Religious Participation, Social Conservatism, and Human Development

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What is the relationship between human development, religion, and social conservatism? We present a model in which individuals derive utility from both the secular and religious worlds. Our model is unusual in that it explains both an individual's religious participation and her preferences over social policy at different levels of development. Using data from the pooled World Values Survey, we find that religious participation declines with human development and an individual's ability to earn secular income. We also find that although social conservatism declines with development in absolute terms, religious individuals become more socially conservative relative to the population average. Paradoxically, our results suggest that human development may make it easier for religious individuals to overcome collective action problems and obtain disproportionate political influence, even as their numbers dwindle and society as a whole becomes less socially conservative. Our analysis has important implications for the debate about secularization theory.

W hat is the relationship between human development, religion, and social conservatism?[1] Secularization theory has historically been the dominant paradigm in studies of religion. In its most basic formulation, secularization theory predicts that religion declines as societies develop.[2] Given that religious individuals tend to hold more socially conservative attitudes than nonreligious individuals (Andersen and Fetner 2008; De La O and Rodden 2008; Herek 1987; Inglehart and Baker 2000; Kirkpatrick 1993; McFarland 1989), it follows that secularization theory also predicts a decline in social conservatism as societies develop (Norris and Inglehart 2004). Over the last two decades, secularization theory has come in for considerable criticism.

Secularization theory's prediction that religion declines with human development has been criticized from a theoretical standpoint for lacking a firm microlevel foundation (Gill 2001; Hadden 1987). And it has been criticized from an empirical standpoint for its perceived lack of support. Several scholars, for example,

have presented evidence, notably from the United States, that religion has not significantly decreased over time despite unparalleled levels of development (Finke and Stark 1992; Greeley 1989; Stark and Finke 2000). Some even claim that we are now experiencing the "revenge of God" and the "desecularization of the world" (Berger 1999; Kepel 1994). That social issues have become an increasingly influential basis for political mobilization in many countries would also seem to be at odds with secularization theory's claim that social conservatism declines with human development (Leege et al. 2002). Abortion, school prayer, and gay rights have all been shown to play an important role in recent U.S. elections (Abramowitz 1995; Campbell and Monson 2007; Layman 1997), with many speaking of a "culture war" that pits religious traditionalists against more secular elements in society (Himmelfarb 1999; Hunter 1991; Layman 2001). As comparative scholars have noted, the prevalence of this type of sociocultural conflict extends well beyond the American context (Gill 2001; Scheepers,

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[1]An online appendix with supplemental material for this article is available at www.journals.cambridge.org/jop. The data and computer code necessary to reproduce the numerical results and figures will be made available at https://files.nyu.edu/mrg217/public/ upon publication.

[2]We focus in this article on secularization theories of religion only in so far as they relate to *religious participation*.

Grotenhuis, and Silk 2002; Wald, Silverman, and Fridy 2005).

The theoretical and empirical criticism of secularization theory that has taken place in recent years has led many to conclude that "[a]fter nearly three centuries of utterly failed prophesies and misrepresentations of both present and past, it seems time to carry the secularization doctrine to the graveyard of failed theories, and there to whisper, 'requiescat in pace'" (Stark and Finke 2000, 79). A consequence of all this has been the development of newer models of religion, particularly the religious markets model. In contrast to secularization theory, which focuses on the *demand* for religion, the religious markets model assumes that religious demand is fixed and instead focuses on how *supply*-side features of the religious marketplace affect religion (Chaves and Cann 1992; Finke 1990, 1998; Gill 1999; Stark and Iannaccone 1994). According to religious markets scholars, religion prospers whenever religious organizations are free from state regulations to compete for adherents (Chaves and Cann 1992; Finke 1990, 1998; Gill 1999; Stark and Iannaccone 1994). This is because competition forces these organizations to exert more effort and provide greater benefits to attract members. To a large extent, supply-side models now dominate the study of religion.

Although we recognize the advances that have been made by supply-side scholars, we believe that they have been too quick to reject demand-side explanations of religion. As we demonstrate, secularization theory *can* be given a firm microlevel foundation by recognizing that religious and secular goods are often substitutes (Iannaccone 1992). In our model, individuals, who differ in their ability to earn a secular income and their ideal level of doctrinal strictness, choose a level of doctrinal strictness, which may be zero, by joining one of the available denominations in the religious market place. They then choose a level of religious participation, which may also be zero. These individuals face a trade-off between obtaining goods via their religious participation and devoting time to obtaining secular goods. By explicitly incorporating human development, our model allows us to examine how this trade-off changes as societies develop. Among other things, our model predicts that religious participation declines with development and an individual's ability to produce secular goods. Importantly, our model does not make the unsustainable claim that religious activity necessarily disappears as societies develop. When testing secularization theory, previous studies have tended to focus on relatively wealthy states that lack sufficient variation to appro-

priately evaluate it. We solve this problem by testing our hypotheses on data from the 1981–2004 pooled World Values Survey that exhibit considerable variation in socioeconomic development (WVS 2006). The results from our analyses reveal considerable support for secularization theory at both the aggregate and individual level.

Our model is unusual in that it also allows us to contribute to the active debate in the literature about the impact of religion on social attitudes. This is because it not only explains an individual's level of religious participation, but it also explains her preferences over social policy at different levels of human development. It is well-known that religious individuals tend to hold more socially conservative attitudes than nonreligious individuals. Our analysis, though, reveals that this relationship between religious participation and social conservatism changes in important, but as yet untested, ways with development. On the one hand, we find that religious (and nonreligious) individuals hold less socially conservative attitudes in absolute terms as societies develop. On the other hand, we find that the social attitudes of religious individuals remain and, indeed, become more socially conservative relative to the population average. In other words, development leads to a situation in which the social attitudes of the religious are increasingly in conflict with those held by mainstream society. Our analysis suggests, paradoxically, that human development may actually make religious groups more influential. Those who remain religious in the face of growing development are increasingly likely to be more conservative and differentiated in their social attitudes relative to the rest of society. This fact, combined with the decline in the overall size of the religious community caused by development, may make it easier for religious individuals to overcome collective action problems and achieve disproportionate influence (Olson 1971). Thus, far from being a sign that secularization theory is flawed, the continued salience of social issues and the emergence of "culture wars" is perhaps better viewed as evidence *in support of* secularization theory.

Model

Our two-period model consists of individuals in a large population making choices about their religious behavior.[3] In the first period, individuals choose a

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[3]A formalized version of our argument can be found in our online appendix.

level of doctrinal strictness by affiliating with one of the available denominations in the religious marketplace. The denomination with minimum doctrinal strictness is taken to be zero. Given our focus on demand-side explanations for religious participation, we treat the set of available denominations with which one can affiliate as given.[4] In the second period, individuals choose a level of religious participation (conditional on affiliation), which may be zero. Each individual makes her choices about doctrinal strictness and religious participation so as to maximize her expected utility.

The individuals in our model derive utility from both the secular and religious worlds. This utility can result from the consumption of material goods, such as flat-screen televisions or bequeathed alms, or from more "psychic" benefits, such as those that come from having a job, being able to engage in confession, or participating in group prayer. An individual's *secular* utility depends on one primary input, her net income, which comprises the wages, taxes, and social services related to the secular world. We assume that an individual's utility is increasing in net income but that she experiences decreasing returns. As in the real world, the income of an individual in our model is not fixed but instead depends stochastically on several factors such as her education, literacy, health, and prior history that influence her ability to earn a secular income. The aggregate ability of individuals to earn a secular income thus naturally depends on the level of human development. We take this into account by assuming that a lower ability to earn a secular income does not become relatively more likely as societies develop. An individual's *net* income also depends on the incomes of others via taxation and social services. The fact that development affects the distribution of income in the population means that an individual's net income depends directly on development. We assume that an individual's net income, all else equal, is increasing in development.

