

THE POLITICAL ECONOMY OF BELIEFS:  
WHY FISCAL AND SOCIAL CONSERVATIVES/LIBERALS COME HAND-IN-HAND

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**Abstract** Why are religious groups with greater within-group charitable giving more against the welfare state and more socially conservative? We propose and test a theory where religious provision of social insurance explains why fiscal and social conservatism align and where church-state separation is key. The alignment disappears when there is a state church and reverses for members of a state church. Elites increase church-state separation to create a constituency for lower taxes when religious voters exceed non-religious voters. Otherwise, elites prefer less church-state separation in order to curb the secular left. Multiple steady states arise where some countries sustain high church-state separation, high religiosity, and low welfare state, and vice versa. We show that church-state separation increases the alignment between fiscal and social conservatism using Sweden's abolition of the state church and random variation in U.S. Establishment Clause jurisprudence.

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*From abolition [of slavery] to woman suffrage to civil rights, the leaders of America's most successful liberal crusades have turned to the Bible to justify their causes. But the history of the religious left seems to stop in 1968, the starting point of a decades-long trend by which Democrats have become the secular party and the Republicans the religious party (Lizza 2005).*

## 1. INTRODUCTION

Can market forces shape normative commitments?<sup>1</sup> Today, some argue that depending on the welfare state is the same as worshipping the government as if it were God.<sup>2</sup> Welfare support decreases in the U.S. while fundamentalism, which characterizes 31% of Americans, increases with religious attendance (Figure 1).<sup>3</sup> No obvious theory<sup>4</sup> explains why contemporary religious groups emphasize individual responsibility at the expense of the welfare state, a phenomenon which was documented in Fogel's (2000) seminal discussion of religious movements and redistributive preferences in The Fourth Great Awakening and the Future of Egalitarianism. At first glance, such an alignment is puzzling since a philosophy against government intervention espoused by the Republican party on fiscal matters could be a good fit with a similar position on issues of personal choice such as abortion. Furthermore, this alignment has not always existed. The Social Gospel movement of the early 1900s and the Christian Democratic party in European countries are examples of alignment along the other diagonal of the matrix of fiscal and social attitudes. This paper proposes a theoretical framework for when fiscal and social conservatives align<sup>5</sup> and where church-state separation is key. The theoretical framework offers a novel explanation for the changing nature of religious movements and why church-state separation arose in the U.S. but not in many European countries.<sup>6</sup>

The starting point of our theory is that religious provision of social insurance (Cnaan, Boddie,

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<sup>1</sup>From financial crises to international trade (Chen 2010; 2014), litigation funding to industry-physician relationships (Chen 2015; Chen, Levonyan, Reinhart, and Taksler 2014), competition to gender inequality (Chen 2011; 2004), legal compliance to rights revolutions (Chen and Yeh 2014a; Chen 2013), economic incentives are linked to a wide range of normative commitments.

<sup>2</sup>Fernandez, Purcell, Rinear, and Wiesinger (2003) and Hornberger (1993).

<sup>3</sup>22% of those who never attend religious services support more welfare while 14% of weekly attenders support more welfare. Welfare support is measured from the question: "We are faced with many problems in this country, none of which can be solved easily or inexpensively. Are we spending too much money, too little money, or about the right amount on welfare?" We code "Too little money" as 1 and the other responses as 0. Appendix Figure 1 shows that the pattern presented in this figure holds for other fiscal attitudes. Table I shows that it holds controlling for demographics. In all subsequent analyses, we include all races and control for race. Many black churches receive government funding to provide services to their neighborhoods' poorest residents (Owens 2007) and the pattern is indeed weaker among African Americans cf Appendix Table VIII.

<sup>4</sup>Scheve and Stasavage (2006) reject explanations involving denominational differences, altruism, differences in the making of inferences, issue-bundling, and spurious correlation. Glaeser, Ponzetto, and Shapiro (2005) build a model to explain why religion is salient in politics but not why Republicans and Democrats divide along religious issues the way that they do. Jost, Glaser, Kruglanski, and Sulloway (2003) proposes that uncertainty aversion explains why fiscal and social conservatism come together but do not explain why they do not come together in some countries or time periods.

<sup>5</sup>See Converse (1964) and Poole and Rosenthal (1991), (1997) on U.S. congressional voting; Gill and Lundsgaarde (2004), Scheve and Stasavage (2006), and Cavanaugh (2005) on cross-country evidence; and Fiorina, Abrams, and Pope (2011) and Layman (2001) for general discussions of cultural and religious divides. Hout and Fischer (2002) argue that the increase in non-religiosity among moderate political groups is a reaction to the rise of the Religious Right. However, this can only be a reaction to the process we analyze.

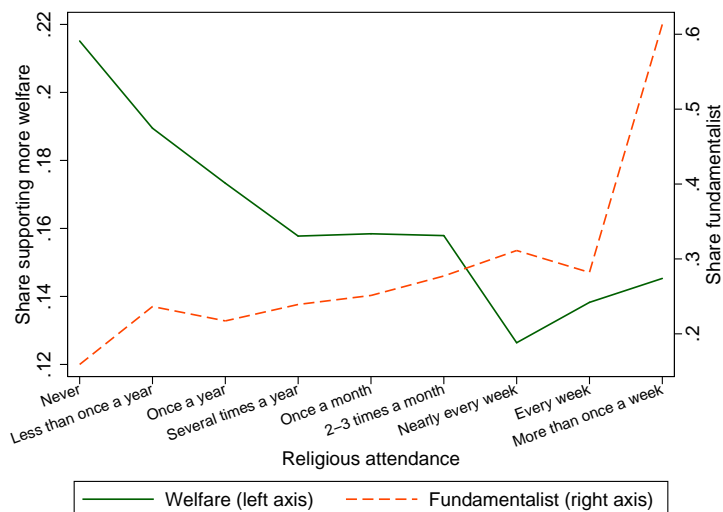
<sup>6</sup>Barro and McCleary (2005) use a Hotelling model to explain why some countries have church-state separation, but do not consider the other dimensions modeled in this paper.

Handy, Yancey, and Schneider 2002) makes religious groups less in need of government welfare, which may be perceived as competitive. Indeed, government welfare crowds out church participation and charitable provision—cross-sectionally across countries (Gill and Lundsgaarde 2004) and within-country using variation from welfare reform (Hungerman 2005) and welfare state expansion during the Great Depression (Gruber and Hungerman 2007). The degree to which charity and insurance occurs within religious groups has been noted in surveys (Iannaccone 1992), theoretical models (Berman 2000), and empirical work (Dehejia, DeLeire, and Luttmer 2005; Chen 2006, 2010). More recent work finds that the variability of agricultural income in the nineteenth century U.S. is linked to religiosity (Ager and Ciccone 2014). Today, religious participation smooths 35% of U.S. income shocks (Dehejia, DeLeire, and Luttmer 2005). In 2003, American giving to religious organizations amounted to \$84 billion (Cadge and Wuthnow 2006 citing U.S. Statistical Abstract 2004) and half of all philanthropic donations by individuals go to religious organizations. Up to 20–25 percent of church expenditures are for charitable purposes, amounting to \$24 billion in philanthropic services (Biddle 1992).

As Gruber and Hungerman (2007) write,

“charitable church activity has played an important role throughout much of American history. After the Revolutionary War, a large influx of immigrants led to a proliferation of churches that provided social services to their respective ethnic groups. Large revival movements in the early 1800s further increased interactions between religious proselytizers and the needy; this in turn led to new opportunities for church-based philanthropic work. By the early twentieth century, charitable church activity played a vital role in helping the needy, and church social work included a wide variety of activities, such as employment services, hospital visitation, cooperation with government correctional and medical institutions and other social service agencies, advocacy for social

Figure 1: Welfare attitudes and Fundamentalism in the U.S.



Notes: Data are from the General Social Survey cumulative file, 1972-2012. 31% of Americans are fundamentalist according to the General Social Survey. Religious attendance and fundamentalism are recorded directly in the General Social Survey. Respondents are classified as supporting welfare if they answer that we are spending too little on welfare. Sample is the white population.

causes, educational services such as job training and basic hygienic instruction, and various programs to aid the poor.”

Mutual insurance can also be in-kind, psychological, or social. Berman (2000) argues that the degree of mutual insurance in religious sects exceeds that of traditional Indian villages studied by Townsend (1994). Frequent churchgoers report larger social networks, more contact with network members, and more types of social support received (Ellison and K.George 1994). Meaningful levels of bidirectional material support exist within religious communities (Maton 1987). In some religious groups, no sick members are without visitors and if members donate, they can receive free services for burial, assistance for new babies or the elderly in their household, and interest-free loans from hundreds to thousands of dollars (Landau 1993). In a financial crisis, tuition fees for parochial schools were waived and individuals seeking employment were matched to employers seeking workers through public announcements at religious meetings; 70% of income shocks during the crisis were smoothed by religious institutions (Chen 2010).

Risk sharing is at the core of the formal model. The static version can be briefly summarized: At date 0, religiosity and church-state separation are set. At date 1, individuals choose a per-unit income tax  $\tau$ . Then income is realized and taxes paid to the state. In addition, individuals donate proportion  $d$  of their income, where  $d$  is interpreted as the individual’s level of religiosity. Income is stochastic with mean  $\mu$  and variance  $\sigma^2$ . An individual’s expected utility, gross of tax and religious donations, is  $\mu - \frac{1}{2}\sigma^2$ , which can be generated by CARA preferences and income shocks are normally distributed. Risk aversion means there is a desire for risk sharing which can occur through redistribution both by the state and religious groups. Both forms of redistribution entail deadweight loss. In the static model, optimal  $\tau$  is lower when individuals are more religious (high  $d$ ). The reason is that shocks to income are already smoothed by  $d$ , so the marginal benefit of taxation and redistribution is lower when  $d$  is high. When a state church exists, proportion  $\gamma$  taxation is redistributed through the religious organization. As  $\gamma$  rises, the optimal taxation increases for individuals who are more religious relative to those who are less religious. Separation between church and state is key: Welfare is less competitive against religious groups when government funding can be distributed to religious groups, which explains two of the three puzzles this paper sets out to explain - (1) why fiscal and social conservatism align together in most countries and (2) why fiscal and social conservatism did not align together in the past or in some countries today.

The dynamic version of our model endogenizes religiosity and church-state separation to explain the third puzzle: (3) why some countries sustain high religiosity, high church-state separation, and low welfare state while others sustain low religiosity, low church-state separation, and high welfare state. In other words, why do countries with state religion have lower levels of religiosity, why do countries with state religion have higher levels of welfare state, and why do countries with high levels of welfare state have low religiosity?<sup>7</sup> We introduce elites who desire low taxes and have (judicial) power over church-state separation. Elites prefer to separate church and state when the relative

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<sup>7</sup>For the negative correlation between religious attendance and having a state church, see Finke and Stark (1992), Iannaccone (1998), and Barro and McCleary (2005); for the negative correlation between religiosity and size of welfare state, see Gill and Lundsgaarde (2004), Scheve and Stasavage (2006), and Cavanaugh (2005).

number of *religious* voters is large because religious voters would shift to fiscal conservatism. This shift in welfare preferences of the religious voters reduces the welfare state. When the relative number of *non-religious* voters is large, then elites *prefer* a state church to align non-religious voters with fiscal conservatism. This, in turn, also creates pressure for a smaller welfare state. We close the model with the motivating observation: Government welfare crowds out religiosity.<sup>8</sup> Then, multiple steady states arise where some countries sustain high religiosity, high church-state separation, and low welfare state, and vice versa. Countries with many religious voters increase church-state separation and shrink the welfare state, which induces marginal members seeking insurance to become more religious, creating a positive feedback. At the other extreme, countries with few religious voters keep a large state church to curb the demand for welfare by non-religious voters, but a smaller welfare state would induce marginal members seeking insurance to become more religious, creating a negative feedback. The negative feedback reduces the initial incentive to decrease church-state separation and stabilizes countries with low initial religious population at low religiosity, low church-state separation, and high welfare state.

Our empirical analysis can be organized into two parts. First, we verify that religious attendance and social conservatism are positively correlated at the individual level. Prior work has established the alignment in congressional voting (Converse 1964; Poole and Rosenthal 1991; Keith T. Poole 1997) and across countries (Gill and Lundsgaarde 2004; Scheve and Stasavage 2006; Cavanaugh 2005). Using a variety of data sources on individual attitudes and the available survey measure in different countries, we show that (a) fiscal and social conservatism and fiscal and social liberalism come hand-in-hand at the individual level *within* countries, not just congressionally or across countries; (b) social conservatism and fiscal conservatism are positively correlated with religious attendance; and (c) religious groups with greater within-group charitable giving are more against the welfare state and more socially conservative. These analyses articulate the original puzzle at the individual level and in a manner correlated with religious attendance and social insurance.

The link between conservatism and insurance is supported theoretically—risk-sharing mechanisms are self-sustaining if agents are punished with permanent autarky if they choose to defect (Coate and Ravallion 1993; Kocherlakota 1996; Alvarez and Jermann 2000; Krueger and Perri 2002; Genicot and Ray 2003), since risk-sharing is more effective without alternative forms of social insurance. This theoretical perspective is consistent with conservative groups having stronger social sanctions to make mutual insurance more self-sustaining relative to social groups without strong social sanctions amid financial crisis (Chen 2010). Economists have noted that social pressure and individual guilt, nurtured through religious and family education, can work as enforcement mechanisms for social insurance (Fafchamps 2004; Ellsworth 1989). More socially conservative religious groups—colloquially referred to as fundamentalist—would be more sanctioning against out-groups. The provision of within-group social insurance varies substantially across religious groups and is positively correlated with conservatism: for example, church involvement among evangelical Protes-

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<sup>8</sup>Government welfare crowds out religiosity across countries (Gill and Lundsgaarde 2004) and within the U.S. during Clinton’s welfare reform (Hungerman 2005) and during the Great Depression amid welfare state expansion (Gruber and Hungerman 2007).

tants is associated mainly with volunteering within the congregation, while mainline Protestants are more likely to volunteer outside their group (Wuthnow 2004).<sup>9</sup>

The second part of our empirical analysis focuses on the relationship between religiosity and fiscal conservatism as it varies with church-state separation. We show that (a) the alignment between religious attendance and fiscal conservatism disappears in countries with a state church and (b) the alignment even *reverses*—religious attendance predicts increasing support for welfare—if the individual is a *member* of the state church. The documented patterns on welfare attitudes are specific to attitudes towards government redistribution rather than attitudes towards inequality more generally. The shifts in alignment are mediated specifically through *government regulation of religion*—restrictions placed on the practice, profession, or selection of religion by the state—rather than government favoritism or social regulation. Our findings are not due to nonlinearities and are robust to dropping those who claim no religion.

We then show that (c) after Sweden abolished the state church in 2000, religious Swedes became more fiscally conservative relative to religious Norwegians, whose state church remains government financed. We are able to follow a panel of Nordic voters before and after the abolition and use a differences-in-differences-in-differences design. We regress on the available measure of religiosity, a belief that society should align more closely with Christian values. The documented patterns on welfare attitudes are again specific to government redistribution and not inequality more generally.

Our final analysis shows that (d) U.S. Establishment Clause jurisprudence separating church and state caused fundamentalists to identify strongly as Republican. Increases in church-state separation in U.S. Supreme Court jurisprudence precede increases in the alignment between fundamentalism and the Republican party. Increases in church-state separation using random variation from the assignment of U.S. Circuit Court judges also precede increases in the alignment between fundamentalism and the Republican party. No lead effects are found. Roughly 10 Supreme Court or 20 Circuit Court decisions would be equivalent to the entire change in the alignment between fundamentalism and the Republican party since 1970, the rise of the Religious Right, and the trend where religious regions of America once solidly Democratic became solidly Republican.

Our paper contributes to several literatures. First, the lack of a positive relationship between pre-tax inequality and redistribution predicted by standard models has been a puzzle to the political economy of redistribution (Romer 1975; Meltzer and Richard 1983) and social insurance (Lind 2005; Moene and Wallerstein 2001, 2003). Second, economic models formalize why political positions should map along a single axis (DeMarzo, Vayanos, and Zwiebel 2003) and why religion is salient in

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<sup>9</sup>An additional reason for strong social sanctions is that social insurance is not limited to those who participate ex ante. In a crisis, religious organizations can help individuals after they experience negative income shocks if social sanctions overcome the individual rationality constraints that would otherwise prevent ex post insurance groups from forming (Chen 2010). Even marginal individuals who join ex post will contribute to the group’s social insurance in subsequent periods. A strong form of social sanction towards those who belong to other religious organizations, provided in the doctrine of many religions, encourage people who receive positive shocks to participate and facilitates religion’s function as ex post insurance. Indeed, experimentally induced group identity increases the degree of altruism toward in-group members relative to out-group members (Chen and Li 2009). Social pressures can cause individuals to assimilate or give up their ideology (Chen, Halberstam, and Yu 2014; Chen, Michaeli, and Spiro 2015), which would make social insurance less sustaining without strong social sanctions.

politics (Glaeser, Ponzetto, and Shapiro 2005), but have not yet formalized why Republicans and Democrats divide along religious issues the way that they do nor why the divide would change across time and space. Roemer (1998) argues that religion distorts the vote of the poor away from high taxes but does not consider church-state separation as an important mediator. Third, the literature on institutional and cultural change ask questions like, “Why did the West extend the franchise?” (Acemoglu and Robinson 2000) or “Why have women become left-wing?” (Edlund and Pande 2002). Our paper asks analogous questions: “Why did countries separate church and state?” and “Why have religious individuals become right-wing?” Fourth, an economic literature articulates the state church as impeding a market for religious ideas by theoretically and empirically documenting a negative correlation between religious attendance and having a state church (Finke and Stark 1992; Iannaccone 1998; and Barro and McCleary 2005). Instead, our paper considers the integral role of a state church in social insurance. Early Americans followed English poor laws in allowing parish officials the authority to raise taxes to help the poor (Hansan 2011). We build a model of legal change that recent historical research has documented—separation of church and state was neither sought nor intended by the founding generation (Hamburger 2002; Feldman 2005). Hamburger (2002) notes that throughout the twentieth century, historians perpetuated the misperception that the principle of separation was rooted in eighteenth century thought, in order to give historical credence to separation’s ostensible constitutional authority and influence contemporary cases to separate church and state.

The remainder of the paper is organized as follows: The first part of our empirical analysis establishes, in Section 2, the alignment between fiscal and social conservatism/liberalism, which forms the groundwork for our model in Section 3. The second part of our empirical analysis shows that the alignment between fiscal and social conservatism/liberalism is affected by: Church-state separation across countries in Section 4, Swedish separation of church and state in Section 5, and U.S. Establishment Clause jurisprudence in Section 6. Section 7 provides further discussion and Section 8 concludes.

## 2. FISCAL AND SOCIAL CONSERVATISM/LIBERALISM

To motivate our model, we begin with the evidence that fiscal and social conservatives and fiscal and social liberals align at the individual- and denomination-level. First, we extend Figure 1 to other measures of welfare support and social conservatism and we control for demographic background characteristics. We use the General Social Survey (GSS), an annual survey of randomly sampled U.S. residents for their religious attendance, political support for welfare spending, identification with the Republican party, and demographic characteristics such as income, education, and race (1972-2012). The choice of attitudinal variables comes from Ansolabehere, Rodden, and Jr. (2006). We present a single coefficient for all the regressions on measures of fiscal conservatism and social conservatism using the average effect size approach of Kling, Liebman, Katz, and Sanbonmatsu (2004) and Clingsmith, Khwaja, and Kremer (2009).<sup>10</sup>

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<sup>10</sup>Results remain qualitatively unchanged if we run regressions on the principal components of the variables. The advantage of the AES approach is that we do not have to impute missing values. The AES averages the normalized

Table I reports regressions of the form:

$$FiscalConservatism_i = \beta_0 Religion_i + \beta_1 Fundamentalist_i + \alpha' Controls_i + \varepsilon_i$$

$$MoralConservatism_i = \beta_0 Religion_i + \beta_1 Fundamentalist_i + \alpha' Controls_i + \varepsilon_i$$

$Religion_i$  measures religious attendance and  $Fundamentalist_i$  measures whether the respondent is fundamentalist.<sup>11</sup>  $FiscalConservatism_i$  and  $MoralConservatism_i$  are collections of responses to questions that can be classified as measuring whether the respondent is fiscally conservative (i.e., favoring low taxes and low government expenditures) and morally conservative (i.e., favoring restrictions on abortion and related issues). All regressions include regional fixed effects to control for omitted environmental variables that may influence the way political support differs across space. All specifications also include dummies for year, race, gender, and controls for log of income,<sup>12</sup> age, age-squared, and years of completed schooling. When controls are missing, we dummy them out.<sup>13</sup> Except where otherwise noted, all estimates discussed below are marginal effects from probit models evaluated at sample means, OLS estimates, or average effect size estimates (Kling, Liebman, Katz, and Sanbonmatsu 2004). We verify that the OLS estimates and marginal effects from probit models are similar and only present one. Standard errors are adjusted for correlation within region of residence.<sup>14</sup> Summary statistics are displayed in Appendix Table I. The data appendix discusses the remaining variable definitions.

Table I indicates that increasing eight categories of religious attendance from “never attend” to “several times a week” yields an increase in 11% of a standard deviation in fiscal conservatism and 72% of a standard deviation in moral conservatism.<sup>15</sup> Fundamentalists are 5% of a standard deviation more fiscally conservative and 28% of a standard deviation more morally conservative.<sup>16</sup> Figure 2 presents the individual regressions used in calculating the average effect size.<sup>17</sup> All responses have been normalized to have unit standard deviation. Religious attendance has a positive and significant predictive association with most outcomes. The associations are quantitatively larger for moral conservatism than for fiscal conservatism.

