RELIGIOUS PARTICIPATION IN EARLY ADULTHOOD: AGE AND FAMILY LIFE CYCLE EFFECTS ON CHURCH MEMBERSHIP*

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We attempt to integrate, elaborate, and test competing theories of why religious participation increases with age during young adulthood. We reconceptualize age and family formation as interacting causes of religious participation rather than competing explanations of it. We expand the concept of family formation to include divorce, cohabitation, and dissolution of cohabitational relationships. We distinguish attitudes toward the family from family formation behavior. We analyze data from the National Longitudinal Study of the High School Class of 1972, which traces church membership to age 32. Our results show that the effect of children on church membership varies with the combination of the children's and parent's ages. We find separate effects of family formation behavior and attitudes toward the family. Cohabitation, divorce, and dissolution of cohabitational unions all affect membership probability, but these effects vary with age and are often different for men and women.

I n most religious traditions practiced in the United States, religious values and participation in religious organizations are deeply intertwined with values and attitudes that encourage marriage and parenthood. Most formal religious dogmas promote the establishment and maintenance of family relationships. Organized religions offer institutionalized moral support for love, intimacy, and childbearing in the context of religiously sanctioned marriage (D'Antonio 1983, 1985;

Thornton 1985). Organized religions also discourage intimacy and childbearing outside of marriage (Aldous 1983). Conversely, families provide children with their initial religious identity that prepares them for the formal religious training that leads to their subsequent voluntary participation in religious organizations (Iannaccone 1990; Roof and McKinney 1987).

Family formation behavior and religious participation of individuals tend to be correlated, but the causes of the association are not clear. Young married couples with children are more likely to join religious organizations and attend religious services than are young adults who are childless and unmarried (Carroll and Roozen 1975; Mueller and Cooper 1986; Roozen, McKinney, and Thompson 1990). But an increase in religious participation with marriage and parenthood could result if adults simply become more religiously observant as they age. Previous analyses have not followed a longitudinal design that can separate the effects of age from the impacts of marriage and childbearing,

which occur as people age.[1] To complicate matters, strong religious values and attitudes that form in childhood encourage both early family formation and high levels of participation in religious organizations, suggesting that the correlation between religious behavior and family formation may result from common antecedents rather than from a direct causal link (Greeley 1989:32).

"Family formation" includes a broad array of behaviors. For example, cohabitation may be a precursor to marriage or an alternative. Divorce, remarriage, cohabitation, and dissolution of cohabitational unions also characterize many individual family formation histories (Bumpass, Raley, and Sweet 1993). Each of these behaviors may have a different association with religious participation. To date, however, there has been scant attention to how cohabitation and divorce affect religious participation (see Thornton, Axinn, and Hill 1992 for an exception), no consideration of how religious behavior is affected by disruption of cohabitational unions, and no analyses that use longitudinal research designs to distinguish the effects of advancing age on religious participation from the impacts of marital disruption, cohabitation, and termination of cohabiting relationships.

We integrate, elaborate, and test hypotheses about the ways in which religious participation depends on age, family formation, and attitudes toward marriage and family. We focus on the period from late adolescence through early maturity, the period of the most rapid and extensive changes in family roles (Rindfuss 1991). We use longitudinal data to distinguish the impact of aging from the effects of family formation. Our analyses include measures of attitudes toward the family as well as indicators of subsequent cohabitation, marriage, the disruption of these relationships, and the ages of respondents' children. Our analyses include measures of past religious participation to determine how current age, family formation, attitudes, and other factors change religious participation. Data from

the National Longitudinal Study of the High School Class of 1972 enable us to trace the religious involvement of young adults from approximately ages 22 through 32.

BACKGROUND AND HYPOTHESES

We define *religious participation* as participation in the activities of a church or other voluntary association whose primary activities include prayer services. Religious participation differs from and makes no assumptions about religiosity. Individuals may be devout without participating in religious organizations, and they may be active participants yet attend prayer services infrequently.

Religious participation is important for social integration and individual well-being. It is associated with involvement in other organizations and with friends and family, and it "serves as a bridge between various institutional involvements and is thus a major source of social cohesion" (McIntosh and Alston 1982:876). Religious organizations also function as informal support networks (Taylor and Chatters 1988; Ellison 1994).

Iannaccone (1990) argued that individuals acquire "religious capital" through participation in religious activities, especially during childhood, and that this stock of religious skills and information increases the benefits from later participation. Religious involvement is associated with psychological and physical health (Ellison 1994; Levin 1994) and with a feeling of well-being (Witter, Stock, Okun, and Haring 1985; Petersen and Roy 1985; Pollner 1989; Ellison, Gay, and Glass 1989). Religiosity and church participation may contribute to well-being by creating a coherent scheme that enables individuals to make sense of everyday life (Berger 1976; Roof and Hoge 1980; Ellison 1991).

Religion and the Family Life Course

Much research has attempted to understand changes in the religious involvement of individuals over their lifetimes. Bahr (1970) described a Family Life Cycle model in which church attendance increases after marriage and peaks if couples have school-age children, presumably because the parents attend church and send their children to Sunday school. According to this model, the church

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[1] Wilson and Sherkat (1991) used longitudinal data to examine the effects of marriage and childbearing on religious disaffiliation and reaffiliation. Ploch and Hastings (1993:14) doubted that parenthood increases religious participation, but their data could not test this assertion.

attendance of parents declines when children leave home.[2]

Mueller and Cooper (1986) and Roozen et al. (1990) found mixed support for the Family Life Cycle model. Other analysts have assumed that life cycle stages in family formation account for observed age trends but have not tested this assumption (Firebaugh and Harley 1991; Hout and Greeley 1987). The Middletown studies of the late 1970s found a positive association between orientation to family and religion (Caplow, Bahr, and Chadwick 1983). Wilson and Sherkat's (1994) longitudinal study found that individuals who marry and bear children while relatively young are more likely to retain their religious affiliations than are individuals who delay these transitions. Chaves (1991) inferred that family formation is the sociological process underlying both age and cohort differences in rates of church attendance among Protestants in the United States.

We argue that the Family Life Cycle model actually combines two hypotheses. One hypothesis—that marriage increases religious participation—asserts that church membership provides young, recently married couples with emotional support and social contacts with other families. Another hypothesis asserts that parents of pre-adolescent, school-age children are more likely to be church members than are persons without children in this age range. According to this second hypothesis, parents of children in primary school want their children to receive the formal religious instruction that churches provide. However, because children too young to attend primary school are also too young to attend Sunday school, they provide no incentive for church membership. Adolescence begins as primary schooling ends, and the common rebelliousness of adolescents is often directed at churches and schools, re-

ducing the incentive for church membership that children provide.

We elaborate the Family Life Cycle model by considering the ages of the parents as well as the ages of their children. Other things being equal, the likelihood that an individual participates in a voluntary organization, like a church, varies directly with the extent to which his or her values *and behavior* are consistent with the predominant values and behavior of people who are already active in the organization. Structural theories of cultural choice and consumption posit that individuals affiliate with religious groups composed of persons similar to themselves (Sherkat and Wilson forthcoming). Chaves (1991) argued that, because religion in the United States is primarily a family-oriented endeavor, church attendance is highest for those living in conventional nuclear families. We hypothesize that age and the family life course *interact* in their effects on religious participation, with life course experiences having greater impact when they occur at "normatively appropriate" ages than when they are "off-time" (Rindfuss, Swicegood, and Rosenfeld 1987). This hypothesis implies that children born to unusually young parents have less impact on their parents' religious participation than do children born to parents of more typical childbearing ages. We believe that churches offer less social support to unusually young parents than to parents of more typical childbearing ages, in part because this support is offered through an informal network of other individuals and families in similar life circumstances. Thus, atypical parents are less likely to find others in similar family circumstances by joining a church.

Non-Traditional Family Life Cycle Stages

Scholars have neglected the relationship between religious participation and less conventional family experiences, such as cohabitation, divorce, or the termination of a cohabitational relationship.

