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The Demographic Imperative in Religious Change in the United States[1]

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Abstract

Contemporary American Protestants are less likely to belong to "mainline" denominations and more likely to belong to "conservative" ones than they used to be. Evidence from the General Social Survey indicates that the factor that most of the literature on religious change has focused on – the rate at which persons raised in mainline denominations are converting to the conservative denominations – has played no role in the restructuring. It has not increased in recent years or among recent cohorts. Higher fertility and earlier childbearing among women from conservative denominations explains 76 percent of the observed trend for cohorts born between 1903 and 1973. Quite simply the conservative denominations have grown because an increasing share of Protestant children have been raised in the conservative tradition. Further analysis shows that mainline decline would have slowed in recent cohorts, but a drop-off in conversions from conservative to mainline denominations prolonged the decline. A recent rise in the tendency to give up organized religion (greater among persons raised in a mainline denomination) added a few percentage points to mainline decline.

INTRODUCTION

The decline of the "mainline" religious denominations and concomitant growth of more conservative denominations and sects has been among the major American religious trends of the past sixty years or so. The mainline denominations – principally the Methodist, Lutheran, Presbyterian, and Episcopalian churches – attracted over 60 percent of Protestants in the 1950s and were a majority among Protestants as recently as 1972. In the 1990s, only about 40 percent of American Protestants were affiliated with mainline churches (Wuthnow 1988; Woodbury and Smith 1998). The conservative denominations – including the Southern Baptist Convention, the Assemblies of God, the Pentecostal and Holiness churches, and some rather small sects – comprise the remainder of Protestants who are not in the mainline denominations. They have grown both in absolute numbers and as a share of the Protestant population over this time, so the redistribution of Protestants is as much a story about how these denominations are growing as it is about how the mainline is declining. Even though the fraction of American adults who identify themselves as Protestant has decreased from 63 percent in the early 1970s to 54 percent in the late 1990s, population growth has offset the decrease enough that the total number of Protestants increased over time.

Social scientists, religious scholars, and journalists have offered several explanations of this major trend. Nearly everyone who has addressed the subject – Hadden (1969), Kelley (1972) Hunter (1987), Wuthnow (1989), Neuhaus (1992), and Reeves (1998) – has begun with what must seem like a common sense question: why would mainline Protestants be leaving their congregations and switching to others in conservative denominations? Their explanations take many forms, but all

discuss the propensity to switch from a mainline denomination to a conservative one as if it is the prime or only change contributing to mainline decline.[2]

Direct conversion from mainline to conservative denominations is but one of five possible ways that the proportion of Protestants in mainline denominations could decline over time. The other four possible sources of mainline decline are: (1) natural increase (perhaps conservative women have more children than mainline women), (2) switching from conservative to mainline denominations (perhaps conservatives switch to mainline denominations less often than they used to), (3) apostasy (perhaps persons from mainline denominations are leaving Protestantism faster than conservatives are), or (4) inflow (perhaps the number of people from outside Protestantism who join conservative denominations exceeds the number joining mainline denominations).[3] The more differential natural increase, decreasing switching from conservative to mainline denominations, or apostasy among mainline Protestants contribute to religious change, the less relevant the leading explanations are for understanding the causes of this historic realignment. Demographic tools allow us to assess the contribution of each potential source of change to observed trends. As we go about applying them, our task is not to adjudicate among the leading explanations but to assess the relevance of any of them. To date, only two studies seriously consider the alternatives to mainline-to-conservative conversion, and they disagree with one another.[4]

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[2]The leading explanations differ in approach, emphasis, and what they specify as the cause of mainline decline and conservative growth, but they all focus on switching from mainline to conservative denominations as the dynamic producing denominational change.

[3]Observing that one is occurring does not rule out the prospect that the others are happening, too. The analytic task of this paper is to assess the relative contribution of each possible source (including mainline-to-conservative switching) to the observed trend.

[4]Roof and McKinney (1987) share our emphasis on the demographic sources of change; Hoge, Johnson, and Luidens (1994) emphasize greater apostasy among those with mainline origins.

We will show that an advantage in the rate of natural increase – a combination of higher birth rates and earlier childbearing among conservative women -- explains over three-fourths of the observed change in Protestants' denominational affiliations for cohorts born between 1900 and 1970. Most of the rest of the observed change is due to falling rates of switching from conservative to mainline denominations; differential apostasy plays a small but significant role. Remarkably, switching from mainline to conservative denominations -- the focus of the leading explanations – explains *none* of the decline of mainline denominations (because it has not increased over the past 50 years or so).

THE DEMOGRAPHIC IMPERATIVE

The demographic imperative states that, in a population made up of two groups, the one with the higher rate of natural increase will increase its share of the total at the expense of the group with the lower rate of natural increase, all else being equal (e.g., Coale 1972; Kennedy 1973; Preston 1984). When applied to the Protestant population, the demographic imperative implies that, over time, the conservative denominations will gain (if it turns out that they have higher fertility), even if no one switches from one kind of Protestant denomination to the other. The "all else being equal" stipulation means that denominations with higher fertility will gain unless their natural advantage is offset by switching to low fertility denominations or by more exits from Protestantism on the part of people raised in high-fertility denominations. There is no evidence in the literature or in the data to be presented in this paper that either of these offsetting possibilities has been significant in the case of conservative and mainline Protestants.[5] So it seems very reasonable to apply the demographic imperative to understanding mainline decline (and the complementary increase of conservative

[5]Indeed, to the extent to which the question has come up before, the supposition is that all three factors – natural increase, conversion, and apostasy – all work to the advantage of conservative denominations.

denominations) if it can be demonstrated that conservative denominations do in fact have the higher rate of natural increase.

Is there any reason to expect more natural increase within the conservative denominations than in the mainline denominations? The demographic literature rarely if ever mentioned the subject prior to 1987. Studies comparing Protestants and Catholics are common and some studies of single denominations exist, but our search failed to turn up earlier studies that compare the fertility of Protestant denominations. The history of family planning and birth control advocacy suggests that there might be higher fertility among women in conservative denominations. Women and clergy from mainline Protestant denominations were prominent in the movements to promote family planning and repeal bans on birth control devices in the United States; conservative Protestants and Catholics opposed it (Campbell 1960). Extrapolating from the actions of public figures to the private choices of millions of people is fraught with uncertainty, but if the two are commensurate, it would imply that mainline Protestant women adopted birth control and family limitation practices sooner than other Protestant women did.

Westoff and Ryder (1977) and other classic sources contain information about the gap between Protestants (taken altogether) and Catholics but no details about Protestant denominations. Roof and McKinney (1987, p. 161) provide the first relevant evidence. They show that for white women born before 1935 the cohort fertility of conservative Protestant women was 17 percent higher than that of women from moderate denominations and 37 percent higher than that of women from liberal denominations.[6] Mosher, Williams, and Johnson (1992) report more recent data for Fundamentalist Protestant women 15-44 years old in the 1980s; they show a difference of one-fifth

[6]Our study builds on theirs in that we share the same data source – the General Social Survey. By the time we undertook this work 14 more years of data had accumulated.

child between the total fertility rate for these women from conservative denominations and that for other Protestant women. The difference between Roof and McKinney's estimate and that of Mosher et al. suggests that the difference might be waning. Our task is to extend the time series back in time as far as the GSS can take us and to make reasonable estimates of what the difference between women from conservative and mainline denominations might have been in earlier cohorts.

We present the details below, but we will show that, among cohorts born early in the twentieth century, women from conservative denominations had nearly one more birth than women from mainline denominations, on average. That gap narrowed until the baby boom reached its peak. Then mainline women born in the early 1940s reduced their fertility while the women in conservative denominations continued at the higher rates for another five years. Among recent cohorts with completed fertility, women from conservative denominations had only slightly higher fertility as those from mainline denominations.[7] For cohorts still in the process of bearing children, conservative women have had more, but mainline women expect more in the future.

We are not the first to introduce fertility into the discussion of mainline decline. Hoge and Roozen (1979) noted the connection between birth rates and religious participation. But they emphasized the nationwide trend toward smaller families and its effect on the age-composition of the Protestant population, not differences between the fertility of women in mainline and conservative denominations.[8] As we noted, Roof and McKinney (1987) presented data for three types of denominations, and they did link the conservative denominations' higher rates to the changing

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[7]The differentials in the GSS data on recent cohorts are commensurate with the estimates in Mosher et al. (1992).

[8]Roozen and Hoge did note that higher fertility within conservative denominations would imply higher growth rates for them than for the mainline denominations, but they presented no evidence of differential fertility by denomination. Nor did they work through the details of how large differentials would have to be in order to be significant source of denominational change.

composition within Protestantism. Perrin, Kennedy, and Miller (1997) present a sophisticated argument that parallels ours, but their focus is on new evangelical movements not on the full span of conservative denominations and sects.[9] Bibby and Brinkeroff (1994) attribute the growth of conservative churches in Canada to higher contemporary fertility. However, their emphasis is on the nature of conversion and the "circulation of saints" from one conservative denomination to another; they do not fully develop the implications of differential fertility (although they assume its effects would be substantial if they were to work out the details). Some others (e.g., Wuthnow 1993, p. 142) note the possible demographic advantage that high fertility might give some denominations (citing Roof and McKinney 1987). Neither Roof and McKinney nor Wuthnow quantified the contribution of demography to mainline decline although Roof and McKinney hazard the guess that fertility is more important than conversion when they show that rates of switching between Protestant denominations had not changed as of 1987.