An individual's *religious* utility is dependent on four primary inputs. The first input, religious participation, comprises the time, effort, and money that an individual devotes to the practice of religion. In the real world, not all individuals benefit from religious participation, so we make no assumptions about how an individual's utility depends on her level of religious

participation. Some individuals may benefit, while others may not. The second input is the level of exogenous pressure exerted by the state on religious participation. Some states repress and regulate religion, whereas others impose "blue laws" designed to enforce religious standards and limit secular activities. The third input is the doctrinal strictness of the religious denomination with which an individual chooses to associate. Finally, the fourth input is the ideal level of doctrinal strictness that an individual would like in a denomination if denominations representing all strictness levels were available and if there were no other benefits to be obtained from acting religiously (Stark and Finke 2000). This fundamental preference for adherence to religious and social convention is typically associated with social conservatism, and we adopt this interpretation here. This is consistent with supply-side models of religion, which assume that individuals can be ranked along a continuum according to the intensity of their religious preferences, with more intense religious preferences indicating a greater "tension" with the secular world (Barros and Garoupa 2002; Iannaccone 1994; McBride 2008, 2010; Montgomery 2003). Indeed, it is common for supply-side models to explicitly refer to individuals with preferences that are in tension with the secular world as socially conservative or ultrastrict (Stark and Finke 2000, 197).

Some countries exhibit higher levels of comfort with doctrinal strictness than others, perhaps because of the way that individuals are socialized as children or because religions differ in how much they emphasize strictness. To capture this, we allow the distribution of individual preferences for doctrinal strictness to depend on the population's overall preference for strictness. Specifically, we assume that a lower ideal level of doctrinal strictness does not become relatively more likely as a country increases its overall preference for doctrinal strictness. For simplicity, and to avoid biasing our results by assuming ex ante that those enjoying high net income are those least likely to prefer more doctrinal strictness, we assume that there is no correlation between an individual's ability to earn secular income and her ideal level of doctrinal strictness.[5]

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[4]Our inferences are robust to including an entry and location game before our model's first period in which religious denominations first choose whether to enter the religious market by paying a cost and then choose to adopt a particular level of doctrinal strictness (Gaskins, Golder, and Siegel 2013; McBride 2010).

[5]Our results generalize to the case where one's ability to earn secular income and one's ideal level of doctrinal strictness are negatively correlated. Such a case might arise, perhaps, because a greater focus on secular education in childhood is associated with less development of comfort with doctrinal strictures. They do not generalize, however, to the reverse case. We discuss this formally in the online appendix.

As previously indicated, the individuals in our model make their choices about doctrinal strictness and religious participation so as to maximize their expected utility. In doing so, they take three things into account. First, individuals face a rational trade-off between the material and psychic goods that can be obtained via religious participation and the degree to which lost time, money, and effort devoted to religious participation detract from leisure time and the pursuit and enjoyment of secular goods. Our model recognizes this trade-off and follows the existing literature in assuming that religious participation is a substitute for income (Iannaccone 1992; McBride 2008, 2010). In other words, individuals experience decreasing marginal utility from income the higher is their religious participation, and vice versa. State regulation of religion conditions this trade-off as it helps to determine the relative costs and benefits of religious and secular activity. For example, state repression of religion increases the cost of religious participation, thereby increasing the relative benefits of secular activity. We capture this conditioning relationship by assuming that religious participation and government regulation of religion also act as substitutes.

Second, the choices that an individual makes about doctrinal strictness and religious participation are not independent due to the fact that individuals experience social pressure to conform to a denomination's expectations with respect to participation. Strict denominations typically expect higher levels of religious participation than less strict ones. This means that individuals face a second trade-off, this time between the level of participation expected by their chosen denomination and the level of participation they would otherwise have chosen in responding to the first trade-off noted above. In our model, an individual's expected utility depends on the difference between the level of religious participation expected by her chosen denomination and her actual level of participation. Individuals whose participation levels fall below the social expectations of their chosen denomination are penalized. The appropriate assumption for those cases where an individual's level of religious participation exceeds social expectations is not so obvious and, as a result, we consider two cases. In the *conformity case*, going beyond expectations is also frowned upon. In the *social benefits* case, providing more religious participation than expected is viewed favorably.

Third, individuals suffer a utility loss whenever they affiliate with a religious denomination that deviates from their ideal level of doctrinal strictness. This utility loss increases, at an increasing rate, in the extent of the deviation.

Propositions

Several propositions can be derived with respect to religious participation and social conservatism.

Proposition 1. (Individual Religious Participation) *An individual's optimal level of religious participation:*

(a) *(weakly) decreases as her ability to produce secular income increases;*
(b) *(weakly) increases as her ideal level of doctrinal strictness increases;*
(c) *(weakly) decreases with human development; and*
(d) *(weakly) decreases as government regulations designed to suppress religious practice increase, and (weakly) increases as government regulations designed to suppress secular practice increase.*

The first two parts of Proposition 1 indicate that an individual's religious participation decreases in her ability to earn higher income and increases in her ideal level of doctrinal strictness. These results, along with all others, are true for both the conformity and social benefits cases. The first result has to do with the substitutability between income and religious participation. The second follows because an individual's optimal level of religious participation (weakly) increases with the strictness of her chosen denomination and because an individual will not choose a less strict denomination if her ideal level of doctrinal strictness increases. The first part of the logic here has to do with the fact that social expectations about participation increase with denominational strictness, while the second has to do with the fact that an individual's utility declines with any deviation between her ideal level of strictness and that of her chosen denomination.

The last two parts of Proposition 1 express the relationship between religious participation and characteristics of the overall population. Individual religious participation decreases in human development and government regulations that inhibit religious practice but increases in government regulations that inhibit secular practice. The result with respect to human development follows from the substitutability between income and religious participation and the fact that income is increasing in societal development. And the results with respect to government regulations follow from the fact that these regulations condition the trade-off between the benefits obtained from religious participation and the degree to which this

participation detracts from one's ability to enjoy and earn secular income.

Proposition 2. (Aggregate Religious Participation) *The aggregate level of religious participation in a population:*

(a) *(weakly) decreases with human development;*
(b) *(weakly) increases with the population's preference for doctrinal strictness; and*
(c) *(weakly) decreases as government regulations designed to suppress religious practice increase, and (weakly) increases as government regulations designed to suppress secular practice increase.*

Proposition 2 is an aggregate analogue to Proposition 1, and a similar logic underlies it. Increased human development leads to more individuals with high expected earnings, each of whom then has a greater incentive to reduce her religious participation by Proposition 1a. The same is true in reverse for an increase in the population's preference for doctrinal strictness: more people have higher ideal preferences for strictness, which provides a greater incentive to participate more by Proposition 1b. The effect of government regulations obviously depends on whether secular or religious goods are being inhibited.

Proposition 2b implies a likely floor on religious participation, assuming that the distribution of preferences for doctrinal strictness is not degenerate at zero and that individual utilities are not too flat in religious participation. Together with Proposition 2a, this means that religious participation will not necessarily disappear with development. Indeed, religious participation may remain high depending on the distribution of doctrinal adherence in a country. For most empirical situations, the rate of decrease in religious participation with development will itself be decreasing as participation approaches its floor in a given population. Of course, the floor could be quite low, even zero if state repression of religion were strong enough.

The fact that we treat the population as heterogeneous in its income and doctrinal preferences has consequences for the distribution of religious participation in the population. This allows us to derive correlations between religious participation and social conservatism. Consider some arbitrary level of religious participation, r'. This might be the level above which people surveyed would answer that they are religious. Multiple levels could trace out an ordinal measure of religious participation such as would be present in public opinion surveys. Here we keep to one level and define a person as "religious" if that person's expressed level of participation is at least as great as r' for

some r'. Clearly, the larger r', the harder it is to be considered religious. This leads to the following result:

Proposition 3. (Social Conservatism) *For any fixed definition of "religious":*

(a) *the population of religious individuals will be (weakly) more socially conservative than the population average;*
(b) *the average level of social conservatism of religious individuals in a country will be (weakly) increasing with human development.*

Proposition 3a compares subpopulations of religious and nonreligious people for any arbitrary definition of "religious." It follows closely from Proposition 1b. If individuals with higher levels of doctrinal preference express more religious participation, then those who express more religious participation will have, on average, higher levels of social conservatism. Proposition 3b compares religious subpopulations across societies or across time: the society with greater human development will have a more socially conservative religious subpopulation, assuming a static distribution of doctrinal preferences and a definition of "religious" that is fixed across societies or across time. This, though counterintuitive, follows from the same logic. By Propositions 1c and 2a, human development (weakly) decreases religious participation at the individual and aggregate levels. Stronger doctrinal preferences become required before an individual is willing to participate at a level reaching any fixed cutoff r'. This means that the pool of "religious" individuals grows more socially conservative with human development.