Divorce and separation. We hypothesize that marital disruption reduces religious participation and affects men more severely than women. Because churches and other religious organizations are most attractive to married adults (Iannaccone 1990), divorce

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[2] Bahr (1970) described three additional models: the Stability Model (church attendance is set early in life and is stable over the lifetime); the Traditional Model (attendance declines sharply between ages 18 and 35 and then increases gradually); and the Progressive Disengagement Model (individuals sever their ties with others as they approach death). We focus on young adults and therefore our analysis has little connection to these other models.

and separation should reduce the attractiveness of participation in religious organizations. Further, divorced or separated individuals who had been active in the same religious organization probably find it unpleasant or socially awkward to meet at church. Finally, divorce and separation probably have more severe consequences for the religious participation of men than of women. Because women tend to be more frequent religious participants than are men (Caplow et al. 1983; Hoge and Roozen 1979; Hout and Greeley 1987; Ploch and Hastings 1993), women tend to invest more social capital in religious organizations than men do (Iannaccone 1990). These higher investments give women greater incentive to continue participation after a divorce or separation, in order to preserve their investment and to obtain returns from it.

Cohabitation. Most religions discourage premarital sexual activity (Thornton et al. 1992; Aldous 1983), and frequent church attenders are more likely to disapprove of cohabitation than are those who attend church infrequently or not at all (Sweet and Bumpass 1990). Cohabitation displays disregard for proscriptions against sexual intimacy outside of marriage. This open nonconformity to religious teachings may elicit disapproval from those who object to such behavior, or it may simply cause cohabitors to feel less welcome in religious organizations than otherwise similar married people. Overt or inferred social rejection may even drive cohabitors out of a religious organization. Thornton et al. (1992) found that cohabiting young adults tend to reduce their attendance at religious services. Thus, we hypothesize that cohabitation reduces religious participation.

Disrupted cohabitation. Past research suggests little about the religious participation of persons who are currently single but who previously have cohabited. If cohabitation has the strong effects on participation that we hypothesize, then the experience of cohabiting may weaken one's inclination to participate in religious organizations after the cohabitation is terminated.

Yet cohabitation may reduce religious participation only as long as the cohabitation persists. Church members opposed to cohabitation may view it as a temporary state

rather than a permanent personal trait. Further, we suspect that some who oppose cohabitation may adhere to a double standard that considers cohabitation morally more offensive for women than for men. To the extent that this double standard is widespread, cohabitation should have more lasting effects on women's participation than on men's participation.

In summary, we consider three competing hypotheses about the impact on religious participation of a terminated cohabiting relationship that was not ended by marriage: (1) terminated cohabitation has a negative effect on religious participation similar to that of an active cohabitation; (2) a terminated cohabitation has no effect on religious participation; and (3) a terminated cohabitation has a negative effect on the religious participation of women but not of men.

Religion and Family Attitudes and Values

Past research has found substantial positive association between traditional attitudes about family formation and attitudes and life circumstances that promote religious participation as well as religious participation itself. Lesthaeghe and Surkyn (1988) found an association between individuals' statements of how important religion is to them and several family-oriented attitudes. Sweet and Bumpass (1990) found that frequent church attenders are much more likely than are nonattenders to report conservative family attitudes. Alwin (1986) reported a strong association between religious participation and traditional childrearing values among Catholics and Protestants.[3] Thus, we expect that participation in religious organizations is promoted by values that stress the desirability of marriage, childrearing, and family ties.

Age

Age can affect religious participation in several ways. First, simply the passage of time may influence participation in religious orga-

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[3] Ellison and Sherkat (1993) found that Catholics and conservative Protestants value obedience in their children more than do other Americans, yet conservative Protestants also value intellectual autonomy as highly as others do.

nizations, net of other factors (Hout and Greeley 1987). Second, the effect of age may be indirect—it may be related to other changing factors that affect religious participation. For example, 32-year-olds are more likely than 22-year-olds to have children of elementary-school age in their households, and we have argued that the presence of such children increases religious participation. Third, age may interact with other factors, like marriage and parenthood, changing their impacts on religious participation. For example, we have hypothesized that the effect of children on their parents' church membership depends on the ages of children and parents.

More generally, religious participation is often seen as a conventional activity, and age appears to be implicit in notions of traditionalism and conventional behavior. As concerns family formation, traditional behavior (e.g., marriage and childbearing, at typical ages) appears to be normatively prescribed. Thus, "conventional" nuclear families, which Chaves (1991) argued underlie religious participation, are defined in part by the ages of the adults who form them.

Gender

Prior research has shown higher levels of religious participation for women than for men (de Vaus and McAlister 1987; Cornwall 1989; Ellison et al. 1989; Hout and Greeley 1987; Ploch and Hastings 1993). Some factors that affect religious participation may have different consequences for men than for women. Wilson and Sherkat (1994) found that marriage and parenthood increase the odds that men who had disaffiliated from their religion of origin would re-affilliate, while marriage and childbearing were unlikely to bring disaffiliated women back to church. Cohabitation may also have more lasting effects on women's religious participation than on men's participation. Finally, sex differences in the effect of family formation on religious participation may occur because family formation involves different roles for men and women. Even in egalitarian households, a mother's role differs from a father's role, and this may cause motherhood and fatherhood—and other aspects of family formation and dissolution—to have different effects on religious participation.

Religion and Religious Upbringing

Evidence suggests that the probability that adults join a church varies by the religion and religious denomination in which they were raised (Hoge and Roozen 1979; Mueller and Cooper 1986). Being raised without any religious affiliation may be even more important. The "religious capital" that people acquire in childhood provides an incentive for similar activities later in life (Greeley 1989; Iannaccone 1990). We expect that individuals who were raised as members of some religion will be more likely to remain religiously active throughout young adulthood or to rejoin a religious organization when they start their own families than are those who were raised without a religious identity.

Controls for Other Factors

Religious participation is higher in the South than in other regions of the United States and varies inversely with the population density of the place of residence (Roof and McKinney 1987). Therefore, we control for the size of place in which respondents were raised and whether it was in the South. We also control for race, because religious organizations and denominations in the United States tend to be racially segregated. Moreover, different racial groups have distinctive patterns of religiosity and religious participation (Roof and McKinney 1987; Ploch and Hastings 1993). Prior research has found a positive association between years of school completed and religious participation (Hoge and Roozen 1979). School enrollment also tends to delay marriage and childbearing (Goldscheider and Waite 1986; Rindfuss, Morgan, and Swicegood 1988), thereby changing the relationship between age and family formation.[4] Thus, we also control for years of school completed.

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[4] This change is functionally equivalent to replacing age with a linear combination of years of school completed and age. In a model of religious participation in which age and education are entered linearly, the coefficients for age and education reflect these changes.

ANALYTIC STRATEGY

We use panel data on a single cohort of respondents to examine the effects of age, family formation, and other characteristics on religious participation. Religious participation is represented by a dummy variable that equals 1 if the respondent is a church member and 0 otherwise. We fit a probit regression model of church membership at each of three ages that span the period when family formation is most likely to occur, at about ages 22, 25, and 32. By comparing the coefficients obtained at these different ages, we observe how aging changes the impact of personal characteristics on the probability of religious participation. By using regression standardization techniques, we distinguish the effects of age-related changes in means of independent variables from effects of age-related changes in coefficients of these variables. Independent variables in our model include a measure of religious participation at about age 20, so that the coefficients for other variables indicate their effects on changes in church membership since that age.

An appropriate model for this strategy is

$$P_{tj} = \Phi(b_{0t} + Sb_{it}X_{itj} + e_{tj}),$$

where P_{tj} is the probability that person j is a member of a religious organization at year t, X_{itj} is the value of the ith variable that is hypothesized to affect church membership of person j at year t; b_{0t} is a constant term at year t; b_{it} is the coefficient at year t of the ith variable that is hypothesized to affect religious participation; e_{tj} is the residual at year t for person j; Φ is the normal cumulative distribution function (the area under the normal curve).