PLAN OF THE ANALYSIS

Our strategy is to develop a demographic simulation model that combines observations on religious origins, current religion, and fertility (both the amount and timing of it) to predict the proportion of Protestants in mainline and conservative denominations for each cohort born between 1900 and 1973. We then make counterfactual predictions in order to isolate the contributions of fertility and denominational switching. The second scenario supposes that switching does not occur; differentials in fertility are the only source of change in the distribution of Protestants into mainline and

[9]Perrin et al. (1997, p. 75) include the statement "previous research has suggested that much of the conservative success can be attributed to high birth rates (Hoge and Roozen 1979; Roof and McKinney 1987)." This is a surprising conclusion unless one puts a lot of emphasis on the word "suggested." As we shall show, the conclusion is right, but Hoge and Roozen (1979) do not even show evidence of differential fertility and Roof and McKinney (1987) do not present a full decomposition of change.

conservative denominations under this scenario. The third scenario removes fertility differences and uses observed switching from mainline to conservative denominations to project the denominational distribution of Protestants. We then consider conservative-to-mainline switching as an isolated factor. Finally we combine the two types of intra-Protestant switching with non-Protestant to mainline or conservative conversions and mainline or conservative apostasy to assess the joint contribution of all forms of switching, conversion, and apostasy.

MODELS FOR THE SIZE AND COMPOSITION OF THE PROTESTANT POPULATION

We adapt a model of population growth to the current purpose of studying religious identification. It was originally developed by Joshua R. Goldstein to study the similar process of identification with ancestry groups (Hout and Goldstein 1994). From an initial population of persons born in year t and raised in denomination j, P_{jt}, we can project the next generation's population if we know the intrinsic rate of natural increase, r_{jt}, how many people joined denomination j as adults, C_{jt}, how many people left j, A_{jt}, and the length of a generation, T_t:

$$P_{j,t+T_{jt}} = P_{jt}\exp(r_{jt}) + C_{jt} - A_{jt} \qquad [1]$$

where $j = 1$ for mainline denominations, $j = 2$ for conservative denominations, and t ranges from 1900 to 1973. The proportion of the population that is mainline, i.e., $m_t = P_{1t} / (P_{1t} + P_{2t})$, will decline over time if $r_{1t} < r_{2t}$ or $C_{1t} < C_{2t}$ or $A_{1t} > A_{2t}$.

The intrinsic rate of natural increase, r_{jt}, for denomination j and cohort t, is the balance between the fertility and mortality among the women of denomination j who were born in year t and whose fertility produces the next generation (cohort $t + T_{jt}$):

$$r_{jt} = \ln(\phi_{jt}\lambda_{T_{jt}}p_t)/T_{jt} \qquad [2]$$

where ϕ_{jt} is the number of births per woman among the women of denomination *j* and cohort *t*; λ_{Tt} is the probability that a woman lives to age T_{jt} if she was born in year *t*, and p_f is the proportion of babies who are girls (= .49).[10] The model takes observed fertility and mortality as inputs and yields a prediction about the denominational composition of baseline cohort. It then takes that prediction and makes a prediction about the next cohort, and so on, recursively.

DATA SOURCES AND MEASURES

To apply our model to religious change we need data on peoples' current religious affiliations, their religious origins, fertility, and mortality. We use the General Social Surveys (GSS) of 1974-1998 as our main data source. The GSSs are consistently administered; they constitute a 24-year time series of comparable data.[11] The GSS is a nationally representative sample survey fielded in most years since 1972 (always in the late winter and early spring of the year, i.e., all interviews are completed after Christmas and nearly all are done before Easter). Since 1973 full probability methods have been used to draw a sample that gives every English-speaking American adult an equal probability of being interviewed, supplemented by oversamples of African Americans in 1982 and 1987 (Davis, Smith, and Marsden 1999). We use linearized variance estimation techniques (Eltinge and Sribney 1996) to

[10]Under the model as it is written here, fertility differs by denomination and cohort, mortality differs by cohort but not by denomination, and the proportion of babies that are girls is a constant. Therefore, all differences between denominations reflect differential fertility (through both the number of births per woman, ϕ_{jt}, and the length of a generation, T_{jt}). Mortality differentials might well be important in the real world. We quite simply lack the data to assess them, so we make the necessary assumption that the conservative and mainline women had identical mortality at each age.

[11]The 1972 and 1973 GSSs lack data on denominational origins; without that information we cannot assess conversion and apostasy.

correct for the inefficiency of the GSS design relative to a simple random sample (i.e., "design effects").

We also use vital statistics data for some of the fertility data (Heuser 1974) and for the all of the mortality data (Wilmoth 2000).

Classifying Denominations

From its inception, the GSS has obtained data about Protestants' denominational affiliations. The first ten surveys used a then-standard enumeration of major Protestant denominations and an "other, specify" catch-all category (that grew over time). In 1974 a comparable question on religious origins was added. Since 1983 far more detail on current and original denomination has been collected (the interview schedule lists 25 specific denominations for the interviewers to consult when asking the question but instructs them to get more details). The data file includes codes for the 25 denominations on the interviewers' list plus 114 denominations and sects identified in the "other specify" answers (a total of 139 Protestant organizations). Tom W. Smith (1990) developed a trichotomy to reduce the complexity of this very detailed categorization by grouping together those denominations that emphasize the "fundamentals" of the Christian religion as the early fundamentalists saw it, including the literal truth of the Bible, personal conversion (known as the "born-again" experience), and reaching out to convert others to Christianity. We take his "fundamentalist" category as our "conservative" one; we use the "moderate," "liberal," and "not classified" denominations in his trichotomy to be the "mainline" category.[12] Episcopalians, Presbyterians, Methodists, and most

[12] We acknowledge Woodbury and Smith's (1998) comments about the difficulty of labeling the "non-mainline" segment of American Protestant denominations. We follow their use here and adopt "conservative" in the broad, doctrinal sense of the word.

Lutherans make up the bulk of the "mainline" category while Baptists, Pentecostals, Church of Christ, and Assemblies of God are the largest "conservative" denominations (Smith 1990).

Age Restrictions

Because of its accumulated size and duration, the GSS makes possible analyses which compare the cohorts born in the first three-fourths of the 20th century. We drop the people under 25 from the analysis because peoples' religious affiliations are in flux up to their late twenties or later (Fumanti 1997). This entails assuming that people do not change their denominational type after a certain age. We experimented with 25 and 35 years old as the younger cut-off. We found that including persons 25-34 years old changes the end of the time series substantially. In the late 1990s, 25-34 year-old Protestants are more likely than 35-44 year-old Protestants to be in conservative denominations. This shows up in the cohort time series we report as a sharp acceleration toward the conservative denominations in cohorts born since 1960. This may misstate the ultimate distribution of the post-1960s cohorts. In all cohorts for which we have data, 25-34 year olds raised in mainline denominations are more likely than the 25-34 year olds raised in conservative denominations to report "no religion" as their current preference. If the young apostates from the post-1960s cohorts subsequently return to the denomination they were raised in, then future observations on the post-1960 cohorts might reveal them to have more of a mainline representation than their current religious preferences suggest.

Differential mortality may bias comparisons across cohorts if the cohorts are only observed at the oldest ages. That is, the persons who survive to be interviewed at advanced age probably do not represent what the denominational composition of their cohorts was before significant numbers died. In particular, we suspect that the lower socioeconomic status and concentration in the South

and in rural areas of other regions of the conservative Protestant denominations might expose them to earlier mortality. To reduce our exposure to this bias, we exclude persons 75 years of age and older from all analyses. We experimented with using 65 years old as the cut-off. The results were very similar either way, so we chose the longer time series as the one to present.

Fertility and Mortality Data

We use two sources of fertility data: the GSS and vital statistics. Vital statistics are usually the preferred source of fertility data, but they cannot be used alone here because the forms used to gather vital statistics do not record the parents' religion(s). Recent surveys by the National Center for Health Statistics have included details about religious denominations, but there is nothing before 1990 (Mosher et al. 1992). From its inception the GSS has asked women (and men) about their fertility.[13] We use these data to estimate the number children ever born by women 45-69 years old for each combination of cohort and denomination; that is women currently in either a mainline or conservative Protestant denomination and born in each single year between 1903 and 1953. We smooth the series with loess regressions with a bandwidth of .2 (Cleveland 1994). The smoothed value for cohort t becomes the ϕ-value for the rate of natural increase that produced cohort $t+T_{jt}$, (e.g., if $T_{1,1903} = 31$, then $\phi_{j,1903}$ contributes to the natural increase that produces the 1934 cohort, $r_{j,1934}$). It would be useful to have data on the age-specific fertility rates; without it we must assume that each women has all her children at the average age, T_{jt}.

[13]Since 1974 the question has been "How many children have you ever had? Please count all that were born alive at any time (including any you had from a previous marriage)." In 1972 and 1973 the portion in parentheses was omitted; in 1974 and 1975 interviews were instructed not to read the part in parentheses if the person had already said that they had never been married. Since 1976 the only instruction has been to ask everyone, regardless of age, sex, or marital status.

For the earlier cohorts we do not have data for denominations, so we extrapolate the patterns in the GSS to estimate them. We use Heuser's (1974) published rates for all women and the formulas:

$$TFR_{1t} = TFR_t - d_t \qquad [3.1]$$

for mainline denominations and

$$TFR_{2t} = TFR_t + \frac{m_t}{1 - m_t} d_t \qquad [3.2]$$

for conservative denominations. Where t (=1875 to 1900) is cohort and d_t takes its observed value for 1900 and is linearly extrapolated toward a zero value in 1850, and m_t is the proportion of cohort t that is in a mainline denomination.[14] The mortality data are from vital statistics as adjusted by Wilmoth (2000).

