## THE POLITICAL ECONOMY OF BELIEFS:

## WHY FISCAL AND SOCIAL CONSERVATIVES/LIBERALS COME HAND-IN-HAND

## Daniel L. Chen and Jo Thori Lind *

Abstract Religious groups with greater within-group charitable giving are more against the welfare state and more socially conservative. We propose and test a model where religious provision of social insurance explains why fiscal and social conservatism align and where church-state separation is key. We present new evidence that the alignment disappears when there is a state church and it reverses for members of a state church (social conservatives become fiscal liberals). The model further suggests 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. Elites increase church-state separation to create a constituency for lower taxes, if 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 document a causal link between church-state separation and fiscal and social conservatism using a time-series analysis of U.S. Supreme Court decisions and instrumental variables estimates using random variation in U.S. Circuit Court decisions on Establishment Clause jurisprudence. The causal link is corroborated through a differences-in-differences-in-differences analysis at the individual-level using a panel of Scandinavian voters followed before and after Sweden's separation of church and state.

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[^0]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? ${ }^{1}$ Today, some argue that depending on the welfare state is the same as worshipping the government as if it were God. ${ }^{2}$ Welfare support decreases in the U.S. while fundamentalism increases with religious attendance (Figure 1). ${ }^{3}$ No obvious theory ${ }^{4}$ 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 $^{5}$ and where church-state separation is key. The theoretical framework also suggests a novel explanation for the changing nature of religious movements and why church-state separation arose

[^1]in the U.S. but not in many European countries (Barro and McCleary 2005). ${ }^{6}$
Figure 1: Welfare attitudes and Fundamentalism in the U.S.


Notes: Data are from the General Social Survey cumulative file, 1972-2012. Respondents are classified as supporting welfare if they answer that we are spending too little on welfare, and as fundamentalist if they belong to a denomination classified as fundamentalist. Sample is the white population.

The starting point of our theory is that religious provision of social insurance 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 (Gruber and Hungerman 2007; Hungerman 2005; Gill and Lundsgaarde 2004; Cnaan, Boddie, Handy, Yancey, and Schneider 2002). 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). Berman (2000) argues that the degree of mutual insurance in religious sects exceeds that of traditional Indian villages Townsend (1994). Mutual insurance can be in-kind, psychological, or social. 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). During the 1997 In-

[^2]donesian financial crisis, religious school fees 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). Even in the U.S., religious participation smooths $35 \%$ of income shocks (Dehejia, DeLeire, and Luttmer 2005). Approximately half of all philanthropic donations by individuals go to religious organizations. In 2003, financial giving to religious organizations amounted to $\$ 84$ billion (Cadge and Wuthnow 2006 citing U.S. Statistical Abstract 2004). Up to 20-25 percent of church expenditures are for charitable purposes, amounting to $\$ 24$ billion in philanthropic services (Biddle 1992).

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 $\operatorname{tax} \tau$. 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.

We then build an explanation for the third puzzle: (3) why some countries sustain high religiosity, high church-state separation, and low welfare state while others sustain low religiosity, low churchstate 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? ${ }^{7}$ 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 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. 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. The multiple steady states are captured in a dynamic version of the static model. It is kept intentionally simple to highlight the mechanisms.

Our empirical analysis begins by verifying that religious attendance and social conservatism are positively correlated and extending stylzed facts documented by others. ${ }^{8}$ Using a variety of data sources on individual attitudes and the closest available survey measure in different countries, we show that 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; social conservatism and fiscal conservatism are positively correlated with religious attendance; and religious groups with greater within-group charitable giving are more against the welfare state and more socially conservative. These analyses corroborate the original puzzle, but at the individual level and in a

[^3]manner correlated with religious attendance and social insurance. The link between conservatism and insurance is consistent with conservative groups having stronger social sanctions to make mutual insurance more self-sustaining. Mutual insurance groups without such strong social sanctions would be less robust to economic volatility (Chen 2010). Anecdotally, the provision of social insurance varies across religious groups. For example, church involvement among evangelical Protestants is associated mainly with volunteering within the congregation, while mainline Protestants are more likely to volunteer outside their group (Wuthnow 2004).

Our analyses of church-state separation are novel: ${ }^{9}$ We show that the relationship between religious attendance and fiscal conservatism disappears in countries with a state church. 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 insurance rather than attitudes towards inequality more generally. We also find that the alignment change is mediated specifically through government regulation of religion-"restrictions placed on the practice, profession, or selection of religion by the official laws, policies, or administrative actions of the state"-rather than other policies associated with having a state church. Our findings are not due to nonlinearities and are robust to dropping those who claim no religion.

We then turn to three sets of analyses that support a causal interpretation of the impact of church-state separation. Two analyses use variation in U.S. Establishment Clause jurisprudence and one analysis uses the Swedish separation of church and state in 2000. First, we show that increases in church-state separation in the U.S. Supreme Court precede increases in the alignment between fiscal and social conservatism. This time-series analysis is limited, so the second analysis uses random variation in separation of church and state arising from the random assignment of judges in U.S. Circuit Courts. We find that decisions separating church and state are followed by fundamentalists becoming more likely to strongly identify as Republican, a phenomenon related to the Religious Right and the trend where the once solidly Democratic South has become solidly Republican. The second analysis is a repeated cross-section, so the third analysis uses a panel of Norwegian and Swedish voters before and after the Swedish separation of church and state in 2000. We are able to conduct a differences-in-differences-in-differences because we have both Norwegian and Swedish

[^4]voters in the panel. We find that after separation, Christian conservatives ${ }^{10}$ became more fiscally conservative. The shift is specific to welfare attitudes and not to attitudes towards inequality more generally.