Data

Our data come from the National Longitudinal Study of the High School Class of 1972 (NLS-72). NLS-72 data were first collected in the spring of 1972 when 19,001 seniors completed lengthy questionnaires. Follow-up surveys were administered in the fall of 1973, 1974, 1976, 1979, and 1986 when respondents were approximately 18, 20, 22, 25, and 32 years old.[5] The NLS-72 provides a

wide range of family background and demographic characteristics for each student. The survey also obtained information about religious participation both at the time of the follow-up and in between survey waves. Attitudes were measured only at the time of the interview. The NLS-72 also provides information on the marital and family status of each respondent at each interview date. The large national sample, which is representative of all young adults enrolled in their senior year of high school, together with rich, longitudinal information make the NLS-72 well suited to this study.

Variables

Religious participation. Our dependent variable, *religious participation*, is a dummy variable indicating whether the respondent was a member of a church at the time of the survey. "Membership" is defined as being "on a mailing or telephone list so that you are kept informed of meetings and events" other than worship services. Those who report that they attend church meetings or events are also included in the "member" category.[6] Our measure of participation focuses

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[5] Follow-up surveys were administered to over 23,000 members of the 1972 graduating class, including most of the seniors who were in the base-year sample. In the spring of 1986 a random subsample of 12,841 of the original seniors was re-interviewed. Missing data reduces the sample size for our analysis to 11,523, 11,613, and 11,453 for 1976, 1979, and 1986 respectively. The sample is described further in Riccobono, Henderson, Burkheimer, Place, and Levinsohn (1981) and Tourangeau et al. (1986).

[6] This variable is derived from responses to the NLS-72 question, "To what extent have you voluntarily participated in . . . church or church-related activities (not counting worship services) [since the last survey year]?" A dummy variable was coded 0 for a response of "not at all," and 1 for a response of "member only" ("you are on a mailing or telephone list so that you are kept informed of meetings and events") and "active participant" ("you attend meetings or events"). We believe that a member of a church probably is included on lists used to inform members of church activities. We felt that the "active participant" response category excluded persons who actively participated in worship services but not nonworship activities. While that exclusion might be useful under some circumstances, in the present analysis it would not be appropriate to

Table 1. Percentage of Respondents who are Religious Participants, by Sex and Age: High School Seniors in 1972

Age	Year of Survey	Female	Male
22	1976	37.2	30.8
25	1979	38.4	32.0
32	1986	46.8	36.8

on the social and organizational aspects of religious activity, in contrast, for example, to Greeley's (1995) work on prayer, a behavior that can be a purely individual activity.[7] The question on religious activity was asked in all survey years except the first (1972). Table 1 indicates that religious activity increases with age, particularly between 1979, when the respondents were about age 25, and 1986, when they were about age 32.

To hold constant religious participation at the end of adolescence, our models include an indicator (*past religious participation*) of church membership in 1974 (at about age 20). This variable was defined the same way as our dependent variable.

Family-oriented values. We include three measures of family-related values. Respondents were asked: "How important is each of the following to you in your life?" about a series of items. *Marriage value* measures the importance of "finding the right person to marry and having a happy family life"; *kid opportunity value* measures the importance of "being able to give my children better opportunities than I've had"; and *family near value* measures the importance of "living

close to parents and relatives." These variables are measured on a scale of (1) not important, (2) somewhat important, and (3) very important. To ensure that we detect the effects of values on religious participation and not the effect of participation on values, each model uses values as measured in the survey year prior to the survey year in which religious activity is measured.

Marriage, cohabitation, and children. Because we define family formation broadly, we include a variety of marital/cohabitational status variables. The following dummy variables are included: *married,* defined as married at time of survey; *cohabiting*, defined as cohabiting at the time of the survey; *disrupted marriage,* defined as divorced or separated at the time of the survey; and *disrupted cohabitation,* defined as cohabited previously but not married, divorced, separated, or cohabiting at the time of the survey. A dummy variable for never-married, never-cohabited status is omitted from the analyses to avoid multicollinearity. Our analyses also include nine variables indicating the number and age at last birthday of the respondent's natural children who were part of the respondent's household at the time of the survey. These nine variables are, respectively, the number of children whose age at last birthday was 0, 1, 2, 3, 4, 5, 6, 7, 8–9, and 10–12. Virtually no sample members, even by 1986, were living with children older than 12 years.[8]

Religion of upbringing. In 1972, respondents were asked "What religion were you brought up in?" Responses were coded with six dummy variables; Protestant, Roman Catholic, other Christian, Jewish, other religion (including Eastern religions), and no response.[9] To avoid multicollinearity, we omit

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define active participation on the basis of nonworship activities but not on the basis of prayer activities. So we combined the "member" codes, making this variable a dichotomy differentiating members and nonmembers.

[7] Our measure of church membership avoids the problem of inflated self-reports of *weekly* church attendance (Hadaway, Marler, and Chaves 1993). Hadaway et al. (1993) suggested that Americans exaggerate their frequency of attendance at Sunday church worship services, but we know of no evidence that they misrepresent their church *membership*. Further, we know of no evidence that exaggeration of frequency of attendance is correlated with any of the independent variables in our analysis.

[8] We repeated all analyses using a measure of presence of children that also included adopted children and stepchildren. Results were identical to those reported here.

[9] "Other Christian" was selected by Christians who did not identify themselves as Protestant or Catholic. The "other religion" response included the clarification: "for example, Eastern religions." The "no response" category, the category for respondents who failed to answer the question, probably consists largely of Protestants and Catholics, as they are by far the largest denominations in the sample. Following a suggestion by Rindfuss (personal communication, November

a dummy variable for the final category, "none." Thus, coefficients for these dummy variables are relative to the effect of having been brought up with no religion at all.[10]

Sex. Sex is a dummy variable, coded 1 for Males and 0 for Females. Because gender differences in marriage patterns and fertility are extensive, and because sex differences in religious behavior are substantial, we began our analyses with models that included interactions between sex and all other independent variables. In preliminary analyses, we estimated models of religious participation separately for women and men, and tested for significant differences between the two sexes in the effects of independent variables. Using likelihood-ratio tests for overall homogeneity of effects for both sexes in the 1976, 1979, and 1986 surveys, we failed to reject the null hypothesis that probit equations were the same for men and women. However, several individual coefficients differed significantly for men and women, and we retained those interaction terms.

Other factors. We included a dummy variable indicating *residence in the South in 1972*, and seven dummy variables representing the size of place in which the respondent resided in 1972.[11] To avoid multicollinearity, we omit the dummy variable for rural residence. *Respondent's education* is measured by years of school completed at the time of the survey. Race is measured with dummy variables for Black and Asian races, per self-identification by the respondent. *Hispanic ethnicity* is measured with a dummy variable coded 1 if the respondent indicated membership in any Hispanic or Latino ethnic group, and 0 otherwise. *Parents' education* is the mean years of school completed by the respondent's parents. If respondents reported schooling for only one parent, then this variable is set to the years of school completed by that parent.

RESULTS

Effects for Variables Other than Age

Table 2 presents results of probit regressions of the probability of religious activity for 1976, 1979, and 1986, when respondents were approximately 22, 25, and 32 years old. Because these coefficients indicate how much the probit of the dependent variable— religious participation (i.e., the inverse normal cumulative distribution function of the probability of religious participation)—is altered by a unit change in the corresponding independent variable, they are not intuitively interpretable. To clarify these effects, we transformed the probit coefficients into probability effects, which represent the effect of a unit change in the independent variable on the probability that an individual participates in a religious organization. These are shown in Table 3. Because the probit model is nonlinear, it is necessary to select a point at which to evaluate effects. Effects shown in Table 3 were evaluated at a 50 percent probability of religious participation.[12]

1993) that teenage Christian respondents often are confused about which denominations are Protestant, we compared the distribution of reported denominations in the self-administered NLS-72 questionnaire to the distribution of reported denominations in the General Social Survey (GSS), an interviewer-administered questionnaire in which interviewer probing would overcome respondent confusion on this issue. Comparing the NLS-72 responses to GSS data, we find similar distributions except that the NLS-72 has a smaller proportion claiming a Protestant background and a larger proportion leaving the question blank. Perhaps some of the NLS-72 respondents who responded "other Christian" would have been coded as "Protestant" in the GSS data set in which "other Christian" was not a category. In any case, errors appear to be small.