Our estimates of Protestant fertility by denominational type are in Figure 1. The children ever born (CEB) data confirm that women from conservative denominations had higher fertility for most of the twentieth century. In 52 of the 56 single-year cohorts, the point estimate of the CEB for conservative women exceeds the CEB among mainline women. Some of these estimates are based on few cases, but the effect is so large that it shows up even in though sampling variability is great.[15] Smoothing the data using loess regression makes the difference between the fertility of women from mainline and conservative denominations clearer than the noisy point estimates do. The difference between the smoothed estimates starts out at more than one child for the first several cohorts, falls

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[14]This extrapolation assumes that the unobserved TFR_t for all Protestants is the same as the TFR_t for all women. That assumption accords well with the observations for the 1903-1953 cohorts, but we cannot test it for the 1875-1899 cohorts. With that assumption we can further state that $TFR_t = m_tTFR_{1t} + (1-m_t)TFR_{2t}$. Defining $d_t = TFR_t-TFR_{1t}$, we get the result in [3.2]. We get d_t for t = 1875 to 1899 by assuming d_{1900} is correctly measured in the GSS, that $d_{1850} = 0$, and that the rate of increase in d_t was constant from 1850 to 1900. We take $m_{1850} = .8$ as a starting value and derive the rest of the m_t series from the model.

[15]The individual observations are based on between 12 and 362 cases, so sampling fluctuations are a considerable source of year-to-year variation.

to one-half of a child for the 1917 cohort, stays there until the 1925 cohort, falls to .15 child for the cohort born in 1951 (the last year in the figure). The other lines show the observed total fertility rate (TFR) for late 19th century cohorts and our extrapolation of the differentials based on what we observe in the 1900-14 cohorts and the assumption that there was no differential by religion in 1850. These fertility data are the key inputs to the model in equations [1] and [2], but we also need information on the length of a generation, T_{jt}.

(Figure 1 about here)

To calculate the length of a generation, T_{jt}, requires data on age-specific fertility. We only know CEB, so we simulate T_{jt} using observations on age at first marriage, α_{jt}, and CEB_{jt} according to the formula: $T_{jt} = \alpha_{jt} + 1.5\phi_{jt}$ where α_{jt} is the mean age at marriage for women from denomination j and cohort t (estimated from the GSS for women 40-69 years old) and $\phi_{jt} = CEB_{jt}$.[16]

Graphical Displays and Data Smoothing

We use graphical displays to show the major trends in the data. Our displays combine as much detail in the observed data as possible and trend lines that smooth out sampling fluctuations. Two practices we use are not standard. First, we take account of the GSS survey design. In particular, as we mentioned already, we use linear variance estimators to adjust for design effects specific to the variables we are analyzing (Eltinge and Sribney 1996). These methods are a truer reflection of sampling error than textbook methods that are based on simple random sample assumptions and

[16]This formula assumes a constant birth interval of 1.5 years from marriage to first birth, first birth to second, etc. This simplification could be a source of imprecision in the demographic time series if birth intervals vary significantly as children accumulate or between denominations or among cohorts. The accuracy of our demographic model depends on this simplification; the greater the variation in any of these components of our extrapolation, the more likely we are to misstate the contribution of natural increase to mainline decline. Given that conservative Protestant women probably have their children closer together and that women who have more children spread their reproduction over a broader span of cohorts than women who bear few children do, our projections almost certainly understate the contribution of fertility to mainline decline.

superior to the use of average design effects that may overstate or understate the impact of design on a given variable.[17] We also make extensive use of locally estimated – "loess" – regressions (Cleveland 1994). The degree to which the loess regression actually smooths the observed data depends on a parameter set in advance of data fitting; Cleveland refers to this parameter as the "bandwidth." It is the proportion of cases used to estimate each point on the loess curve. We experimented with bandwidths of .2, .3, .5, and .6 for each series we present. "The goal is to make [the bandwidth] as large as possible to make the curve as smooth as possible, without distorting the underlying pattern of the data" (Cleveland 1994, p. 172). Data with strong, monotonic trends like the denominational data in Figures 2 and 3 below are well-described by lines calculated with broad bandwidth (.5 or greater); trends with more twists, e.g., the children ever born data in Figure 1 below, require a narrower bandwidth (.2 or .3).

THE TREND IN PROTESTANT AFFILIATION

The first order of business is to quantify the extent of mainline decline using the GSS. High-quality survey data of this sort are superior to denominational data for two reasons. First, counts from one denomination are hard to compare with counts from others because the denominations do not apply a common standard. Second, denominational data lack observations of individuals, making it impossible to separate life-long members from converts (and, among converts, it is impossible to distinguish those who have come from denominations of the same type from those who have crossed

[17]For example, design effects are smaller than average for gender because men and women are pretty evenly distributed across PSUs in the GSS, but design effects are larger than average for denominational type because denominations are very unevenly distributed. The extreme case is that of Mormons who are among the most highly clustered. Their numbers appear to decrease in the late 1990s simply because a city in Utah rotated out of the sample and was replaced by another city of the same size in another mountain state. Because Mormons were far more prevalent in the Utah city than in the city outside Utah, the proportion Mormon in the GSS fell after 1993 even though we have reason to believe that their numbers actually grew.

from one type to the other). Data from the GSSs solve both of these problems with denominational data.

The GSS data confirm a major shift in affiliation from mainline to conservative denominations among American Protestants.[18] Annual data (circles) in Figure 2 reveal more change than persistence in the percentage of Protestants in mainline denominations. The trend line is monotonically down-sloping, and the confidence intervals for the annual data overlap that line in all but one year.[19] From 1973 to 1998, mainline denominations have lost about ten percentage points of their relative share of 25-74 year-old Protestants – from 57 percent in 1973 to 47 percent in 1998 – while conservative denominations have, by definition, gained ten percentage points – from 43 percent to 53 percent.[20] The likelihood ratio chi-square test ($L^2 = 156.73$ with 21 degrees of freedom) is statistically significant at conventional levels, rejecting the null hypothesis of no change, even without taking the order of the years into account. Most of the decline occurred between 1978 and 1986 (with 1982 an aberation).

(Figure 2 about here)

Denominations may perceive and report only those persons who show up for services. If persons who identify with the mainline denominations are less likely to attend services than conservatives are, then these data may overstate the share of the church-going population that

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[18]Smith (1990) used GSS data to call the decline of the mainline into question, but he was interested in "fundamentalists" as a share of the total adult population. Changes in the non-Protestant population compensated for the internal distribution of Protestants toward the conservative denominations, producing Smith's result of no net "fundamentalist" gain.

[19] We see higher than expected percentages in mainline denominations in 1982 and 1990. The vertical lines in the figure display the 95-percent confidence interval for each percentage and indicate that the 1982 deviations from trend are not attributable to sampling error unless our design-sensitive variance methods substantially underestimate it. The 1990 point is outside the standard error we would have obtained using standard methods, but it is within the wider confidence interval obtained using the linear variance estimator.

[20]The 1973 data are in Figure 2 but not in subsequent analyses because the 1973 survey lacked a question on religious origins.

affiliates with mainline denominations. If the association between denomination and attendance does not vary over time, then the direction and size of the trend for church-going Protestants will not differ from what Figure 2. To find out, we repeated the calculations using only persons who attend church services once a month or more (not shown). Mainline affiliation among church-going Protestants is between six and eight percentage points lower than in the total Protestant population in each year, but our estimate of the trend is the same as in Figure 2, i.e., a 10 percentage point decline for the mainline denominations between 1973 and 1998. For the remainder of our analysis we use all Protestants as the population base.

We can extend the time series of denominational affiliation by measuring change across cohorts under the assumptions we discussed above (pp. 10-11). Figure 3 shows the decline of mainline Protestant denominations by single-year cohorts. Each data point represents between 21 and 521 observations, so there is a lot of sampling variability in the raw data, especially at the beginning and end of the cohort time series where the cases thin out. The loess trend line summarizes the important features of the observed data. We also add a line representing a constant rate of change to help us detect any periods of relatively slow or rapid change and error bars to reflect the sampling error inherent in the single-year cohort data.

(Figure 3 about here)

Extending the time series by using the cohort view allows us to see more change than the period view did. If we are correct in assuming that the distribution of Protestants into different denominational types does not change after a cohort reaches 25 years of age, then this is a more accurate assessment of change than the period view accords. The cohort data indicate that mainline denominations lost 24 percentage points and conservative denominations increased 24 points between the earliest cohorts of the twentieth century and those that reached 25 years of age most recently.

Change occurred in two periods -- among cohorts born from 1900 to 1944 and again for cohorts born from 1955 to 1974. The cohorts that show the greatest change came of age between 1925 and 1969 and again since 1980. The rate of change for the more recent cohorts appears to be faster (over 5 percentage points per decade) than during the first decline (about 3 percentage points per decade) as indicated by the difference between the loess regression line and the linear trend line.

Deciding whether change over time is the result of historical effects that spread throughout the population all at once or effects on young people that last a lifetime is, by its nature, uncertain (e.g., Mason et al. 1973; Duncan 1988). In the case of mainline decline, we think that cohort differences are paramount because differential fertility (the process that produces each cohort) is the prime factor. If our demographic model does a poor job of projecting change in the Protestant population, then we will have to change our mind about the primacy of cohort effects.

ISOLATING THE SOURCES OF DENOMINATIONAL CHANGE

To assess the contributions of differential natural increase and differential conversion to the trend in mainline Protestant affiliation, we make projections that systematically vary the potential sources of change: the rate of natural increase (r_{ji}), conversion rates (C_{ji}), or apostasy rates (A_{ji}). In scenario 1 we use all of the observed data to project change. As these three variables exhaust the logically possible sources of change, then they have to fit the observed trend well. If they do not fit well, then we will have to conclude that one of our simplifying assumptions (e.g., that differential mortality is not a factor) is incorrect and elaborate the demographic model until an acceptable fit is achieved.