It is worth pausing briefly to think a little more about Proposition 3b. The proposition may appear too strong given existing studies suggesting that all individuals, "religious" or not, will hold *less* socially conservative attitudes as societies develop (Inglehart and Welzel 2005). The discrepancy arises because our model assumes that the distribution of doctrinal preferences is fixed as societies develop. As such, Proposition 3b isolates only *one* possible mechanism for altering the level of social conservatism among the religious: the pool of religious people shrinks with development and is increasingly dominated by individuals with higher doctrinal preferences. There may, however, be a second mechanism at work: the distribution of doctrinal preferences might shift lower with development, so that the religious become less socially conservative. Our model provides leverage for developing expectations in this case, since the first mechanism still operates. Assume that the distribution of doctrinal preferences shifts uniformly lower as

societies develop. Then, if this shift is sufficiently great, it is possible that the social conservatism of the religious subpopulation might decrease in an *absolute* sense due to the second mechanism, even as their social conservatism *relative to the population mean* increases due to the first mechanism. We choose not to assume this particular shift in the distribution of doctrinal preferences with development as part of our core model because we have no prior beliefs on the form of the shift, and the effect of the shift can vary. Less uniform distributional shifts, for example, have the potential to further increase the social conservatism of the religious. Ultimately the existence and form of any shift is an empirical question, and we test for it in the next section.

Empirical Analysis

In this section, we test several hypotheses derived from our model regarding the determinants of religious participation, as well as the effect of religious participation on social conservatism.

Aggregate Religious Participation

Our model predicts that aggregate religious participation declines with (1) human development, but at a declining rate, and (2) government regulations on religion. As a preliminary test of the relationship between religious participation and human development, we plot the mean level of religious participation in a country against the human development index (HDI) in Figure 1. We describe our measures of religious participation and human development in more detail shortly. As predicted, religious participation declines with human development but at a declining rate.[6]

To evaluate the determinants of religious participation in a multivariate setting, we created several

measures. *Aggregate Religious Participation* captures the average level of religious attendance in a country and is measured on a 1–8 scale, with 1 meaning that citizens practically never attend religious services and 8 meaning that they attend more than once a week (WVS 2006). Religious attendance closely matches our concept of religious participation, capturing the intuition that being religious entails certain costs and that the benefits from being religious are often restricted to those who actively engage in religious activities.

Human Development Index (HDI) is a composite index capturing three aspects of human development: education, health, and standard of living (UNDP 2007). We employ the natural log of *HDI* to capture the intuition that religious participation declines with development but at a declining rate. *HDI* is a superior measure of development to GDP per capita because it captures a much broader notion of development. This is important because the ability of individuals in our model to earn secular income depends on things like education and health, which in turn depend on the level of development. As our analyses indicate, though, our inferences hold even if we use the narrower measure of *GDP per capita* (Penn World Tables 6.1).

We include two variables to capture the extent to which religion is regulated. *Government Regulation* is a 0–10 index measuring the restrictions placed on religion by *state* actors relating to religious mission work, proselytizing, preaching, conversion, and worship. *Social Regulation* is a 0–10 index measuring the restrictions placed on the practice, profession, and selection of religion by *nonstate* actors such as religious groups or the culture at large. Both variables capture different ways in which actors seek to control religion (Grim and Finke 2006) and, as such, are expected to reduce religious participation.

Finally, we control for several other factors thought to affect religious participation. *Income Inequality* captures income inequality and is measured in the form of a Gini coefficient (Babones 2008). This variable captures the claim that income inequality exacerbates existential security threats, encouraging individuals to seek comfort in religion (Norris and Inglehart 2004, 13–17). *Communist* is a dichotomous variable indicating whether the state is communist. This variable captures the intuition that individuals pay a higher cost for being religious in a communist state given the hostile stance of communist authorities towards religion. *Postcommunist* is a dichotomous variable indicating whether the state had previously

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[6]This negative relationship across human development is not the result of the handful of observations with low HDI values and high levels of religious participation shown in the top left-hand corner of Figure 1. We estimated a series of models in which we regressed the mean level of religious participation against the HDI variable. Each model iteratively dropped observations whose HDI values fell below a certain level (0.4, 0.5, 0.6, 0.7, 0.8, 0.9). The coefficient on the HDI variable was negative in each model and statistically significant ($p < 0.01$, two-tailed) in all but the last model when there were few observations left.

FIGURE 1 **Human Development and Aggregate Religious Participation**
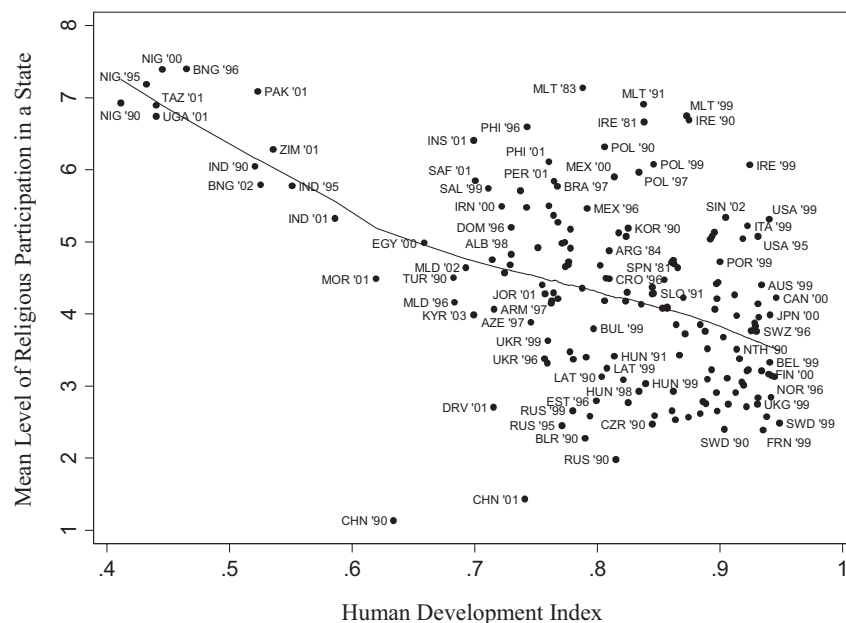
Note: Aggregate religious participation is measured on a 1-8 scale, with 1 meaning that respondents practically never attend religious services and 8 meaning that they attend more than once a week (WVS 2006). The human development index is measured on a 0-1 scale and is a composite measure (health, education, standard of living) of a country's level of human development (UNDP 2007). The 176 observations are from 78 countries; some country abbreviations, which come from the Correlates of War project, have been omitted for visual clarity. The solid line is a lowess curve with bandwidth 0.8 summarizing the relationship between religious participation and human development.

been communist. The expectation is that former communist states will exhibit lower levels of religious participation because religious institutions are less likely to have developed into key social institutions and will be less valuable as social networks. *Percent Catholic*, *Percent Protestant*, and *Percent Muslim* measure the percentages of the population comprised by Catholics, Protestants, and Muslims. One reason for including these variables is to capture the fact that some religions place greater emphasis on religious participation than others. In countries where these religions predominate, people are likely to grow up with greater religious sentiment and hence greater religious participation. Another reason for including these variables is that they capture the intuition that any network benefits that accrue from being religious are likely to increase with the size of the religious community but that the magnitude of this effect may vary across religions.

We estimate our model using ordinary least squares. Although we have panel data, including country fixed effects is problematic. One reason for this is that over a quarter of the countries in our

sample are "singletons" and would be dropped with the inclusion of fixed effects. A second reason has to do with the fact that our religious regulation variables (and several control variables) are time invariant. In effect, including country fixed effects would lead to the omission of our supply-side measures and the estimation of a pure demand-side model.[7] While country random effects might avoid these particular problems, it is arguable that they are also inappropriate here due to the very small number of observations per country (Clarke and Wheaton 2007).[8] Our model does include regional fixed effects—sub-Saharan Africa, South Asia, East Asia, South East Asia, Oceania, Latin America, North America, Eastern Europe, Western Europe—to capture unobserved heterogeneity across regions, as well as dichotomous variables to capture

[7]Although this is clearly problematic, we should note that our inferences with respect to demand-side variables such as human development and GDP per capita are robust to estimating such a fixed-effect model.