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effects obtained from a seemingly unrelated regression in which each dependent variable is a question in the index. Normalization is based on the control group, which is no attendance. In the appendix, we show one exception to the general pattern of fiscal conservatism: religious attenders prefer military spending.

<sup>11</sup>We report qualitatively similar results from a specification that replaces Fundamentalist with a general index of Social Conservatism, summing up values on Prayer in Public School, Women Belong at Home, Premarital Sex is Wrong, and Identify as Fundamentalist in Appendix Table VII. The four measures are highly correlated; a factor analysis reveals one dominant factor, where all four variables have about equal factor loadings.

<sup>12</sup>Our preferred measure of income is the log of income measured by the REALINC variable in GSS. The raw data collected from respondents is bracketed. REALINC is created by taking the mid-point of the brackets and fitting a Pareto distribution on the top bracket, and then adjusting for inflation. See Ligon (1994) for details. Alternative measures of income have virtually no impact on the estimated parameters on religion.

<sup>13</sup>Addressing missing covariates by dropping observations or by dummifying them out (i.e., by adding an indicator for whether the control is missing and filling in the missing control with a constant) assume that controls are missing at random. We use the latter approach because it yields greater precision for other control variables that are present in the data.

<sup>14</sup>Region is state in the GSS.

<sup>15</sup>Figure 1 indicates that there are no dramatic non-linearities.

<sup>16</sup>Religious attendance and fundamentalism do not seem to reinforce each other. In Appendix Table VI we interact the two. Estimates are small and far from being significant.

<sup>17</sup>See Appendix Table IX for the detailed estimates underlying the graph as well as corresponding regressions on the measure of social conservatism.



TABLE I  
FISCAL AND SOCIAL CONSERVATISM/LIBERALISM IN THE U.S. – AVERAGE EFFECT SIZES

	Fiscal conservative			Moral conservative		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious attendance	0.0140*** (0.00195)		0.0129*** (0.00198)	0.0904*** (0.00351)		0.0859*** (0.00310)
Fundamentalist		0.0466*** (0.0104)	0.0325*** (0.0109)		0.277*** (0.0249)	0.200*** (0.0118)
Observations	54541	52971	52585	56170	54593	54197

Notes:

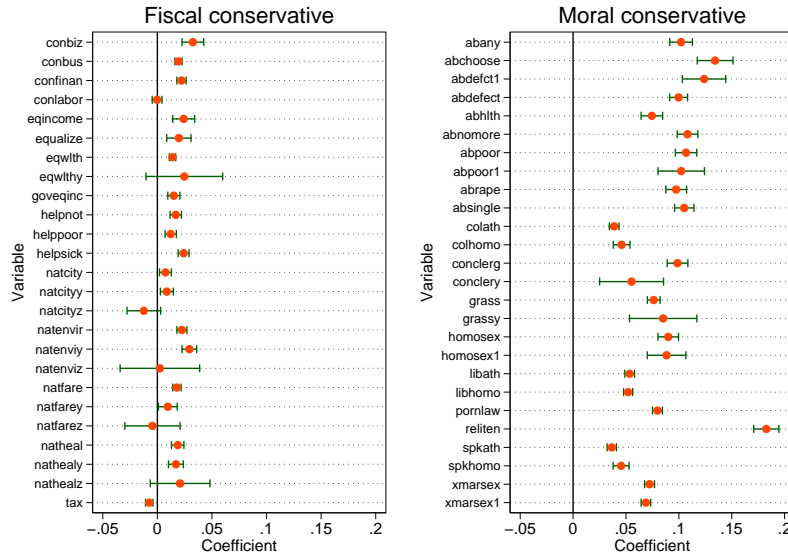
1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are average effect size estimates. Standard errors in parentheses are adjusted for correlation within region of residence. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1% level.

2. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.

3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

To preview the relevance of church-state separation, outside the U.S., religious attendance also predicts fiscal conservatism at the individual-level, but in countries without a state church (Column

Figure 2: Fiscal and Social Conservatism/Liberalism in the U.S. – All estimates



Notes: The graphs show all the estimated coefficients on religious attendance for outcomes on fiscal and moral conservativeness as well as their 95% confidence intervals. Estimated coefficients are from OLS regressions controlling for the same variables as Table I. Variable names are those used by GSS and disabbreviated in Appendix Table I. Standard errors are clustered at the region of residence.

2 of Table II). The regressions are analogous<sup>18</sup>, but the coefficients are not strictly comparable. We use the World Values Survey (WVS) Waves 2-5, which is analogous to the GSS, however, the only measure of welfare support asked across panel waves is respondents' placing themselves on a scale from "People should take more responsibility for providing for themselves" (coded as 1) to "The state should take more responsibility to ensure that everyone is provided for" (coded as 10).<sup>19</sup> The GSS asks about government spending on welfare and the WVS asks about government action on poverty. In the GSS, 20% of respondents are pro-welfare whereas in the WVS, 40% of U.S. respondents are pro-welfare. There are also fewer categories of religious attendance in the WVS. However, religious attendance still predicts social conservatism around the world as measured by questions regarding child obedience/ownership, women's role, sexual activity, and moral absolutism (Appendix Table XVII).

We next present evidence that, not only are religious individuals more socially conservative and fiscally conservative, but denominations that provide more mutual insurance are more socially conservative and fiscally conservative.<sup>20</sup> Data on philanthropic giving come from the 2001 Center on Philanthropy Panel Study portion of the Panel Study of Income Dynamics; the available question of interest is, "Did you make any donations specifically for religious purposes or spiritual development, for example to a church, synagogue, mosque, TV or radio ministry? Please do not include donations to schools, hospitals, and other charities run by religious organizations." Donations for arts and international aid are excluded by COPPS.<sup>21</sup> We merge this data with the GSS. The degree of within-group giving varies widely across denominations (Smith 2004). Mormons give 91% of their charitable giving to religion, Evangelical Protestants 82%, Mainline Protestants 62%, Catholics 51%, Other Religions 51%, Jewish 40%, and None 40% (Appendix Table XV).<sup>22</sup> The percentage of overall income given to religion also roughly corresponds with the same ordering. Members of denominations with higher degrees of within-denomination giving also attend religious services more frequently than others. For attendance more than once a month: Mormon 66%, Evangelical Protestant 56%, Mainline Protestant 57%, Catholic 48%, Other 40%, Jewish 15%, and None 25%.

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<sup>18</sup>All WVS regressions include regional fixed effects to control for omitted environmental variables that may influence the way political support differs across space. All specifications also include dummies for year, race, gender, and controls for log of income, age, age-squared, and years of completed schooling (dummies for categories of completed schooling in WVS). When controls are missing, we dummy them out. Except where otherwise noted, all estimates discussed are marginal effects from probit models evaluated at sample means, OLS estimates, or average effect size estimates. We verify that the OLS estimates and marginal effects from probit models are similar and only present one. Standard errors are adjusted for correlation within region of residence. Summary statistics are displayed in Appendix Table III. The data appendix discusses the remaining variable definitions.

<sup>19</sup>Wave 1 does not ask this question. Note that all questions ask about "increases" or "decreases". The GSS and WVS do not ask people for their beliefs about the current level of welfare support.

<sup>20</sup>The classification of denominations is based on the RELTRAD method due to Steensland, Park, Regnerus, Robinson, Wilcox, and Woodberry (2000). See <http://www.github.com/thebigbird/ReltradStata> for an updated version of their code.

<sup>21</sup>COPPS asks other questions for these donation categories.

<sup>22</sup>Denomination groupings come from Smith (2004). Analyzing all waves of the COPPS data show the within-group giving percentages are very stable over time.

Figure 3 reports the coefficients on denomination fixed effects from the following regression:

$$WelfareSupport_i = \beta Denomination_i + \alpha' \mathbf{Controls}_i + \varepsilon_i$$

For each fiscal or social attitude, individuals who are members of more conservative denominations report more conservative positions.<sup>23</sup> Groups with greater within-group giving, such as Mormons and Evangelical Protestants, are more socially conservative on prayer, abortion, women's roles, and premarital sex. They are more fiscally conservative, being less supportive of welfare and equality. They are also more likely to identify as Republican, politically conservative, and fundamentalist.<sup>24</sup> Appendix Table X reports regressions of the form:

$$WelfareSupport_i = \beta WithinGroupGiving_i + \alpha' \mathbf{Controls}_i + \varepsilon_i$$

As one moves 50 percentage points of within-group giving from the lowest (40%) to the highest (91%), 20% of a standard deviation in fiscal conservative attitudes and 50% of a standard deviation in moral conservative attitudes are shifted.<sup>25</sup> Finally, we document that across all religions, higher attendance is correlated with receiving social insurance from the religious group. The available question of interest in the GSS is, "If you were ill, how much would people in your congregation help you out?," and we code the answer, "a great deal" as 1, as opposed to "some," "a little," or "none" (Appendix Table: XII, Column 1). Compared to an individual who never attends religious services, someone who attends several times a week is over 60 percentage points more likely to receive a great deal of help from the congregation. Members of more conservative denominations, such as Evangelical Protestants, are significantly more likely to receive a great deal of help if ill (57 percent would), than are members of less conservative denominations, such as Jews (only 33 percentage would). In sum, the degree of mutual insurance provided by religious groups is associated with social and fiscal conservatism.

### 3. MODEL

#### 3.1. *Basic Set Up*

We model religious provision and government provision of social insurance as substitutes to explain (1) why fiscal and social conservatism align together in most countries; (2) why this alignment reverses for members of a state church; and (3) why multiple steady states sustain high religiosity, high church-state separation, and low welfare state and vice versa. Risk-sharing is at the core of our model. Agents would like to insure themselves against income shocks. They make an insurance decision today in anticipation of income in the next period that is distributed with mean  $\mu$  and

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<sup>23</sup>Appendix Table XIV reports the regressions for all questions.

<sup>24</sup>Reasonable data to undertake similar analyses for the worldwide sample are not available in the WVS so we have not been able to do that.

<sup>25</sup>Results are average effect estimations based on regressions where different opinions are regressed on the fraction of charitable giving that goes to religion. The separate regressions can be found in Appendix Table XI. Individuals who belong to no religion are assigned the value of 40% from the COPPS data.

variance  $\sigma^2$ , and they prefer higher expected value and lower variance in income:<sup>26</sup>

$$\mu - \frac{1}{2}\sigma^2 \tag{1}$$

The model's time sequence is as follows: at time  $t = 0$ , both the level of religiosity and the level of church-state separation are set (both of these will be endogenized later). At time  $t = 1$ , the agents choose the level of taxes for income realizations at time  $t = 2$ .

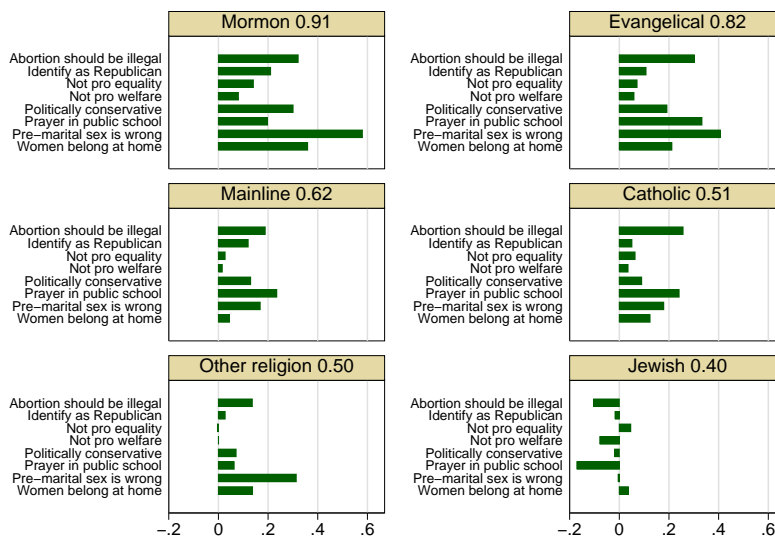
### 3.2. Taxes

Consider agents' choice of taxes first. Agents vote for a level of taxation ( $\tau$ ) that provides a form of insurance. With taxation, income next period will be:  $(1 - \tau)y + R(\tau)\mu$ . This expression has the state collecting  $\tau$ , a portion of income from each citizen, and then giving back the average of collected incomes,  $\mu$ . In addition, the function  $R(\tau)$  reflects deadweight losses associated with taxation (e.g., due to the state keeping a portion of the taxes).

When  $R(\tau) = \tau$  there are no deadweight losses, so agents choose perfect insurance ( $\tau = 1$ ) — people with high income will give more in taxes and get back less ( $\mu$ ), while agents with low income will give less in taxes and get back more. With distortions, the agents balance insurance considerations against the distortive effects of taxation. To see this, assume a standard concave function:  $R(0) = 0, R' > 0, R'' < 0$ , and  $0 < R'(0) \leq 1$ . The assumptions capture the fact that

<sup>26</sup>This could be seen as a reduced form of agents with CARA preferences and normally distributed shocks or agents with quadratic preferences, and is also in line with standard portfolio theory.

Figure 3: Fiscal and Social Conservatism/Liberalism in the U.S. – All estimates



deadweight loss to taxes is 0 when taxes are 0 and increases with taxation.<sup>27</sup>

The distribution of income with taxation will have mean  $[(1-\tau) + R(\tau)]\mu$  and variance  $(1-\tau)^2\sigma^2$ . Thus, in choosing the tax rate, agents will maximize:

$$[(1-\tau) + R(\tau)]\mu - \frac{1}{2}(1-\tau)^2\sigma^2 \quad (2)$$

The FOC yields:

$$[-1 + R'(\tau)]\mu + (1-\tau)\sigma^2 = 0, \quad (3)$$

or,

$$\frac{\mu}{\sigma^2} = \frac{1-\tau}{1-R'(\tau)}. \quad (4)$$

The right-hand side is a decreasing function of  $\tau$ , so the agent balances the inherent randomness of income next period with the distortionary effects of taxation: the higher the income variation next period (bigger  $\sigma^2$  relative to  $\mu$ ), the higher the agent's preferred tax rate.

The equation above can be rewritten as:

$$(1-\tau)\sigma^2 = (1-R'(\tau))\mu, \quad (5)$$

which provides the intuition for the basic setup. The left-hand side is the marginal benefit of increasing taxes: with higher taxes, the agent reduces the variance of income shocks. The right-hand side is the marginal cost of taxes: it is the deadweight loss that comes from taxation. At the optimum, the agent equates marginal benefit to marginal cost.

### 3.3. *Religiosity*

Now suppose the agent chooses taxation, having already observed their level of religiosity. For now, assume religiosity is exogenous, but later we will endogenize religiosity. Religiosity provides a source of insurance of in-kind or material benefits through the church. It works much like government taxation: agents give donations  $d$  as a portion of their income, which the church redistributes back as  $P(d)\mu$ , where the function  $P(d)$  has similar first- and second-order derivative properties as the government's tax revenue function. The value  $d$  can be interpreted in two ways.  $d$  is the level of insurance that the agents insure through the church and it is also an indicator of their level

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<sup>27</sup>These assumptions guarantee that the deadweight loss is never so high that less is available for redistribution when there are higher taxes.

of religiosity (the higher the level of religiosity, the more the agents are willing to donate to the church, and the church rewards the more devoted with higher payments). Receipt of financial help from religious organizations is more likely, the more intense an individual participates in religious groups. In one national survey of working Americans, 4% claimed to have received financial help from a religious organization within the past year. 80% of these recipients were themselves church or synagogue members (compared to 56% of non-recipients) and 61% belonged to religious fellowship groups (compared to 18% among non-recipients). The recipients were disproportionately those who had been laid off from work or experienced pay cuts and had trouble paying their bills (Wuthnow 1994). The modeling assumption that religiosity corresponds to greater willingness to donate and be insured by the church is an intentional simplification aimed at illustrating the key mechanisms.

With both religiosity and taxation, the agents' income next period will be:  $(1 - \tau - d)y + R(\tau)\mu + P(d)\mu$ , which means that the agents choosing the tax rate will maximize at time  $t = 1$ :

$$[(1 - \tau - d) + R(\tau) + P(d)]\mu - \frac{1}{2}(1 - \tau - d)^2\sigma^2. \quad (6)$$

The FOC with respect to  $\tau$ , treating  $d$  as given, will be:

$$\frac{\mu}{\sigma^2} = \frac{1 - \tau - d}{1 - R'(\tau)}. \quad (7)$$

The first implication is that, if  $R'(0)$  is 1 or very close to 1, the agent will surely use the state to insure, even if there is already church insurance. By the implicit function theorem:

$$-R''(\tau) \frac{\partial \tau}{\partial d} \frac{\mu}{\sigma^2} = -\frac{\partial \tau}{\partial d} - 1, \quad (8)$$

or,

$$\frac{\partial \tau}{\partial d} = \frac{1}{-1 + R''(\tau) \frac{\mu}{\sigma^2}}. \quad (9)$$

So,

$$\frac{\partial \tau}{\partial d} < 0. \quad (10)$$

The preceding comparative statics indicate that religiosity is negatively associated with preferred tax rate as the marginal benefit of additional taxation is  $(1 - \tau - d)\sigma^2$ , which is decreasing in  $d$ . With a higher level of  $d$ , the marginal benefit of insurance decreases for the agent, thus in equilibrium, the marginal cost of tax distortions will also decrease, which is done by lowering  $\tau$ .

### 3.4. State Religion

With a state church, government typically finances building fees and clergy salaries. In the U.S., the average yearly salary of clergy was \$47,540 in 2013 according to the Bureau of Labor Statistics. The average congregation had 75 regular participants and an annual budget of \$90,000 (the average attendee worshipped in a congregation with 400 regular participants and annual budget of \$280,000) (Chaves, Anderson, and Byassee, 2009). Clergy salaries and building fees can therefore be a significant contribution to church budget when there is a state church. In Sweden, the church had a \$1.68 billion annual budget collected through taxation, which had to be cut following separation of church and state. In addition, vast amounts of church property had to be appraised and divided up.

Hamburger (2002) and Feldman (2005) note that some of the early debates in the U.S. surrounding the separation of church and state involved schooling. Protestant Bible-reading in public schools triggered Catholic parents to send their children to Catholic private schools. Catholics then argued that they were being doubly penalized in taxes to pay for Protestant public schools and tuition for Catholic private schools. After a century of church-state separation decisions involving public schools, today, 3.4% of American school-age children (2 million students) are homeschooled, and the majority of their parents are motivated by a desire to provide religious or moral instruction (Sadker, Sadker, and Zittleman 2008). The effective reduction in government subsidy of religious instruction and insurance is accentuated since home schooling also takes women out of the labor force. Furthermore, tax credits apply to donations to religious organizations while church property, buildings, and clerical salaries and housing are tax exempt, amounting to billions of dollars every year. No direct numbers on tax expenditures for religion exists, but non-business tax expenditures amount to 6% of GDP in aggregate, roughly \$700 billion per year (Burman, Geissler, and Toder 2008). Hamburger (2002) notes that church and state separation is a continuum from one extreme to another.

In the model, suppose the religion could be a state religion. The role of the state religion in redistributing to religious group members is parametrized by  $\gamma \in [0, 1]$ . In the model,  $\gamma = 0$  is the case of no-state religion (complete separation of church-state) and examined in the previous subsection. The degree of state religion increases with  $\gamma$  all the way up to 1.  $\gamma = 1$  would correspond to the case where the church owns the state, and all the state revenues go to the church. The church gets  $\gamma$  share of the government revenue with the government retaining  $1 - \gamma$ . The church's handling of resources is subject to a similar deadweight loss as its tax collection, and transferred to members according to their level of religiosity. Then, the agents' income realization next period will be:  $(1 - \tau - d)y + (1 - \gamma)R(\tau)\mu + P(d)(1 + \gamma R(\tau))\mu$ . This would imply the agents' optimization will be:

$$[1 - \tau - d + (1 - \gamma)R(\tau) + P(d)(1 + \gamma R(\tau))] \mu - \frac{1}{2}(1 - \tau - d)^2 \sigma^2, \quad (11)$$

or

$$[1 - \tau - d + R(\tau) + P(d) - (1 - P(d))\gamma R(\tau)]\mu - \frac{1}{2}(1 - \tau - d)^2\sigma^2. \quad (12)$$

First, for a given level of  $\tau$ , and  $d$ , the agent gets less insurance income. However, the larger share of government revenue going to religion,  $\gamma$ , introduces increased payoff to having higher tax preferences, since devout agents will also have access to part of the state tax revenues.

The FOC of the new maximization problem will be:

$$[-1 + R'(\tau) - \gamma(1 - P(d))R'(\tau)]\mu + (1 - \tau - d)\sigma^2 = 0, \quad (13)$$

or,

$$\frac{\mu}{\sigma^2} = \frac{1 - \tau - d}{1 - R'(\tau) + \gamma(1 - P(d))R'(\tau)}. \quad (14)$$

The FOC then implies:

$$[R''(\tau)\frac{\partial\tau}{\partial\gamma} - (1 - P(d))R'(\tau) - \gamma(1 - P(d))R''(\tau)\frac{\partial\tau}{\partial\gamma}]\mu - \frac{\partial\tau}{\partial\gamma}\sigma^2 = 0, \quad (15)$$

or,

$$[R''(\tau)(1 - \gamma(1 - P(d))) - \sigma^2]\frac{\partial\tau}{\partial\gamma} = (1 - P(d))R'(\tau), \quad (16)$$

or,

$$\frac{\partial\tau}{\partial\gamma} = -\frac{(1 - P(d))R'(\tau)}{(-R''(\tau))(1 - \gamma(1 - P(d))) + \sigma^2} \quad (17)$$

Since both the numerator and the denominator of the expression are positive, we have that,

$$\frac{\partial\tau}{\partial\gamma} < 0 \quad (18)$$

But as  $d$  increases, the numerator decreases, while the denominator increases, which implies that:



$$\frac{\partial^2 \tau}{\partial \gamma \partial d} > 0. \tag{19}$$

If we assume the functions are continuous, then we also have that:

$$\frac{\partial^2 \tau}{\partial d \partial \gamma} = \frac{\partial^2 \tau}{\partial \gamma \partial d} > 0. \tag{20}$$

The negative relationship between religiosity and tax preferences is reduced when there is a state church because part of the benefits of government redistribution is received through the state church.

