women than for men; and (3) for each of the five denominational families as depicted in Table 4, the early marrying effects of worship service attendance are more pronounced for men

than for women. Based on these findings, there are noticeable gender differences in religious effects on marriage timing as was expected in Hypothesis 5. It appears, however, that private religious salience is more of an influence for women, while marriage timing among men is more consistently influenced by public religious practice (worship service attendance).

5. Discussion and Conclusions

This study was designed to replicate, update, and extend previous research on the relationship between religion and marriage timing using the National Survey of Family Growth, 2006–2010, a nationally representative sample of young American men and women. As anticipated, a series of multivariate survival regression models revealed important religious effects on the waiting time to first marriage. In the pages that follow, these findings are summarized and highlighted.

First, consistent with Hypothesis 1A, respondents who were affiliated with all faith traditions exhibited shorter waiting time to first marriage than those who were unaffiliated. This finding undergirds the notion that pro-family and pro-marriage values that characterize virtually all faith traditions continue to play an important role in marriage timing. As pointed out by Uecker and Stokes [19], religion is responsible in part for much of the early marriages in recent birth cohorts. However, it is worth noting that denominational subculture variations documented in this study are less robust than previously reported, especially after other religious factors are simultaneously considered.

In support of Hypothesis 1B, conservative Protestants showed the most robust and consistent early marrying effects compared to the unaffiliated, which was followed by other Protestants (men). Given conservative Protestants' enthusiasm for pro-family values, traditional gender ideologies, and family life, these findings are highly anticipated. They underscore the subcultural uniqueness associated with conservative Protestantism that is highlighted by their distinctive biblical literalism and theological conservatism. On the other hand, inconsistent with Hypothesis 1C, those who were affiliated with the Catholic faith tradition were not statistically different from the late marrying unaffiliated once other religiosity measures (worship service attendance and religious salience) were included in the analysis. This result is consistent with the earlier discussion regarding the cultural identity of many Catholics who may identify as Catholic even thought their religious engagement more closely resembles the religiously unaffiliated. This conclusion is further supported by the findings regarding worship service attendance in Table 4. In the model for Catholics we found that those who did attend regularly were more likely to reflect the pro-family and pro-marriage stance of the Catholic Church with a shorter waiting time to marriage. Furthermore, it was difficult to conclude firmly if Hypothesis 1D was supported or rejected because the two versions of denominational affiliation exhibited different patterns in their effects on marriage timing across the two gender groups. But it seems safe to conclude that the results derived from current denominational affiliation tell "more interesting" stories.

Second, this study concluded that irrespective of denominational affiliation, as worship service attendance increased, the waiting time to first marriage became shortened, which lent strong credence to Hypothesis 2. In fact, attendance at religious services emerged as the most robust predictor of marriage timing. Moreover, worship service attendance also acted as a mediator, explaining away not only some of the denominational affiliation effects but also the effects of religious salience, which was particularly pronounced for men. These mediating effects are theoretically important for two reasons:

(1) religious denominational affiliation can be nominal such that its effects on marriage timing will not matter unless it is manifested through religious practice, such as worship service attendance; and (2) in line with previous research on the linkages between religion and family life, public religiosity often exerts more pronounced net effects on marital dynamics, relationship quality, and other dimensions of marital well-being [20].

Partially consistent with Hypothesis 3, religious salience was also found to shorten the waiting time to first marriage. However, there were striking gender differences. For men, religious salience lost its statistical significance when worship service attendance was introduced, whereas for women religious salience was statistically important throughout the analysis. So why does the internalization of the religious pro-family and pro-marriage orientations and teachings matter for women but not for men? On the one hand, religious institutions tend to be gender-stratified, such that women have fewer opportunities to exhibit their religiosity publicly other than attendance at religious services. As a result, women tend to internalize their faith through such private acts as prayers and scripture studies. On the other hand, men have abundant opportunities to externalize their religious faith by serving as leaders or teachers, thus private religiosity seems to matter less for men than for women.