[8]Robustness checks that include country random effects leave our inferences unaffected.

common wave effects in the pooled World Values Survey. We employ cluster-robust standard errors to take account of potential heteroskedasticity and the nonindependence of observations from the same country.

We report the results from three different model specifications in Table 1. In Model 3, we employ *GDP*

TABLE 1 **Determinants of Aggregate Religious Participation**

Independent Variables	Model 1	Model 2	Model 3
Dependent Variable: Average Level of Religious Attendance in a Country (1-8)			
Demand-Side Factors			
ln(Human Development Index)	-4.56***	-4.40***	
	(1.65)	(1.18)	
ln(GDP per capita in thousands)			-0.91***
			(0.28)
Supply-Side Factors			
Government Regulation	-0.16***	-0.12**	-0.12**
	(0.06)	(0.05)	(0.05)
Social Regulation	0.04	0.06	0.06
	(0.06)	(0.05)	(0.05)
Controls			
Income Inequality		0.05***	0.04***
		(0.01)	(0.01)
Communist		-1.94*	-2.16
		(0.98)	(1.36)
Postcommunist		-1.46	-1.89
		(1.11)	(1.46)
Percent Catholic		0.02***	0.02***
		(0.01)	(0.01)
Percent Protestant		0.0003	0.0002
		(0.01)	(0.01)
Percent Muslim		0.01	-0.01
		(0.01)	(0.02)
Constant	3.90***	2.33**	5.46***
	(1.11)	(1.07)	(1.80)
Regional Fixed Effects	Yes	Yes	Yes
World Values Survey Wave Fixed Effects	Yes	Yes	Yes
Observations	176	164	141
Countries	78	71	62
R^2	0.47	0.71	0.69

Note: Cells show coefficients with robust standard errors clustered by country in parentheses. The dependent variable is the average level of religious attendance in a country where religious attendance is measured on a 1–8 scale, with 1 meaning that respondents practically never attend religious services and 8 meaning that they attend more than once a week (WVS 2006). *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$ (two-tailed).

per capita as an alternative measure of development.[9] As predicted, there is strong evidence that religious attendance declines with development. This can be seen from the negative and statistically significant coefficient on either *ln(HDI)* or *ln(GDP per capita)* in all three models. These results provide considerable support for secularization theory and its demand-side approach to religion. Although not as strong, there is also some support for supply-side theories of religion. The fact that the coefficients on *Government Regulation* are consistently negative and statistically significant indicate that government regulations on religion reduce religious attendance. Although government regulations have the predicted effect, there is no evidence that *social* regulations ever affect religious attendance. In terms of the control variables, there is evidence that religious attendance increases with inequality and with the percentage of the population comprised by Catholics. There is also some evidence that religious attendance may be lower in communist countries.

Individual Religious Participation

Although secularization theory is usually tested at the aggregate level, it must ultimately work at the individual level. Our model predicts that individual religious participation declines with (1) an individual's ability to produce secular income, (2) human development, and (3) government regulations that suppress religion.

To test these hypotheses, we created several measures. *Individual Religious Participation* captures an individual's level of religious attendance and is measured on the same 1–8 scale described previously.

[9]We conducted a number of robustness checks. First, we recognized that some religions place less emphasis on religious attendance than others. This is true, for example, of Buddhism and Taoism, and is arguably also true of Islam, where regular prayer is often seen as more important than actually attending religious services. To some extent, this is taken into account by the inclusion of regional fixed effects. To address this further, though, we dropped countries where Buddhism, Taoism, or Islam was the majority religion. Second, we recognized that some countries provide more observations—more surveys—to our sample than others. To address any concern that certain countries might be driving our results, we estimated models in which we looked at only the first or last survey from each country. We also ran a jackknife procedure where we sequentially dropped each country one at a time from our sample. In addition, we conducted leverage tests to see if any observation exerted "untoward" leverage on our results. We found a few observations that had leverage scores around the critical threshold for a sample of our size. We then reestimated our models after dropping these observations. Third, we used a tobit model to take account of the fact that our dependent variable is bounded below at 1 and above at 8. Finally, we limited our sample to those countries that are democratic (greater than 4 on the Polity IV democracy continuum) to take account of the possibility that respondents in authoritarian regimes might not truthfully reveal their level of religious attendance. In all cases, our inferences were unaffected.

To get at an individual's ability to produce secular income, we constructed various alternative proxy variables (WVS 2006). *Income* refers to an individual's self-reported current income and is measured on a 3-point scale: low, medium, or high. *Male* is a dichotomous variable indicating whether an individual is male or not. *Education* refers to an individual's highest level of education and is measured on a 1–8 scale, where 1 means that the individual has not adequately completed elementary education and 8 means that she has an undergraduate degree or higher. *Older than 65* is a dichotomous variable indicating whether an individual is beyond the typical retirement age. Given that an individual's ability to produce secular income should be positively associated with current income, being male, being highly educated, and not having reached retirement age, religious attendance is expected to decline with *Income*, *Male*, and *Education* but increase with *Older than 65*. The aggregate-level variables, such as *HDI*, are all measured in the same way as before.

Given that we now have far more observations per country than before, we estimate a multilevel random-effects model with cluster-robust standard errors using feasible generalized least squares (Cameron and Trivedi 2005, 705). In this two-level model, the religious attendance of individual i in country-year j is modeled as a linear function of our covariates:

$$Individual\ Religious\ Participation_{ij} = x_{ij}\beta + d_j\gamma + (u_j + e_{ij})$$
$$= x_{ij}\beta + d_j\gamma + \epsilon_{ij},$$
$$(1)$$

where x_{ij} and d_j are individual- and aggregate-level covariates respectively, $u_j \sim (u, \sigma_u^2)$ is a country-year random-effect error component, $e_{ij} \sim (0, \sigma_e^2)$ is an individual-specific error component, and $\varepsilon_{ij} = u_j + e_{ij}$ is the total error. The random effects are designed to allow for unobserved heterogeneity at the aggregate level. Among other things, these random effects allow us to control for the fact that the overall level of doctrinal strictness in a country, and hence religious attendance, may vary for unobserved reasons (Proposition 2b). We place the random effects on the country-year to allow for the possibility that any unobserved heterogeneity might vary both between countries and within countries over time.[10] Statistical

tests indicate that a model with these random effects is superior to one without them. As before, we employ regional and WVS common-wave fixed effects.

We report the results from six different model specifications in Table 2.[11] The first model includes only aggregate-level variables. The remaining models each incorporate one of our four proxy variables for an individual's ability to produce secular income, first separately and then jointly. Overall, the results strongly support our predictions. In terms of the individual-level variables, Models 2–5 indicate that religious attendance declines with income, being male, and higher levels of education and that it increases after reaching 65 years of age. This is exactly as predicted. With the exception of *Income*, which has the predicted negative sign but does not reach conventional levels of statistical significance, these inferences continue to hold even when *all* of the proxy variables for expected income are included in the same model (Model 6). In terms of the aggregate-level variables, all six models support our claim that religious attendance declines with human development—the coefficient on *ln(HDI)* is always negative and highly statistically significant. When it comes to the effect of regulations on religion, our results indicate that much depends on whether the regulations are imposed by state or nonstate actors. As predicted, government regulation of religion consistently reduces religious attendance—the coefficient on *Government Regulation* is negative in all six models and reaches conventional levels of statistical significance in four of them. In contrast, there is no evidence that restrictions placed on religion by nonstate actors ever reduces religious attendance. Indeed, the coefficient on *Social Regulation* is positive, though typically not statistically significant, in all six models.

In terms of the control variables, the evidence indicates that religious attendance increases with income inequality and the size of the Catholic population but declines if the state is communist.

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[10]While the increased number of observations per country now makes the use of random effects appropriate, country fixed effects remain problematic for the reasons stated earlier. We should note, however, that our inferences regarding demand-side factors such as human development and the alternative measures of an individual's ability to earn secular income are all robust to the inclusion of country fixed effects.