Scenario 2 is the most important projection. In this one, we take natural increase as the only source of variation over time; conversion and apostasy constant are set to zero. In scenario 3 we use observed conversions from mainline to conservative denominations and assign each denomination the

average rate of natural increase and hold other switches constant. In scenario 4 we use observed conversions from conservative to mainline and hold natural increase and other switches constant. In scenario 5 we use all observed switches and hold natural increase constant. Appendix Table A1 gives the details of the conditions that define our five scenarios.

Scenario 1: The Full Model

The model that allows all relevant factors to take their observed values tracks the change in mainline denominations' share of the Protestant population almost perfectly. The observed net change is 22 percentage points across the cohorts from 1903 to 1973 (using the smoothed series to remove random variation); scenario 1 not only tracks the change, it overshoots the net change by a single percentage point (or 5 percent). The correlation between the smoothed time series shown in Figure 3 and our predictions under scenario 1 is .997. This indicates that our simplifying assumptions about mortality and the age distribution of fertility are not too inaccurate.

Scenario 2: Natural Increase

The results for scenario 2 are the crucial test for the demographic imperative argument. They show that the lower fertility of mainline Protestants accounts for three-fourths of their declining share of the Protestant population of the United States. The demographic model (and its assumption of equal converstions) predicts the changes from 1903 to 1937 with uncanny accuracy (see Figure 4).[21] It predicts more change from 1938 to 1951 than we actually observe and then predicts a leveling off among the cohorts born after1960 that we do not observe. Overall, though, these errors are rather

[21]Among other comparisons that could be made, we note that it does appreciably better than the same model does in accounting for ethnic identification (Hout and Goldstein 1994) – a process that should actually be easier to predict as ancestry is more directly passed from generation-to-generation than religion is and there is no ethnic equivalent to religious apostasy.

small. The correlation between the smoothed and the predicted percentages is .97. Keep in mind that in this scenario religious change has but one source: differential fertility. It assumes that the switching back and forth between mainline and conservative denominations cancels out. Yet the predicted mainline decline is in precise proportion to actual changes, and the predicted change over cohorts is 76 percent as large as the observed change.[22]

(Figure 4 about here)

Scenario 3: Conversion from Mainline to Conservative

In scenarios 3-5 we focus on denominational switching, apostasy, and conversion from non-Protestant religions to the two types of Protestant denominations. The leading explanations of the declining mainline denominations emphasize the importance of people switching from the mainline denominations to the conservative ones. Scenario 3 is just as crucial a test of their ideas as scenario 2 was of ours.

We calculate the standard measures of switching, apostasy, and conversion by comparing peoples' current religion with the one in which they were raised. Table 1 presents the measures based on Protestant origins. Slightly more than 80 percent of Protestants born before 1910 and raised in the mainline tradition remained mainline as adults (or were back to their origins by the time they were interviewed), compared with 71 or 72 percent of those born after 1940. The proportion remaining within (or returning to) the conservative tradition has not changed significantly from its average of 77 percent across all cohorts.

(Table 1 about here)

[22]If we were to delete the observations based on 25-34 year olds (for reasons explained on pp. 10-11), we would conclude that fertility accounts for 93 percent of the observed change across cohorts.

Surprisingly, switching from mainline to conservative denominations has not changed significantly over 70 cohorts.[23] The significant changes are the rise in the proportion of persons from mainline backgrounds who profess no religion and the fall in the proportion of conservatives who switch to mainline denominations. There is change in the behavior of Protestants, but not the kind that many authors assume. Our scenario 3 projection puts these numbers to work to see if the apparent lack of change translates into the kind of negative evidence we think it does. As Figure 5 shows, the small changes over time in conversion from a mainline to a conservative denomination has no effect on the proportion of the cohort that is in a mainline denomination. It explains only 4 percent of the total change, and the correlation between the smoothed series and the predictions is actually negative (-.23).

(Figure 5 about here)

Scenario 4: Conservative to Mainline Switching

The falling rate of conversion from conservative to mainline denominations is important (see Figure 6). With all other factors held constant, decreased conservative to mainline switching accounts for 36 percent of the observed change. The explanatory power of scenario 4 comes at the end of the time series when the demographic model (scenario 2) predicted a slowing of mainline decline. Apparently the mainline denominations continued to lose share after their demographic disadvantage waned because they were no longer as attractive to persons raised in the conservative tradition as they once were, i.e., recent cohorts of conservatives dramatically slowed their rate of switching to mainline denominations.

(Figure 6 about here)

[23]See the gray-shaded column in Table 1.

The main dynamic here is a decline in the practice of upwardly mobile conservative Protestants joining a mainline church. Long a mainstay of American religion, the image of status-securing religious switching (Glock and Stark 1968) has been out-of-place for recent cohorts (see Roof and McKinney 1987; Sherkat and Wilson 1995). The conservative power-brokers' prayer breakfast may well have supplanted the need some once felt to align their congregational affiliation with their socioeconomic status. Figure 7 presents some GSS evidence on this point. We define persons as upwardly mobile if their own highest educational credential exceeds that of their more-educated parent; they are immobile if they have the same credential as their more-educated parent.[24] Although the single-year data is highly variable, the overall trend toward less switching among those raised in conservative denominations is earlier and of greater magnitude among the upwardly mobile than among the educationally immobile. The rate of switching for upwardly mobile Protestants from conservative backgrounds fell from 27 percent to 11 percent for the 1925 through 1973 cohorts (about 3.3 percentage points per decade). The trend for educationally immobile persons of conservative background is unchanged from 1903 to 1945; then it starts down in concert with the overall trend toward less conversion among conservatives. Less than 10 percent of the most recent cohorts have switched from a conservative to a mainline denomination.

(Figure 7 about here)

Among persons with mainline backgrounds, the rate of switching to conservative denominations has been steady at 13 percent across all cohorts. Among the upwardly mobile the rate of switching has risen from under 10 percent in the early cohorts to 15 percent in the cohorts born between 1935 and 1941; recently it has gone back down to below 10 percent.

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[24]Even though downward mobility occurs, it is rare enough to provide little systematic evidence. We have fewer than 15 cases of downward mobility per cohort. Comparing ten-year cohorts, we could not reject the null hypothesis of no change for either the mainline or conservative Protestants.

Scenario 5: Switching, Conversion, and Apostasy

All forms of religious change together combine to account for 43 percent of the drop in mainline affiliation (scenario 5). Conversion of non-Protestants actually works against the prevailing trends; as Table 2 shows, mainline denominations held an initial advantage in this process and it has grown for recent cohorts. Apostasy has been greater for persons raised in mainline denominations in each cohort, but the gap between mainline and conservative apostates has grown larger in recent cohorts. About two-fifths of recent apostates have joined the Roman Catholic church; 60 percent have left organized religion. These trends have been rising sharply enough to offset the growth represented by converts to mainline denominations coming in from other religions or no religion.[25] The correlation between the predictions of scenario 5 and the smoothed series is .97, indicating that, although this scenario fails to anticipate the magnitude of the mainline decline (accounting for only 10 percentage points of the 22 percentage point change), it does the best of any of the counterfactual models we have considered in accounting for the precise timing of declines.[26]

Summary: What We Learned From the Scenarios

Two types of religious switching have changed enough to be of concern for the mainline denominations. The conservative denominations are sending fewer people to the mainline denominations than they did 30, 50, or 70 years ago. Meanwhile mainline Protestants are converting to Catholicism more than they used to, and they are leaving organized religion. The conjectures about culture wars within mainline denominations advanced by writers such as Hadden (1969), Hunter

[25]This is the explanation that Hoge, Johnson, and Luidens (1994) favor, based on their analysis of Presbyterians.

[26]The combination of high correlation and low net change is a reminder that the correlation between smoothed and predicted series alone is an insufficient gauge of the accuracy of a simulation model. The net change measure is at least as important.

(1987), and Reeves (1998) are designed to explain what they assumed was an upswing in switches from mainline to conservative denominations. Likewise the arguments about the "strength" of conservative denominations are motivated by the observation that they are gaining share in the religious marketplace (Finke and Stark 1992; Iannaccone 1994). That type of religious mobility turns out to add nothing to mainline decline. Thus most explanations of mainline decline say much about a non-happening while saying next to nothing about what is happening.

The close fit between the predictions of the demographic model (scenario 2) and the observed and smoothed data lead us to conclude that differential fertility is the most important cause of the mainline decline. Those changes are supplemented and abetted by the drop-off in switches from conservative to mainline denominations. Figure 8 brings the significant elements together. It shows the smoothed series, the predictions of the demographic model, and the predictions of the full model. These lines are augmented with vertical lines connected to the predictions of the demographic model. These lines represent the net effect of switching from conservative to mainline denominations. For cohorts born before 1960, this form of switching increased the mainline's share of Protestants, but for recent cohorts the fall-off in conservative-to-mainline switching has accelerated the mainline decline after the point where the demographic model predicted it would slow down. Separately trends in fertility and in switching to the mainline denominations account for 76 percent and 36 percent of the observed trend, respectively. In interaction, they account for exactly 100 percent.

(Figure 8 about here)

UNDERSTANDING THE CHANGES IN CONSERVATIVES' BEHAVIOR

The conservative denominations have grown more than the mainline denominations in large part because they have higher fertility and that has given them a growth advantage. But part of conservative growth is attributable to the recent decrease in conservatives' rate of switching to

mainline denominations. While the diminished influx has hurt the mainline denominations, it has not necessarily helped the conservative ones. That is because conservative denominations are losing the same fraction of their young people as they were losing 30 to 50 years ago; intergenerational persistence has not increased for conservative denominations. People leaving conservative denominations have just changed their destination after a switch. Conservatives used to switch to mainline denominations; recently they have chosen other religions (especially Catholicism but also some of the "other" religions) and no religion more often than they have chosen the mainline denominations. In this section, we consider some possible explanations for these changes.