However, the relationship between religiosity and tax preferences is still negative, as we can see by the implicit function theorem:

$$\frac{\partial \tau}{\partial d} = \frac{\sigma^2 + \gamma P'(d) R'(\tau)}{-\sigma^2 + R''(\tau) \mu [1 - \gamma [1 - P(d)]]} < 0. \tag{21}$$

When  $\gamma$  is endogeneously determined, the agents expect the state to set a certain level of church-state separation ( $\gamma^e$ ), and in the rational expectations equilibrium, those expectations will hold true:

$$\gamma = \gamma^e. \tag{22}$$

### 3.5. *Elite Preferences On Church-State Separation*

We now introduce elites who desire a lower tax burden (Acemoglu and Robinson 2000) and have the power to choose (or judicate) church-state separation.<sup>28</sup> We show how their preferences on church-state separation depend on the relative numbers of religious and non-religious constituencies, why countries with state religion have lower levels of religiosity, and why countries with state religion have higher levels of welfare state. Our modeling approach shares the approach of Edlund and Pande (2002) in introducing heterogeneous agents. Edlund and Pande (2002) model men and women's redistributive preferences and show how divorce rates are associated with women's greater redistributive preferences. In our model, religious agents tax the non-religious agents through a state church. With resource transfer, religious agents prefer more taxes when resources transferred from the non-religious exceed the deadweight loss from taxing themselves. Religiosity and tax preferences are inversely related when there is separation between church and state, but religiosity and tax preferences are positively related when there is no separation. Without a state church ( $\gamma = 0$ ), the

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<sup>28</sup>See the literature on the counter-majoritarian difficulty whereby judicial review of legislative laws allows unelected judges to overrule the lawmaking of elected representatives and countermand the will of the majority (Bickel 1986).

highly religious prefer low taxes (Religious Right) and the less religious prefer high taxes (Secular Left). With a state church ( $\gamma = 1$ ), the highly religious prefer high taxes (Social Gospel) while the less religious prefer low taxes (Libertarian). We let elites choose  $\gamma$  and voters choose  $\tau$ . The preferences of the electorate can be summarized in a simple table:

	$\gamma = 0$		$\gamma = 1$	
	High $\tau$	Low $\tau$	High $\tau$	Low $\tau$
High $d$	Religious Right		Social Gospel	
Low $d$	Secular Left		Libertarian	

### 3.6. Multiple Steady States

We consider a simple dynamic model of religiosity and separation of church and state. Each equation below relates the motion of one of the variables to another in a very general, albeit simple, manner. Define  $d_t$  as the share of religious people in the society at time  $t$ ;  $\gamma_t$  is the amount of tax revenues that is given to the church (i.e., the higher is  $\gamma_t$ , the lower the degree of separation between church and state);  $w_t$  is the level of the welfare state in the economy.

The first equation governing the process will be:

$$\gamma_t = \alpha - \beta d_t \tag{23}$$

This equation means that a high level of religiosity is associated with greater separation of church and state. It is the equation that sets up the elites' behavior, who curb the tax preferences of the religious left when there are many religious individuals by separating church and state, or do the opposite when the population is mostly secular.

The second equation of the process will be:

$$w_t = \alpha_\gamma - \beta_\gamma \gamma + \alpha_d - \beta_d d + \beta_{\gamma d} \gamma d. \tag{24}$$

The equation is derived from the equilibrium outcome of the interplay between government and church insurance in the diagram above. Elites curb tax preferences of the population by separating church and state when there are many religious individuals.<sup>29</sup> When there are few religious individuals, elites curb tax preferences by keeping a large state church.<sup>30</sup> Thus, the second partial with respect to  $\gamma$  and  $d$  is positive. Each of  $\beta$ ,  $\beta_d$ , and  $\beta_\gamma$  are also positive. Using equation (22), equation (23) can be rewritten as:

$$w_t = (\alpha_\gamma - \beta_\gamma \alpha + \alpha_d) + (\beta_\gamma \beta - \beta_d + \alpha \beta_{\gamma d}) d_t - \beta_{\gamma d} \beta d_t^2,$$

<sup>29</sup>As  $\gamma$  goes to 0, the relationship between  $w_t$  and  $d$  is negative.

<sup>30</sup>As  $d$  goes to 0, the relationship between  $w_t$  and  $\gamma$  is negative.

or,

$$w_t = b_1 + b_2d - b_3d^2.$$

Finally, we close the model. Many empirical studies document that government welfare crowds out religious participation and charitable provision (Gruber and Hungerman 2007; Hungerman 2005; Gill and Lundsgaarde 2004; Cnaan, Boddie, Handy, Yancey, and Schneider 2002). We model this crowd-out by assuming that as the welfare state increases, the marginal person seeking insurance will turn to the welfare state instead of religion, so average religiosity declines:

$$n_t = \frac{1}{\phi w_t} = \frac{1}{a_1 + a_2d_t - a_3d_t^2}, \quad (25)$$

The evolution of  $d_t$  is as follows: at each subsequent period, the stock of religiosity decays by a constant fraction  $\delta$ . However, it gets supplemented by the average new religiosity, as described in equation (24). Then, the dynamics of religiosity will follow as:

$$d_{t+1} = d_t(1 - \delta) + n_t. \quad (26)$$

Therefore, the steady state would satisfy:

$$d = d(1 - \delta) + \frac{1}{a_1 + a_2d - a_3d^2}. \quad (27)$$

Or,

$$\delta a_3 d^3 - \delta a_2 d^2 - \delta a_1 d + 1 = 0. \quad (28)$$

This equation has three roots. If all are real,  $d(1 - \delta) + \frac{1}{a_1 + a_2d - a_3d^2}$  will intersect the 45° line at three places. Even though all three points represent steady states, we can characterize them as follows: Since  $a_3$  is positive as is the constant term 1, at most two of the roots are positive. Second,  $a_3 > 0$  implies that the two endpoints are unstable while the middle root is stable. In this case, the two stable equilibria are the middle root and  $d = 1$ , where Europe and the U.S., respectively, are located in Figure 2. In cases where the equation has one real and two complex roots, the unstable steady state is the only interior steady state. In this case, the two stable equilibria are  $d = 0$  and  $d = 1$ .

The model is consistent with the intuition that when there are many religious individuals, the elites separate church and state, curbing tax preferences of the religious left, which reduces the

welfare state. This, in turn, increases subsequent religiosity for the marginal person, creating a positive feedback. However, when there are few religious individuals, elites keep a large state church, attempting to curb the tax preferences of the secular left. This would tend to reduce the welfare state, which also increases subsequent religiosity, undermining the initial condition. This force creates a negative feedback and a stable steady state.

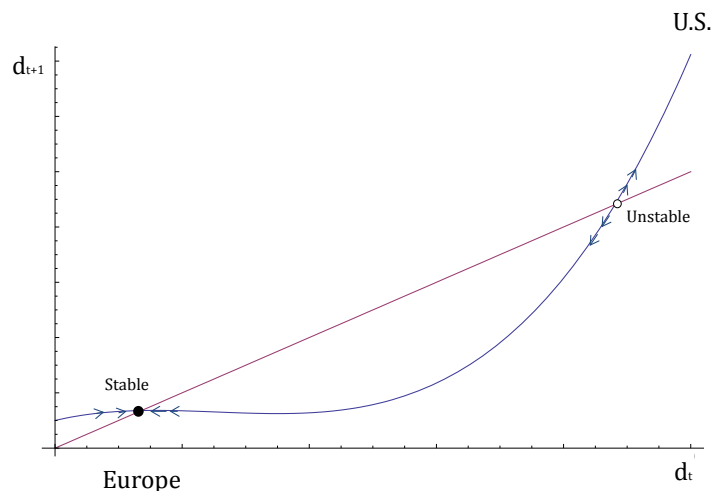
#### 4. CHURCH-STATE SEPARATION ACROSS COUNTRIES

We present evidence that a state church affects the alignment between social conservatives and fiscal conservatism. We bring together all useable data sources on church-state separation. The ideal measure would be a continuous quantity of fiscal expenditures, tax expenditures, and in-kind expenditures from the state to the church. Fiscal expenditures measure direct transfers of building maintenance and clergy salary, tax expenditures measure indirect transfers of tax exemptions for charitable donations and tuition for parochial schools, and in-kind expenditures measure religious education substituting for parochial and home schooling that takes women out of the labor force. We use a binary indicator for this quantity in our cross-country analyses.

Cross-country data come from two sources: (1) the World Christian Encyclopedia, which is the source for Barro and McCleary (2005), and (2) the U.S. State Department’s International Religious Freedom Reports, which is aggregated by Finke and Grim (2006).<sup>31</sup> The World Christian Encyclopedia classification of which countries have state churches is largely based on constitutional features (Barrett 1982, Barrett, Kurian, and Johnson 2001). See Appendix Table XVIII for the list of countries. Finke and Grim (2006) classify countries as having a state religion if (a) the constitution designates an official state church and restricts or prohibits other forms of religion, (b)

<sup>31</sup>Another measure of state-church association exists in the Religion and State (RAS) database developed by Fox (2008; 2011). However, his main focus is state involvement in religious life, with less emphasis on favoritism of the state religion. For this reason we have not used his data.

Figure 4: Multiple Steady States



if the government systematically favors a specified religion through subsidies and tax collection, or (c) if the government sanctions teaching of religion in public school. Finke and Grim (2006) also develop indices of government regulation, social regulation, and government favoritism based on what is actually taking place in the country rather than what legal regulations say should be the case.<sup>32</sup> Descriptive statistics of these indices are shown in Appendix Table IV. We see that there is high consistency between the two data sources as Finke and Grim’s (2006) indices are significantly larger for countries coded with a state church according to the World Christian Encyclopedia.

We regress stated welfare support on religious attendance and attendance interacted with a dummy if the respondent’s country has a state church. Regressions are of the form:

$$\begin{aligned} WelfareSupport_{ij} = & \beta_0 Attendance_{ij} + \beta_1 Attendance_{ij} \times StateChurch_j \\ & + \beta_2 StateChurch_j + \alpha' \mathbf{Controls}_{ij} + \varepsilon_{ij} \end{aligned}$$

The results are shown in Table II. Column 1 simply runs the specification from Table I and Figure 3 but for the WVS rather than the GSS. In general, increased church attendance is associated with lower support for government-provided welfare, but the negative relationship is only statistically significant for countries without a state church (Column 2). In countries without a state church, an individual who moves 6 categories of religious attendance decreases about 0.12 points in support for government welfare (the mean level of support is 6.2 on a 10-point scale).

Religious attendance is strongly related to less welfare support for most countries of the world, confirming that our proposition holds across a wide range of countries. Figure 5 shows that welfare support declines with religious attendance in most countries for which we have data.<sup>33</sup> The bars indicate the coefficient between religious attendance and welfare support for each country in the World Values Survey. In the appendix, we show that religious attendance is strongly correlated with social conservatism.

Of main interest is whether a state church reduces the negative correlation between religion and welfare support. Column 2 of Table II shows that in countries with a state church, the correlation is about zero. In Column 3, we interact the attendance variable with an indicator for whether the respondent belongs to the denomination of the state church in his or her country:

$$\begin{aligned} WelfareSupport_{ij} = & \beta_0 Attendance_{ij} + \beta_1 Attendance_{ij} \times BelongToStateChurch_{ij} \\ & + \beta_2 BelongToStateChurch_{ij} + \alpha' \mathbf{Controls}_{ijt} + \varepsilon_{ij} \end{aligned}$$

where  $BelongToStateChurch_{ij}$  is an indicator of individual  $i$  lives in a country  $j$  with a state church and belongs to it. Now we see that for members of the state church, attendance is actually

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<sup>32</sup>Preferences for redistribution should depend more on the policy actually conducted within the country.

<sup>33</sup>Detailed estimates with standard errors and broken down by wave are available in Appendix Table XVI.

TABLE II  
FISCAL CONSERVATISM AND CHURCH-STATE SEPARATION ACROSS THE WORLD

	Gov. responsibility			Reduce inequality		
	(1)	(2)	(3)	(4)	(5)	(6)
Attendance	-0.00883 (0.00534)	-0.0216*** (0.00562)	-0.0181*** (0.00575)	0.00382 (0.00652)	0.00480 (0.00897)	0.00352 (0.00766)
Attendance×Has SC		0.0309*** (0.0114)			-0.00244 (0.0134)	
Attendance×Belong to SC			0.0420** (0.0161)			-0.00327 (0.0131)
Belongs to SC			-0.304* (0.163)			0.119 (0.117)
Mean of dep. variable	6.239	6.239	6.239	5.946	5.946	5.946
R <sup>2</sup>	0.0982	0.0983	0.0985	0.112	0.112	0.112
Observations	220001	220001	220001	215304	215304	215304

*Notes:*

1. Data are from World Values Survey cumulative file, waves 2-5. All estimates are OLS estimates. Standard errors in parentheses are adjusted for correlation within country of residence. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1% level.
2. The question for the Government responsibility variable is “People should take more responsibility to provide for themselves vs. The government should take more responsibility to ensure that everyone is provided for.” The question for the Reduce inequality variable is “Incomes should be made more equal vs. We need larger income differences as incentives.” Both are measured on a 1-10 scale.
3. All specifications include dummies for country of residence (which absorbs the Has State Church dummy indicator), survey wave, gender, marital status, and educational attainment category and controls for income, age, and age squared.
4. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
5. Data on church-state separation are from Barro and McCleary (2005), which is based on Barrett (1982) and Barrett, Kurian, and Johnson (2001).

associated with more positive attitudes to government welfare. For members of a state church, an individual who moves 6 categories of religious attendance increases about 0.14 points in support for government welfare (the mean level of support is 6.3 on a 10-point scale).

One concern could be that it is not attitudes towards the welfare state, but attitudes towards inequality that drive these opinions. To test this, we examine opinions on economic inequality. Religious attendance has no significant relationship with attitudes towards economic inequality (Columns 4 to 6 of Table II), and this applies to countries both with and without a state church. This suggests that our measure of attitudes towards the welfare state is capturing the government action element more than inequality.

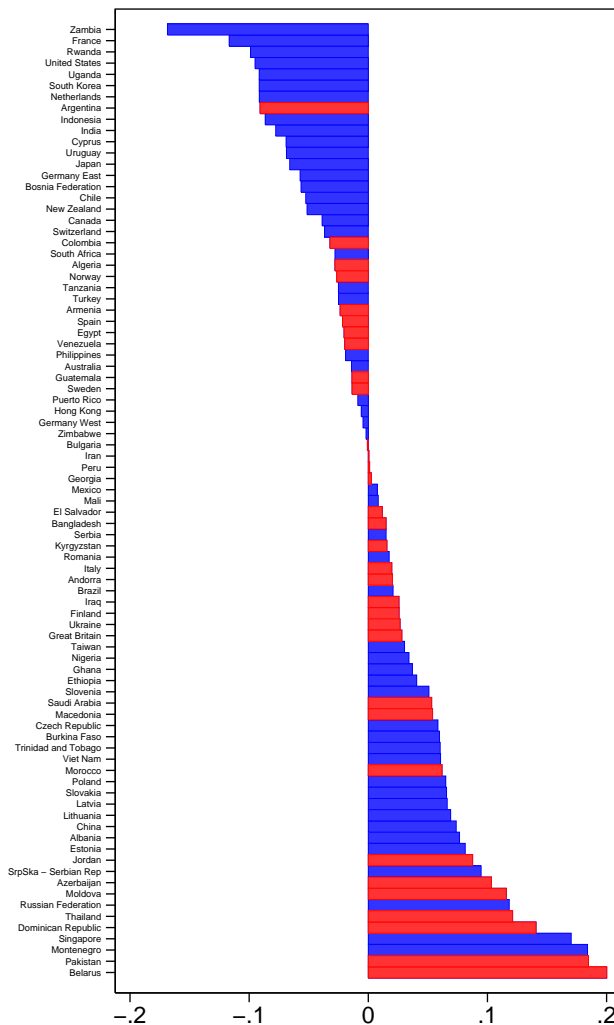
The regressions thus far restrict the marginal effect of going from one category of church attendance to another to be the same across all categories. To consider possible nonlinearities, Figure 6 displays the conditional correlations between welfare support and dummies for each level of religious

attendance (the omitted category is no attendance<sup>34</sup>). This figure corroborates the findings above. In addition, we can drop individuals who claim no religion and do not attend services and the results are identical. That is, our results are robust to dropping atheists.

Next, we analyze the association between religious attendance and welfare attitudes mediated through different forms of church-state regulation: government regulation, social regulation, and government favoritism. Finke and Grim (2006) considers government regulation as the most visible form of regulation and the one that receives the most scholarly attention. They define government regulation as “restrictions placed on the practice, profession, or selection of religion by the official laws, policies, or administrative actions of the state.” These restrictions range from prohibitions on

<sup>34</sup>Note that people can belong to the state church yet not attend services.

Figure 5: Welfare attitudes and religious attendance across the world



Notes: Bars show the magnitude of the association between religious attendance and welfare support. Blue bars indicate countries without a state church and red bars indicate countries with a state church.

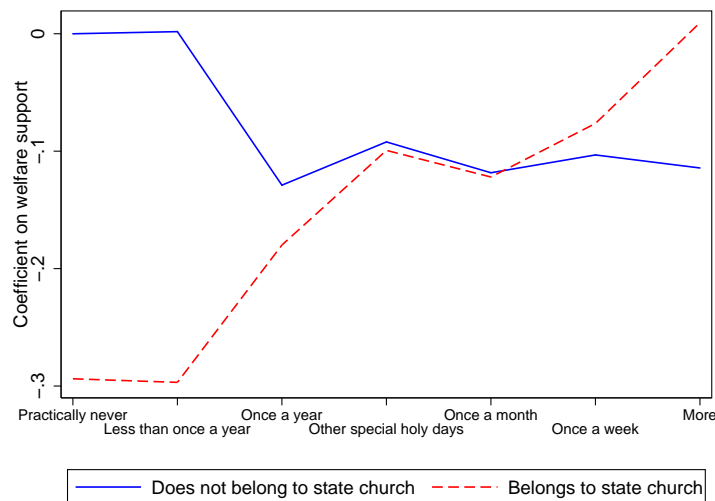
conversion and proselytizing to government pamphlets that warn about certain minority religions that may openly appeal to youth. Government restrictions against religions can also come in the form of blatant laws against their existence or more subtle administrative restrictions that limit their operations. Minority religious groups can face zoning restrictions or find it difficult to attain tax-exempt status. In contrast, social regulation refers to the restrictions placed by other religious groups and is not dependent on the state’s action. Government favoritism also involves state action and frequently works in tandem with government regulation. We find that each measure appears individually significant in interaction with religious attendance, but it is government regulation that appears to be the driving mechanism. When government regulation reaches 5 (roughly the mean value for countries with a state church according to Barrett, Kurian, and Johnson (2001)) on the 0-10 index (with 10 being the most regulated), religious attendance predicts more welfare support.

### 5. SWEDISH SEPARATION OF CHURCH AND STATE

Since at least the Reformation, Nordic governments have funded state churches and appointed their bishops. On January 1, 2000, Sweden separated church and state.<sup>35</sup> This separation had three main effects. First, the church was required to cut its \$1.68 billion annual budget, most of which was collected through state taxes. Second, individuals outside the Church of Sweden were no longer

<sup>35</sup>See Ekström (2003) and Gustafsson (2003) for detailed accounts. A long series of committee reports were issued between church and government (Rasmussen 2007, 1). Separation was not put to popular vote. The final decision was made by a few elites at the top of the government.

Figure 6: Welfare Attitudes and Church-State Separation Across the World



Notes: The solid line indicates the relationship between welfare support and religious attendance for individuals who belong to the state church and the dashed line indicates the relationship for individuals who do not belong to the state church. The regression specification is similar to that of Column 3 in Table II. The category “Only on special holy days/Christmas/Easter days” was only mentioned in Wave 2 and has been merged with the category “Only on special holy days”.



required to pay church taxes (Ekström 2003, 214) and children of members of the Church of Sweden no longer automatically became members.<sup>36</sup> Third, the church appointed its own bishops.

We estimate the impact of Sweden’s state church separation on the relationship between religiosity and redistributive preferences. Appendix Table V presents descriptive statistics of our panel of Nordic voters. Table IV reports differences-in-differences-in-differences regressions where the control group is Norway, whose church is still state-financed (Thorkildsen 2012). We are interested in the two available measures of redistributive preferences: 1) should taxes on high incomes be reduced and 2) should income differences be reduced? The former captures government involvement while the latter does not, so it serves as a placebo. The available religiosity measure is: would it be beneficial for society to be more closely aligned with Christian values?<sup>37</sup>

In brief, we find that church-state separation reduced the correlation between Christian values and redistributive preferences. Religiosity and redistributive preferences are only weakly correlated in general (Column 1). However, religious Swedes after church-state separation became more fiscally conservative relative to religious Norwegians (Column 2). One standard deviation in Christian

<sup>36</sup>Children became members only if they were baptized (Brohed 2005, Ch. 20 and 26).