[11]Our results are unaffected by the same set of robustness checks described in note 9. In addition, we estimated models where we controlled for an individual's religious denomination. We did this because strict denominations typically expect higher levels of religious participation than less strict ones. The fact that our inferences were once again robust indicates, in line with our theoretical model, that demand-side factors such as human development and an individual's ability to earn secular income have a direct effect on religious attendance even after controlling for any indirect effect that works through denominational choice.

TABLE 2   Determinants of Individual Religious Participation

Independent Variables	Dependent Variable: Individual Level of Religious Attendance in a Country (1–8)					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual-Level Attributes						
Income		-0.11**				-0.03
		(0.02)				(0.02)
Male			-0.44**			-0.34**
			(0.08)			(0.12)
Older than 65				0.71**		0.53**
				(0.05)		(0.05)
Education					-0.05**	-0.03**
					(0.01)	(0.01)
Aggregate-Level Attributes						
ln(Human Development Index)	-4.40**	-4.43**	-4.42**	-4.56**	-3.96**	-3.99**
	(0.88)	(0.90)	(0.87)	(0.95)	(0.95)	(0.97)
Government Regulation	-0.12**	-0.12**	-0.12**	-0.12**	-0.04	-0.05
	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)	(0.04)
Social Regulation	0.06	0.06*	0.06	0.06*	0.06	0.07
	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Income Inequality	0.05**	0.04**	0.05**	0.05**	0.05**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Communist	-1.94*	-1.98*	-1.93*	-1.95*	-3.58**	-3.46**
	(0.80)	(0.79)	(0.80)	(0.82)	(0.40)	(0.41)
Postcommunist	-1.46	-1.49	-1.43	-1.51	0.95*	0.91
	(0.96)	(0.95)	(0.95)	(0.98)	(0.45)	(0.46)
Percent Catholic	0.02**	0.02**	0.02**	0.02**	0.02**	0.02**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.01)
Percent Protestant	0.0003	0.002	0.001	0.001	0.004	0.01
	(0.005)	(0.01)	(0.005)	(0.005)	(0.01)	(0.01)
Percent Muslim	0.01	0.01	0.01	0.01	0.01*	0.01**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	0.90	1.12	1.08	0.72	0.78	0.76
	(0.62)	(0.63)	(0.62)	(0.64)	(0.75)	(0.78)
Regional Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
World Values Survey Wave Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
σ_u	0.74	0.75	0.74	0.74	0.72	0.70
σ_e	2.21	2.21	2.20	2.20	2.18	2.17
p	0.10	0.10	0.10	0.10	0.10	0.09
Observations	229,263	198,342	229,112	227,505	158,590	138,829
Countries	71	71	71	71	70	70
Overall R^2	0.18	0.18	0.19	0.19	0.20	0.21
Aggregate-level R^2	0.71	0.70	0.71	0.70	0.74	0.74
Individual-level R^2	——	0.002	0.01	0.01	0.003	0.01

Note: Cells show coefficients from a country-year random-effects model estimated via feasible generalized least squares. Robust standard errors clustered by country-year are shown in parentheses. The dependent variable is an individual's level of religious attendance measured on a 1–8 scale, with 1 meaning that a respondent practically never attends religious services and 8 meaning that she attends more than once a week (WVS 2006). σ_u gives the standard deviation for the country-year random-effect error component, u_j. σ_e gives the standard deviation for the individual-specific error component, e_{ij}. p is calculated as $\sigma_u^2/(\sigma_u^2 + \sigma_e^2)$ and can be interpreted as the proportion of the total variance that can be attributed to the aggregate (country-year), rather than the individual, level. *$p < 0.05$; **$p < 0.01$ (two-tailed).

Religious Participation and Social Conservatism

Existing studies have traditionally examined how political attitudes vary across religious denominations or cultures (Norris and Inglehart 2004). Our study, though, fits into a newer strand in the literature that looks at how an individual's *level of religious participation* affects her social attitudes. Recall that our model predicts (1) that religious individuals are always more socially conservative than nonreligious individuals in a given country and (2) that this difference in social conservatism increases with human development.

To test these predictions, we created several measures of social conservatism. *Left-Right Ideology* measures an individual's left-right self-placement on a 10-point scale, where 1 is the most left and 10 is the most right. We believe that this measure captures an individual's level of social conservatism in a very general sense. One potential problem, though, is that it may reflect a mix of social *and* economic attitudes. A second limitation is that it does not capture attitudes towards any single social issue. To address these concerns, we created other measures of social conservatism that more obviously capture an individual's attitude towards specific social issues. *Divorce*, *Euthanasia*, *Abortion*, *Suicide*, and *Homosexuality* measure whether an individual believes that these practices are justifiable on a 1–10 scale, where 1 means that the practice is always justifiable and 10 means that the practice is never justifiable. Higher values reflect more socially conservative attitudes. As for our primary independent variables, *Individual Religious Participation* and *Human Development Index* are measured as before. We control for various individual-level attributes that might also affect social attitudes such as gender, income, age, and education. With the exception of the human development index, the data for all of these variables come from the WVS (2006).

For the same reasons as before, we estimate a multilevel random-effects model with standard errors clustered on the country-year using feasible generalized least squares. We continue to employ regional fixed effects to capture unobserved heterogeneity across regions and dichotomous variables to capture common-wave effects in the pooled World Values Survey. In our model, the social conservatism of individual i in country-year j is modeled as a linear function of various covariates:

$$
\begin{aligned}
Social\ Conservatism_{ij} \\
= \beta_0 + \beta_1 Individual\ Religious\ Participation_{ij} \\
+ \beta_2 Human Development\ Index_j \\
+ \beta_3 Individual\ Religious\ Participation \\
\times\ Human\ Development\ Index_{ij} \\
+ \beta_4 Controls_{ij} + \epsilon_{ij}.
\end{aligned} \tag{2}
$$

According to our theory, higher levels of religious participation should always be associated with increased social conservatism. However, this positive effect should increase with development.[12] As a result, β_3 should be positive and $\beta_1 + \beta_3 Human\ Development\ Index$ should be positive for all observable levels of development. Note that all interactions are symmetric (Berry, Golder, and Milton 2012). This means that our empirical claim that the effect of religious participation depends on the level of human development logically implies the empirical claim that the effect of human development depends on one's level of religious participation. Our model makes no firm predictions regarding the direction of this effect across all levels of religious participation as it does not specify a shift in the distribution of doctrinal preferences with human development. As we noted in the text following Proposition 3b, though, should that shift uniformly decrease doctrinal preferences sufficiently strongly, we would expect, in line with existing studies, that individuals would hold less socially conservative attitudes as societies develop (Inglehart and Welzel 2005). As a result, $\beta_2 + \beta_3 Individual\ Religious\ Participation$ would be negative for all values of religious participation.