Intermarriage

A leading cause of religious switching and conversion in any generation is the practice of picking a common family religion after a marriage between people from different religious backgrounds (Greeley 1984). In recent cohorts, conservatives have decreased cross-denominational marriage to mainline Protestants from 33 to 20 percent[27] and increased their rates of marrying Catholics and partners with no religious background. These trends are shown in Table 4. The decrease in marriage to mainline Protestants helps explain the decrease in the proportion of conservative Protestants who switch to mainline denominations. Intermarriage with Catholics has increased from 3 percent of persons born 1900-09 to 15 percent of persons born 1960-73. Not quite as dramatically, intermarriage with people with no religious background increased from 2 to 5 percent across cohorts.

(Table 4 about here)

[27]The change is statistically significant but not monotonic. For the 7x6 table of cohort by spouse's religious origin for conservative Protestants aged 25-74 years, the design-corrected test of the null hypothesis of no change is $F(19.83, 5690.64) = 1.698$ ($p = .027$); for the 7x5 table that deletes the conservative Protestant (i.e., in-married) column, the design-corrected test statistic is $F(21.21, 5281.76) = 1.997$ ($p = .004$); for the 7x2 table that combines all non-Protestant religions (including no religion) into a single category, the design-corrected test statistics is $F(5.75, 1431.20) = 6.647$ ($p < .001$).

Most intermarried conservative Protestants remain conservative Protestants. In all cohorts, little over 40 percent of the intermarried have changed their religion from conservative Protestant to something else. In the cohorts born in the 1950s through 1973, however, the propensity to remain a conservative Protestant has increased modestly. Thus even though rising intermarriage with a Catholic is the main source of conversion from conservative Protestant to Catholic, few conservative Protestants make the change.

Organization and Participation

Perhaps that is so because they are better organized. Supply-side theories emphasize that religion thrives when denominations compete (Finke and Stark 1992). They also postulate that demanding religions get more of their members' attention and hold them better (Iannaccone 1994). One marker of the extent to which denominations are engaged in the competition for members is their success in organizing members into faith-based clubs and activities. If the conservatives are better organized than the mainline denominations, then members of conservative denominations ought to be more likely to participate in clubs and activities that are affiliated with a church. From 1974 to 1994 the GSS asked people whether they belonged to any church-affiliated organizations.

Consistent with expectations, Protestants from conservative denominations are more active in church organizations; 46 percent of conservatives compared to 40 percent of mainliners belong to church-affiliated organizations.[28] The concern is to explain the greater persistent of recent cohorts, of course, so the participation of Protestants born since 1960 is more relevant than that of all Protestants. Younger people in conservative denominations are more active than those in mainline

[28]This and all other calculations in this section of the paper refers to Protestants who are 25-74 years old at the time of the GSS. The 6-point difference is significant even after adjusting for design effects ($F[1,277] = 20.49$; $p < .001$).

denominations by the same 6 percentage point margin as found overall. However, even though the level of activity is greater for conservative denominations, belonging to an organization does not protect against switching. The same 16 percent of Protestants who were raised in a conservative denomination are now in a mainline denomination whether they have joined a church organization or not. So while conservative denominations hold an edge in organization, that does not provide a convincing answer as to why more people raised conservative are remaining in that tradition.

Conservative Religious Beliefs

Another argument offered to explain the growth of the conservative denominations stresses the appeal of traditional beliefs. This argument asserts that people with traditional beliefs – such as a literal interpretation of the Bible and God's direct intervention in daily affairs – leave the mainline denominations for conservative ones that place more emphasis on these ideas as core expressions of Christian faith (Hadden 1969). Another view is that the mainline seminaries teach ecumenism and liberal views of Christian theology and, thereby, drive a wedge between mainline clergy and their congregations (Finke and Stark 1992). While these explanations were devised to explain switching from mainline to conservative, they could, conceivably, be useful in crafting an explanation of the trend toward lower out-switching from conservative to mainline denominations.

The problem with these explanations is that the cohorts most likely to stay with the conservative denominations – the people born since 1960 – are the least likely to take a literal view of the Bible and are no more likely than other cohorts to embrace traditional views. Conservative Protestants born prior to 1940 are 30 percent more likely than later cohorts to take the Bible literally – 65 percent of the pre-1940 conservatives compared with 51 percent of the conservative Protestants

born 1940-73.[29] The post-1960 cohorts are not significantly more likely to believe in an afterlife, heaven, hell, the devil, or religious miracles; nor are they more likely to have had a born-again experience or to "try to convince others to accept Jesus Christ as their savior." These beliefs cannot explain the growing attachment of cohorts to their denominations of origin because they themselves have not changed.

Conservative Political Beliefs

The leadership of some mainline denominations took liberal stances on civil rights, the Vietnam War, abortion, women's rights, immigration, and gay rights that supposedly turned off a segment of the mainline Protestant population. According to Reeves (1998), the less liberal laity within those denominations has "reacted with revulsion" to such advocacy and left the mainline churches for more conservative ones. As we have seen, the data contradict Reeves and the others before him who made similar arguments. But perhaps the liberal politics of some mainline leaders is keeping young people raised in conservative denominations who might convert under less politicized circumstances from doing so. If politics is part of the fall-off in conservative-to-mainline switching, then it should show up as a growing gap between the political views of those persons who have made the switch to mainline denominations and those who remain in conservative denominations.

We use three indicators of political views: 1) the number of circumstances – from 0 to 6 – under which the person thinks a pregnant woman ought to be able to obtain a legal abortion, 2) the support for sex education in public schools, acceptance of premarital sex, and acceptance of homosexuality (combined into a standardized scale with a mean of 0 and a standard deviation of 1.0), and 3) self-identification with conservatives on a seven-point scale. The first two items are high for

[29]There is no difference between cohorts born 1940-59 and 1960-73.

liberals and low for conservatives; the last item is high for conservatives and low for liberals. Table 4 shows that the gap between the people who are still in conservative denominations and those who have switched to a mainline denomination is shrinking, not growing.

(Table 5 about here)

Subculture and Attachment

Christian Smith and colleagues (1998) advanced a theory of subcultural attachment in order to explain the strength of the pandenominational evangelical movement in the United States. Woodbury and Smith (1998) see the subcultural approach as relevant to the debates about mainline decline and conservative growth. According to Smith et al. (1998) Evangelical Christians share a subcultural identity that builds a community of faith resistant to outside influences. It is particularly well-suited to the pluralistic American context because it draws strength from the distinctiveness of its own approach in contrast to the other important Protestant traditions – including the mainline tradition. As Woodbury and Smith (1998) note, several features of the evangelical tradition (as Smith et al. characterize it) might be useful in understanding why conservative churches are growing or why they are doing a better job of holding on to the people raised in conservative denominations.

We see three problems in applying the theory of distinctive subcultures to the trends we have documented here. First, the dynamics behind the trends are not what Woodbury and Smith assume them to be. Mainline Protestants are not switching to conservative denominations in greater numbers; therefore the supposed "attractiveness" of the conservative churches is not a factor. The subcultural theory could be extended to account for higher rates of intergenerational persistence within conservative denominations. But that is not happening either. The decrease in the rate of switching from conservative to mainline denominations is being offset by increasing rates of conversion from

conservative denominations to other religions and apostasy. Intergenerational persistence is neither increasing nor decreasing for conservative denominations.

Second, the original subcultural theory applies to subjective identification with different Protestant traditions but not directly to denominations. The terms of this debate, as set by the literature that preceded our own study, dictate a focus on denominations. The Smith theory – which specifies identities that cut across difference denominations – goes about try to explain something other than denominational attachments. They are somewhat related, but less so than one might assume. Only a minority of persons in conservative denominations – even in the 1990s – are evangelicals, according to Smith et al. (1998, p. 241).

Conclusions Regarding Conservatives' Behavior

The only aspect of conservatives' behavior that helps explain the fall-off in the rate at which they switch to mainline denominations is intermarriage. We have considered each of the leading explanations in turn and found that the data contradict some part of each of them. Conservatives organizational attachments are no protection against defection; conservatives who switch to mainline denominations become active in their new denomination (more so than persons raised mainline). Recent cohorts of conservative Protestants are more religiously and politically liberal than older cohorts are. The mismatch between identities and denominations make it impossible to apply the insights of subculture perspective to explaining denominational trends.

CONCLUSION

The changing shape of American Protestantism reflects the interaction of differential demography and strong socialization. There are more conservatives today because their parents had larger families than

Episcopalians, Presbyterians, Methodists, Lutherans, and Congregationalists had. The conservatives' demographic advantage is abetted in recent cohorts by a fall-off in conversions from conservative to mainline denominations. Most alternative explanations turn out to be incorrect because they assume facts that are not in evidence in order to explain mainline decline or conservative growth. In particular, most observers who offered an explanation for mainline decline assumed that Protestants were switching from mainline to conservative denominations at a faster pace in the 1970s and 1980s than previously. That is not the case; cohorts show no trend and only slight variation in rate of switching from mainline to conservative denominations. The variations are so slight that mainline-to-conservative switching makes no contribution at all to mainline decline or conservative growth.

The explanation for the changing shape of American Protestantism is demographic, not ideological. The sociology of religion has long known that the surest source of new members for any denomination is the children of today's membership (e.g., Greeley 1969). The conservatives had the advantage there because, for the first half of the twentieth century, conservative families were having more children than the members of the mainline denominations were. Mainline denominations closed the fertility gap somewhat during the baby boom then fell behind again after the boom reached its peak. By the time the mainline fertility stopped falling and conservative fertility closed the gap again in the 1980s, the seeds of demographic reversal were sown.