<sup>37</sup>This question was only asked in the Norwegian data from 1997 onwards, reducing the length of the Norwegian part of the panel. Shortening the sample for Sweden to the same time period gives similar but less precise estimates than the ones presented in Table IV.

TABLE III  
WELFARE ATTITUDES AND CHURCH-STATE SEPARATION ACROSS THE WORLD

	(1)	(2)	(3)	(4)	(5)	(6)
Attendance	-0.00883 (0.00534)	-0.0330*** (0.00718)	-0.0251** (0.00982)	-0.0275** (0.0105)	-0.0338*** (0.00837)	-0.0144 (0.0119)
GRI×Attendance		0.00668*** (0.00182)				0.0102*** (0.00310)
SRI×Attendance			0.00353* (0.00186)			-0.00560* (0.00287)
GFI×Attendance				0.00347* (0.00193)		-0.00543 (0.00380)
Attendance×Government favoritism					0.00787*** (0.00257)	0.00816 (0.00539)
Mean of dep. variable	6.239	6.287	6.287	6.287	6.287	6.287
R <sup>2</sup>	0.0982	0.0915	0.0913	0.0913	0.0914	0.0915
Observations	220001	214282	214282	214282	214282	214282

Notes:

1. Outcome variable is “People should take more responsibility to provide for themselves vs The government should take more responsibility to ensure that everyone is provided for.”
2. Explanatory variables are GRI: Government Regulation index, SRI: Social Regulation Index, GFI: Government Favoritism Index, Government Favoritism: Financial support and other privileges for specific religious group.
3. Controls are as in Table II.
4. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
5. Standard errors in parentheses are adjusted for correlation within country of residence. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1% level.

values corresponds to 12% of a standard deviation in support for taxes. Our findings are robust to exploiting the panel aspect of the data: individual voters are followed over two waves of the survey, so we can examine changes in redistributive preferences for religious Swedes relative to religious Norwegians. Including individual fixed effects yields similar inferences (Columns 3 and 4). Our results are also robust to using only data just before and after the 2000 abolition. Column 5 regresses post-abolition redistributive preferences on pre-abolition Christian values interacted with being Swedish, controlling for pre-abolition redistributive preferences. In sum, Swedes with strong Christian values became more fiscally conservative after abolition.

Using the placebo question, we find that church-state separation reduced the correlation between Christian values and redistributive preferences only when government is involved. Religious Swedes after church-state separation became more inequality averse relative to religious Norwegians (Column 7), which is robust to the inclusion of individual fixed effects (Column 9). We can reject significant increases in inequality-loving attitudes among religious Swedes (Column 10).

In sum, our analysis of Sweden's separation of church and state is consistent with our cross-country analysis using the WVS. As a further check, our WVS analysis is robust to recoding Sweden as having no state church after 2000. Estimates using only Swedish data are less precise but have the same sign as our panel analysis.

## 6. U.S. ESTABLISHMENT CLAUSE

*Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.* (First Amendment to the U.S. Constitution)

While the U.S. was founded on the notion of religious practice free from state interference, early Americans did not seek a complete disconnection between church and state, even if their calls for disestablishment lay the groundwork for what would later become calls for separation. Government support for the poor was in fact largely distributed through religious organizations. Early Americans followed English poor laws in allowing parish officials the authority to raise taxes as needed and use the funds to build and manage almshouses; to supply food and sustenance in their own homes for the aged and the handicapped; and to purchase materials necessary to put the able-bodied to work (Hansan 2011). The controversies at the time of founding were whether government could use its civil power to appoint religious leaders and whether clergymen could participate in politics. Advocates of disestablishment worried that civil office would distract clergyman from focusing on their higher obligations. Church-state separation, as it is understood today, was neither sought nor intended by the founding generation and did not become an American ideal until late 19th century and 20th century (Feldman 2005).

The impetus to separate church and state in today's formulation was the large number of Catholic immigrants in the 19th century (Hamburger 2002). The implicit intent of some public institutions, like orphanages, was to get kids away from Catholic families whose moral and religious instruction in the view of Protestants had been almost wholly neglected (Crenson 2009). The reading of the Protestant Bible in public schools discriminated against Catholics, who sent their children

Table IV: Preferences and state church: Sweden versus Norway

	Reduce taxes					Accept income differences				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Christian values	0.0242 (0.0177)	0.0452 (0.0299)	-0.00501 (0.0199)	0.111** (0.0462)		0.0264*** (0.00775)	-0.0309* (0.0167)	0.0232 (0.0222)	-0.0356 (0.0473)	
Christian values $\times$ Sweden		0.0373 (0.0338)		-0.0755 (0.0536)			0.0966*** (0.0216)		0.0665 (0.0558)	
Christian values $\times$ After 2000		-0.124*** (0.0240)		-0.174*** (0.0466)			0.0663*** (0.0203)		0.0883* (0.0481)	
After 2000 $\times$ Sweden		-0.844*** (0.0951)		-0.952*** (0.201)			0.376*** (0.111)		0.453** (0.209)	
Christian values $\times$ After 2000 $\times$ Sweden		0.121*** (0.0299)		0.138** (0.0543)			-0.141*** (0.0310)		-0.132** (0.0580)	
Cut taxes (lagged)					0.374*** (0.0360)					
Accept income differences (lagged)										0.327*** (0.0232)
Christian values (lagged)					-0.124*** (0.0254)					0.0363 (0.0282)
Christian values (lagged) $\times$ Sweden					0.141*** (0.0289)					-0.0309 (0.0192)
FE	No 2.730	No 2.730	Yes 2.730	Yes 2.730	No 2.701	No 2.308	No 2.308	Yes 2.308	Yes 2.308	No 2.203
Mean of dep. variable	0.166	0.175	0.237	0.248	0.246	0.0127	0.0142	0.00698	0.00890	0.123
R <sup>2</sup>	16009	16009	16009	16009	1312	15988	15988	15988	15988	1322
Observations										

Notes:

1. The outcome variable in Columns 1 to 5 is the index of favoring tax cuts, in Columns 6 to 10, the index of accepting income differentials. Both indices take values between 1 and 5.
2. Christian values is an index between 1 and 5 measuring whether it would be beneficial to for their society to be more closely aligned with Christian values.
3. All specifications include period and country dummies. Specifications (3), (4), (8), and (9) also include individual fixed effects. Specifications (5) and (10) are regressions of opinions next period, conditioning on opinions this period. Data covers the Swedish elections in 1991, 1994, 1998, 2002, and 2006 and the Norwegian elections in 1997, 2001, and 2005.
4. Standard errors in parentheses are adjusted for correlation within region of residence. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1% level.

to Catholic private schools. Catholics became doubly penalized to pay taxes for Protestant public schools and tuition for Catholic private schools. The ostensibly non-sectarian public institutions spurred the development of Catholic alternatives in the form of children's homes and parochial schools. In response to subsequent calls for government funding for Catholic schools, 19th century advocates proposed banning public funding of religious institutions.

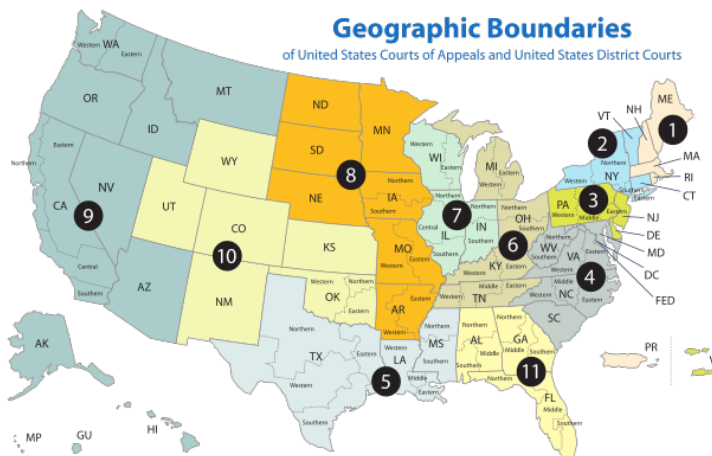
The secular movement promoting separation of church and state as it is understood today did not begin until the 1920s. Throughout the twentieth century, historians perpetuated the misperception that the principle of separation originated in eighteenth century thought, thus giving historical credence to separation's ostensible constitutional authority (Hamburger 2002) amid a belief in the principles of originalism as a constitutional theory of interpretation. In the 20th century, the U.S. Supreme Court forbade religious instruction in public schools, prayer in public schools, direct government assistance to religious schools, and tax deductions and reimbursements for children in religious schools. The secularization of public institutions led to the growth of religious alternatives, like home schooling, which began a resurgence in the 1970s. Today, home schooling involves 3.4% of American school-age children (2 million students). Over 70% of parents who homeschool report doing so in order to provide religious or moral instruction (Sadker, Sadker, and Zittleman 2008). Like 19th century Catholics, religious groups are doubly penalized to pay taxes for public schools and in-kind tuition for religious instruction outside of schools. The effective reduction in government subsidy of religious instruction—or insurance—is accentuated since home schooling takes women out of the labor force.

Today, faith-based organizations supply social services to over 70 million Americans each year (Johnson, Tompkins, and Webb 2002). Direct government funding of religious organizations remains hotly debated, but tax expenditures are less contested, even though tax expenditures amount to 6% of GDP in aggregate (for comparison, aggregate government spending is around 25% of GDP) and \$700 billion per year (Burman, Geissler, and Toder 2008). For example, tax credits apply to donations to religious organizations while church property, buildings, and clerical salaries and housing are tax exempt, amounting to billions of dollars every year. No direct numbers on tax expenditures for religion exists, but it continues to be litigated under Establishment Clause jurisprudence. In *Arizona Christian School Tuition Organization v. Winn et al.*, the Supreme Court allowed Arizona to let taxpayers claim a non-refundable tax credit of \$500 a year (\$1,000 for couples) for donations to qualified school tuition organizations (STOs) that used the funds to make tuition payments to religious private schools. The original suit claimed that STOs violated the First Amendment's prohibition of government activities promoting the "establishment of religion" because tuition payments could go to parochial schools. In a close 5-4 decision, the 2010 Court allowed the tax breaks to continue. Part of the empirical challenge is that religious exemptions appear in many parts of the tax code and many levels of government have fiscal capacity. We sidestep this issue by focusing on court-made laws that on average make it harder or easier for governments to articulate fiscal and tax expenditures for religious purposes.

To analyze the effects of Establishment Clause jurisprudence, a foundational understanding of

the U.S. Federal Courts is important to understanding our identification strategy, which relies on the law-making function of common law courts. This making of law occurs because a judge's decisions in current cases become precedent for use in future cases in the same court and in lower courts of the same jurisdiction. There are three layers of Federal Courts: District, Circuit, and the U.S. Supreme Court. The 94 U.S. District Courts serve as general trial courts in which a jury decides *issues of facts*. If a party appeals the decision, the case goes up to a Circuit Court, which decides *issues of law*; they take facts from District Courts and have no juries. The 12 U.S. Circuit Courts, also known as Courts of Appeals or Federal Appellate Courts, only hear cases presenting new legal issues (only 10-20% of District Court opinions are appealed). Cases that reach the Circuit Courts are the more challenging and controversial cases with the greatest likelihood to set new precedent. Figure 7 displays District Court boundaries in dotted lines and Circuit Court boundaries—encompassing between 5 and 13 Districts each—in solid lines.

Figure 7



In deciding issues of law, Circuit Courts provide new interpretations or distinctions of pre-existing precedents or statutes. These new distinctions expand or contract the space under which an actor is found liable (Gennaioli and Shleifer 2007). Each Circuit Court decides many thousands of cases per year and about 1 case per Circuit per year is related to separation of church and state. Only 2% of Circuit cases successfully appeal to the U.S. Supreme Court, so Circuit Courts determine the vast majority of decisions each year that set legal precedent. Circuit Court decisions are *binding precedent*, but only within that Circuit. When Circuits choose to adopt the precedent of another Circuit, it is typically with some delay. Before an opinion can be issued in the new Circuit, a case bringing the same issue of law must be filed in a District Court, appealed to the Circuit Court, and decided upon. Circuit Court decisions are also *persuasive precedent* on state courts within the Circuit, which means it must be adopted by the state courts to become binding.

Each Circuit Court case receives *three randomly assigned judges* out of a pool, numbering roughly 8 to 40 depending on the size of the Circuit. These judges are appointed for life by the U.S. President

and their positions and decisions are highly esteemed.<sup>38</sup> State officials are instructed to establish and annually update a set of guidelines based on Federal and state law to assist state agencies in identifying and analyzing actions that may result in a violation of legal precedent; they also adjust their regulations to avoid exposure to costly litigation after Circuit Court decisions (Frost and Lindquist 2010; U.S. Department of Transportation, Federal Highway Administration 2005; Pollak 2001). Newspapers, advocates, and community organizers publicize the change in legal landscape after Circuit Court decisions (Pastor 2007; Eagle 2007; Sandefur 2005). Since judges follow precedent (Chen, Frankenreiter, and Yeh 2014) and markets respond to Circuit Court decisions (Araiza, Chen, and Yeh 2014) and Supreme Court decisions (Katz, Bommarito, Soellinger, and Chen 2015), we might expect to see an effect of both Circuit and Supreme Court decisions on social outcomes.

### *U.S. Supreme Court*

The U.S. Supreme Court issued many landmark decisions in the 20th century forbidding religious instruction in public schools (1948), prayer in public schools (1962), Bible recitation in public schools (1963), direct government assistance to religious schools (1971), tax deductions and reimbursements for children in religious schools (1973), display of the Ten Commandments (1980), equal treatment of creation science and evolution (1981), and graduation prayer (1992). Appendix Table XIX lists all the cases where the Supreme Court either made a decision or let stand a Circuit Court decision on church-state separation in public schools. Appendix Figure 2 shows substantial variation in the net number of decisions each year that increased or decreased separation of church and state.

We report an OLS regression of the form:

$$\Delta \text{StrongRepublican\_Fundamentalism}_t = \beta_0 \Delta \text{ChurchStateSeparation}_t + \varepsilon_t$$

which examines the alignment between religious fundamentalism and identifying strongly as Republican. We find that changes in church-state separation in one electoral cycle precede changes in the relationship between fundamentalism and Republican identification in the next election cycle.  $\beta_0$  is estimated to be 0.0021(0.0009) and is statistically significant at the 10% level. A lead regression yields a much smaller and statistically insignificant coefficient of  $-0.0009(0.0007)$ . We find a similar pattern when examining the correlation between religious attendance and voting for the Republican party Presidential candidate. We find that church-state separation precedes 0.0027(0.0010) increase in the correlation between religious attendance and Republican voting, which is statistically significant at the 5% level. A leads regression yields a much smaller and statistically insignificant coefficient of  $-0.0005(0.003)$ .

Figure 8 suggests that outliers do not drive the finding that church-state separation precedes increases in the alignment. In terms of magnitudes, roughly 10 Supreme Court decisions would be equivalent to 0.02 in correlation between fundamentalism and identifying strongly as Republican,

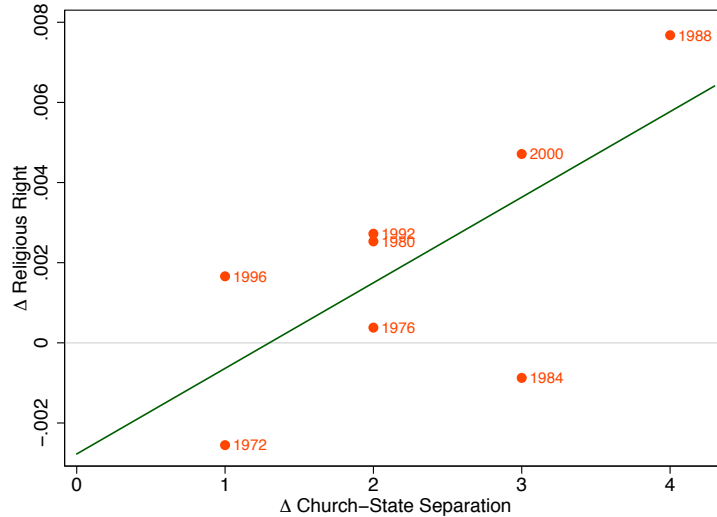
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<sup>38</sup>Except for retirement, Circuit judges typically leave the bench only for a position in the U.S. Supreme Court.

or roughly the entire change from 1972 to 2004. Figure 9 displays, for each election, the coefficients from regressions of Republican identification on fundamentalism.<sup>39</sup>

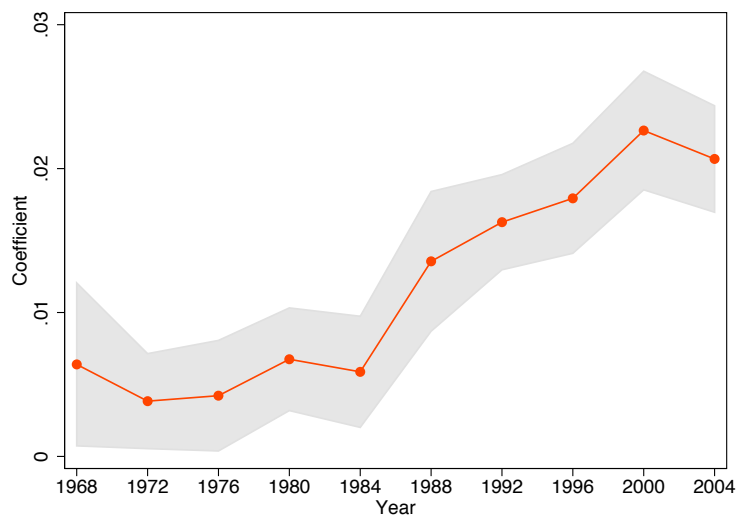
<sup>39</sup>Source is the General Social Survey. Coefficients are from OLS regressions of the dummy for identifying strongly as Republican on fundamentalism, controlling for the same variables listed in Table I. Trends are similar using OLS regressions of the dummy for voting Republican regressed on religious attendance.

Figure 8



Notes: The x-axis displays the net number of judicial decisions that increase or decrease church-state separation in the four years prior to an election year. The y-axis displays the change in the coefficient on the relationship between fundamentalism and identifying strongly as Republican in the next election cycle.

Figure 9



Notes: The graph shows for each election year the correlation between fundamentalism and identifying strongly as Republican. The shaded area indicate 95% confidence intervals.

## U.S. Circuit Courts

We now turn to the U.S. Circuit Courts with regional variation and random assignment of judges. Random assignment is helpful for several reasons. In a seminal contribution, Priest and Klein (1984) pointed out that plaintiffs and defendants bargain under the shadow of the law, so the plaintiff win rate reveals no information about the underlying strength of precedent. This insight effectively ended a research agenda that correlated real outcomes with measures of law to infer the real effects of laws. Second, as all law students are taught [to make nuanced analogies], there is extensive cross-fertilization of legal doctrine via analogies between different areas of law. *Roe v. Wade* extended the right of privacy under the 14th Amendment’s Due Process Clause, which was previously interpreted as precluding government interference in *freedom of contract*, but *Roe v. Wade* interpreted Due Process as precluding government interference in a *woman’s decision to have an abortion*. With cross-fertilization, real outcomes may be misattributed to one legal rule when many legal rules are changing simultaneously. The conventional approach would be to control for other legal rules, but it is practically infeasible to code—much less select—all the possible related doctrinal areas.

Third, in another seminal contribution, Besley and Case (2000) cautioned against causal interpretation of correlations between real outcomes and laws because constituents can influence policies. This concern is a particularly trenchant for court cases (Klarman, 2005), because the legal doctrine often instructs judges to take account the community standards, i.e., norms, so it will be difficult to distinguish between laws causing economic changes from economic changes causing laws. A variant of the second and third concern is that judges are *consequentialist* (Chen and Schonger, 2013, 2015)—they take into account the potential consequences of their decisions—at least some judges on both the left (Breyer, 2006) and right (Posner, 1998) do—which can bias the correlation between future outcomes and today’s decisions if they desire similar consequences while sitting on other cases.

We overcome these three challenges with random variation in legal precedent using biographical characteristics of judges—we cannot ask judges to randomize their decisions in the interest of legal science, but the judges themselves are randomly assigned and their background correlates with the way they decide, effectively creating a clinical trial that randomizes jurisprudence.<sup>40</sup> To illustrate, Figure 10 shows that excess variation in Democrat judges is random. Figure 11 shows that there is a strong first stage relationship—Democrats, who are generally more secular and prefer to separate church and state, are less likely to make conservative decisions in Establishment Clause cases.