We report the results from 12 slightly different models in Table 3. As predicted, the coefficient on the interaction term, β_3, is positive and highly statistically significant in all of the models. This indicates that the effect of religious participation on social conservatism depends in a positive way on the level of human development. To further evaluate our predictions, we plot the marginal effect of religious participation on our different measures of social conservatism across the observed range of human development in Figure 2.[13] To help readers better assess the evidence in these marginal-effects plots, we overlay a histogram
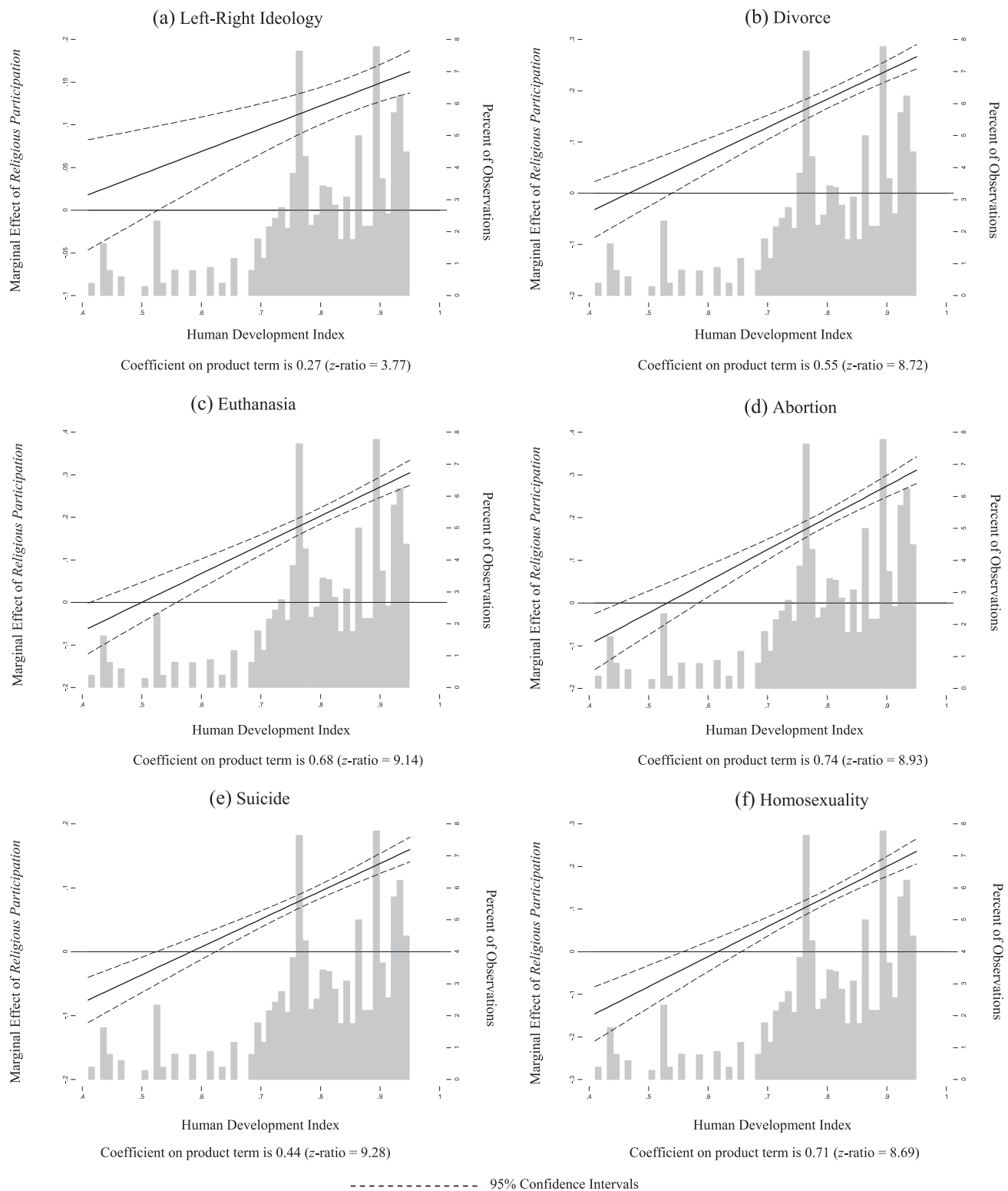
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[12]Proposition 3b is phrased slightly differently than this because it refers to a single cutoff for being "religious." Our statement here, though, follows directly from Proposition 3b's logic once religious participation is conceptualized as having more than two levels.

[13]Each marginal effect plot is based on the relevant model from Table 3 that includes the individual-level control variables.
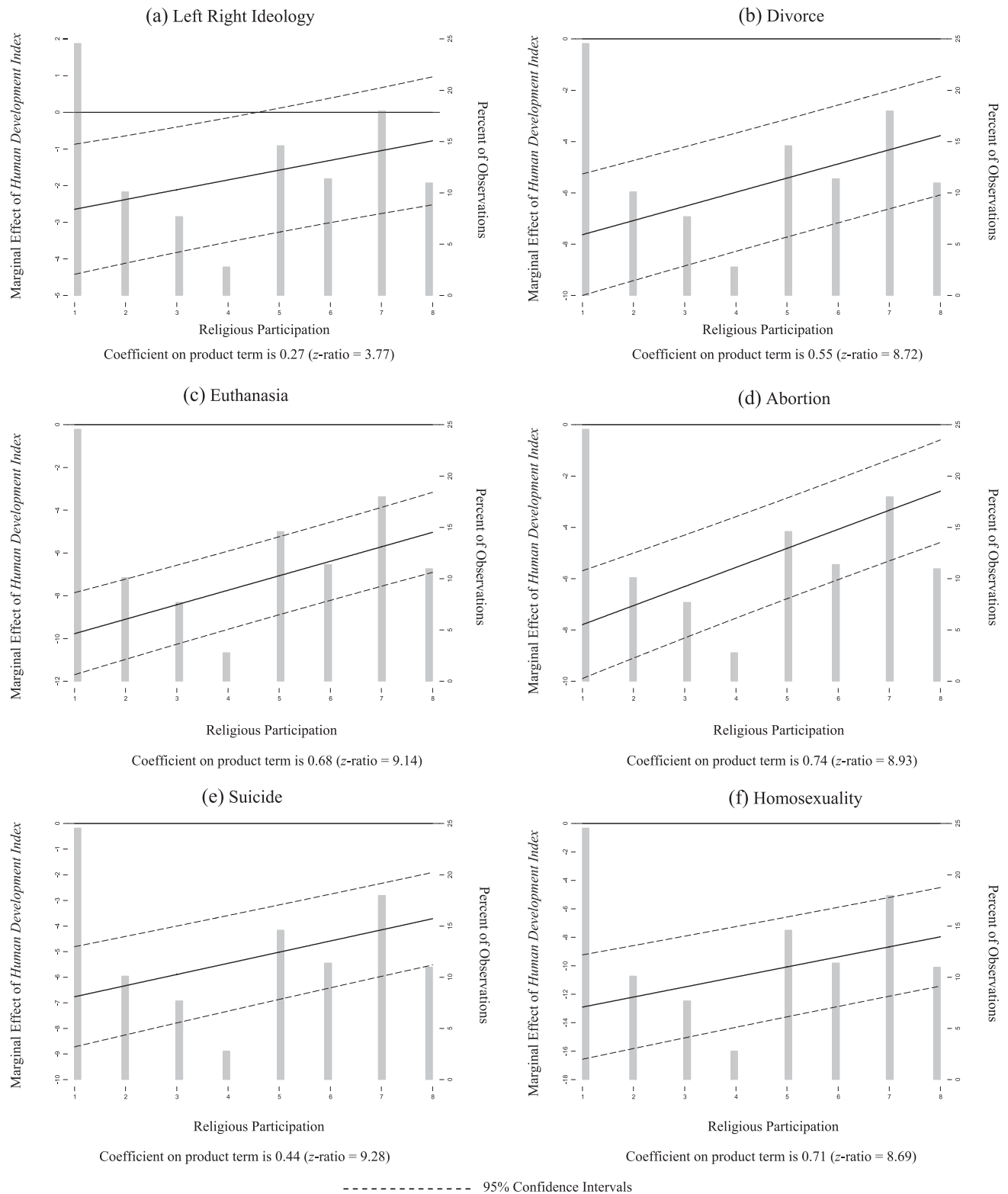
TABLE 3 Individual Religious Participation and Social Conservatism