The demographic momentum has subsided in the most recent cohorts. But just as it did, conservative denominations developed a socialization advantage. Persons raised in conservative denominations in the 1980s are half as likely to switch to a mainline denomination as previous conservative cohorts had been. The trend toward staying in conservative denominations is strongest among the rising numbers of upwardly mobile conservatives.

Predicting the future is precarious at best, but our evidence suggests that the trends underlying mainline decline may be nearing their end. The demographic momentum, as it affects cohorts, is spent.[30] Unless conservative Protestants increase their family size or mainline Protestants further reduce theirs, this contributor to mainline decline will not be a factor in the future. And the other key predictor – the falling rate of switching from conservative to mainline denominations – is reaching an end point of its own. Having fallen from 21 to 9 percent, the conservative-to-mainline switching rate cannot continue falling much longer simply because it cannot get less than zero. Exhaust both sources of change and change will stop unless and until a third source comes along.

A word of caution is in order, though. We focused on cohorts because the behavioral changes show themselves most clearly in the succession of cohorts. But we live in real time. The cross-section of Protestants in any particular year for the next half century or more will still include the people born during times of differential fertility. The demographic momentum of differential fertility will remain present in the cross-section until the cohorts born in the early 1970s (the last ones in which conservatives held a substantial fertility advantage) pass away – and they are just turning 30 years old in the early years of the first decade of the twenty-first century. So the Protestant population will continue to shift in the conservative direction for many years to come, even if no further changes in the underlying behaviors occur.

This research is good news for both mainline and conservative churches. The mainline clergy need not feel responsible for their denominations' slippage so long as the main source of change is the fertility decisions of mainline families. Meanwhile, conservative clergy and laity can feel gratified

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[30]Our model that relies on demography only – scenario 2 – predicts less than one percent decline in the proportion of Protestants who belong to mainline denominations over the next decade.

that their most recent growth has little or no ideological content; its source is the greater number of young people raised in their tradition.

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Table 1

Denominational Switching by Type of Origin Denomination and Year of Birth: Persons Raised as Protestants, 25-74 Years Old

Type of Denomination/ Year of Birth	Current Religious Preference: Same type as origin	Other type of Protestant	Another religion	No religion	Total
Raised Mainline			%		
1900-09	**81**	**13**	3	**3**	100
1910-19	**80**	**13**	5	**2**	100
1920-29	**77**	**13**	5	**4**	100
1930-39	**74**	**15**	6	**5**	100
1940-49	**72**	**13**	8	**8**	100
1950-59	**72**	**10**	7	**11**	100
1960-73	**71**	**11**	7	**12**	100
Net change	**-10**	**-2**	4	**8**	0
Raised Conservative					
1900-09	75	**21**	1	2	100
1910-19	79	**16**	2	3	100
1920-29	76	**18**	3	2	100
1930-39	76	**17**	3	4	100
1940-49	75	**14**	4	6	100
1950-59	77	**11**	4	7	100
1960-73	79	**9**	5	7	100
Net change	4	**-12**	3	5	0

Source: General Social Survey, 1974-1998

Table 2

Denominational Switching by Type of Current Denomination and Year of Birth: Protestants, 25-74 Years Old

Type of Denomination/ Year of Birth	Religious Origin: Same type as current	Other type of Protestant	Another religion	No religion	Total
Currently Mainline			%		
1900-09	82	14	2	2	100
1910-19	83	13	3	2	100
1920-29	77	16	5	2	100
1930-39	74	17	6	3	100
1940-49	74	16	7	3	100
1950-59	75	13	9	2	100
1960-73	74	12	11	3	100
Net change	-8	-2	9	1	0
Currently Conservative					
1900-09	78	20	1	1	100
1910-19	79	17	2	2	100
1920-29	80	15	3	3	100
1930-39	79	15	3	3	100
1940-49	80	13	5	3	100
1950-59	81	10	7	3	100
1960-73	80	12	5	3	100
Net change	2	-7	4	2	0

Source: General Social Survey, 1974-1998

Table 3

Goodness of Fit Measures for Five Scenarios of Denominational Change Across Cohorts:

Protestants, 25-74 Years Old

	Scenario				
	1	2	3	4	5
	Full model	Demographic model	Switch to Conservative	Switch to Mainline	Switching, Apostasy, and Conversion
Net change:					
Smoothed series	22%	22%	22%	22%	22%
Predicted by scenario	23%	17%	1%	8%	10%
Ratio of predicted to smoothed	105%	76%	4%	36%	43%
Correlation of predicted % with:*					
Observed %	.88	.85	-.16	.84	.87
Smoothed %	.997	.97	-.23	.95	.98

*The correlation between the observed and smoothed series is .89.

Table 4

Religious Origin of Spouse: Married Conservative Protestants, 25-74 Years Old

	Spouse's Religious Origin					
Year of Birth	Conservative Protestant	Mainline Protestant	Catholic	Other religion	No religious preference	Total
1900-1909	61	33	3	1	2	100
1910-1919	65	24	6	1	3	100
1920-1929	61	28	8	1	2	100
1930-1939	62	26	8	1	3	100
1940-1949	59	26	11	1	2	100
1950-1959	59	21	13	1	5	100
1960-1969	58	20	15	2	5	100
Total	61	25	10	1	3	100

Table 5

Political Views of Persons Raised in Conservative Protestant Denominations by Cohort and Current Religion

Birth Cohort	Abortion Currently Conservative	Abortion Currently Mainline	Sexual Liberal Currently Conservative	Sexual Liberal Currently Mainline	Conservative Identification Currently Conservative	Conservative Identification Currently Mainline
1900-09	3.26	4.02	-.81	-.93	4.23	4.17
1910-19	3.17	4.42	-.61	-.29	4.34	4.43
1920-29	3.32	4.42	-.43	-.24	4.45	4.42
1930-39	3.54	4.26	-.27	-.07	4.36	4.36
1940-49	3.57	4.26	-.09	.13	4.24	4.22
1950-59	3.61	4.20	-.03	.15	4.21	4.24
1960-73	3.56	3.72	.04	.01	4.29	4.21

APPENDIX

Table A1

Conditions Applied to the Parameters of the Denominational Growth Model in Order to Produce Five Simulations

	Simulation Scenario				
Parameter	1	2	3	4	5
r_{1t}	**V**	**V**	$\overline{r}_t$	$\overline{r}_t$	$\overline{r}_t$
r_{2t}	**V**	**V**	$\overline{r}_t$	$\overline{r}_t$	$\overline{r}_t$
C_{1t}	**V**	0	**V**	$\overline{C}_1$	**V**
C_{2t}	**V**	0	$\overline{C}_2$	**V**	**V**
A_{1t}	**V**	0	$\overline{A}_1$	$\overline{A}_1$	**V**
A_{2t}	**V**	0	$\overline{A}_2$	$\overline{A}_2$	**V**

Notes: The first subscript refers to denomination type (1=Mainline, 2=Conservative); the second subscript refers to cohort (t=1900,...,1973); **V** = observed variation; $\overline{r}_t$ = rate of natural increase for cohort *t* averaged across denominational types; $\overline{C}_j$ = conversion rate for denominational type *j* averaged across cohorts; and $\overline{A}_j$ = apostasy rate for denominational type *j* averaged across cohorts.

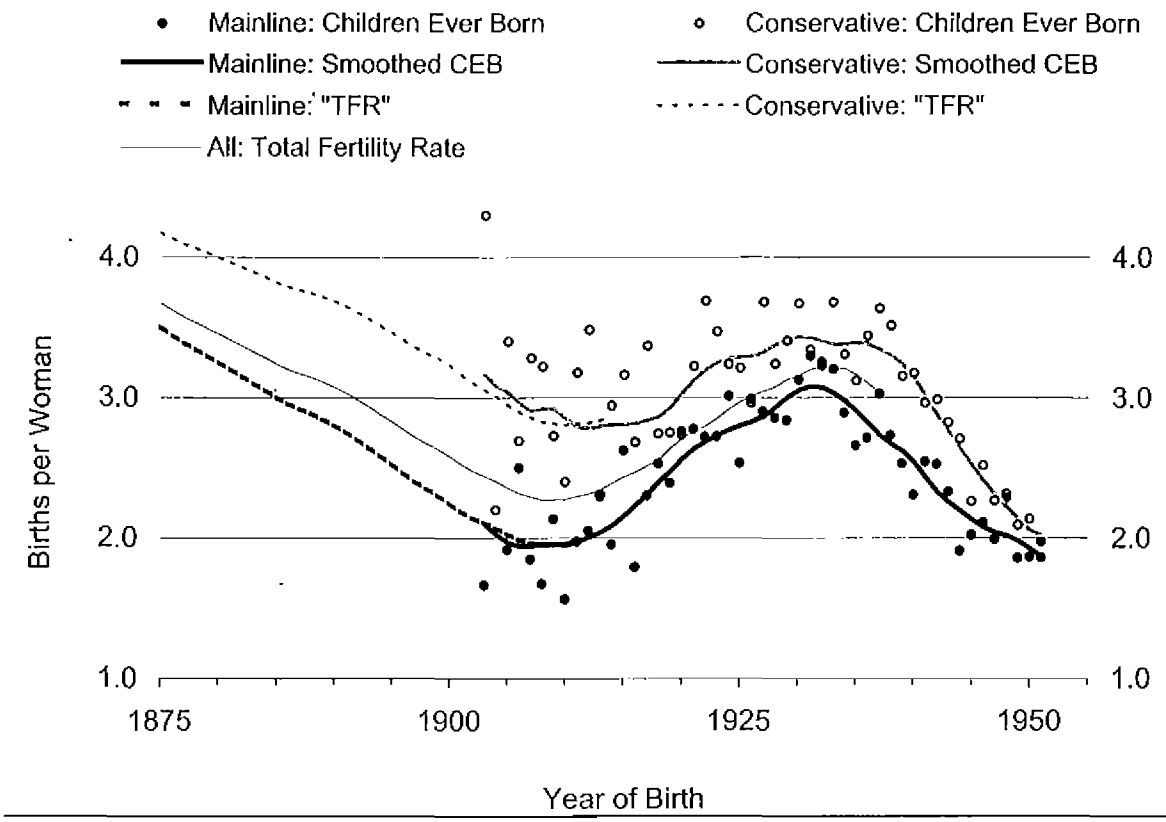

Figure 1

Fertility (Children Ever Born and Total Fertility Rate) by Denominational Type: Protestant Women, 45-69 Years Old, United States

NOTE: Children ever born (CEB) data are smoothed using locally estimated (loess) regression with a bandwidth of .2. The total fertility rate ("TFR") for each denomination was projected from TFR for all women and the denominational differences observed in the CEB data (see text for details).