Our regression specification examines whether church-state separation causes an increase in the alignment between fundamentalism and Republican identification:

$$Y_{ict} = \beta_0 + \sum_n \beta_{1n} Law_{c(t-n)} + \sum_n \beta_{2n} \mathbf{1}[M_{c(t-n)} > 0] + \beta_3 C_c + \beta_4 T_t + \beta_5 C_c * Time$$

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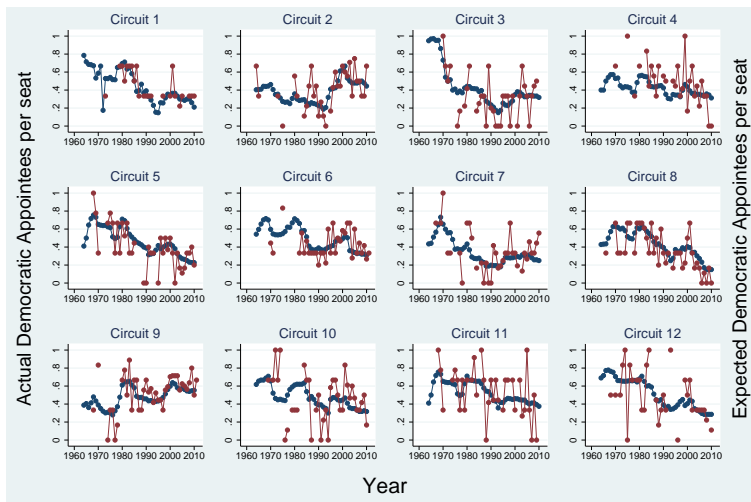
<sup>40</sup>Judges may decide differently out of duty (Chen, Moskowitz, and Shue 2015) or ideology (Berdejó and Chen 2014).



$$+ \sum_n \beta_6 W_{c(t-n)} + \beta_7 X_{ict} + \varepsilon_{ict}$$

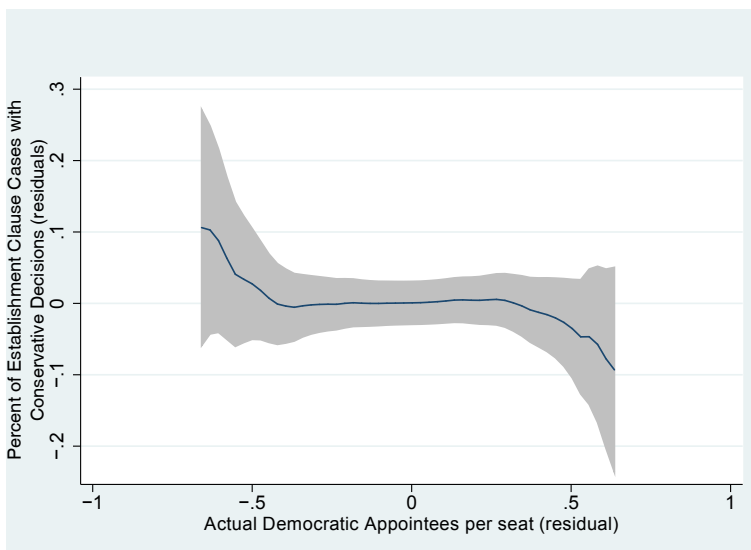
Identifying strongly as Republican is the dependent variable,  $Y_{ict}$  for individual  $i$  in Circuit  $c$  and

Figure 10: Random Variation by Circuit



Notes: For each Circuit, the expected proportion of judge seats that would be assigned to Democrats is displayed in blue. The actual proportion of judge seats assigned to Democrats is displayed in red.

Figure 11: Proportion of Establishment Clause Cases with Conservative Decisions



year  $t$ .<sup>41</sup> We estimate a distributed lag effects of  $Law_{ct}$ , which is the percentage of cases in a Circuit-year that voted to separate church and state. Many Circuit-years do not have decisions, so we define  $Law_{ct}$  to be 0 when there are no cases and introduce a dummy,  $\mathbf{1}[M_{ct} > 0]$ , for presence of an appeal. We then interact  $Law_{c(t-n)}$  and  $\mathbf{1}[M_{c(t-n)} > 0]$  with fundamentalism, so we can observe whether church-state separation precedent is followed by fundamentalists more strongly self-identifying as Republican. We report  $\frac{\sum_n \beta_{1n}}{n}$  and joint significance of the lag interaction coefficients.<sup>42</sup>

We have a combinatorial number of biographical characteristics that serve as valid instruments. We use LASSO (least absolute shrinkage and selection operator) to select instruments (Belloni, Chen, Chernozhukov, and Hansen 2012). Intuitively, LASSO has two properties that OLS lacks: sparseness and continuity. With OLS, large subsets of covariates are deemed important, resulting in too many instruments, which makes 2SLS susceptible to a weak instruments problem. Small changes in the data often results in different subsets of covariates deemed important. Formally, LASSO modifies OLS by adding a data penalty for having too many large coefficients. The model minimizes the sum of squares subject to the sum of the absolute value of the coefficients being less than a constant, which tends to set some coefficients to exactly 0 and hence reduces model complexity. To construct our potential LASSO instruments, we use 30 biographical characteristics<sup>43</sup> and their interactions at the judge level<sup>44</sup> and panel level<sup>45</sup> yielding a total of 900 possible instruments.

Results are reported in Table V. Both the OLS and IV estimates indicate that after legal precedent separating church and state, fundamentalists began identifying more strongly as Republican

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<sup>41</sup>Controls are:

- Circuit-fixed effects,  $C_c$ , and time-fixed effects,  $T_t$ ;
- Circuit-specific time trends,  $C_c * Time$ , to allow different Circuits to be on different trajectories with respect to outcomes;
- a vector of observable unit characteristics,  $X_{ict}$ , such as age, gender, educational attainment, and race, which each enter as dummies with the exception of age;
- and time-varying Circuit-level controls,  $W_{c(t-n)}$ , such as the characteristics of the pool of judges available to be assigned in Circuit  $c$  and time  $t - n$ .

<sup>42</sup>Litigants' decisions to appeal may be in response to previous years' legal decisions, however, so controlling for  $\mathbf{1}[M_{ct} > 0]$  will bias  $Law_{ct}$ ; the bias is more severe for more distant lags and non-existent for the most advanced lead. We use random assignment of District Court judges to identify  $\mathbf{1}[M_{ct} > 0]$ : District judge demographic characteristics are correlated with reversal rates (Haire, Songer, and Lindquist 2003; Sen 2011; Barondes 2010; Steinbuch 2009); and expected reversal rates could encourage litigants from pursuing an appeal. Once we use instruments to identify both  $\mathbf{1}[M_{ct} > 0]$  and  $Law_{ct}$ , estimates should be roughly invariant to the inclusion or exclusion of additional lags and leads. Including lags that are important predictors of the outcome improves statistical precision, but losing data at the beginning and end of the time period reduces precision. The use of leads serves as an important omnibus check of our instrumental variable. We show average lag and lead effects to assess the degree to which violation of random variation biases our estimates. See Chen and Sethi (2011), Chen and Yeh (2014c), and Chen, Levonyan, and Yeh (2014) for further details.

<sup>43</sup>Democrat, male, male Democrat, female Republican, minority, black, Jewish, Catholic, No religion, Mainline Protestant, Evangelical, bachelor's degree (BA) received from same state of appointment, BA from a public institution, JD from a public institution, having an LLM or SJD, elevated from District Court, decade of birth (1910s, 1920s, 1930s, 1940s, or 1950s), appointed when the President and Congress majority were from the same party, ABA score, above median wealth, appointed by president from an opposing party, prior Federal judiciary experience, prior law professor, prior government experience, previous assistant U.S. attorney, and previous U.S. attorney.

<sup>44</sup>For example, the number of racial minority Democrats per seat.

<sup>45</sup>For example, the number of Democrats per seat multiplied by the number of racial minority judges per seat.

in the four years after a decision. The lead coefficients are statistically insignificant. In terms of magnitudes, the coefficient of 0.009 is a little under half the size of the coefficient of 0.0021 in the Supreme Court regression.

TABLE V  
FISCAL AND SOCIAL CONSERVATISM/LIBERALISM AND CHURCH-STATE SEPARATION WITHIN THE U.S.

	OLS	LASSO IV	Obs	Dependent Variable
<i>Panel A</i>	(1)	(2)	(3)	(4)
<i>Average Interaction Lag Effect</i>				
Identify as Strong Republican	0.004	0.009	42837	0.098
Joint P-value	0.057	0.000		
<i>Panel B</i>				
<i>Average Interaction Lead Effect</i>				
Identify as Strong Republican	0.006	0.024	42837	0.098
Joint P-value	0.260	0.291		

*Notes: Interaction with fundamentalism. Regressions include level effects, circuit fixed effects, year fixed effects, circuit-specific time trends, a dummy for whether there were no cases in that circuit-year, and individual demographic controls.*

## 7. DISCUSSION

Our model predicts multiple steady states with high religiosity, high church-state separation, and low welfare state and low religiosity, low church-state separation, and high welfare state. The positive correlation between religiosity and church-state separation is documented by Barro and McCleary (2005), Finke and Stark (1992), Iannaccone (1998), and the references therein, while the negative correlation between religiosity and welfare state is documented by Gill and Lundsgaarde (2004), Scheve and Stasavage (2006), and Cavanaugh (2005), and the references therein. An interesting question for future research is whether temporary shocks shift countries from one steady-state basin of attraction to another.

Our model is presented as a formalization of a novel theory for the changing nature of religious movements. Previous works on the decline of the Social Gospel movement and the rise of the Religious Right are descriptive (Carter 1956; Bateman 1998; Hood, Hill, and Williamson 2005; Woodberry and Smith 1998; Hubbard 1991; Midgley 1990). The descriptions tend to focus on another factor covarying over time: religious pluralism, acceptance of scientific findings, urbanization, new media, *Roe v. Wade*, the Cold War, the World Wars, and Prohibition. The difficulty these explanations face as general theories is that non-U.S. countries also experienced the same societal changes, yet their religious groups are still pro-welfare. Similarly, some of these factors, like *Roe v. Wade*, are missing in countries where fiscal and social conservatism align.

Our model also formalizes a novel theory for church-state separation. Previous accounts of church-state separation are descriptive and focus on single factors: richer countries are less likely to have a state religion, which fails to explain European countries becoming richer but not dismantling their

state religions; statist nature of countries (van Bijsterveld 2000), which fails to explain changes within-countries; and religious diversity (Barro and McCleary 2006; Kuru 2007), but some European countries have large Muslim minorities and have not separated church and state.

To be sure, some countries are exceptions to our theory as well, else the upper-half of Figure 5 should be uniformly blue and the lower-half red. Looking more closely at Figure 5 reveals that almost all of the exceptions in the lower-half are formerly Communist countries. These are countries with a state church where religiosity negatively predicts pro-welfare attitudes: Serbia, Romania, Slovenia, Czech Republic, Vietnam, Slovakia, Latvia, Lithuania, China, Albania, Estonia, Serbia, and Russia. An important factor to investigate in future research is the role of democratization—many formerly Communist countries have had elites who can disregard the voting preferences of the poor.

## 8. CONCLUSION

This paper looks at market forces to understand religion’s role in politics and why fiscal and social conservatives come hand-in-hand. Religious intensity as social insurance provides an explanation. Religious groups may be against the welfare state because it competes against their constituency. We use this hypothesis to help solve three puzzles:

1. Why fiscal and social conservatism align in most countries is puzzling, since the fiscal libertarianism espoused by the Republican Party would seem to be an equally good fit with a socially libertarian position on issues of personal choice, such as abortion.
2. Second, why fiscal and social conservatism did not align together in the past, such as the Social Gospel movement, or in some countries today, like in Europe, is another puzzle. Separation between church and state is key. Religious groups are less against the welfare state when part of welfare is given to religious groups.
3. Third, why some countries, like the U.S., sustain high church-state separation, high religiosity, and a low welfare state, while other countries, like those in Europe, sustain low church-state separation, low religiosity, and a high welfare state is the final puzzle.

We document that fiscal and social conservatives and fiscal and social liberals tend to come hand-in-hand in countries without a state church. In countries with a state church, the alignment reverses: Social conservatives become fiscal liberals. The alignment strengthens with church-state separation—after Sweden’s abolition of the state church and using random variation in U.S. Establishment Clause jurisprudence. We apply this framework to explain the changing nature of religious movements. Risk-sharing mechanisms by religious groups helps complete a missing market for credit and lowers their tax preferences in the absence of a state church. The welfare state weakens religious risk-sharing mechanisms. Elites increase church-state separation to create a constituency for lower taxes if religious voters exceed non-religious voters. Otherwise, elites prefer a state church to curb the secular left, which is consistent with negative correlations between religiosity and having a state church.

As the welfare state shrinks, religiosity increases because the marginal person seeking insurance turns to religion instead. Countries with high initial parameters for religiosity, like the U.S., increase

church-state separation. Preferences of religious groups shift to be fiscally conservative, and as the welfare state shrinks, individuals become more religious, which increases the incentives for elites to separate church and state, creating a positive feedback. Countries like the U.S. sustain high religiosity, high church-state separation, and low welfare state. Countries with low initial parameters for religiosity, like those in Europe, increase the state church, which curbs the demand for welfare by non-religious groups. However, if they successfully shrink the welfare state, individuals become more religious, which undermines the initial low religious weight, creating a negative feedback. This implies a stable steady state with a large welfare state, large state church, and low religiosity.

Countries can also permanently shift from one steady state to another with temporary shifts in credit availability, which suggests a counter-intuitive policy application. Economic sanctions, which are usually ineffective (Naghavi and Pignataro 2015; Hufbauer, Schott, Elliott, and Oegg 2007), may increase theocratic tendencies in countries with large religious populations if elites are restricted from international capital markets and lose access to alternative social insurance. In this case, the story reverses: elites decrease church-state separation if religious voters exceed non-religious ones. Preferences for redistribution are high and social insurance by religious groups completes a missing market for credit. Exploring this perspective in future research may shed light on debates in international law and the dynamics of credit market access, theocracy, and fundamentalism in developing countries.

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## APPENDIX A: DATA APPENDIX

### A.1. *General Social Survey*

The following variables are drawn from the U.S. General Social Survey's cross sectional cumulative data:<sup>46</sup>

Prayer in Public School refers to the question, "The United States Supreme Court has ruled that no state or local government may require the reading of the Lord's Prayer or Bible verses in public schools. What are your views on this—do you approve or disapprove of the court ruling?" Disapprove is coded as 1, approve as 0. Variable name: prayer.

Abortion should be Illegal refers to the question, "Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if she wants it for any reason" No is coded as 1, yes as 0. Variable name: abany.

Women Belong at Home refers to the question, "Is it much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family." Strongly agree and agree are coded as 1, disagree and strongly disagree are coded as 0. Variable name: fefam.

Premarital Sex is Wrong refers to the question, "There's been a lot of discussion about the way morals and attitudes about sex are changing in this country. If a man and woman have sex relations before marriage, do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?" Always wrong is coded as 1, the remainder as 0. 4. Variable name: premarsx.

Identify Republican refers to the question, "Generally speaking, do you usually think of yourself as a Republican, Democrat, Independent, or what?" Strong Republican is coded as 1, not very strong Republican, Independent close to Republican, Independent, Independent close to Democrat, Not very strong Democrat, Strong Democrat are coded as 0. 5. Variable name: partyid.

Pro-Equality refers to the question, "Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel?" 1 and 2 are coded as 1 and 3-7 coded as 0. Variable name: eqwlth.

Politically Conservative refers to the question, "We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal—point 1—to extremely conservative—point 7. Where would you place yourself on this scale? Extremely conservative and conservative are coded as 1, slightly conservative, moderate, slightly liberal, liberal, and extremely liberal are coded as 0. Variable name: polviews.

Identify as Fundamentalist refers to the question, "Do you consider yourself to be fundamentalist, moderate, or liberal?" Fundamentalist is coded as 1, Moderate and Liberal as 0. Variable name: fund.

Congregation Helps You refers to the question, "If you were ill, how much would the people in your congregation help you out?" A great deal is coded as 1, some, a little, or none are coded as 0. Variable name: conghlp1.

Supports more welfare refers to the question "Are we spending too much, too little, or about the right amount for welfare?". Too little is coded 1, too much and about right as 0. Variable name: natfare.

Social Conservatism Index is a 0-1 index equal to the mean of the values on Prayer in Public Schools, Abortion Should be Illegal, Women Belong at Home, Premarital Sex is Wrong and Identify as a Fundamentalist

Religion Attendance refers to the question "How often do you attend religious services?" Variable name: attend.

*FiscalConservatism* and *MoralConservatism* are collections of responses to question that can be classified as measuring whether the respondent is fiscally conservative, i.e. favoring low taxes and low government expenditures, and morally conservative, i.e. favoring restrictions on abortion and related issues. The choice of variables is borrowed from (Ansolabehere, Rodden, and Jr., 2006). They include the following variables:

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<sup>46</sup><http://www3.norc.org/GSS+Website>

*Fiscal conservative:*

Confidence: Business (i) / Financial institutions refer to the question “I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them?” “Hardly any” is coded 1, “Only some” is coded 2 and “a great deal” is coded 3. Variable names: conbus confinan.

Confidence: Organized labor refers to the same question as above for organized labor, but with the scale reversed: “A great deal” is coded 1 and “Hardly any” is coded 3. Variable name: conlabor.

Confidence: Business (ii) refers to the question “How much confidence do you have in business and industry” “No confidence at all” is coded 1, “Some confidence” is coded 3 and “Complete confidence” is coded 5. Variable name: conbiz.

Equalize incomes (i) refers to the question “What is your opinion of the following statement? It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.” Coded from 1 (“Agree strongly”) to 5 (“Disagree strongly”). Variable name: eqincome.

Equalize income (ii) refers to the question “On the whole, do you think it should or should not be the government’s responsibility to reduce income differences between the rich and poor?” Coded from 1 (“Definetly should be”) to 4 (“Definetly should not be”). Variable name: equalize.

Equalize income (iii) refers to “Do you agree or disagree? It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.” Coded from 1 (“Strongly agree”) to 5 (“Strongly disagree”). Variable name: goveqinc.

Equalize wealth (i) and (ii) refer to the question “Some people think that the government in Washington ought to reduce the income differences between the rich and the poor, perhaps by raising the taxes of wealthy families or by giving income assistance to the poor. Others think that the government should not concern itself with reducing this income difference between the rich and the poor. Here is a card with a scale from 1 to 7. Think of a score of 1 as meaning that the government ought to reduce the income differences between rich and poor, and a score of 7 meaning that the government should not concern itself with reducing income differences. What score between 1 and 7 comes closest to the way you feel?” Variable names: eqwlth eqwlthy.

Government help general refers to the question “Some people think that the government in Washington is trying to do too many things that should be left to individuals and private businesses. Others disagree and think that the government should do even more to solve our country’s problems. Still others have opinions somewhere in between. Where would you place yourself on this scale, or haven’t you made up your mind on this?” Coded from 1 (“government do more”) to 5 (“government doing too much”). Variable name: helpnot.

Government help poor refers to the question “Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans; they are at Point 1 on this card. Other people think it is not the government’s responsibility, and that each person should take care of himself; they are at Point 5. Where would you place yourself on this scale, or haven’t you have up your mind on this?” Coded from 1 (“government do more”) to 5 (“government doing too much”). Variable name: helppoor.

Government help sick refers to the question “In general, some people think that it is the responsibility of the government in Washington to see to it that people have help in paying for doctors and hospital bills. Others think that these matters are not the responsibility of the Federal Government and that people should take care of these things themselves. Where would you place yourself on this scale, or haven’t you made up your mind on this?” Coded from 1 (“government do more”) to 5 (“government doing too much”). Variable name: helpsick.

Help cities, Pro environment, Pro welfare and Pro health refer to the question “We are faced with many problems in this country, none of which can be solved easily or inexpensively. I’m going to name some of these problems, and for each one I’d like you to name some of these problems, and for each one I’d like you to tell me whether you think we’re spending too much money on it, too little money, or about the right amount.” “Too Little” is coded 1, “About Right” is coded 2 and “Too Much” is coded 3. Variable names: naticity naticityy naticityz natenvir natenviy natenviz natfare natfarey natfarez natheal nathealy nathealz.

Cut taxes refers to the question “Do you consider the amount of Federal Income Tax which you have to pay as

too high, about right, or too low?" "Too low" is coded 1, "About right" is coded 2 and "too high" is coded 3. Variable name: tax.

*Moral conservative:*

Abortion: ... (i) refer to the questions "Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if..." where circumstances are : "the women wants it for any reason", "there is a strong chance of serious defect in the baby", "the woman's own health is seriously endangered by the pregnancy?", "she is married and does not want any more children?", "the family has a very low income and cannot afford any more children?", "she became pregnant as a result of rape?" and "she is not married and does not want to marry the man?". Yes is coded 1, No is coded 2. Variable names: abany abdefect abhlth abnomore abpoor abrape absingle.

Abortion: any reason (ii) refer to the question "Do you agree or disagree. A pregnant woman should be able to obtain a legal abortion for any reason whatsoever, if she chooses not to have the baby." Coded from 1 ("Strongly agree") to 5 ("strongly disagree"). Variable name: abchoose.

Abortion: Defect (ii) and Family Poor (ii) refer to the question "Do you think the law should or should not allow a pregnant woman to obtain a legal abortion ..." "If there is a strong chance of serious defect in the baby" and "If the family has a very low income and cannot afford any more children". Coded from 1 ("Definetly should allow it") to 4 ("Definetly should not allow it"). Variable names: abdefct1 abpoor1.

Teacher: Atheist, Book in library: Atheist, Free speech: Atheist refer to the questions "There are always some people whose ideas are considered bad or dangerous by other people. For instance, somebody who is against all churches and religion / Should such a person be allowed to teach in a college or university, or not? / If some people in your community suggested that a book he wrote against churches and religion should be taken out of your public library, would you favor removing this book, or not? / If such a person wanted to make a speech in your (city/town/community) against churches and religion, should he be allowed to speak, or not?" Yes is coded 1, No is coded 2. Variable names: colath spkath libath.

Teacher: Homosexual, Book in library: Homosexual, Free speech: Homosexual refer to the questions "And what about a man who admits that he is a homosexual? Should such a person be allowed to teach in a college or university, or not? / If some people in your community suggested that a book he wrote in favor of homosexuality should be taken out of your public library, would you favor removing this book, or not? / Suppose this admitted homosexual wanted to make a speech in your community. Should he be allowed to speak, or not?" Yes is coded 1, No is coded 2. Variable names: colhomo libhomo sphomo.

Confidence in organized religion (i) refers to the question "I am going to name some institutions in this country. As far as the people running these institutions are concerned, would you say you have a great deal of confidence, only some confidence, or hardly any confidence at all in them? C. Organized religion" "Hardly any" is coded 1, "only some" is coded 2 and "a great deal" is coded 3. Variable name: conclerg.