[10] Because only about 2 percent of the sample is Jewish, we doubt that our findings can be used to make inferences about this group. We retained the dummy variable for Jewish upbringing because the NLS-72 question about religious participation refers to *church* membership, without reference to synagogue or temple membership. Including the dummy variable for Jewish religion corrects for any differences in interpretation of this question by Jewish respondents.

[11] Size of place dummy variables are as follows: Small town = city or town of less than 50,000 population, not a suburb; Medium city = city of 50,000 to 100,000 population; Medium suburb = suburb of a medium city; Large city = city of 100,000 to 500,000 population; Large suburb = suburb of a large city; Very large city = city over 500,000 population; and Very large suburb = suburb of a very large city.

[12] The effect for X_k is obtained as follows. Without loss of generality, we can ignore sub-

Table 2. Probit Coefficients for Regressions of Religious Participation on Selected Independent Variables, by Year: High School Seniors of 1972

Independent Variable	1976 (Age 22)		1979 (Age 25)		1986 (Age 32)	
	Beta Coefficient	t-Statistic	Beta Coefficient	t-Statistic	Beta Coefficient	t-Statistic
Intercept	−2.268***	−12.38	−2.298***	−13.65	−2.480***	15.34
Black	.199***	4.32	.177***	3.87	.303***	6.61
Hispanic	.073	1.00	−.119	−1.65	−.039	−.55
Asian	.051	.38	.066	.50	−.244	−1.87
Parents' education	−.004	−.59	.004	.66	−.002	−.30
Small town	−.091*	−2.44	−.089*	−2.42	−.103**	−2.86
Medium city	−.131**	−2.72	−.182***	−3.86	−.158****	−3.41
Medium suburb	−.185**	−3.13	−.097	−1.71	−.227***	−4.02
Large city	−.097	−1.88	−.092	−1.82	−.127*	−2.54
Large suburb	−.191***	−3.44	−.164**	−3.02	−.223***	−4.23
Very large city	−.156*	−2.41	−.121	−1.92	−.250***	−4.02
Very large suburb	−.133*	−2.13	−.239***	−3.87	−.191**	−3.23
South	.099***	3.42	.140***	4.95	.130***	4.64
Education	.054***	5.94	.039***	5.33	.056***	8.93
Protestant	.503***	6.55	.583***	7.52	.548***	7.68
Catholic	.249**	3.17	.428***	5.41	.439***	6.03
Other Christian	.498***	6.16	.568***	6.98	.489***	6.48
Jewish	−.086	−.68	.164	1.35	.101	.89
Other religion	.206*	2.31	.078	.89	−.047	−.54
Religion missing	.237**	2.62	.381***	4.24	.428***	5.10
Past religious participation	1.139***	31.24	.850***	23.72	.695***	19.09
Marriage value	.099**	3.24	.176***	5.91	.150***	5.05
Kid opportunity value	.008	.36	.009	.43	.006	.31
Family near value	.087***	4.16	.035	1.73	.099***	4.97
Cohabitating	−.424***	−5.75	−.386***	−5.87	−.391***	−5.07
Married	.098*	2.42	.029	.69	.207***	4.04
Disrupted cohabitation	−.290*	−1.98	−.383***	−3.62	−.315***	−3.86
Disrupted marriage	−.104	−1.40	−.063	−.98	.191**	2.81
Children age < 1	.009	.18	.138***	3.38	.067	1.64
Children age 1	−.006	−.11	.219***	4.67	.083*	2.02
Children age 2	−.135*	−2.03	.158**	3.28	.134**	3.26
Children age 3	−.041	−.57	.188***	3.61	.237***	5.75
Children age 4	.048	.44	.117*	2.05	.252***	6.29
Children age 5	−.184	−.97	.049	.78	.297***	7.29
Children age 6	.730*	2.03	.157*	2.29	.212***	4.93
Children age 7	.000	.00	−.038	−.36	.282***	6.16
Children ages 8–9	.000	−.00	.178	1.17	.227***	6.56
Children ages 10–12	.000	.00	.000	−.00	.058	1.74
Male	−.093*	−2.24	−.254***	−5.30	−.130*	−2.10
Male × Past religious participation	−.072	−1.34	.151**	2.83	−.035	−.66
Male × Married	.067	1.20	.174**	3.13	−.047	−.72
Male × Disrupted cohabitation	−.164	−.62	.119	.70	.355**	2.73
Male × Disrupted marriage	.022	.19	.000	.00	−.441***	−4.31
Number of cases	11,523		11,613		11,453	
Pseudo R	.423		.379		.358	
Log–likelihood	−6101.5		−6498.4		−6816.2	

*p < .05   **p < .01   ***p < .001 (two-tailed t-tests)

Table 3. Percentage-Point Changes from a 50-Percent Probability of Religious Participation Produced by a Unit Change in the Independent Variable, by Sex and Age: High School Seniors of 1972

Independent Variable	Female			Male		
	1976 (Age 22)	1979 (Age 25)	1986 (Age 32)	1976 (Age 22)	1979 (Age 25)	1986 (Age 32)
Black	7.9	7.0	11.9	7.9	7.0	11.9
Hispanic	2.9	−4.7	−1.5	2.9	−4.7	−1.5
Asian	2.0	2.6	−9.6	2.0	2.6	−9.6
Parents' education	−.1	.2	−.1	−.1	.2	−.1
Small town	−3.6	−3.5	−4.1	−3.6	−3.5	−4.1
Medium city	−5.2	−7.2	−6.3	−5.2	−7.2	−6.3
Medium suburb	−7.3	−3.9	−9.0	−7.3	−3.9	−9.0
Large city	−3.9	−3.7	−5.0	−3.9	−3.7	−5.0
Large suburb	−7.6	−6.5	−8.8	−7.6	−6.5	−8.8
Very large city	−6.2	−4.8	−9.9	−6.2	−4.8	−9.9
Very large suburb	−5.3	−9.4	−7.6	−5.3	−9.4	−7.6
South	4.0	5.6	5.2	4.0	5.6	5.2
Education	2.2	1.5	2.2	2.2	1.5	2.2
Protestant	19.3	22.0	20.8	19.3	22.0	20.8
Catholic	9.8	16.6	17.0	9.8	16.6	17.0
Other Christian	19.1	21.5	18.8	19.1	21.5	18.8
Jewish	−3.4	6.5	4.0	−3.4	6.5	4.0
Other religion	8.2	3.1	−1.9	8.2	3.1	−1.9
Religion missing	9.4	14.8	16.6	9.4	14.8	16.6
Past religious participation	37.3	30.2	25.7	35.7	34.2	24.5
Marriage value	3.9	7.0	6.0	3.9	7.0	6.0
Kid opportunity value	.3	.4	.3	.3	.4	.3
Family near value	3.4	1.4	4.0	3.4	1.4	4.0
Cohabiting	−16.4	−15.0	−15.2	−16.4	−15.0	−15.2
Married	3.9	1.2	8.2	6.6	8.1	6.4
Disrupted cohabitation	−11.4	−14.9	−12.3	−17.5	−10.4	1.6
Disrupted marriage	−4.2	−2.5	7.6	−3.3	−2.5	−9.9
Children age < 1	.4	5.5	2.7	.4	5.5	2.7
Children age 1	−.3	8.7	3.3	−.3	8.7	3.3
Children age 2	−5.4	6.3	5.3	−5.4	6.3	5.3
Children age 3	−1.6	7.4	9.4	−1.6	7.4	9.4
Children age 4	1.9	4.7	9.9	1.9	4.7	9.9
Children age 5	−7.3	1.9	11.7	−7.3	1.9	11.7
Children age 6	26.7	6.2	8.4	26.7	6.2	8.4
Children age 7	.0	−1.5	11.1	.0	−1.5	11.1
Children ages 8–9	.0	7.1	9.0	.0	7.1	9.0
Children ages 10–12	.0	.0	2.3	.0	.0	2.3

Note: Male and female effects shown in this table differ only for variables that interact with the sex variable. Effects were evaluated at a 50-percent probability of religious participation.