In partial support of Hypothesis 4, this study indicated that worship service attendance and religious salience affected the waiting time to first marriage differently across denominational families with the effects of religious salience being far less systematic than worship service attendance. Attendance at worship services mattered more consistently for Catholics than for various Protestant groups even though Catholics were not that different from the unaffiliated in marriage timing as reported above. So while Catholics as a group are not significantly different from the religiously unaffiliated, Catholics who attend regularly do in fact marry at a younger age than their less-attending or non-attending counterparts. This within-group heterogeneity was also noted for conservative Protestant women and mainline or other Protestant men. These patterns of within-group religious heterogeneity complement nicely the denominational subculture variations observed in marriage timing.

In general, this study found some evidence to support Hypothesis 5. The gendered effects of religious salience as a predictor and mediator for women, and the denominational specific effects of worship service attendance for men, supported the contention that like the institution of family or marriage, religious institutions are also gendered. In the context of marriage timing, these results echo broader forms of gender segregation in society by the well-known differentiation between the public (worship service attendance for men) and private (religious salience for women) spheres of life for both sexes.

While this study yielded some interesting and important findings, several research limitations and directions for future research need to be addressed and discussed. As noted previously, future research should utilize more refined religious denominational groups, which are less likely to be available in the public use data. Failure to separate denominational groups, such as the Latter-day Saints and Jews, from other faith traditions can make the interpretations difficult. As such, access to the original data is essential to use an appropriate classification scheme to group denominational families. In addition, with a growing number of Americans being self-classified as unaffiliated [21], further distinction of the unaffiliated group becomes necessary in order to examine properly the effects of this group on marriage timing. It is important to note that the unaffiliated group can consist of atheists, agnostics, and others who may classify themselves as unaffiliated because they tend to come from an inter-faith home, thus embracing different beliefs, values or norms. Furthermore, due to a large amount of

missing data, the variable of worship service attendance in adolescence could not be used in this study. Attention is needed in future research to better record respondents' retrospective responses. An event history calendar can be very helpful in probing and recording respondents' past religious practices. Likewise, in this study many covariates serving as statistical controls were not measured at first marriage. Instead, they were measured at the time of interview. As a result, no causal relationships and implications are suggested.

Additionally, as noted previously, the National Survey of Family Growth focuses on a young population with a narrow age range from 15 to 44. Given the increasing age at first marriage across the population [22], the current data include significant numbers of respondents who are not yet married. While these factors limit our ability to measure the eventual marriage patterns of these respondents, the data do allow us to examine the marriage patterns of young adults and the prevalence of early marriage within the population. Finally, we suggest that future research incorporate qualitative studies, which can help better understand the nuanced motivations or desires for earlier or later entrance into marriage.

In closing, this study makes several noteworthy contributions to family and religious studies. In spite of the declining religiosity across birth cohorts in the U.S. and the increasing age at first marriage in recent decades [7,22], this study documented continued and important impacts of religion on marriage timing among young Americans. Echoing previous research, the present study observed persistent denominational subculture variations in marriage timing, especially for conservative Protestants compared to other denominational groups. In addition to these notable religious subculture variations, this study also revealed accelerating effects of religious attendance and salience on marriage timing. While the impacts of religious attendance were noted for both men and women, the effects of religious salience were particularly pronounced for women. This finding pertaining to private religiosity underscores the gendered nature of both family and religious life in contemporary America. This gendered finding is also nicely complemented by the complex intersection of gender, denominational affiliation, worship service attendance, and religious salience, suggesting that future research should move beyond the denominational subculture variation thesis and bring gender into the study on religion and family life in general and religion and marriage timing in particular. Finally, it is recommended that similar theoretical and methodological approaches used here be considered to examine additional life course transitions such as the timing of premarital and post-divorce cohabitation, divorce, and/or remarriage.

Author Contributions

JJR and XX conceived of the study and preformed the statistical analyses. MLD and JPB provided theoretical guidance and helped to draft the manuscript. The authors jointly edited and approved the final manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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