Confidence in organized religion (ii) refers to the question "I am going to name some institutions in this country. Some people have complete confidence in the people running these institutions. Suppose these people are at one end of the scale at point number 1. Other people have no confidence at all in the people running these institutions. Suppose these people are at the other end, at point 7. And, of course, other people have opinions somewhere in between at point 2, 3, 4, 5 or 6. Where would you place yourself on this scale for... C. Organized religion" "No confidence" is coded 1, "Complete confidence" is coded 7. Variable name: conclery.

Legalize marijuana (i) and (ii) refer to the question "Do you think the use of marijuana should be made legal or not?" "Make use legal" is coded 1, "don't make use legal" is coded 2. Variable names: grass grassy.

Homosexual relations (i) and (ii) refer to the question "What about sexual relations between two adults of the same sex—do you think it is always wrong, almost always wrong, wrong only sometimes, or not wrong at all?" "Not wrong at all" is coded 1, "always wrong" is coded 4. Variable name: homosex.

Pornography laws refer to the question "Which of these statements comes closest to your feelings about pornography laws? There should be laws against the distribution of pornography whatever the age. There should be laws against the distribution of pornography to persons under 18, There should be no laws forbidding the distribution of pornography" No laws is coded as 1, laws against distribution whatever the age is coded as 3. Variable name: pornlaw.

Religiosity refers to the question “Would you call yourself a strong (PREFERENCE NAMED IN RELIG) or a not very strong (PREFERENCE NAMED IN RELIG)?” “No religion” is coded as 1, “strong” is coded as 4. Variable name: reliten.

Extramarital relation refers to the question “What is your opinion about a married person having sexual relations with someone other than the marriage partner—is it always wrong, almost always wrong, wrong only sometimes, or not wrong at all?” “Not wrong at all” is coded 1, “always wrong” is coded 4. Variable name: xmarsex.

Religious denominations are classified following the RELTRAD scheme presented by Steensland, Park, Regnerus, Robinson, Wilcox, and Woodberry (2000).

## A.2. *World Value Survey*

The following variables are taken from the World Values Survey.

Government responsibility: refers to the question “Now I’d like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left, 10 means you agree completely with the statement on the right, or you can choose any number in between. 1: People should take more responsibility for providing for themselves, 10: The state should take more responsibility to ensure that everyone is provided for”. Variable name: E037.

Income equality: refers to the above question for “1: Incomes should be made more equal, 10: There should be greater incentives for individual effort”. Variable name: E035.

Attendance: refers to the question “Apart from weddings, funerals and christenings, about how often do you attend religious services these days?” “Only on special holy days/Christmas/Easter days” and “Other specific holy days” were merged together. The variable is coded from 0 (Never, practically never) to 7 (More than once a week). Variable name: F028.

Drespect refers to the question “Which of these two statements do you tend to agree with? A) Regardless of what the qualities and faults of ones parents are, one must always love and respect them, B) One does not have the duty to respect and love parents who have not earned it by their behaviour and attitudes” Answer A is coded 1. Variable name: A025.

Dbest refers to the question “Which of the following statements best describes your views about parents’ responsibilities to their children? 1) Parents duty is to do their best for their children even at the expense of their own well-being, 2) Parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children, 3) Neither”. Answer 1 is coded 1. Variable name: A026.

Dmanners, Dfaith, Dobey, Dinddep, Dimagine, Dtolerate refer to the question “Here is a list of qualities which children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five.” Variable names: A027, A040, A042, A029, A034 and A035.

Dfaith2 refers to the questions “Here is a shorter list of things that children can be encouraged to learn. If you had to choose, which one of these do you consider to be the most important thing for a child to learn at home?” It is coded 1 if either “Obedience” or “Religious faith” is answered. Variable name: A044.

Dfemhome refers to the question “Do you agree or disagree with the following statement? When jobs are scarce, men should have more right to a job than women.” Agree is coded 1. Variable name: C001.

Dfemchild refers to the question “Do you think that a woman has to have children in order to be fulfilled or is this not necessary?” “Needs children” is coded 1. Variable name: D019.

Dmarriage refers to the question “Do you agree or disagree with the following statement? Marriage is an out-dated institution” Yes is coded 1. Variable name: D022.

Dsexfree refers to the question “If someone said that individuals should have the chance to enjoy complete sexual freedom without being restricted, would you tend to agree or disagree?” “Tend to agree” is coded 1. Variable name: D024.

Dwedlock refers to “If a woman wants to have a child as a single parent but she doesn’t want to have a stable relationship with a man, do you approve or disapprove?” Approve is coded 1. Variable name: D023.

Dabsolute refers to “Here are two statements which people sometimes make when discussing good and evil. Which one comes closest to your own point of view? A. There are absolutely clear guidelines about what is good and evil. These always apply to everyone, whatever the circumstances. B. There can never be absolutely clear guidelines about what is good and evil. What is good and evil depends entirely upon the circumstances at the time” Answer A is coded 1. Variable name: F022.

Dhomobad, Dprolife, Ddivorcebad and Deuthanbad refers to “Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between”. “Never be justified” is coded 1. Variable names: F118, F120, F121, F122.

### A.3. *Church-State Separation Data*

The first church-state separation dataset is drawn from Barro and McCleary (2005), which is based on Barrett (1982) and Barrett, Kurian, and Johnson (2001). They classify countries as having a state religion if the constitution designates an official state church and restricts or prohibits other forms of religion, or, if the government merely systematically favors a specified religion through subsidies and tax collection or through the teaching of religion in public school. Australia, Belgium, Canada, France, Mexico, and the United States are examples of countries with no state religion. Iceland, Denmark, Norway, United Kingdom, Italy, Iran, Iraq, Libya, Nepal, and Greece are examples of countries with state religion. The entire list is in Table 1a-1g of Barro and McCleary (2005). The dataset is merged with the World Value Survey by country.

The second church-state separation dataset comes from Finke and Grim (2006).<sup>47</sup> Specifically we use three standardized indices—Government Regulation of Religion (GRI), Government Favoritism of Religion (GFI), and Social Regulation of Religion (SRI)—as well as a variable on favoritism referring to the question “According to the Report, to what extent does the state provide a select religion or small group of religions with privileges, financial support, or favorable sanctions?”. These variables are described in the main text and merged with the World Value Survey by country.

The third church-state separation dataset comes from the U.S. The data in Appendix Table IX comes from About.com<sup>48</sup> (“Supreme Court Decisions-Religion in Schools”), which draws from Hall and Jr. (2009) and Alley (1988),(1999). The data includes Supreme Court decisions and Circuit Court decisions that were certiorari denied—decisions that were appealed but let stand by the Supreme Court without hearing.

The fourth church-state separation dataset comprise all church-state separation precedent from 1964-2011 in U.S. Circuit Courts following the methodology established in Sunstein, Schkade, Ellman, and Sawicki (2006). We select all 1,147 Circuit Court cases mentioning the Establishment Clause. We then restrict to three-judge cases that were substantively about church-state separation, resulting in 820 cases. We compiled information on judge characteristics from the Appeals Court Attribute Data, District Court Attribute Data,<sup>49</sup> Federal Judicial Center, and data collection efforts reported in Chen and Yeh (2014b).

### A.4. *Donation Data*

Philanthropic data comes from the 2001-2009 extract of the Panel Study of Income Dynamics.<sup>50</sup> The question on religious giving is, “Did you make any donations specifically for religious purposes or spiritual development, for example to a church, synagogue, mosque, TV or radio ministry? Please do not include donations to schools, hospitals, and other charities run by religious organizations.” Within-group giving is calculated for each religious group by constructing the average proportion of giving designated for religious purposes. The variable is then merged with the GSS data by religious denomination.

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<sup>47</sup><http://www.thearda.com/Archive/Files/Descriptions/IRFAGG.asp>

<sup>48</sup>Downloaded in 2005.

<sup>49</sup><http://www.cas.sc.edu/poli/juri/attributes.html>

<sup>50</sup>Available at <http://www.philanthropy.iupui.edu/philanthropy-panel-study>.



#### A.5. *Public Opinion in Norway and Sweden*

Data on public opinions in Norway and Sweden are drawn from electoral studies of the two countries. The Swedish election surveys collect data for 1991, 1994, 1998, 2002, and 2006. Oscarsson and Holmberg (2009) provide survey details and Bergman and Bolin (2011) gives an overview of Swedish politics. The Norwegian election surveys collect data for 1989, 1993, 1997, 2001 and 2005. Aardal, Høstmark, Lagerstrøm, and Stavn (2007) provide survey details and Narud and Strøm (2011) gives an overview of Norwegian politics. Each survey interviewed a representative sample of 2000-4000 respondents. In the Swedish survey, the question on Christian values was asked on a 10 point scale, which we reduce to a 5-point scale to match the Norwegian survey. Questions on cutting taxes and accepting income differentials are given on a 5-point scale in both countries and the wording is essentially the same.

### APPENDIX B: TABLES AND FIGURES

The tables are organized as follows. First, we present summary statistics of all datasets. Second, we present extended analyses of fiscal and social conservatism/liberalism in the U.S. These analyses include various interactions, variable re-definitions, sub-samples, and detailed estimates underlying the analyses that use summary indices. Third, we present extended analyses of within-group giving, fiscal and social conservatism, and social insurance. Fourth, we present extended analyses of fiscal and social attitudes around the world. Fifth, we list the countries with and without church-state separation in our data. We then list the U.S. Supreme Court cases on church-state separation. Finally, we present a figure showing the correlation between religious attendance and the principal components of fiscal and social attitudes.

APPENDIX TABLE I  
OUTCOME VARIABLES IN THE US DATA

Variable	GSS name	Range	Mean	Obs
<i>Fiscal variables</i>				
Confidence: Business (ii)	conbiz	1-5	2.99	3814
Confidence: Business (i)	conbus	1-3	2.09	37175
Confidence: Financial inst	confinan	1-3	2.08	35053
Confidence: Organized labor	conlabor	1-3	2.20	36504
Equalize incomes (i)	eqincome	1-5	3.14	1867
Equalize incomes (ii)	equalize	1-4	2.58	6764
Equalize wealth (i)	eqwlth	1-7	3.72	28600
Equalize wealth (ii)	eqwlthy	1-7	3.67	749
Equalize incomes (iii)	goveqinc	1-5	3.21	10242
Gov. help general	helpnot	1-5	3.04	26920
Gov. help poor	helppoor	1-5	2.89	27570
Gov. help sick	helpsick	1-5	2.46	27646
Help cities (i)	natcity	1-3	1.65	29096
Help cities (ii)	natcityy	1-3	2.12	17090
Help cities (iii)	natcityz	1-3	1.63	427
Pro environment (i)	natenvir	1-3	1.48	31614
Pro environment (ii)	natenviy	1-3	1.43	19105
Pro environment (iii)	natenviz	1-3	1.49	465
Pro welfare (i)	natfare	1-3	2.28	31758
Pro welfare (ii)	natfarey	1-3	1.45	19447
Pro welfare (iii)	natfarez	1-3	1.38	473
Pro health (i)	natheal	1-3	1.40	32081
Pro health (ii)	nathealy	1-3	1.41	19441
Pro health (iii)	nathealz	1-3	1.46	465
Cut taxes	tax	1-3	2.62	30008
<i>Moral variables</i>				
Abortion: Any reason (i)	abany	1-2	1.59	31807
Abortion: Any reason (ii)	abchoose	1-5	3.04	1332
Abortion: Defect( ii)	abdefct1	1-4	1.65	1262
Abortion: Defect (i)	abdefect	1-2	1.20	39216
Abortion: Mother's health	abhlth	1-2	1.10	39384
Abortion: Preference	abnomore	1-2	1.56	39093
Abortion: Family poor (i)	abpoor	1-2	1.53	39028
Abortion: Family poor (ii)	abpoor1	1-4	2.36	1219
Abortion: Rape	abrape	1-2	1.18	38981
Abortion: Mother single	absingle	1-2	1.56	39020
Teacher: Atheist	colath	1-2	1.48	34823
Teacher: Homosexual	colhomo	1-2	1.32	33283
Conf. in org. religion (i)	conclerg	1-3	2.08	37362
Conf. in org. religion (ii)	conclery	1-7	4.54	464
Legalize marijuana (i)	grass	1-2	1.73	32682
Legalize marijuana (ii)	grassy	1-2	1.67	743
Homosexual relations (i)	homosex	1-4	3.15	32707
Homosexual relations (ii)	homosex1	1-4	3.14	4903
Book in library: Atheist	libath	1-2	1.32	35156
Book in library: Homosexual	libhomo	1-2	1.33	33487
Pornography laws	pornlaw	1-3	2.34	33953
Religiosity	reliten	1-4	3.05	52101
Free speech: Atheist	spkath	1-2	1.29	35732
Free speech: Homosexual	spkhomo	1-2	1.24	33516
Extramarital relation (i)	xmarses	1-4	3.63	34019
Extramarital relation (ii)	xmarses1	1-4	3.69	5235

APPENDIX TABLE II  
OTHER VARIABLES IN THE US DATA

	Mean	Std dev	Min	Max	Obs
Religious attendance	3.83	2.71	0.00	8.00	56512
Social conservatism	0.36	0.38	0.00	1.00	56171
Within-group giving	0.61	0.16	0.40	0.91	43996
Log income	9.95	1.01	5.50	12.00	51231
Age	45.70	17.47	18.00	89.00	56859
Highest year of school completed	12.75	3.18	0.00	20.00	56897
Gender	1.56	0.50	1.00	2.00	57061
Fundamentalist	0.31	0.46	0.00	1.00	54907
Religion: Evangelical protestant	0.31	0.46	0.00	1.00	43996
Religion: Mormon	0.14	0.35	0.00	1.00	43996
Religion: Catholic	0.32	0.47	0.00	1.00	43996
Religion: Jewish	0.03	0.16	0.00	1.00	43996
Religion: Other	0.05	0.22	0.00	1.00	43996
Religion: No religion	0.14	0.35	0.00	1.00	43996
Race: White	0.81	0.39	0.00	1.00	57061
Race: Black	0.14	0.35	0.00	1.00	57061
Race: Other	0.05	0.22	0.00	1.00	57061
Marital status: Married	0.54	0.50	0.00	1.00	57041
Marital status: Widowed	0.10	0.30	0.00	1.00	57041
Marital status: Divorced	0.12	0.33	0.00	1.00	57041
Marital status: Separated	0.03	0.18	0.00	1.00	57041
Marital status: Never married	0.20	0.40	0.00	1.00	57041

APPENDIX TABLE III  
VARIABLES IN THE WORLDWIDE DATA

	Mean	Std dev	Min	Max	Obs
Government responsibility	6.22	3.02	1.00	10.00	234148
Income equality	5.93	3.02	1.00	10.00	230171
Attendance	3.62	2.58	0.00	7.00	238981
Lives in country with SC	0.39	0.49	0.00	1.00	257612
Belongs to SC	0.26	0.44	0.00	1.00	257612
Income level	4.51	2.39	1.00	10.00	226003
Age	40.31	15.91	14.00	99.00	247978
Female	0.52	0.50	0.00	1.00	252941
Education: Less than elementary	0.14	0.35	0.00	1.00	230283
Education: Elementary	0.15	0.35	0.00	1.00	230283
Education: Incomplete secondary	0.07	0.26	0.00	1.00	230283
Education: Intermediate vocational secondary	0.17	0.38	0.00	1.00	230283
Education: Intermediate general secondary	0.09	0.28	0.00	1.00	230283
Education: Full secondary	0.16	0.37	0.00	1.00	230283
Education: Some university w/o degree	0.07	0.26	0.00	1.00	230283
Education: University with degree	0.14	0.35	0.00	1.00	230283
Marital status: Married	0.58	0.49	0.00	1.00	253001
Marital status: Cohabitation	0.06	0.24	0.00	1.00	253001
Marital status: Divorced	0.03	0.17	0.00	1.00	253001
Marital status: Separated	0.02	0.13	0.00	1.00	253001
Marital status: Widowed	0.06	0.24	0.00	1.00	253001
Marital status: Never married	0.25	0.43	0.00	1.00	253001
Marital status: Divorced, Separated or Widow	0.00	0.02	0.00	1.00	253001
Marital status: Living apart but steady relation	0.00	0.01	0.00	1.00	253001

APPENDIX TABLE IV  
THE FINKE/GRIM DATA

Variable	Overall mean	With state church	Without state church	Difference
Government Regulation index (GRI)	3.58 (2.91)	4.75 (3.01)	2.76 (2.55)	1.99 [0.00]
Social Regulation Index (SRI)	4.32 (2.90)	5.33 (3.07)	3.61 (2.56)	1.72 [0.01]
Government Favoritism Index (GFI)	5.61 (2.45)	6.96 (1.87)	4.66 (2.38)	2.30 [0.00]
Government favoritism for specific group	3.26 (1.83)	4.46 (1.47)	2.41 (1.56)	2.05 [0.00]

*Notes: The table shows country averages of the variables from Finke and Grim (2006) used in the paper, broken down by Barro and McCleary's (2005) state church classification. Standard deviations in parentheses, and p-values from a t-test using Satterthwaite's degrees of freedom correction in square brackets.*

APPENDIX TABLE V  
VARIABLES IN THE SWEDISH AND NORWEGIAN SAMPLE

	Mean	Std dev	Min	Max	Obs
Taxes on high incomes should be reduced	2.62	1.42	1.00	5.00	20607
It is not important to reduce income differences	2.44	1.28	1.00	5.00	20456
Preserving Christian values is important	2.78	1.31	1.00	5.00	16207
Period	3.03	1.44	1.00	5.00	28095
Sweden	0.63	0.48	0.00	1.00	28095

APPENDIX TABLE VI  
FISCAL AND SOCIAL CONSERVATISM/LIBERALISM IN THE U.S. – INTERACTIONS

	Fiscal conservative (1)	Moral conservative (2)
Religious attendance	0.0114*** (0.00249)	0.0871*** (0.00199)
Fundamentalist	0.0133 (0.0131)	0.217*** (0.0104)
Attendance × Fundamentalist	0.00435 (0.00396)	-0.00384 (0.00322)
Observations	52585	54197

*Notes:*

1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are average effect size estimates. Standard errors in parentheses are adjusted for correlation within region of residence.
2. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

APPENDIX TABLE VII  
 FISCAL AND SOCIAL CONSERVATISM/LIBERALISM IN THE U.S. – ALTERNATIVE VARIABLE DEFINITION

	Fiscal conservative			Moral conservative		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious attendance	0.0140*** (0.00195)		0.0118*** (0.00176)	0.0904*** (0.00351)		0.0796*** (0.00263)
Social conservatism		0.0868*** (0.0111)	0.0647*** (0.00995)		0.483*** (0.0307)	0.357*** (0.0160)
Observations	54541	54166	53728	56170	55821	55373

*Notes:*

1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are average effect size estimates. Standard errors in parentheses are adjusted for correlation within region of residence.
2. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
4. Social Conservatism is a 0-1 index summing up values on Prayer in Public School, Women Belong at Home, Premarital Sex is Wrong, and Identify as Fundamentalist.