Marriage

We have argued that marriage increases religious participation because mainstream religious organizations provide married couples with emotional and social support networks. Our models include a dummy variable for "married at the time of the survey" and an interaction between that variable and the dummy variable for sex. In Table 3, five of the six marriage effects show that the chances of belonging to a religious organization are 4 to 8 percentage points higher for married men and women than for those who are not married. Only 25-year-old women show no significant effect of marriage on religious participation, and this anomaly detracts little from the general finding of marriage effects on church membership.

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scripts for year and individual and rewrite our model as follows:

$$P = \Phi\left(b_0 + b_k X_k + \sum_{l=1}^{k-1} b_i X_i\right) = \Phi(\pi),$$

where π is the probit of the probability (that is, $\pi = \Phi^{-1}[P]$). For any probability, π can be calculated conveniently from the inverse normal cumulative distribution function. To measure the change in P, the probability of church membership, that results from increasing X_k by one unit:

$$P' = \Phi\left(b_0 + b_k(X_k + 1) + \sum_{l=1}^{k-1} b_i X_i\right)$$
$$= \Phi\left(b_0 + b_k X_k + b_k + \sum_{l=1}^{k-1} b_i X_i\right)$$
$$= \Phi(\pi + b_k).$$

Then the change in the probability of church membership resulting from unit increase in X_k equals $P' - P = \Phi(\pi + b_k) - P$. When the effects are calculated at $P = .50$, $\pi = 0$ and the effect of a unit change in X_k becomes $\Phi(b_k) - .50$. That is, if we suppose that an individual's characteristics have values such that the individual has a 50-percent probability of being a church member, then the effects in Table 3 show the change in the probability of church membership that would result from a unit change in each variable in our analysis, other things being equal. For example, looking at the variable Black for females in 1976, the effect of a unit change in the variable Black is .079 if it were possible to change her race from White to Black, and if a woman had a 50-percent probability of church membership in 1976, then that change in race would raise her probability of church membership by 7.9 percentage points. To be sure that our conclusions were not overly sen-

Nontraditional Family Experiences

Cohabitation and disrupted cohabitation.
We have argued that cohabitation flouts religious doctrine and reduces the probability of religious participation. Tables 2 and 3 show that for men and women, cohabitation has a strong, negative effect on the probability of religious activity in all three survey years. For young adults with a 50-percent probability of church membership, a change from single status to cohabitation lowers the chance of church membership by about 15 percentage points to about 35 percent. Thus, cohabitation reduces church membership much more than marriage increases it.

We considered three possible effects on religious participation of the dissolution of a cohabitational relationship and a return to single status: no effect; the effect persists after dissolution; and the effect persists for women but vanishes for men. For women in all three survey years, the effect of a disrupted cohabitation on religious participation is strongly negative. For men, the effect of a disrupted cohabitation is strong at age 22 (–17.5 percent) and at age 25 (–10.4 percent), but trivial at age 32 (1.6 percent). This is an example of strong age and sex differences in the impact of a family experience on religious participation.

Divorce and separation.
We reasoned that marital disruption is generally more damaging to men's religious participation than it is to women's because women tend to have more social capital invested in religious organizations than do men and therefore have more to lose by leaving these organizations. Tables 2 and 3 show no significant effect of marital disruption on the religious participation of 22- and 25-year-old men or women. But for 32-year-olds, effects are substantial

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sitive to our choice of the 50-percent probability for evaluating effects, we also evaluated effects when all independent variables are at their means for women and men separately. We also calculated partial derivatives of the probability of church membership with respect to each independent variable, which we also evaluated at the means of the independent variables for women and, at the means of the independent variables for men in each survey year. We found that our substantive conclusions were unaffected by the method of evaluating effects.

and differ dramatically for males and females. For 32-year-old men, a marital disruption reduces the probability of religious participation by about 10 percentage points, but for 32-year-old women, marital disruption *increases* religious participation by about 8 percentage points. In short, the effect of marriage on women's relgous participation appears to outlast the marriage itself—a failed marriage increases religious participation as much as does a continuing marriage. For men, the dissolution of a marriage lowers the probability of religious participation below that expected of a never-married man, other things equal. These results contrast sharply with the findings for disrupted cohabitation: Other things equal, 32-year-old men who have cohabited and dissolved that relationship return to their former (higher) level of religious participation, whereas 32-year-old men who were married and dissolved that relationship show lower chances of church membership than they did before or during their marriages.[13]

Parenthood

According to the Family Life Course model as we elaborate it, parenthood increases church membership because parents seek religious instruction for their children. We reasoned that churches provide this instruction most effectively when the children are of primary-school age and where the children's and parents' ages are typical. Thus, the positive effect of children on the probability of church membership should be largest under these conditions. Table 4 indicates which

Table 4. **Mean Number of Children by Age of Respondent and Age of Child: High School Seniors of 1972**

Age of Child	Age of Parent (Respondent)		
	22	25	32
Less than 6	.23	.42	.63
6–12	.00	.06	.45
All ages	.23	.47	1.07

combinations of children's and parents' ages occur most frequently. For example, children over 5 are rare when parents are 22, unusual when parents are 27, and common when parents are 32. So we expect to find that the effect of children on church membership is greatest for children between the ages of 6 and 12 whose parents are 32 years old.

Figure 1 plots the effect (percentage-point change from 50-percent) of children on parent religious participation by age of child for 25- and 32-year-old respondents. Curves were fitted using Cleveland's (1979) robust locally weighted regression method.

At age 32, effects are consistent with the Family Life Cycle model: Children increase the probability of parents' religious participation. The effect is about 3 percentage points *per child* when children are less than 1 year old, and rises monotonically with child's age up to the age of 5 when the effect is about 11 percentage points per child. That effect begins falling for 8- and 9-year-old children and drops precipitously for children 10 to 12 years old. For 32-year-olds whose other characteristics give them a 50-percent probability of being church members, the addition of two children, one age 5 and the other age 7, increases the probability of church membership to about 72 percent![14]

The effects of children are lower for 25-year-olds than for 32-year-old respondents (except for those with children less than 3 years of age). Of course, few 25-year-olds

[13] In analyses not reported here, we also tested the hypothesis that these sex differences occur because divorced or separated women are more likely to live with their children than are divorced men. We defined a dummy variable for presence of children and included in our models an interaction between that variable and the indicator for currently divorced. We found that the chance of religious participation for divorced or separated women living with children resembles that for married mothers and married fathers. Only 58 men in our sample were divorced and living with children. Although the small number of cases makes results only suggestive, these men have a lower chance of religious participation than do single men or divorced or separated men not living with children.

[14] This effect is obtained by the method described earlier for finding the effect of a unit change in an independent variable. To find the effect of a unit change in two variables, their coefficients are summed before calculating the effect measure.
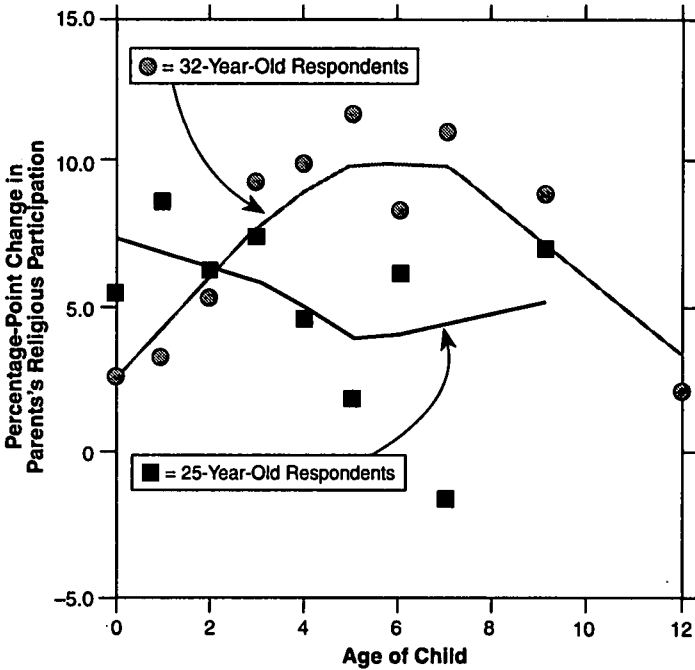
Figure 1. Percentage-Point Change in Parents' Religious Participation by Age of Child, for Respondents Ages 25 and 32: High School Seniors of 1972

have children older than age 2 or 3, and those who do had those children when the parents were very young.