Sources: Children ever born data from General Social Survey, 1972-1998; total fertility rates from Heuser (1974).

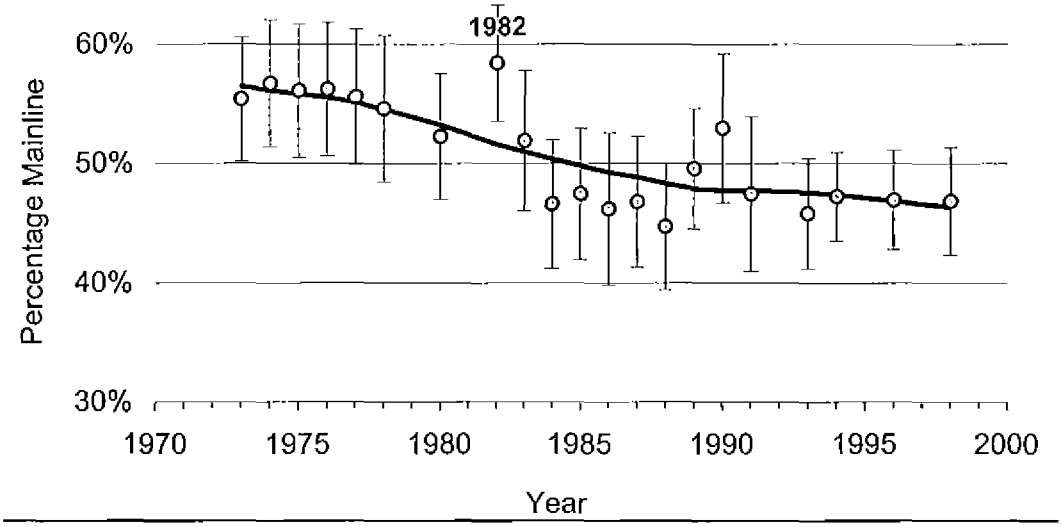

Figure 2

Proportion of Protestants Professing a Mainline Denomination by Year: Protestants, 25-74 Years Old, United States, 1972-1998

NOTE: Data smoothed using loess (bandwidth = .8). Vertical lines show 95% confidence interval for each observed percentage. Estimates take account of sampling design.

Source: General Social Survey, 1973-1998.

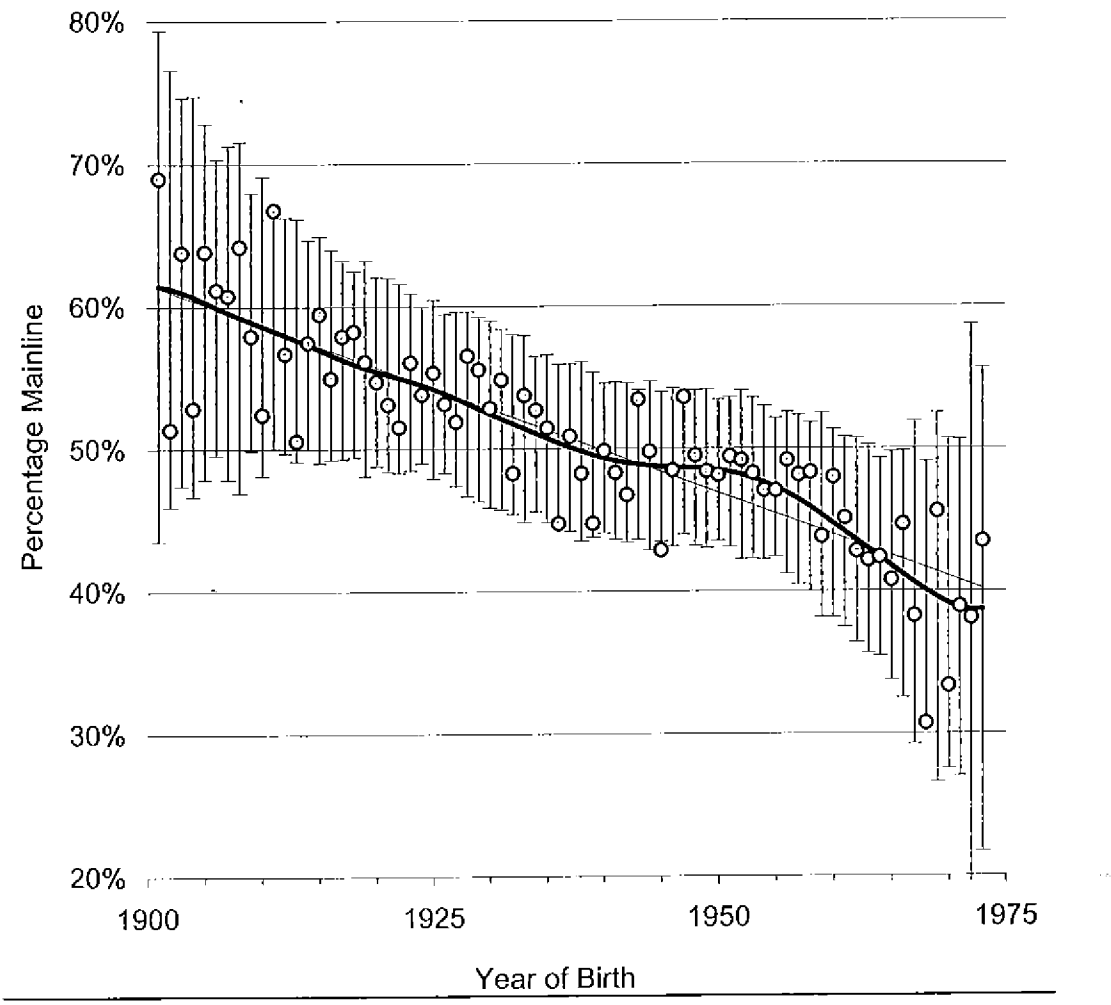

Figure 3

Proportion of Protestants Professing a Mainline Denomination by Year of Birth: Protestants, 25-74 Years Old

NOTE: Data smoothed using linear and loess regression (bw = .4). Vertical lines show 95% confidence interval for each observed percentage. Estimates take account of sampling design effects.

Source: General Social Survey, 1973-1998.

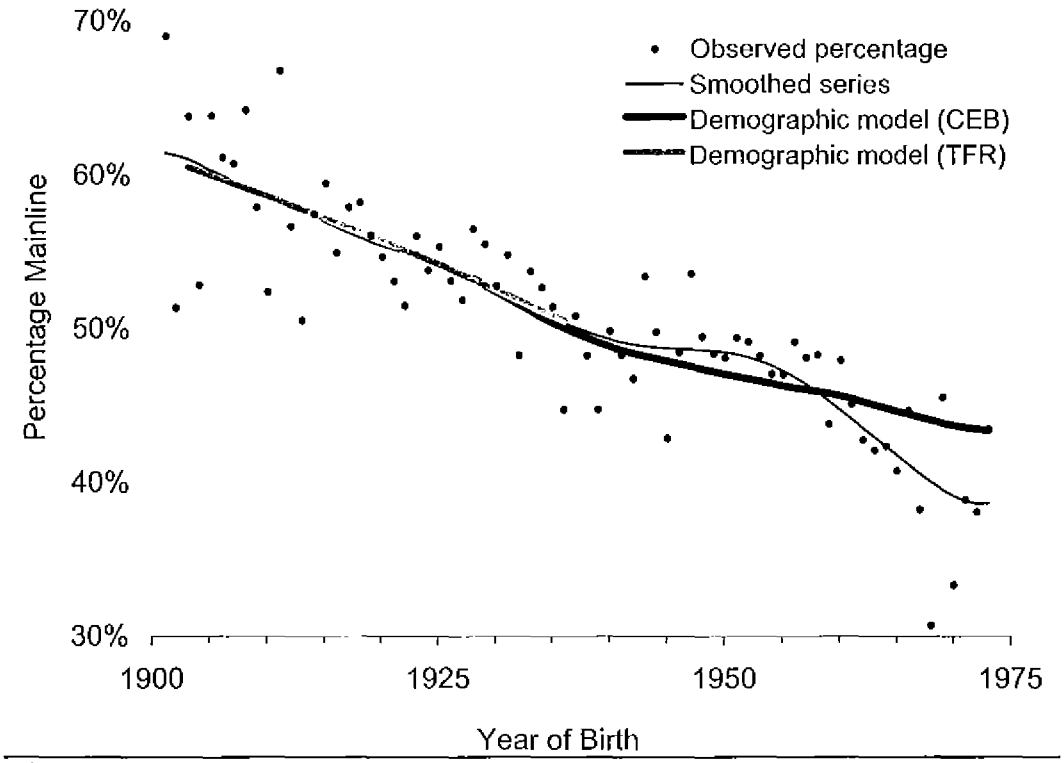

Figure 4

Observed Percentage of Protestants Professing a Mainline Denomination and That Predicted by the Demographic Model by Year of Birth: Protestants, 25-74 Years Old

NOTE: Data smoothed using loess regression (bw = .4). Estimates take account of sampling design effects.