APPENDIX TABLE VIII  
 FISCAL AND SOCIAL CONSERVATISM/LIBERALISM IN THE U.S. – BY RACIAL GROUP  
 A. White

	Fiscal conservative			Moral conservative		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious attendance	0.0189*** (0.00180)		0.0174*** (0.00189)	0.0978*** (0.00306)		0.0919*** (0.00247)
Fundamentalist		0.0647*** (0.0163)	0.0464*** (0.0138)		0.327*** (0.0263)	0.238*** (0.0118)
Observations	44330	43311	43003	45690	44661	44345

B. Black

	Fiscal conservative			Moral conservative		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious attendance	-0.0000616 (0.00393)		0.000932 (0.00385)	0.0597*** (0.00469)		0.0586*** (0.00512)
Fundamentalist		-0.0184 (0.0127)	-0.0182 (0.0159)		0.118*** (0.0144)	0.0809*** (0.0184)
Observations	7482	7265	7200	7746	7527	7460

*Notes:*

1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are average effect size estimates. Standard errors in parentheses are adjusted for correlation within region of residence.
2. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

APPENDIX TABLE IX

FISCAL AND SOCIAL CONSERVATISM/LIBERALISM IN THE U.S. – DETAILED ESTIMATES

	(1)		(2)		(3)		Obs.		
	Relig. attendance		Socially conservative		Relig. attendance			Socially conservative	
<i>Fiscal conservative</i>									
Confidence: Business (ii)	0.0264***	(0.0041)	-0.0369	(0.0350)	0.0297***	(0.0047)	-0.0908**	(0.0355)	3691
Confidence: Business (i)	0.0120***	(0.0011)	-0.0169	(0.0122)	0.0136***	(0.0011)	-0.0403**	(0.0129)	36086
Confidence: Financial inst	0.0146***	(0.0014)	0.0151	(0.0083)	0.0151***	(0.0014)	-0.0084	(0.0093)	33974
Confidence: Organized labor	-0.0002	(0.0014)	0.0437***	(0.0076)	-0.0017	(0.0013)	0.0467***	(0.0082)	35452
Equalize incomes (i)	0.0291***	(0.0062)	0.0500	(0.0860)	0.0295***	(0.0053)	0.0077	(0.0791)	1821
Equalize incomes (ii)	0.0213***	(0.0061)	0.0666	(0.0429)	0.0206**	(0.0065)	0.0329	(0.0425)	6519
Equalize wealth (i)	0.0274***	(0.0029)	0.1039	(0.0620)	0.0246***	(0.0030)	0.0667	(0.0602)	27619
Equalize wealth (ii)	0.0469	(0.0340)	0.3331*	(0.1784)	0.0389	(0.0371)	0.2579	(0.2111)	737
Equalize incomes (iii)	0.0184***	(0.0034)	0.1051*	(0.0483)	0.0156***	(0.0028)	0.0734	(0.0485)	9877
Gov. help general	0.0207***	(0.0033)	0.1103***	(0.0322)	0.0186***	(0.0036)	0.0758*	(0.0334)	26026
Gov. help poor	0.0145***	(0.0031)	0.1277***	(0.0352)	0.0114**	(0.0037)	0.1090**	(0.0375)	26646
Gov. help sick	0.0296***	(0.0031)	0.2092***	(0.0324)	0.0246***	(0.0037)	0.1701***	(0.0344)	26728
Help cities (i)	0.0055**	(0.0021)	0.0739**	(0.0246)	0.0032*	(0.0015)	0.0671**	(0.0213)	28352
Help cities (ii)	0.0065**	(0.0023)	0.1142***	(0.0191)	0.0030	(0.0021)	0.1065***	(0.0180)	16552
Help cities (iii)	-0.0088	(0.0056)	-0.0405	(0.0878)	-0.0041	(0.0089)	-0.0599	(0.0937)	412
Pro environment (i)	0.0147***	(0.0015)	0.1332***	(0.0153)	0.0110***	(0.0013)	0.1130***	(0.0153)	30799
Pro environment (ii)	0.0187***	(0.0022)	0.1472***	(0.0269)	0.0147***	(0.0019)	0.1203***	(0.0253)	18490
Pro environment (iii)	0.0015	(0.0122)	0.0980	(0.0886)	-0.0015	(0.0128)	0.0897	(0.0972)	449
Pro welfare (i)	0.0140***	(0.0015)	0.0941***	(0.0165)	0.0117***	(0.0017)	0.0749***	(0.0164)	30944
Pro welfare (ii)	0.0065*	(0.0030)	0.0598**	(0.0228)	0.0049	(0.0030)	0.0496**	(0.0214)	18815
Pro welfare (iii)	-0.0028	(0.0080)	0.0701	(0.0611)	-0.0052	(0.0091)	0.0782	(0.0652)	457
Pro health (i)	0.0112***	(0.0018)	0.0545***	(0.0119)	0.0099***	(0.0017)	0.0387***	(0.0103)	31259
Pro health (ii)	0.0111***	(0.0023)	0.0614**	(0.0211)	0.0096***	(0.0022)	0.0450*	(0.0196)	18813
Pro health (iii)	0.0123	(0.0082)	0.0102	(0.0724)	0.0075	(0.0091)	0.0082	(0.0747)	448
Cut taxes	-0.0038***	(0.0009)	0.0421***	(0.0072)	-0.0055***	(0.0008)	0.0495***	(0.0070)	29037
<i>Moral conservative</i>									
Abortion: Any reason (i)	0.0501***	(0.0027)	0.2363***	(0.0190)	0.0450***	(0.0024)	0.1617***	(0.0094)	30826
Abortion: Any reason (ii)	0.1987***	(0.0127)	1.0409***	(0.0773)	0.1759***	(0.0123)	0.7661***	(0.0460)	1282
Abortion: Defect (ii)	0.1263***	(0.0106)	0.6813***	(0.1427)	0.1106***	(0.0086)	0.5385***	(0.1208)	1227
Abortion: Defect (i)	0.0398***	(0.0017)	0.1701***	(0.0125)	0.0365***	(0.0015)	0.1110***	(0.0082)	38096
Abortion: Mother's health	0.0227***	(0.0016)	0.0866***	(0.0101)	0.0210***	(0.0014)	0.0532***	(0.0079)	38267
Abortion: Preference	0.0537***	(0.0025)	0.2463***	(0.0190)	0.0487***	(0.0022)	0.1668***	(0.0101)	37987
Abortion: Family poor (i)	0.0533***	(0.0026)	0.2463***	(0.0192)	0.0482***	(0.0024)	0.1685***	(0.0103)	37916
Abortion: Family poor (ii)	0.1309***	(0.0143)	0.8836***	(0.1212)	0.1077***	(0.0113)	0.7438***	(0.1290)	1184
Abortion: Rape	0.0377***	(0.0019)	0.1598***	(0.0174)	0.0345***	(0.0018)	0.1041***	(0.0138)	37867
Abortion: Mother single	0.0522***	(0.0023)	0.2404***	(0.0169)	0.0472***	(0.0023)	0.1645***	(0.0093)	37917
Teacher: Atheist	0.0194***	(0.0012)	0.1518***	(0.0083)	0.0154***	(0.0010)	0.1275***	(0.0095)	33726
Teacher: Homosexual	0.0215***	(0.0019)	0.1980***	(0.0143)	0.0160***	(0.0013)	0.1733***	(0.0134)	32213
Conf. in org. religion (i)	0.0689***	(0.0035)	0.1415***	(0.0181)	0.0683***	(0.0034)	0.0290**	(0.0105)	36254
Conf. in org. religion (ii)	0.1011***	(0.0282)	0.2214	(0.1487)	0.1049***	(0.0275)	0.1206	(0.1366)	449
Legalize marijuana (i)	0.0340***	(0.0014)	0.1370***	(0.0141)	0.0310***	(0.0010)	0.0892***	(0.0103)	31620
Legalize marijuana (ii)	0.0400***	(0.0076)	0.3889***	(0.0599)	0.0293***	(0.0065)	0.3265***	(0.0523)	732
Homosexual relations (i)	0.1138***	(0.0063)	0.7147***	(0.0537)	0.0961***	(0.0044)	0.5659***	(0.0381)	31681
Homosexual relations (ii)	0.1123***	(0.0118)	0.8991***	(0.0932)	0.0882***	(0.0110)	0.7564***	(0.0757)	4726
Book in library: Atheist	0.0250***	(0.0011)	0.1868***	(0.0100)	0.0203***	(0.0008)	0.1549***	(0.0104)	34053
Book in library: Homosexual	0.0246***	(0.0010)	0.2009***	(0.0132)	0.0194***	(0.0006)	0.1702***	(0.0127)	32412
Pornography laws	0.0454***	(0.0014)	0.2267***	(0.0182)	0.0404***	(0.0007)	0.1648***	(0.0144)	32855
Religiosity	0.1769***	(0.0059)	0.6578***	(0.0477)	0.1669***	(0.0054)	0.3550***	(0.0189)	50894
Free speech: Atheist	0.0166***	(0.0010)	0.1298***	(0.0144)	0.0133***	(0.0008)	0.1087***	(0.0148)	34594
Free speech: Homosexual	0.0194***	(0.0016)	0.1700***	(0.0130)	0.0148***	(0.0010)	0.1480***	(0.0119)	32439
Extramarital relation (i)	0.0531***	(0.0018)	0.2418***	(0.0188)	0.0480***	(0.0020)	0.1669***	(0.0162)	32926
Extramarital relation (ii)	0.0457***	(0.0015)	0.2603***	(0.0387)	0.0403***	(0.0020)	0.1898***	(0.0377)	5050

Notes:

1. The table shows all the estimated coefficients on religious attendance and socially conservative for outcomes on fiscal and moral conservativeness underlying Figure 2. Specification (1) includes attendance and controls, specification (2) socially conservative and controls, and specification (3) attendance, socially conservative, and controls.

2. Estimated coefficients are from OLS regressions controlling for the same variables as Table I. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

3. Standard errors are clustered at the region of residence. <sup>56</sup>Number of observations is the minimum number of observations, taken from specification (3).

4. Social Conservatism is a 0-1 index summing up values on Prayer in Public School, Women Belong at Home, Premarital Sex is Wrong, and Identify as Fundamentalist.



APPENDIX TABLE X  
WITHIN-GROUP GIVING AND FISCAL/SOCIAL CONSERVATISM IN THE US

	Fiscal conservative (1)	Moral conservative (2)
Within-group giving	0.421*** (0.0373)	1.055*** (0.0828)
Observations	42545	43727

*Notes:*

1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are average effect sizes. Dependent variables are as in Table I. Standard errors in parentheses are adjusted for correlation within region of residence. \*, \*\* and \*\*\* denote significance at the 10, 5 and 1% level.
2. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

APPENDIX TABLE XI

WITHIN-GROUP GIVING AND FISCAL/SOCIAL CONSERVATISM IN THE US – DETAILED ESTIMATES

	Within-group giving		Obs
<i>Fiscal conservative</i>			
Confidence: Business (ii)	0.3524***	(0.0708)	3004
Confidence: Business (i)	0.1579**	(0.0482)	28251
Confidence: Financial inst	0.2022***	(0.0310)	26771
Confidence: Organized labor	0.0961***	(0.0222)	27713
Equalize incomes (i)	0.4886**	(0.1767)	1425
Equalize incomes (ii)	0.2955**	(0.1220)	5307
Equalize wealth (i)	0.7074***	(0.1486)	22254
Equalize wealth (ii)	2.0101**	(0.6007)	545
Equalize incomes (iii)	0.4586**	(0.1539)	8124
Gov. help general	0.4843***	(0.0689)	20920
Gov. help poor	0.4622***	(0.0814)	21469
Gov. help sick	0.6974***	(0.0561)	21510
Help cities (i)	0.2315***	(0.0354)	22051
Help cities (ii)	0.4225***	(0.0647)	13462
Help cities (iii)	0.0646	(0.1823)	318
Pro environment (i)	0.3393***	(0.0511)	23876
Pro environment (ii)	0.3577***	(0.0689)	15027
Pro environment (iii)	0.7141**	(0.2356)	344
Pro welfare (i)	0.3183***	(0.0281)	23969
Pro welfare (ii)	0.2061***	(0.0602)	15336
Pro welfare (iii)	0.5037*	(0.2210)	352
Pro health (i)	0.2059***	(0.0311)	24284
Pro health (ii)	0.1743**	(0.0581)	15311
Pro health (iii)	0.1969	(0.3097)	345
Cut taxes	0.0877**	(0.0345)	23148
<i>Moral conservative</i>			
Abortion: Any reason (i)	0.5501***	(0.0556)	24546
Abortion: Any reason (ii)	1.7613***	(0.2383)	1046
Abortion: Defect( ii)	0.7076**	(0.2688)	992
Abortion: Defect (i)	0.2446***	(0.0439)	29695
Abortion: Mother's health	0.0553**	(0.0228)	29803
Abortion: Preference	0.5421***	(0.0617)	29710
Abortion: Family poor (i)	0.5304***	(0.0612)	29643
Abortion: Family poor (ii)	1.3374**	(0.4190)	953
Abortion: Rape	0.2186***	(0.0433)	29489
Abortion: Mother single	0.5295***	(0.0595)	29661
Teacher: Atheist	0.4020***	(0.0353)	26584
Teacher: Homosexual	0.4603***	(0.0350)	25538
Conf. in org. religion (i)	0.6764***	(0.0782)	28402
Conf. in org. religion (ii)	0.2125	(0.6244)	346
Legalize marijuana (i)	0.4460***	(0.0395)	25058
Legalize marijuana (ii)	0.8091***	(0.1238)	542
Homosexual relations (i)	2.0739***	(0.1339)	25144
Homosexual relations (ii)	2.1003***	(0.1370)	3873
Book in library: Atheist	0.4353***	(0.0510)	26821
Book in library: Homosexual	0.4681***	(0.0402)	25651
Pornography laws	0.6030***	(0.0340)	26022
Religiosity	2.9723***	(0.1512)	40473
Free speech: Atheist	0.2958***	(0.0438)	27271
Free speech: Homosexual	0.3632***	(0.0400)	25690
Extramarital relation (i)	0.7588***	(0.0720)	26059
Extramarital relation (ii)	0.6757***	(0.0730)	4112

Notes:

1. The table shows all the estimated coefficients on the fraction of the respondent's charitable giving going to the religious group for outcomes on fiscal and moral conservativeness underlying Table I.
2. Estimated coefficients are from OLS regressions controlling for the same variables as Table I. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
3. Standard errors are clustered at the region of residence.

APPENDIX TABLE XII  
SOCIAL INSURANCE AND RELIGION

	Congregation helps you a great deal if ill		
	(1)	(2)	(3)
Religious attendance	0.0838*** (0.00961)		
Evangelical protestant (d)		0.378** (0.157)	0.570*** (0.0419)
Mainline protestant (d)		0.280* (0.163)	0.462*** (0.0594)
Catholic (d)		0.0998 (0.138)	0.273*** (0.0383)
Other religion (d)		0.482*** (0.0778)	0.718*** (0.0720)
Jewish (d)		0.0996 (0.165)	0.333*** (0.0947)
No religion			0.143 (0.0972)
Observations	802	628	632

*Notes:*

1. Data are from General Social Survey cumulative file, 1998. Estimates (1) and (2) are marginal effects from probit models evaluated at sample means. Specification (3) is an OLS with no controls or intercept, so coefficients can be interpreted as group averages.
2. Specifications (1) and (2) include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
4. Standard errors in parentheses are adjusted for correlation within region of residence.
5. Sample size is smaller than in other tables because this question is only asked in 1998. Column 2, the omitted category is no religion.

APPENDIX TABLE XIII

## ALTERNATIVE OUTCOMES

	Military			Schools		
	(1)	(2)	(3)	(4)	(5)	(6)
Religious attendance	0.0144*** (0.00251)		0.00783*** (0.00205)	-0.0111*** (0.00128)		-0.00855*** (0.00165)
Social conservatism		0.238*** (0.0224)	0.225*** (0.0239)		-0.0827*** (0.0113)	-0.0657*** (0.0125)
R <sup>2</sup>	0.101	0.105	0.106	0.0756	0.0757	0.0762
Observations	31022	30838	30624	31828	31648	31421

*Notes:*

1. Data are from General Social Survey cumulative file, 1972-2012. All estimates are from OLS estimations.

Standard errors in parentheses are adjusted for correlation within region of residence.

2. Outcomes are answers to questions of the type “We are faced with many problems in this country, none of which can be solved easily or inexpensively. I’m going to name some of these problems, and for each one I’d like you to tell me whether you think we’re spending too much money on it, too little money, or about the right amount.” The problems mentioned are “Are we spending too much, too little, or about the right amount on the military, armaments, and defense?” and “Are we spending too much, too little, or about the right amount on improving the nation’s education system?”, both on scales from 1-3. Outcomes are standardized.

3. All specifications include dummies for region of residence, marital status, year, race, and gender, and controls for the log of income, age, age-squared, and years of completed schooling.

4. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

5. Social Conservatism is a 0-1 index summing up values on Prayer in Public School, Women Belong at Home, Premarital Sex is Wrong, and Identify as Fundamentalist.

Appendix Table XIV: Within-Group Giving and Fiscal/Social Conservatism in the U.S.

	(1)	(2)	(3)	(4)	(5)	(6)	
	Mormon	Evangelical protestant	Mainline protestant	Catholic	Other religion	Jewish	Obs
<i>Fiscal conservative</i>							
Confidence: Business (ii)	0.3796***	0.2618***	0.1169**	0.3127***	0.0743	0.0337	3004
Confidence: Business (i)	0.1621***	0.1261***	0.1337***	0.1423***	0.0265**	0.0812**	28251
Confidence: Financial inst	0.1353***	0.0422	0.0233	0.0205	0.0099	0.0343	26771
Confidence: Organized labor	-0.0034	0.0033	0.0148	0.0167	0.0239	0.0745**	27713
Equalize incomes (i)	0.1491	0.2500	0.0403	-0.0189	0.0133	-0.0045	1425
Equalize incomes (ii)	0.2457***	0.1394**	0.2175	0.0790	-0.0434	-0.0468	5307
Equalize wealth (i)	0.8253***	0.3220***	0.0251	0.0898*	0.0746	0.0781	22254
Equalize wealth (ii)	0.1167	0.0527	0.0676	0.2004***	0.0814	0.2404**	545
Equalize incomes (iii)	0.8900**	0.5301	0.1866	-0.1868	0.7920	-0.8033	8124
Equalize incomes (ii)	0.5851***	0.1893***	0.1125	0.1112***	0.0433	0.0694	20920
Gov. help general	0.3347***	0.0316	0.0302	0.0107	0.0696	-0.2361***	21469
Gov. help poor	0.3816***	0.0831	0.0569	0.0363	0.0701	-0.0805**	21510
Gov. help sick	0.5262***	0.0959	0.1256**	0.0595	0.0417	-0.2249***	22051
Help cities (i)	0.0286	0.0292	0.0323	0.0410	-0.1072**	0.0588	13462
Help cities (ii)	0.1946**	0.0760***	0.0198	0.0130	0.0211	-0.1983***	318
Help cities (iii)	0.2720	0.1397***	0.0267	0.0233	0.0209	-0.2950***	15027
Pro environment (i)	0.2623***	-0.0420	0.0531	0.0233	0.0300	-0.3996	23876
Pro environment (ii)	0.2587***	0.1437***	0.0818**	0.0688**	0.1467	-0.0379	15027
Pro environment (iii)	0.3349	0.1500***	0.0501*	0.0732**	0.0371	-0.0482	344
Pro welfare (i)	0.1606**	0.2140	0.1235	0.0213	-0.1588	-0.3429	23969
Pro welfare (ii)	0.2134***	0.1379***	0.0370	0.0756**	0.0193	-0.1397**	15336
Pro welfare (iii)	0.0518	0.0553*	-0.0354	-0.0134	0.0573	-0.0005	352
Pro health (i)	0.1513***	0.0940	0.0102	-0.0085	0.1279	-0.0358	24284
Pro health (ii)	0.1950***	0.0239	0.0491*	0.0154	0.0136	-0.0790**	15311
Pro health (iii)	-0.0665	0.0696**	0.0389	0.0212	0.0723	-0.0871***	345
Cut taxes	0.1053***	0.0169	-0.1569	-0.0444	-0.1323	-0.3898*	23148
	0.0169	0.0132	0.0292*	0.0554***	0.0073	0.0588***	
<i>Moral conservative</i>							
Abortion: Any reason (i)	0.4362***	0.3178***	0.2042***	0.2699***	0.1410***	-0.0815**	24546
Abortion: Any reason (ii)	1.1627***	0.9605***	0.2005	0.6398***	0.1408	-0.7163***	1046
Abortion: Defect (i)	1.0288***	0.1738	0.4093	0.3731***	0.2581	-0.3630***	992
Abortion: Defect (ii)	0.2472	0.0206	0.1615***	0.0078	0.0151	-0.0082	29695
Abortion: Mother's health	0.3011***	0.0077	0.0667***	0.0808***	0.0097	-0.0057	29803
Abortion: Preference	0.4548***	0.0445	0.3242**	0.0067	0.0768***	0.0064	29710
Abortion: Family poor (i)	0.4568***	0.0445	0.3242**	0.0067	0.0768***	0.0064	29710
Abortion: Family poor (ii)	1.1862**	0.3818	0.7118***	0.2763***	0.1359***	-0.0893***	29643
Abortion: Rape	0.1537***	0.0151	0.0769***	0.1099	0.1596	-0.7700***	953
Abortion: Mother single	0.4380***	0.0412	0.3165***	0.1382***	0.0087	-0.0017	29489
Teacher: Atheist	0.1402***	0.0225	0.2396***	0.0131	0.1426***	-0.1169***	29661
Teacher: Homosexual	0.1222***	0.0225	0.2396***	0.0131	0.1426***	-0.1169***	29661
Conf. in org. religion (i)	0.6798***	0.0738	0.5198***	0.0388***	0.0091	0.0913***	26584
Conf. in org. religion (ii)	1.2998	0.7948	0.8264**	0.557***	0.1809***	-0.0725**	25538
Legalize marijuana (i)	0.3221***	0.0210	0.2635***	1.0908***	0.9217	1.3902*	346
Legalize marijuana (ii)	0.6965***	0.0955	0.3986***	0.2104***	0.0768	0.0086	25058
Homosexual relations (i)	1.2708***	0.0808	1.0583***	0.6545***	0.2195**	-0.1226	542
Homosexual relations (ii)	1.1738***	0.1771	1.0146***	0.6288***	0.4096***	-0.2016***	25144
Book in library: Atheist	0.0919***	0.0238	0.2207***	0.5379***	0.1045	-0.3890*	3873
Book in library: Homosexual	0.1243***	0.0225	0.2088***	1.0433***	0.0094	-0.0001	26821
Pornography laws	0.3932***	0.0344	0.2915***	0.0585***	0.0773***	-0.0290	25651
Religiosity	2.5331***	0.0588	2.3437***	1.441***	0.1697***	-0.0773**	26027
Free speech: Atheist	0.0533**	0.0183	0.1678***	0.0091	0.0256	2.1999***	40473
Free speech: Homosexual	0.0958***	0.0208	0.1562***	0.0087	0.0554***	0.0522***	27271
Extramartial relation (i)	0.5248***	0.0327	0.4368***	0.0301	0.0827***	-0.0276*	26690
Extramartial relation (ii)	0.4831***	0.0468	0.4022***	0.3314***	0.2253***	0.0396	26059
				0.0371	0.1927**	0.1466	4112

Notes:

1. The table shows all the estimated coefficients on dummies for the respondent's religious denomination.
2. Estimated coefficients are from OLS regressions controlling for the same variables as Table X. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.
3. Standard errors are clustered at the region of residence.