When respondents are 22 years old, the presence of children has a significant effect on the probability of religious participation only for children ages 2 and 6 (Table 2). Although the effect of 6-year-old children is strong and positive, it should be ignored because it is based on 13 children in the sample who were born when their mothers were about 16 years old. The impact of 2-year-olds on the religious participation of 22-year-old parents is significant and *negative*, but is part of no discernible pattern.

These different results for respondents at ages 22, 25, and 32 are consistent with our argument that the impact of children on their parents' religious participation is strongest when the ages of parents and children are "conventional." The pattern of strong effects for older respondents is consistent with the data in Table 4 showing that 32-year-old respondents are much more likely than those at ages 22 or 25 to have children over the age of 1, and that at age 25 respondents are much more likely than at age 22 to have children

of any age. Thus, our results support the Family Life Cycle model as we have modified it.

Family-Oriented Values

We expect family-oriented values to have positive effects on the probability of church membership. Table 2 shows positive effects for marriage value and family near value. These values were measured on a three-point scale, and Table 3 shows that a one-point change on marriage value, say, from "not important" to "somewhat important," increases the chance of participation by 4 to 7 percentage points. A 2-point change from "not important" to "very important" increases chance of participation by about 8 to 14 percentage points.[15] We see the same pattern for family near value, although the effects are

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[15] This effect is obtained by the method described in footnote 12 for calculating the effect of a unit change in an independent variable. To calculate the effect of a two-unit change in an independent variable, the coefficient is doubled before calculating its effect.

somewhat smaller and the effect at age 25 is indistinguishable from 0. Taken together, these results suggest that family values can have strong effects on religious participation: A 2-point change from "not important" to "very important" on *both* marriage value and family near value would produce increases the probability of religious participation by 14 percentage points for respondents at age 22, 17 points at age 25, and 19 percentage points at age 32.[16] In short, our results suggest substantial effects of family values on religious participation, even after holding constant the effects of family formation behaviors like marriage, divorce, cohabitation, and childbearing.

Sex Differences

Most research on religious activity has suggested higher levels of religious participation for women than for men. Tables 2 and 3 confirm this: At all three ages, men are less likely than women to be church members, and the sex effect persists when other variables in our model are held constant. But our results indicate that the situation is more complex than this. For 32-year-olds, the participation of formerly cohabiting men is the same as that of never-married, never-cohabiting men. In contrast, formerly cohabiting women of all ages retain the low participation levels of current cohabitors. Formerly married women's participation at age 32 remains as high as currently married women's.[17]

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[16] To calculate the effect of a two-unit change in two variables, the sum of two coefficients is doubled before calculating their effect. The importance that individuals place on giving children better opportunities than the parents had shows no relationship to religious participation at ages 22, 25, or 32. We suspect this is because the variable measures aspirations for upward social mobility as well as a high valuation of family life. We know of no theory that would suggest an effect of mobility aspirations on church membership.

[17] Note, however, that we see such differences in only one survey year, 1979 in the case of marriage and 1986 in the case of marital disruption. Another difference between men and women appears at age 25. The effect of past religious participation is 34 percentage points for men and 30 points for women.

Effects of Age

Because we fit the same model to respondents at three different ages, our analyses permit age to affect religious participation as (1) a simple additive effect (which would appear as differences in the constant term in the three age-specific analyses), (2) a consequence of age differences in the means of the independent variables, (3) a result of age differences in the coefficients of the independent variables, and (4) a combination of the effects of age differences in means and coefficients.

To elucidate these different effects without getting lost in a morass of coefficients and means, we perform a series of standardizations (sometimes called simulations) that are reported in Table 5. For each sex, we present two sets of standardization. The set, labeled "with children," applies the observed means for independent variables at ages 22, 25, and 32 to the coefficients calculated for each age, which yields nine separate standardized percentages for each sex. Standardized percentages for the set labeled "no children" use observed means for all variables except the age-of-children measures, which are all set to 0 to simulate childlessness. Each cell in Table 5 reports the result of a different standardization.

Results for women. Table 5 shows that as women age from 22 to 32, they not only acquire characteristics that increase their probability of religious participation, but their responses to these characteristics also change in ways that would increase their probability of participation even if their characteristics did not change at all. For each row of the "with children" panel, the standardized probability of religious participation increases montonically with age, indicating that changes in respondent characteristics from age 22 to age 32 would have raised the mean probability of religious participation even if the effects (i.e., coefficients) of those characteristics had remained constant. Furthermore, in each column the standardized probability of religious participation increases with age, indicating that the mean probability of religious participation would have increased even if the respondents' characteristics did not change from age 22 to 32. Finally, the largest increases

Table 5. Standardized Probabilities (Percentages) of Religious Participation by Sex, Age, and Presence of Children: High School Seniors of 1972

Sex and Age of Respondent	With Children			No Children		
	Means at Age 22	Means at Age 25	Means at Age 32	Means at Age 22	Means at Age 25	Means at Age 32
Female						
Coefficients at age 22	34.6	36.4	38.5	34.9	35.8	37.0
Coefficients at age 25	35.9	37.4	39.7	34.1	34.4	34.8
Coefficients at age 32	36.6	40.7	46.9	35.1	37.0	38.8
Male						
Coefficients at age 22	27.8	29.7	32.4	27.9	29.7	31.5
Coefficients at age 25	26.9	29.7	34.2	26.1	27.9	29.8
Coefficients at age 32	26.0	29.1	35.8	25.4	27.2	29.3

appear when *both* means and coefficients change, indicating that changing characteristics interact with the changing effects of those characteristics.

Results in the "no children" panel indicate that the simulation of childlessness sharply attenuates increases in church membership rates from ages 22 to 32. Thus, much of the increase in women's church membership in this period is a result of increases in both the number of children and the effect of children on religious participation.

Results for men. For each row of the "with children" standardization, results for men resemble those found for women: Changes in the means of the independent variables from age 22 to age 32 produce monotonic increases in the probability of religious participation. Furthermore, each column reveals the effects of changes in coefficients and these effects are small or negligible except when means of 32-year-olds are used. Thus, it is the changing characteristics of men rather than their changing responses to characteristics that drives changes in church membership between ages 22 and 32.

The "no children" results for men show that simulating childlessness removes nearly all age-related change in religious participation. Indeed, each column reveals that, in the absence of children, age-related changes in men's characteristics make them *less* likely to participate in religious organizations as they grow older. Reading across the rows suggests that age-related changes in the coefficients of these characteristics

make childless men only slightly less likely to participate in religious organizations as they grow older. And reading diagonally shows that in the absence of children, combining coefficients of variables and means from the same year nearly eliminates age-related changes in church membership, with estimated probabilities of 27.9 percent at ages 22 and 25, and 29.3 percent at age 32. Thus, for men too, much of the change in religious participation from age 22 to age 32 appears to be a consequence of the presence of children.

Religious upbringing. Scholars have argued that the "religious capital" acquired through religious participation in childhood provides an incentive for similar activities later in life (Greeley 1989; Iannaccone 1990). Consistent with this perspective, we find positive effects, statistically significant at virtually any probability level, of past religious participation (at age 20) on later church membership (Table 2). (The statistically significant sex difference in these effects at age 25 [shown in Table 3] do not suggest any substantively meaningful sex difference in this pattern.) However, the influence of religious participation at age 20 on the probability of later participation declines markedly with age: The effect on the probability of participation at age 32 is nearly two-thirds the effect at age 22. Thus, the effect of early behavior weakens as time passes, and intervening events and attitudes have a substantial impact on the probability of participation.