	Dependent Variable: Social Conservatism (1-10)											
Independent Variables	Left-Right Ideology		Divorce		Euthanasia		Abortion		Suicide		Homosexuality	
Individual Religious Participation	-0.13**	-0.09	-0.32***	-0.26***	-0.36***	-0.34***	-0.46***	-0.39***	-0.30***	-0.25***	-0.50***	-0.43***
	(0.06)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)	(0.07)	(0.07)	(0.04)	(0.04)	(0.06)	(0.07)
Human Development Index	-2.20***	-2.91***	-8.44***	-8.18***	-8.63***	-10.45***	-9.10***	-8.53***	-5.97***	-7.20***	-12.15***	-13.60***
	(0.63)	(0.93)	(0.70)	(1.22)	(0.85)	(1.00)	(0.76)	(1.10)	(0.52)	(1.02)	(1.07)	(1.90)
Individual Religious Participation × Human Development Index	0.34***	0.27***	0.66***	0.55***	0.71***	0.68***	0.85***	0.74***	0.51***	0.44***	0.81***	0.71***
	(0.07)	(0.07)	(0.07)	(0.06)	(0.08)	(0.07)	(0.08)	(0.08)	(0.05)	(0.05)	(0.08)	(0.08)
Controls												
Income		0.09***		-0.12***		-0.17***		-0.11***		-0.03***		-0.13***
		(0.02)		(0.02)		(0.02)		(0.02)		(0.01)		(0.02)
Male		0.08***		0.11***		-0.07***		0.13***		-0.01		0.40***
		(0.02)		(0.03)		(0.02)		(0.03)		(0.02)		(0.04)
Education		-0.04***		-0.14***		-0.09***		-0.12***		-0.06***		-0.15***
		(0.01)		(0.01)		(0.01)		(0.01)		(0.01)		(0.02)
Age		0.02		0.58***		0.47***		0.51***		0.29***		0.75***
		(0.06)		(0.04)		(0.05)		(0.04)		(0.03)		(0.06)
Constant	6.82***	7.37***	12.42***	12.84***	13.41***	15.76***	13.82***	14.04***	13.13***	14.51***	17.22***	18.22***
	(0.54)	(0.86)	(0.58)	(1.17)	(0.73)	(0.92)	(0.63)	(1.03)	(0.43)	(0.95)	(0.88)	(1.79)
Regional Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
World Values Survey Wave Fixed Effects	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
σ_u	0.57	0.53	0.66	0.59	0.76	0.55	0.78	0.56	0.49	0.46	0.88	0.73
σ_e	2.15	2.25	2.67	2.65	2.79	2.78	2.45	2.38	2.02	1.91	2.50	2.34
p	0.07	0.05	0.06	0.05	0.07	0.04	0.09	0.05	0.06	0.05	0.11	0.09
Observations	180,859	110,025	227,399	136,892	214,362	128,427	226,988	137,487	223,669	135,784	220,894	133,492
Countries	74	73	78	77	78	77	78	77	78	77	77	76
Overall R^2	0.03	0.04	0.11	0.15	0.11	0.17	0.14	0.21	0.08	0.11	0.15	0.27
Aggregate-level R^2	0.10	0.40	0.59	0.73	0.52	0.78	0.50	0.78	0.50	0.68	0.53	0.78
Individual-level R^2	0.02	0.02	0.04	0.05	0.03	0.04	0.05	0.06	0.02	0.02	0.03	0.06

Note: Cells show coefficients from a country-year random-effects model estimated via feasible generalized least squares. Robust standard errors clustered by country-year are shown in parentheses. The dependent variables, shown across the top of the columns, refer to either a respondent's left-right ideological self-placement or her attitudes towards a specific social issue. All dependent variables are measured on a 1–10 scale, with higher values associated with greater social conservatism. σ_u gives the standard deviation for the country-year random-effect error component, u_j. σ_e gives the standard deviation for the individual-specific error component, e_{ij}. p is calculated as $\sigma_u^2/(\sigma_u^2 + \sigma_e^2)$ and can be interpreted as the proportion of the total variance that can be attributed to the aggregate (country-year), rather than the individual, level. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$ (two-tailed).

FIGURE 2 Marginal Effect of Individual Religious Participation on Social Conservatism

(a) Left-Right Ideology

Coefficient on product term is 0.27 (*z*-ratio = 3.77)

(b) Divorce

Coefficient on product term is 0.55 (*z*-ratio = 8.72)

(c) Euthanasia

Coefficient on product term is 0.68 (*z*-ratio = 9.14)

(d) Abortion

Coefficient on product term is 0.74 (*z*-ratio = 8.93)

(e) Suicide

Coefficient on product term is 0.44 (*z*-ratio = 9.28)

(f) Homosexuality

Coefficient on product term is 0.71 (*z*-ratio = 8.69)

- - - - - - - - - - - - - - 95% Confidence Intervals

Note: Each panel illustrates the marginal effect of individual religious participation on either a respondent's left-right self-placement or a specific social issue across the observed range of the human development index; a positive marginal effect indicates an increase in social conservatism. The vertical axis on the left of each panel indicates the magnitude of the relevant marginal effect. The vertical axis on the right of each panel is for the histogram and indicates the percentage of observations in the sample at different values of the human adevelopment index.

FIGURE 3 **Marginal Effect of Human Development on Social Conservatism**

Note: Each panel illustrates the marginal effect of the human development index on either a respondent's left-right self-placement or a specific social issue across the observed range of individual religious participation; a negative marginal effect indicates a decrease in social conservatism. The vertical axis on the left of each panel indicates the magnitude of the relevant marginal effect. The vertical axis on the right of each panel is for the histogram and indicates the percentage of observations in the sample at each of the eight different values of individual religious participation.

indicating the percentage of observations at the different values of human development. In line with our predictions, the marginal effect of religious participation is almost always positive and statistically significant. Although the precise percentages vary depending on the particular measure being used, religious participation has a positive and statistically significant effect on social conservatism in 90.8–96.3% of our sample. It is true that the negative and statistically significant effect of religious participation at *extremely* low levels of human development in some of the panels in Figure 2 runs contrary to our theory. Importantly, though, less than 2.7% of our sample falls in this region on average. On the whole, Figure 2 provides overwhelming support for our predictions that religious individuals always hold more socially conservative attitudes than their nonreligious brethren and that this gap in attitudes increases with human development.

What about the claim that all individuals hold less socially conservative attitudes as societies develop? The coefficient on *Human Development Index*, β_2, is negative and statistically significant in all 12 models, indicating that societal development reduces social conservatism among those with the lowest levels of religious participation. In Figure 3, we plot the marginal effect of human development across the full range of individual religious participation. Again, we overlay a histogram indicating the percentage of observations at different values of individual religious participation. We find that human development always has a statistically significant negative effect on each of the specific measures of social conservatism.[14] In other words, $\beta_2 + \beta_3 Individual\ Religious\ Participation$ is negative and statistically significant for all levels of religious participation. This indicates that religious (and nonreligious) individuals hold less socially conservative attitudes as societies develop, which is consistent with a leftward shift in the distribution of doctrinal preferences with human development. If we combine all of these results together, we see that although religious individuals hold less socially conservative attitudes as societies develop in *absolute* terms, their attitudes remain and, indeed, become more socially conservative *relative* to the mainstream.

In terms of the control variables, age is associated with greater social conservatism, and education is associated with less. Increased income lowers social conservatism on all of the individual social policies but leads to a more conservative position on the left-right ideological spectrum. Although the evidence on

gender is somewhat mixed, there is some evidence that men hold more socially conservative attitudes than women—the coefficient on *Male* is positive and statistically significant for four of the six measures.

Conclusion

Over the last 20 years, secularization theory, with its emphasis on demand-side explanations of religion, has come under sustained attack. Its claim that religious participation declines with human development has been challenged empirically, as well as criticized for lacking a clear causal story. And its related claim that social conservatism also declines with development is seen by many to be at odds with the way in which social issues have become increasingly influential as a basis for political mobilization in recent years. A consequence of all this is that the religious markets model, with its emphasis on supply-side explanations, has come to replace secularization theory as the dominant paradigm in contemporary studies of religion.

To a large extent, our article can be viewed as a defense of secularization theory. As we demonstrate, secularization theory's core claim that religious participation declines with human development can be given a firm microfoundation by recognizing the substitutability of secular and religious goods and the fact that an individual's ability to earn secular income generally increases with development. Significantly, our model does not make the empirically implausible claim that religious participation necessarily disappears as societies develop. By recognizing that populations differ in their comfort with doctrinal strictness, perhaps because of the way that individuals are socialized as children or the historical role that religion plays in the public sphere, our model leaves open the possibility that religious participation may remain high even in highly developed societies. Using a data set that exhibits significant variation in development, we find considerable support for secularization theory at both the aggregate and individual level. Specifically, we find that religious participation declines with development and an individual's ability to earn a secular income.