APPENDIX TABLE XV  
WITHIN-GROUP GIVING BY DENOMINATION IN THE US

	\$ to Relgs	\$ to All	%Charity to Relg	Income	%Inc to R	N
Mormons	4066	4467	<b>0.91</b>	77730	0.052	26
Evangelical Protestants	908	1139	<b>0.82</b>	49755	0.018	1271
Mainline Protestants	740	1193	<b>0.62</b>	72310	0.010	997
Catholics	491	962	<b>0.51</b>	71010	0.007	1451
Other	750	1504	<b>0.50</b>	49780	0.015	938
Jewish	1127	2791	<b>0.40</b>	125160	0.009	142
None	221	553	<b>0.40</b>	54360	0.004	663

*Notes:*

1. Data are from the 2001 Center on Philanthropy Panel Study portion of the Current Population Surveys. Summary statistics by denomination are reported in Smith (2004).

APPENDIX TABLE XVI

DETAILED ESTIMATION RESULTS ON WELFARE ATTITUDES AROUND THE WORLD

Country	Total	Wave 2	Wave 3	Wave 4	Wave 5
Albania	.077*** (.027)		.085** (.04)	.035 (.038)	
Algeria	-.028 (.029)			-.028 (.029)	
Andorra	.02 (.037)				.02 (.037)
Azerbaijan	.1*** (.034)		.1*** (.034)		
Argentina	-.091*** (.02)		-.095*** (.036)	-.044 (.035)	
Australia	-.014 (.018)		-.0064 (.023)		-.022 (.03)
Bangladesh	.015 (.029)		-.026 (.059)	-.063* (.037)	
Armenia	-.024 (.029)		-.024 (.029)		
Brazil	.021 (.022)	.041 (.034)	-.036 (.055)		-.04 (.031)
Bulgaria	-.00074 (.029)		-.081** (.041)		.067 (.042)
Belarus	.2*** (.025)		.15*** (.029)		
Canada	-.039** (.016)			-.028 (.023)	-.045** (.021)
Chile	-.053*** (.017)		-.095*** (.035)	-.014 (.03)	-.043 (.034)
China	.074* (.04)			-.012 (.079)	.0053 (.062)
Taiwan	.03 (.027)		.0052 (.041)		.049 (.036)
Colombia	-.032* (.018)		-.0042 (.025)		-.056** (.026)
Cyprus	-.069* (.039)				-.069* (.039)
Czech Republic	.058* (.03)		.022 (.036)		
Dominican Republic	.14** (.068)		.14** (.068)		
El Salvador	.012 (.043)		.012 (.043)		
Ethiopia	.041 (.034)				.041 (.034)
Estonia	.081* (.044)		.081* (.044)		
Finland	.026 (.029)		.068 (.047)		-.0017 (.036)
France	-.12*** (.04)				-.12*** (.04)
Georgia	.0026 (.022)		-.012 (.032)		-.00087 (.032)
Ghana	.037 (.047)				.037 (.047)
Guatemala	-.014 (.054)				-.014 (.054)
Hong Kong	-.0059 (.024)				-.0059 (.024)
India	-.078*** (.02)	.019 (.027)	-.091** (.043)	-.16*** (.044)	.088** (.042)
Indonesia	-.087*** (.031)			-.058 (.057)	-.099*** (.036)
Iran	.00048 (.019)			.05 (.037)	.027 (.022)
Iraq	.026** (.013)			.043** (.019)	.0081 (.016)
Italy	.02 (.038)				.02 (.038)
Japan	-.066*** (.023)			-.13*** (.043)	-.092** (.045)
Jordan	.088*** (.02)			.049* (.026)	
South Korea	-.092*** (.017)	-.025 (.049)	.064** (.028)	.061** (.025)	.022 (.026)
Kyrgyzstan	.016 (.04)			.016 (.04)	
Latvia	.066* (.037)		.066* (.037)		
Lithuania	.069 (.042)		.069 (.042)		
Mali	.0084 (.039)				.0084 (.039)
Mexico	.0076 (.017)		.036 (.026)	-.014 (.048)	.014 (.039)
Moldova	.12*** (.026)		.19*** (.044)	-.016 (.047)	.17*** (.045)
Morocco	.062*** (.022)			.062*** (.022)	
Netherlands	-.091*** (.033)				-.091*** (.033)
New Zealand	-.051** (.025)		-.061* (.033)		-.046 (.037)
Nigeria	.034 (.028)	-.072 (.055)	.11*** (.043)	-.07 (.051)	
Norway	-.027 (.025)		.034 (.034)		-.09** (.036)
Pakistan	.18*** (.042)			.18*** (.042)	
Peru	.0011 (.024)		.0058 (.045)	-.011 (.043)	.0054 (.039)
Philippines	-.019 (.038)			-.028 (.046)	
Poland	.065* (.036)		.11** (.049)		.0074 (.052)
Puerto Rico	-.0088 (.031)		-.00096 (.04)	.00076 (.05)	
Romania	.018 (.028)		.082* (.043)		-.025 (.037)
Russian Federation	.12*** (.021)		.033 (.033)		.0084 (.033)
Rwanda	-.099 (.06)				-.099 (.06)
Saudi Arabia	.053* (.028)			.053* (.028)	
Singapore	.17*** (.03)			.17*** (.03)	
Slovakia	.066** (.027)		.059** (.03)		
Viet Nam	.061** (.027)			-.09* (.046)	.13*** (.034)
Slovenia	.051** (.026)				.033 (.037)
South Africa	-.028* (.014)		-.049* (.027)	.0086 (.025)	-.047** (.024)
Zimbabwe	-.0019 (.046)			-.0019 (.046)	
Spain	-.022 (.015)		.016 (.03)	-.000014 (.027)	-.011 (.028)
Sweden	-.014 (.025)		-.0043 (.035)	-.018 (.039)	-.016 (.04)
Switzerland	-.037 (.024)		.0041 (.034)		-.048 (.032)
Thailand	.12*** (.037)				.12*** (.037)
Trinidad and Tobago	.06 (.048)				.06 (.048)
Turkey	-.025* (.014)	-.12*** (.038)	.18*** (.032)	-.075*** (.019)	-.031 (.029)
Uganda	-.092 (.068)			-.092 (.068)	
Ukraine	.027 (.021)		.071*** (.024)		-.048 (.041)
Macedonia	.054* (.032)		.1** (.046)	-.019 (.045)	
Egypt	-.02* (.012)			.0052 (.019)	-.039*** (.014)
Great Britain	.028 (.034)				.028 (.034)
Tanzania	-.025 (.055)			-.025 (.055)	
United States	-.095*** (.017)		-.063** (.028)	-.052 (.032)	-.11*** (.028)
Burkina Faso	.06* (.036)				.06* (.036)
Uruguay	-.069** (.03)		-.019 (.038)		-.058 (.05)
Venezuela	-.02 (.031)		.015 (.045)	-.055 (.042)	
Zambia	-.17*** (.04)				-.17*** (.04)
Germany West	-.0045 (.025)		-.023 (.034)		-.03 (.036)
Germany East	-.057* (.03)		-.071 (.043)		-.041 (.042)
Serbia	.015 (.024)		.077** (.038)	.14*** (.042)	-.035 (.042)
Montenegro	.18*** (.039)		-.16* (.089)	.26*** (.044)	
SrpSka - Serbian Rep	.095* (.054)		.014 (.059)	.24*** (.087)	
Bosnia Federation	-.056** (.028)		-.031 (.039)	-.082** (.04)	

Notes:

1. Data are from World Values Survey cumulative file, waves 2-5. Standard errors in parentheses are adjusted for correlation within country of residence.

2. All specifications include dummies for country of residence, survey wave, gender, and category of educational attainment and controls for the income, age, and age<sup>2</sup>.

3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.

APPENDIX TABLE XVII  
SOCIAL CONSERVATISM AROUND THE WORLD

	Attendance		N
Respect and love for parents	0.012***	(0.001)	152872
Parents responsibilities to their children	0.008***	(0.001)	152336
Important child qualities: good manners	0.001	(0.001)	123876
Important child qualities: religious faith	0.043***	(0.003)	232732
Important child qualities: obedience	0.006***	(0.001)	234867
Important child qualities: independence	-0.010***	(0.001)	234867
Important child qualities: imagination	-0.007***	(0.001)	232569
Important child qualities: tolerance and respect for other people	-0.002***	(0.001)	234867
What children should learn 1	0.028***	(0.002)	69072
Jobs scarce: Men should have more right to a job than women	0.007***	(0.001)	219238
A woman has to have children to be fulfilled	0.008***	(0.001)	156126
Marriage is an out-dated institution	0.000	(0.000)	205297
Enjoy sexual freedom	-0.013***	(0.002)	87478
Woman as a single parent	-0.016***	(0.002)	216423
Statement: good and evil	0.021***	(0.002)	128720
Justifiable: homosexuality	0.014***	(0.001)	205856
Justifiable: abortion	0.024***	(0.002)	216178
Justifiable: divorce	0.015***	(0.001)	218534
Justifiable: euthanasia	0.021***	(0.002)	201121

*Notes:*

1. Data are from World Values Survey cumulative file, waves 2-5. Standard errors in parentheses are adjusted for correlation within country of residence.
2. All specifications include dummies for country of residence, survey wave, gender, and category of educational attainment and controls for income, age, and age<sup>2</sup>.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is included.



APPENDIX TABLE XVIII  
COUNTRIES WITH AND WITHOUT A STATE CHURCH

Without state church	With state church
Albania	<i>Armenian Apostolic Church</i>
Australia	Armenia
Brazil	<i>Buddhist</i>
Canada	Thailand
Chile	<i>Jew</i>
China	Israel
Taiwan	<i>Muslim</i>
Cyprus	Algeria
Czech Republic	Azerbaijan
Ethiopia	Bangladesh
Estonia	Iran
France	Iraq
Ghana	Jordan
Hong Kong	Kyrgyzstan
Hungary	Malaysia
India	Morocco
Indonesia	Pakistan
Japan	Saudi Arabia
South Korea	Egypt
Latvia	<i>Orthodox</i>
Lithuania	Bulgaria
Mali	Belarus
Mexico	Georgia
Netherlands	Moldova
New Zealand	Ukraine
Nigeria	Macedonia
Philippines	<i>Protestant</i>
Poland	Finland
Puerto Rico	Norway
Romania	Great Britain
Russian Federation	<i>Roman Catholic</i>
Rwanda	Andorra
Singapore	Argentina
Slovakia	Colombia
Viet Nam	Croatia
Slovenia	Dominican Republic
South Africa	El Salvador
Zimbabwe	Guatemala
Switzerland	Italy
Trinidad and Tobago	Peru
Turkey	Spain
Uganda	Venezuela
Tanzania	<i>The Church of Sweden</i>
United States	Sweden
Burkina Faso	
Uruguay	
Zambia	
Germany West	
Germany East	
Serbia	
Montenegro	
SrpSka - Serbian Republic of Bosnia	
Bosnia Federation	

*Notes:*

1. Coding of state church status is taken from Barro and McCleary (2005), which is based on Barrett (1982) and Barrett, Kurian, and Johnson (2001).

## Appendix Table XIX: U.S. Supreme Court Decisions on Church-State Separation

1940 none	Minersville School District v. Gobitis (1940) In an 8-1 Court Decision, the Court ruled that a school district's interest in creating national unity was sufficient to allow them to require students to salute the flag.
1943 none	West Virginia State Board of Education v. Barnette (1943) The Court ruled 8-1 that a school district violated the rights of students by forcing them to salute the American flag.
1947 decrease	Everson v. Board of Education (1947) Supreme Court decision finding that a New Jersey law providing for reimbursement to parents of parochial school students for transportation costs on public busses is constitutional.
1948 increase	McCollum v. Board of Education (1948) By a 6-1 vote the Supreme Court agreed with Mrs. McCollum, an atheist mother, and disallowed the practice of having religious education to take place in public school classrooms during the school day.
1962 increase	Engel v. Vitale (1962) The Court ruled 7 to 1 that it was unconstitutional for a government agency like a school or government agents like public school employees to require students to recite prayers.
1963 increase	Abington Township School District v. Schempp (1963) The Court ruled 8-1 against requiring the recitation of Bible verses and the Lord's Prayer.
1968 decrease	Board of Education v. Allen (1968) Supreme Court decision finding that a New York Law requiring public school districts to purchase text books for private schools, including parochial schools, is permissible and not a violation of the Establishment Clause.
1968 increase	Epperson v. Arkansas (1968) The Court found that an Arkansas law prohibiting the teaching of evolution is impermissible because it violates the Establishment Clause and prohibits the free exercise of religion.
1971 increase	Lemon v. Kurtzman (1971) On June 28th, 1971, the Court unanimously (7-0) determined that the direct government assistance to religious schools was unconstitutional.
1972 none	Wisconsin v. Yoder (1972) On May 15th 1972 the Court ruled 6 to 1 that the compulsory education law in Wisconsin did indeed violate the Free Exercise Clause for Amish parents.
1973 increase	Committee for Public Education v. Nyquist (1973) The Court found all three sections of a New York law providing, among other things, tax deductions and reimbursements for children in parochial schools, unconstitutional. Each of the three parts of the law had the primary effect of furthering religion.
1975 increase	Meek v. Pittenger (1975) Supreme Court decision invalidating most of two Pennsylvania laws providing for instructional materials and equipment to religious schools because most of that aid could be easily diverted to religious purposes.
1977 increase	Wolman v. Walter (1977) The Court allowed Ohio to provide standardized tests, therapeutic and diagnostic services to non-public school children. However, the state was not permitted to offer educational materials or subsidize class field trips.
1980	Stone v. Graham (1980)

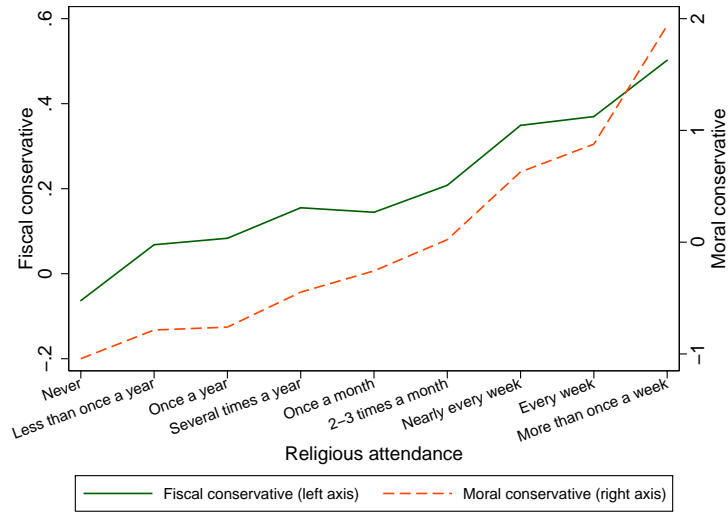
increase	The Court ruled that a Kentucky law requiring the posting of the Ten Commandments in each public school classroom in the state to be unconstitutional.
1981	Segraves v. California (1981)
increase	A California judge ruled that teaching evolution in public school science classes does not infringe upon the rights of any students or parents to the free exercise of their religion, even if they sincerely believe that evolution is contrary to their religious beliefs.
1981	McClellan v. Arkansas (1981)
increase	The Court found that Arkansas' "balanced treatment" law mandating equal treatment of creation science with evolution was unconstitutional.
1983	Mueller v. Allen (1983)
decrease	The Supreme Court rules 5-4 that a Minnesota law allowing parents to make tax deductions for expenses incurred through things like textbooks and other supplies at private schools is constitutional, even though most of the benefit goes to religious and not secular schools.
1985	Aguilar v. Felton (1985)
increase	In a 5-4 Court Decision in 1985, the Court overturned New York City's program of paying the salaries of public employees who provided any remedial assistance to low-income students in parochial school environments.
1985	Grand Rapids School District v. Ball (1985)
increase	Grand Rapids School District offered two programs conducted in leased private school classrooms: one taught during the regular school day by public school teachers and the other taught after regular school hours by part-time teachers. Both were found unconstitutional.
1985	Wallace v. Jaffree (1985)
increase	The Court found that an Alabama law requiring that each school day begin with a one minute period of "silent meditation or voluntary prayer" was unconstitutional.
1987	Edwards v. Aguillard (1987)
increase	In a 7-2 Court Decision, the Court invalidated Louisiana's "Creationism Act" because it violated the Establishment Clause.
1989	Board of Education of Kiryas Joel Village School v. Grumet (1989)
increase	The Court found that a school district boundary was unconstitutionally drawn to deliberately aid a particular religious group.
1990	Webster v. New Lenox (1990)
increase	Seventh Circuit Court of Appeals ruled that school boards have the right to prohibit teaching creationism because such lessons would constitute religious advocacy and, hence, such restrictions do not constitute an infringement on a teacher's free speech rights.
1992	Lee v. Weisman (1992)
increase	On June 24th 1992, the Court ruled in a 5-4 Court Decision that the graduation prayer during school graduation violated the Establishment Clause.
1992	Jones v. Clear Creek (1992)
decrease	The Fifth Circuit Court ruled that it was not unconstitutional for a school to allow graduating seniors to vote on whether or not there would prayers during graduation ceremonies.
1993	Zobrest v. Catalina Foothills School District (1993)
decrease	In 1993, the Court decided 5-4 to require a school district to offer a student in a private religious school the sign language interpreter he needed.
1994	Pelozo v. Capistrano (1994)
increase	Ninth Circuit Court of Appeals decision that a teacher does not have a right to teach creationism in a biology class, that "evolutionism" is not a religion or world view, and that the government can restrict the speech of employees while they are on the job.
1994	Brown v. Woodland Joint Unified School District (1994)

none	Ninth Circuit Court of Appeals decision holding that a school district's use of the "Impressions" teaching aid did not constitute a promotion of witchcraft and denigration of Christianity.
1995 increase	ACLU v. Black Horse Regional Board of Ed. (1995) Third Circuit Court opinion that a school could not allow students to vote on whether or not they would have a student-lead prayer during graduation because the degree of state involvement in the ceremonies meant that any aspect of it was state-approved, including the prayer and prayer content.
1997 decrease	Agostini v. Felton (1997) On June 23rd, 1997, in a 5-4 Court Decision, the Court allowed public school teachers to tutor private school students in their private schools, even if the schools were primarily religious in nature.
1998 increase	Good News Club v. Milford Central School District (1998) Second District Court decision which found that a school district in New York could prohibit a community religious group from meeting in the school building because they would use it for specifically religious purposes.
1999 increase	DiLorento v. Downey USD (1999) The Supreme Court let stand, without comment, a 9th Circuit Court of Appeals decision that a school district was within its rights to discontinue a program of paid advertising signs on school grounds rather than accept a sign promoting the Ten Commandments.
1999 increase	Cole v. Oroville Union High School (1999) Ninth Circuit Court ruling that extremely sectarian and proselytizing speeches at a graduation ceremony could be prohibited because of the reasonable impression that the religious message was supported by the school. The Supreme Court let this stand.
1999 increase	Freiler v. Tangipahoa (1999) Fifth Circuit Court of Appeals found that a disclaimer to be read before teaching about evolution ultimately had the effect of furthering religious interests and was therefore unconstitutional.
2000 decrease	Santa Fe School District v. Doe (2000) The Supreme Court ruled that official, student-led prayers before a school football game violated the separation of church and state.
2000 increase	Mitchell v. Helms (2000) Supreme Court decision allowing for educational materials and equipment to be given to religious schools, even if such equipment could be and is diverted for religious purposes - so long as this aid is granted to any religious or private school in an even-handed manner.
2001 increase	LeVake v. Independent School District (2001) A federal district court finds that a school may remove a teacher from teaching a biology class when that teacher, a creationist, cannot adequately teach evolution.
2002 increase	FFRF v. Rhea County Board of Education (2002) A federal district court decides that a public school cannot have students from the local Bryan College come in to teach Bible classes.
2002 decrease	Zelman v. Simmons (2002) The Supreme Court rules 5-4 that a Cleveland, Ohio, program which spends large amounts of public money on subsidizing education at religious schools is constitutional.

*Notes:*

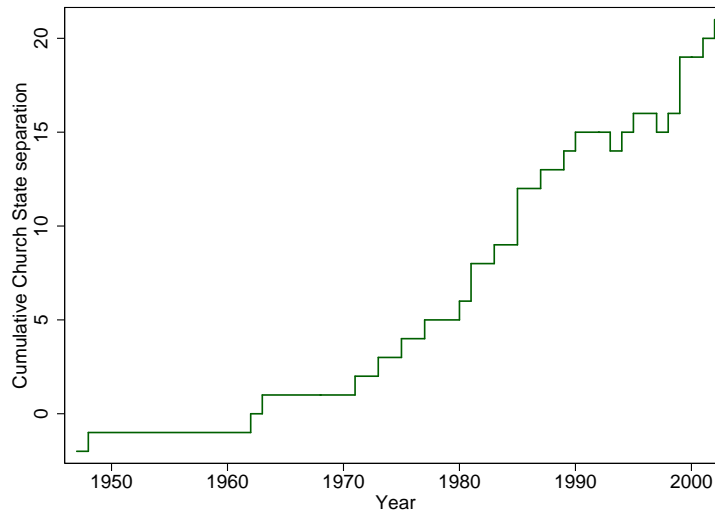
1. Data from About.com "Supreme Court Decisions-Religion in Schools", which document U.S. Supreme Court activity (where the Supreme Court either made a decision or let stand a lower court decision) and are drawn from Hall (1999) and Alley (1988; 1999).

Appendix Figure 1: Welfare attitudes and Fundamentalism in the U.S. - Principal components



Notes: Data are from General Social Survey cumulative file, 1972-2012. Fiscal and moral conservative are the predicted first factors from principal component analyses of the full data employed in Table I. Missing values are imputed the value 0 in the standardized variables. Sample is the white population.

Appendix Figure 2



Notes:

1. The graph shows the cumulative number of church state separations defined as the number of increases minus the number of decreases since 1947.
2. See Appendix Table XIX for a full list of U.S. Supreme Court Decisions.