Background Characteristics

Background variables were measured in 1972, the first survey year (except respondent's education, which is measured in each survey year), yet their influence persists over time. Again, these coefficients indicate the probability of religious participation at each age net of respondents' 1974 levels of religious activity. Blacks' probability of religious participation is 8 to 12 percentage points higher than whites', depending on survey year (Table 3). The participation of Hispanics and Asians is indistinguishable from that of white non-Hispanics, all else equal. Parents' education does not directly affect the probability of religious participation, but respondent's education has a significant positive effect—each additional year of school increases the chance of participating by about 2 percentage points. Consistent with previous findings, individuals raised in rural areas are more likely to be members of religious organizations than are those raised in towns, cities, or suburbs.

Compared to persons raised with no religious affiliation, all Christians and those who did not answer the religion-of-origin question are substantially more likely to be church members than are those who were raised with no religion. The effect for "religion missing" resembles that of Catholic, consistent with our speculation that those who did not answer the question on religious origins were raised as Christians. Jewish origin has no significant effect. In results not presented here we also examined the interaction of the religious denomination variables with race and ethnicity to test the hypothesis that racially segregated religious denominations have different effects on the religious participation of Blacks and Whites. We found no significant interactions between denomination and race or ethnicity.

DISCUSSION AND CONCLUSIONS

Church membership is important for social integration and individual well-being. For the American family, church membership often provides institutional, moral, and social support, particularly for young adults facing the demands of launching a marriage and rearing children. Religious participation helps create a coherent interpretive framework with which individuals make sense of daily life (Berger 1976). Religious organizations are also sources of the weak ties that contribute to social cohesion in modern societies.

Much research has found that from the end of adolescence until midlife or beyond, church membership or participation in church activities increases with age. Some researchers attribute this pattern to age itself, perhaps as a consequence of age-related personality changes. In contrast, advocates of the Family Life Cycle hypothesis suggest that age is simply a correlate of the true causes of these changes, which are the family life cycle behaviors of marriage, childbearing, and childrearing (Chaves 1991). Our analyses were designed to distinguish age effects from the impact of family formation, and to show how they relate to each other and to religious participation at age 20.

First, our results suggest that an aging hypothesis and the Family Life Cycle hypothesis are not incompatible. We find that age effects are an integral part of family formation effects, and vice versa. For example, we find strong interactions between age and the effect of children on religious participation. We conjecture that the impact of children on their parents' religious participation is stronger when the combination of parent's and children's ages is "conventional." For example, 32-year-old parents are much more likely than 22-year-old parents to have a 5-year-old child. And we find that the presence of a 5-year-old child has less effect on the probability of church membership for 22-year-old parents than it does for 32-year-old parents. We think that this interaction between parent's ages and child's age occurs because churches deliver many of their benefits to members through informal interpersonal networks. These networks tend to form along lines defined by combinations of age, marital status, and fertility, and the networks are apt to be most dense among persons whose age, marital status and fertility follow conventional patterns. For example, churches often organize social groups for "young marrieds," "young singles," adolescents, and elderly persons. Other researchers have pointed to the importance of the timing of transitions for their meaning to the individual (Rindfuss

et al. 1987), and to the links between the lives of parents and children (Elder 1985). Our research points to another situation where this is so.

As young men and women develop to maturity, they age and their characteristics change—they marry, become parents, divorce, or live with someone. In addition, their responses to these events may also change with age. Our analyses permit us to separate the effects of changing life circumstances from the effects of changing responses to these life circumstances in determining changes in religious participation from about age 22 to about age 32. For women, and to a lesser extent for men, our results show a large, positive, and orderly effect of age on religious participation. For women, religious participation rates would increase solely as a result of changes in life circumstances, even if their responses to these changes did not change. Religious participation rates would also increase over these ages solely as a result of changing responses to life circumstances, even if these circumstances themselves did not change. The combination of changes in life circumstances and changes in responses to them produces large increases in religious participation rates from age 22 to age 32. For men, changes in circumstances have greater impact than do changes in responses to circumstances.

Our results also show that many of these age patterns depend on the presence of children. The association between age and religious participation weakens dramatically for those who remain childless. Thus, age-related increases in religious participation are inextricably tied up with changes in the life circumstances of men and women and the impact that these life circumstances have on participation.

One interpretation of our findings is that there is a "conventional family" effect on church participation. The most common parent-child combinations have the highest participation rates because churches best serve conventional families. This interpretation suggests that conventional families are the social basis for organized religion (Chaves 1991).

Our analyses also suggest that there is much to be gained by expanding the Family Life Cycle model to include nontraditional family life cycle stages like cohabitation, divorce, separation, and termination of a cohabitational relationship. These stages may be difficult to arrange into a canonical progression, but they are commonplaces of contemporary life and cannot be ignored.

Cohabitation is anathema to formal Christian doctrines, and we find that it substantially lowers the probability of church membership. Cohabitation effects do not vary much by age or sex, but disruption of a cohabitational relationship has different effects for men and for women. Moreover, these differences change as respondents age, and are much greater than expected on the basis of previous studies. At age 32, unmarried men seem to shed the effect of a former cohabitation completely, while unmarried women of the same age seem to retain the effects of the cohabitation after the union has ended. Effects of divorce are also strikingly different for men and women. Divorce increases the probability of religious participation for 32-year-old women, while decreasing it for 32-year-old men. In short, intimate relationships continue to affect women's behavior even after the relationships end, while men shed the effects of their disrupted relationships more easily. Further research with richer data would be required to fully understand the reasons for these sex differences.

One of our most striking findings is that attitudes toward the family have strong effects on the probability of religious participation among young adults. For three reasons, we think that our measures of family attitudes are biased *against* this finding. First, our family attitude measures precede our observations of religious participation by as much as seven years. Attitudes change over time, and old attitudes tend to have a weaker relationship to current behavior than do current attitudes (McGuire 1985). Second, our analyses measure the effects of family attitudes net of actual family formation behavior, behavior that probably is one mechanism through which family attitudes affect religious participation. Finally, our family attitude variables are evaluative research attitude measures, which are the least likely type of attitude to show empirical relationships with behavior; they tell us what people think is good rather than what they are prone to do

(Ajzen and Fishbein 1980; Stolzenberg 1994). With all these reasons to show no effect, we think it is remarkable that attitudes toward the family show such large effects on the probability of religious participation. Future research on religious behavior would benefit from a renewed focus on the effects of attitudes, along with attention to the intermingling of age and family life cycle effects. The family life cycle concept should expand to include the diverse and often chaotic forms that modern family life assumes.

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REFERENCES

Ajzen, Icek and Martin Fishbein. 1980. *Understanding Attitudes and Predicting Social Behavior.* Englewood Cliffs, NJ: Prentice-Hall.

Aldous, Joan. 1983. "Problematic Elements in the Relationship Between Churches and Families." Pp. 67–80 in *Families and Religions: Conflict and Change in Modern Society.* Beverly Hills, CA: Sage Publications.

Alwin, Duane. 1986. "Religion and Parental Child Bearing Orientations: Evidence of a Catholic-Protestant Convergence." *American Journal of Sociology* 92:412–40.

Bahr, Howard M. 1970. "Aging and Religious Disaffiliation." *Social Forces* 49:59–71.

Berger, Peter. 1976. *The Sacred Canopy.* New York: Anchor.

Bumpass, Larry, R. Kelly Raley, and James A. Sweet. 1993. "The Changing Character of Stepfamilies: Implications of Cohabitation and Nonmarital Childbearing." Paper presented at the RAND Conference on Reshaping the Family, January 21–21, Santa Monica, CA.

Caplow, Theodore, Howard M. Bahr, and Bruce A. Chadwick. 1983. *All Faithful People: Change and Continuity in Middletown's Religion.* Minneapolis, MN: University of Minnesota Press.

Carroll, Jackson W. and David A. Roozen. 1975. *Religious Participation in American Society: An Analysis of Social and Religious Trends and Their Interaction.* Hartford, CT: Hartford Seminary Foundation.

Chaves, Mark. 1991. "Family Structure and Protestant Church Attendance: The Sociological Basis of Cohort and Age Effects." *Journal for the Scientific Study of Religion* 39:329–40.