Source: General Social Survey, 1973-1998.

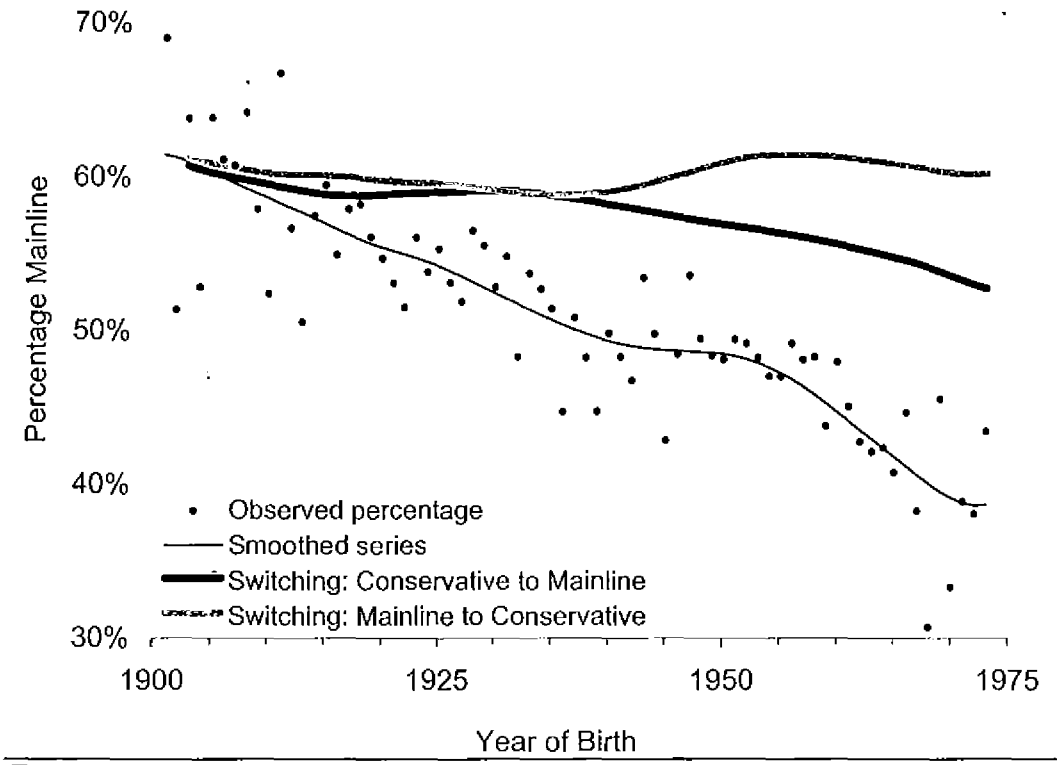

Figure 5
Observed Percentage of Protestants Professing a Mainline Denomination and That Predicted by Switching Between Protestant Denominations by Year of Birth: Protestants, 25-74 Years Old

NOTE: Data smoothed using loess regression (bw = .4). Estimates take account of sampling design effects.

Source: General Social Survey, 1973-1998.

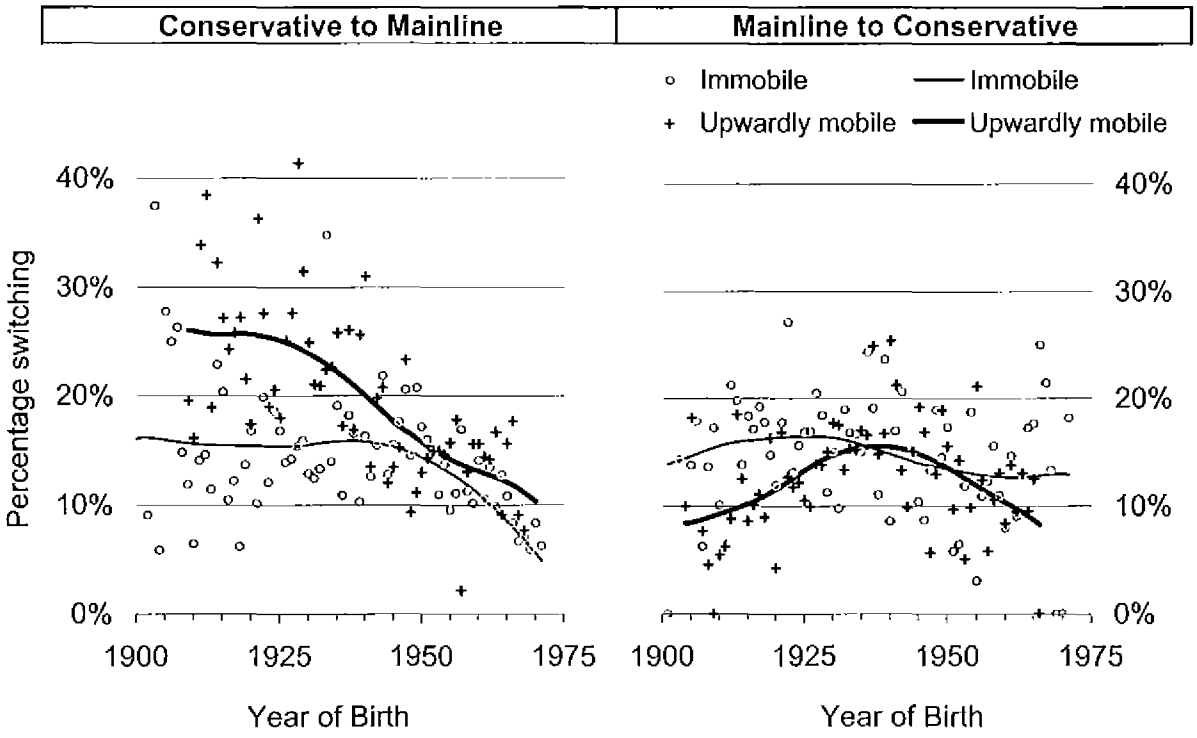

Figure 6

Denominational Switching by Cohort, Religious Origin, and Educational Mobility: Persons Raised Protestant and Currently Protestant, 25 to 74 Years Old

Note: Data smoothed by loess regression (bandwidth = .7).

Source: General Social Survey, 1974-1998

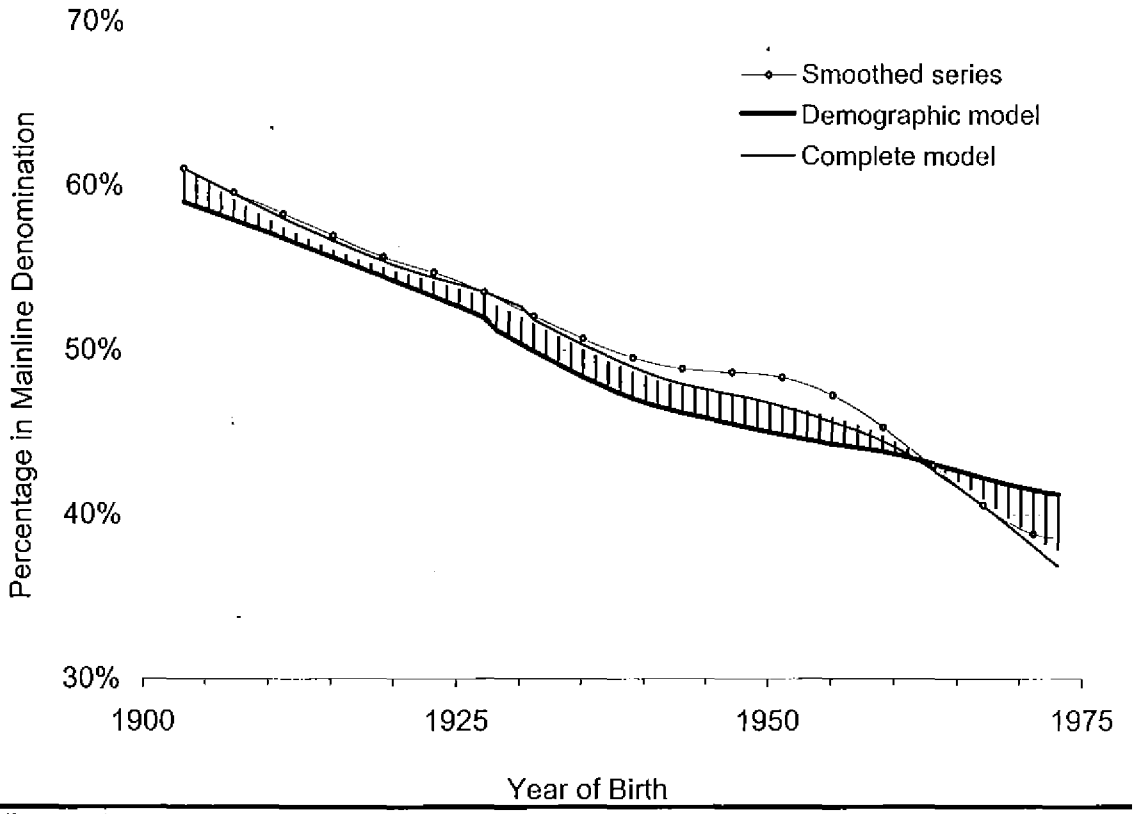

Figure 7

Percentage of Protestants Affiliated with a Mainline Denomination by Year of Birth: Observed for Protestants, 25-74 Years Old, and Predicted from Past Fertility and Religious Switching

NOTE: Smoothing done by loess regression (bandwidth = .5). The vertical lines show the effect o