Our model is unusual in that it captures not only an individual's religious participation but also her preferences over social policy. As a result, it allows us to contribute to the debate about the impact of religion on social attitudes. Far from being a sign that secularization theory is flawed, our model suggests that the continued salience of social issues and the emergence of "culture wars" are precisely what one might expect to observe if

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[14]The effect on the general left-right measure of social conservatism is either negative or statistically indistinguishable from zero.

secularization theory were true. It is well-known that religious individuals are generally more socially conservative than their secular counterparts. By explicitly incorporating development into our model, we derive the additional and important prediction that religious individuals become *more* socially conservative relative to the population mean as societies develop. This prediction is borne out in our empirical analyses. Although we find that religious individuals hold less socially conservative attitudes in an absolute sense as societies develop, their attitudes become more socially conservative relative to those held by mainstream society. In effect, development leads to a situation in which the social attitudes of the religious are increasingly in conflict with those of the nonreligious, creating a cleavage ripe for mobilization (Rozell and Wilcox 1996). This provides a potential explanation for the continued, or indeed increased, salience of social issues to various forms of political competition. That the overall size of the religious community also declines with development means that socially conservative religious individuals, and the political entrepreneurs who represent them, will find it easier to overcome collection action problems. This suggests that these individuals and groups may well obtain disproportionate political influence with societal development, even as their numbers dwindle and society becomes less socially conservative as a whole.

References

Abramowitz, Alan I. 1995. "It's Abortion Stupid: Policy Voting in the 1992 Presidential Election." *Journal of Politics* 57 (1): 176–88.

Andersen, Robert, and Tina Fetner. 2008. "Economic Inequality and Intolerance: Attitudes toward Homosexuality in 35 Democracies." *American Journal of Political Science* 52 (4): 942–58.

Babones, Salvatore J. 2007. "Standardized Income Inequality Data for Use in Cross-National Research." *Sociological Inquiry* 77 (1): 3–22.

Barros, Pedro Pita, and Nuno Garoupa. 2002. "An Economic Theory of Church Strictness." *The Economic Journal* 112 (481): 559–76.

Berger, Peter L. 1999. *The Desecularization of the World: Resurgent Religion and World Politics.* Grand Rapids, MI: Eerdmans.

Berry, William D., Matt Golder, and Daniel Milton. 2012. "Improving Tests of Theories Positing Interaction." *Journal of Politics* 74 (3): 653–71.

Cameron, A. Colin and Pravin K. Trivedi. 2005. *Microeconometrics: Methods and Applications.* New York: Cambridge University Press.

Campbell, David E., and J. Quin Monson. 2007. "The Case of Bush's Reelection: Did Gay Marriage Do It?" In *A Matter of Faith: Religion in the 2004 Presidential Election*, ed. David E. Campbell. Washington DC: Brookings Institution Press, 120–41.

Chaves, Mark, and David E. Cann. 1992. "Regulation, Pluralism, and Religious Market Structure." *Rationality and Society* 4 (3): 272–90.

Clarke, Philippa, and Blair Wheaton. 2007. "Addressing Data Sparseness in Contextual Population Research: Using Cluster Analysis to Create Synthetic Neighborhoods." *Sociological Methods and Research* 35 (3): 311–51.

De La O, Ana, and Jonathan Rodden. 2008. "Does Religion Distract the Poor? Income and Issue Voting Around the World." *Comparative Political Studies* 41 (4–5): 437–76.

Finke, Roger. 1990. "Religious Deregulation: Origins and Consequences." *Journal of Church and State* 32 (3): 609–26.

Finke, Roger. 1998. "Religious Choice and Competition." *American Sociological Review* 63 (5): 761–66.

Finke, Roger, and Rodney Stark. 1992. *The Churching of America: 1776-1990.* New Brunswick, NJ: Rutgers University Press.

Gaskins, Ben, Matt Golder, and David A. Siegel. 2013. "Religious Participation and Economic Conservatism." *American Journal of Political Science.* Forthcoming.

Gill, Anthony. 1999. "Government Regulation, Social Anomie and Protestant Growth in Latin America." *Rationality and Society* 11: 287–316.

Gill, Anthony. 2001. "Religion and Comparative Politics." *Annual Review of Political Science* 4 (3): 117–38.

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

Grim, Brian J., and Roger Finke. 2006. "International Religion Indexes: Government Regulation, Government Favoritism, and Social Regulation of Religion." *Interdisciplinary Journal of Research on Religion* 2: 1–40.

Hadden, Jeffrey K. 1987. "Toward Desacralizing Secularization Theory." *Social Forces* 65 (3): 587–611.

Herek, Gregory M. 1987. "Religious Orientation and Prejudice: A Comparison of Racial and Sexual Attitudes." *Personality and Social Psychology Bulletin* 13 (1): 34–44.

Himmelfarb, Gertrude. 1999. *One Nation: Two Cultures.* New York: Random House.

Hunter, James Davison. 1991. *Culture Wars: The Struggle to Define America.* New York: Basic Books.

Iannaccone, Laurence R. 1992. "Sacrifice and Stigma: Reducing Free-riding in Cults, Communes, and Other Collectives." *Journal of Political Economy* 100 (2): 271–91.

Iannaccone, Laurence R. 1994. "Why Strict Churches are Strong." *American Journal of Sociology* 99 (5): 1180–1211.

Inglehart, Ronald, and Christian Welzel. 2005. *Modernization, Cultural Change and Democracy*. Cambridge: Cambridge University Press.

Inglehart, Ronald, and Wayne E. Baker. 2000. "Modernization, Cultural Change, and the Persistence of Traditional Values." *American Sociological Review* 65 (1): 19–51.

Kepel, Gilles. 1994. *The Revenge of God: The Resurgence of Islam, Christianity, and Judaism in the Modern World*. University Park: Pennsylvania State University Press.

Kirkpatrick, Lee A. 1993. "Fundamentalism, Christian Orthodoxy, and Intrinsic Religious Orientation as Predictors of Discriminatory Attitudes." *Journal for the Scientific Study of Religion* 32 (3): 256–68.

Layman, Geoffrey. 1997. "Religion and Political Behavior in the United States: The Impact of Beliefs, Affiliations, and Commitment from 1980 to 1994." *Public Opinion Quarterly* 61 (2): 228–316.

Layman, Geoffrey. 2001. *The Great Divide: Religious and Cultural Conflict in American Party Politics*. New York: Columbia University Press.

Leege, David C., Kenneth D. Wald, Brian S. Krueger, and Paul D. Mueller. 2002. *Politics of Cultural Differences: Social Change and Voter Mobilization Strategies in the Post-New Deal Period*. Princeton, NJ: Princeton University Press.

McBride, Michael. 2008. "Religious Pluralism and Religious Participation: A Game Theoretic Analysis." *American Journal of Sociology* 114 (1): 77–106.

McBride, Michael. 2010. "Religious Market Competition in a Richer World." *Economica* 77 (305): 148–71.

McFarland, Sam G. 1989. "Religious Orientations and the Targets of Discrimination." *Journal for the Scientific Study of Religion* 28 (3): 324–36.

Montgomery, James D. 2003. "A Formalization and Test of the Religious Economies Model." *American Sociological Review* 68 (5): 782–809.

Norris, Pippa, and Ronald Inglehart. 2004. *Sacred and Secular: Religion and Politics Worldwide*. New York: Cambridge University Press.

Olson, Mancur. 1971. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.

Rozell, Mark J., and Clyde Wilcox. 1996. "Second Coming: The Strategies of the New Christian Right." *Political Science Quarterly* 111 (2): 271–94.

Scheepers, Peer, Manfred Te Grotenhuis, and Frans Van Der Silk. 2002. "Education, Religiosity, and Moral Attitudes: Explaining Cross-National Effect Differences." *Sociology of Religion* 63 (2): 157–76.

Stark, Rodney, and L. Iannaccone. 1994. "A Supply-Side Reinterpretation of the 'Secularization' of Europe." *Journal of the Scientific Study of Religion* 33 (3): 230–52.

Stark, Rodney, and Roger Finke. 2000. *Acts of Faith: Exploring the Human Side of Religion*. Berkeley: University of California Press.

United Nations Development Programme (UNDP). 2007. *Human Development Report 2007/2008*. New York: United Nations Development Programme.

Wald, Kenneth D., Adam Silverman, and Kevin S. Fridy. 2005. "Making Sense of Religion in Political Life." *Annual Review of Political Science* 8: 121–43.

World Values Survey(WVS). 2006. "European and World Values Surveys Four-Wave Integrated Data File, 1981-2004. http://www.wvsevsdp.com/wvs/WVSData.jsp. v.20060423."

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