Cleveland, W. S. 1979. "Robust Locally Weighted Regression and Smoothing Scatterplots." *Journal of the American Statistical Association* 74:829–36.

Cornwall, Marie. 1989. "The Determinants of Religious Behavior: A Theoretical Model and Empirical Test." *Social Forces* 68:572–92.

D'Antonio, William V. 1983. "Family Life, Religion, and Societal Values and Structures." Pp. 81–107 in *Families and Religions: Conflict and Change in Modern Society.* Beverly Hills, CA: Sage Publications.

———. 1985. "The American Catholic Family: Signs of Cohesion and Polarization." *Journal of Marriage and the Family* 47:395–405.

de Vaus, David and Ian McAlister. 1987. "Gender Differences in Religion: A Test of the Structural Location Theory." *American Sociological Review* 52:472–81.

Elder, Glen H., Jr. 1985. "Perspectives on the Life Course." Pp. 23–49 in *Life Course Dynamics: Trajectories and Transitions, 1968–1980,* edited by G. H. Elder, Jr. Ithaca: Cornell University Press.

Ellison, Christopher G. 1991. "Religious Involvement and Subjective Well-Being." *Journal of Health and Social Behavior* 32:80–99.

———. 1994. "Religion, the Life Stress Paradigm, and the Study of Depression." Pp. 78–121 in *Religion in Aging and Health: Theoretical Foundations and Methodological Frontiers,* edited by J. S. Levin. Newbury Park, CA: Sage Publications.

Ellison, Christopher G., David A. Gay, and Thomas A. Glass. 1989. "Does Religious Commit-

ment Contribute to Individual LIfe Satisfaction?" *Social Forces* 68:100–23.

Ellison, Christopher G. and Darren E. Sherkat. 1993. "Obedience and Autonomy: Religion and Parental Values Reconsidered." *Journal for the Scientific Study of Religion* 32:313–29.

Firebaugh, Glenn and Brian Harley. 1991. "Trends in U.S. Church Attendance: Secularization and Revival, or Merely Life-Cycle Effects." *Journal for the Scientific Study of Religion* 39:329–40.

Goldscheider, Frances K. and Linda J. Waite. 1986. "Sex Differences in Entry into Marriage." *American Journal of Sociology* 92:91–109.

———. 1991. *New Families, No Families? The Transformation of the American Home.* Berkeley, CA: University of California Press.

Greeley, Andrew. 1989. *Religious Change in America.* Cambridge, MA: Harvard University Press.

———. 1995. "The Pragmatics of Prayer." Pp. 157–78 in *Religion as Poetry.* New Brunswick, NJ: Transaction.

Hadaway, C. Kirk, Penny Long Marler, and Mark Chaves. 1993. "What the Polls Don't Show: A Closer Look at U.S. Church Attendance." *American Sociological Review* 58:741–52.

Hoge, Dean R. and David A. Roozen. 1979. "Research on Factors Influencing Church Commitment." Pp. 43–68 in *Understanding Church Growth And Decline 1950–1978,* edited by D. R. Hoge and D. A. Roozen. New York: The Pilgrim Press.

Hout, Michael and Andrew Greeley. 1987. "The Center Doesn't Hold: Church Attendance in the United States, 1940–1984." *American Sociological Review* 52:325–45.

Iannaccone, Laurence R. 1990. "Religious Practice: A Human Capital Approach." *Journal for the Scientific Study of Religion* 29:297–314.

Lesthaeghe, Ron and Johan Surkyn. 1988. "Cultural Dynamics and Economic Theories of Fertility Change." *Population and Development Review* 14:1–46.

Levin, Jeffrey S. 1994. "Investigating the Epidemiologic Effects of Religious Experience: Findings, Explanations, and Barriers." Pp. 3–17 in *Religion in Aging and Health: Theoretical Foundations and Methodological Frontiers,* edited by J. S. Levin. Newbury Park, CA: Sage Publications.

McIntosh, William Alex and Jon P. Alston. 1982. "Lenski Revisited: The Linkage Role of Religion in Primary and Secondary Groups." *American Journal of Sociology* 87:852–82.

McGuire, W.J. 1985 "Attitudes and Attitude Change" pp. 223–346 in *Handbook of Social Psychology,* vol. 2, 3d ed., edited by G. Lindzey and E. Aronson. New York: Random House.

Mueller, Daniel P. and Philip W. Cooper. 1986. "Religious Interest and Involvement of Young Adults: A Research Note." *Review of Religious Research* 27:245–54.

Petersen, Larry R. and Anita Roy. 1985. "Religiosity, Anxiety, and Meaning and Purpose: Religion's Consequences of Psychological Well-Being." *Review of Religious Research* 27:49–62.

Ploch, Donald R. and Donald W. Hastings. 1993. "Graphic Presentations of Church Attendance Using General Social Survey Data" (Working Paper). University of Tennessee, Knoxville, TN.

Pollner, Melvin. 1989. "Divine Relations, Social Relations, and Well–Being." *Journal of Health and Social Behavior* 30:92–104.

Riccobono, John, Louise Henderson, Graham Burkheimer, Carol Place, and Jay Levinsohn. 1981. *National Longitudinal Study: Base Year (1972) through Fourth Follow-Up (1979) Data File Users Manual.* Vols. 1, 2, and 3. Washington, DC: National Center for Education Statistics.

Rindfuss, Ronald R. 1991. "The Young Adult Years: Diversity, Structural Change, and Fertility." *Demography* 28:493–512.

Rindfuss, Ronald R., S. Philip Morgan, and C. Gray Swicegood. 1988. *First Births in America: Changes in the Timing of Parenthood.* Berkeley, CA: University of California Press.

Rindfuss, Ronald R., C. Gray Swicegood, and Rachel A. Rosenfeld. 1987. "Disorder in the Life Course: How Common and Does It Matter?" *American Sociological Review* 52:785–801.

Roof, Wade Clark and Dean R. Hoge. 1980. "Church Involvement in America: Social Factors Affecting Membership and Participation." *Review of Religious Research* 21(supp.):405–26.

Roof, Wade Clark and William McKinney. 1987. *American Mainline Religion: Its Changing Shape and Future.* New Brunswick, NJ: Rutgers University Press.

Roozen, David A., William McKinney and Wayne Thompson. 1990. "The Big Chill Generation Warms to Worship." *Review of Religious Research* 31:314–22.

Sherkat, Darren E. and John Wilson. Forthcoming. "Preferences, Constraints, and Choices in Religious Markets: An Examination of Religious Switching and Aposasy." *Social Forces.*

Stolzenberg, Ross M. 1994. "Educational Continuation by College Graduates." *American Journal of Sociology* 99:1042–77.

Sweet, James A. and Larry L. Bumpass. 1990. "Religious Differentials in Marriage Behavior

and Attitudes" (Working Paper No. 15). Center for Demography and Ecology, University of Wisconsin, Madison, WI.

Taylor, Robert Joseph and Linda M. Chatters. 1988. "Church Members as a Source of Informal Social Support." *Review of Religious Research* 30:193–203.

Thornton, Arland. 1985. "Reciprocal Influences of Family and Religion in a Changing World." *Journal of Marriage and the Family* 47:381–94.

Thornton, Arland, William G. Axinn, and Daniel H. Hill. 1992. "Reciprocal Effects of Religiosity, Cohabitation and Marriage." *American Journal of Sociology* 98:628–51.

Tourangeau, Roger, Penny Sebring, Barbara Campbell, Martin Glusberg, Bruce Spencer, and Melody Singleton. 1986. *National Longitudinal Study: Fifth Follow Up (1986) Data File User's Manual.* Vols. 1 and 2. Washington, DC: Center for Education Statistics, U.S. Department of Education.

Wilson, John and Darren E. Sherkat. 1991. "Returning to the Fold." *Journal for the Scientific Study of Religion* 33:148–61.

Witter, Robert A., William A. Stock, Morris A. Okun, and Marilyn J. Haring. 1985. "Religion and Subjective Well-Being in Adulthood: A Quantitative Synthesis." *Review of Religious Research* 26:332–42.