Our paper is related to several literatures in political economy. First, empirical studies document uni-dimensionality in fiscal and social attitudes within the U.S. (Converse 1964; Poole and Rosenthal 1991, 1997). Economic models have formalized why political positions map along a single axis (DeMarzo, Vayanos, and Zwiebel 2003) and why religion is salient in politics (Glaeser, Ponzetto, and Shapiro 2005). However, no theory thus far explains why Republicans and Democrats divide along religious issues the way that they do or why the divide changes across time and across countries. Second, important papers in political economy ask why did the West extend the franchise (Acemoglu and Robinson 2000) and why have women become left-wing (Edlund and Pande 2002). This paper asks analogous questions: Why did some countries separate church and state and why have religious people become right-wing? Roemer (1998) also argues that religion distorts the vote of the poor away from high taxes. Third, our model formalizes a process 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. Fourth, our model contributes to a literature whereby the U.S. South turned from voting solidly Democratic to voting solidly Republican. Finally, our paper provides an explanation for the redistribution puzzle the lack of positive relationship between pre-tax inequality and redistribution predicted by standard models. Lind (2005) provides a review of the literature. See also a general literature on the political economy of redistribution (Romer 1975; Meltzer and Richard 1983) and social insurance (Moene and Wallerstein 2001, 2003). The remainder of the paper is organized as follows: Section 2 presents evidence on the alignment between fiscal and social conservatism/liberalism. Section 3 presents our model. Section 4 presents evidence on church-state separation. Section 5 provides further discussion and Section 6 concludes.

[^5]
## 2. MOTIVATING EVIDENCE

### 2.1. Fiscal and Social Conservatism/Liberalism

While fiscal and social conservatives and fiscal and social liberals have been found to come hand-in-hand in congressional roll-call votes (Converse 1964; Poole and Rosenthal 1997) and across countries (Scheve and Stasavage 2006; Cavanaugh 2005; Gill and Lundsgaarde 2004), we extend this evidence within a broad sample of countries at the individual-level. Our analysis of individual attitudes draws on 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 (19722012) and the World Values Survey (WVS) Waves 2-5 for analogous data. In the GSS, the main measure of welfare support is the response to 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?" "Too little money" is coded as 1 and the other responses coded as 0 . The only measure of welfare support in the WVS asked across panel waves is the respondents' self-placement 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 ). ${ }^{11}$

First, we replicate other studies in finding that the pattern holds within the U.S. In the introduction, Figure 1 plots welfare support as it varies with religious attendance. Welfare support declines as religious attendance increases. Roughly $22 \%$ of those who never attend religious services support more welfare while around $14 \%$ of weekly attenders support more welfare. The inverse relationship between welfare support and religious attendance remains when controlling for demographic background characteristics: Table I reports results from regressions of the form:

$$
\begin{aligned}
& \text { FiscalConservatism }_{i}=\beta_{0} \text { Religion }_{i}+\beta_{1} \text { Fundamentalist }_{i}+\alpha^{\prime} \text { Controls }_{i}+\varepsilon_{i} \\
& \text { MoralConservativsm }^{\prime}=\beta_{0} \text { Religion }_{i}+\beta_{1} \text { Fundamentalist }_{i}+\alpha^{\prime} \text { Controls }_{i}+\varepsilon_{i}
\end{aligned}
$$

Religion $_{i}$ measures religious attendance and Fundamentalist $_{i}$ measures whether the respondent's religious denomination is fundamentalist. ${ }^{12}$ FiscalConservatism $_{i}$ and MoralConservativsm ${ }_{i}$ are

[^6]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). The choice of 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 Clingingsmith, Khwaja, and Kremer (2009). ${ }^{13}$

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, ${ }^{14}$ age, age-squared, and years of completed schooling (dummies for categories of completed schooling in WVS). When controls are missing, we dummy them out. ${ }^{15}$ 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. ${ }^{16}$ Summary statistics are displayed in Appendix Table 1. The data appendix discusses the remaining variable definitions.

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. ${ }^{17}$ Members of fundamentalist denominations are $5 \%$ of a standard

[^7]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 | $0.0140^{* * *}$ |  | $0.0129^{* * *}$ |  | $0.0904^{* * *}$ |  | $0.0859^{* * *}$ |  |
|  | $(0.00195)$ |  | $(0.00198)$ |  | $(0.00351)$ |  | $(0.00310)$ |  |
| Fundamentalist |  | $0.0466^{* * *}$ | $0.0325^{* * *}$ |  | $0.277^{* * *}$ | $0.200^{* * *}$ |  |  |
|  |  | $(0.0104)$ | $(0.0109)$ |  | $(0.0249)$ | $(0.0118)$ |  |  |
| 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.
4. Fundamentalist is a dummy for belonging to a fundamentalist religious denomination.
deviation more fiscally conservative and $28 \%$ of a standard deviation more morally conservative. ${ }^{18}$
The individual regressions used in calculating the average effect size are presented in Figure $3,{ }^{19}$ where all the responses have been normalized to have unit standard deviation. We notice that religious attendance has a quite similar predictive association on most outcomes, and it has a positive and significant association in most cases. As we might expect, the associations are quantitatively larger for moral conservatism than fiscal conservatism.

Outside the U.S., religious attendance also predicts fiscal conservatism, but in countries without a state church (Column (2) of Table II). The coefficients are not strictly comparable: There are fewer categories of religious attendance in the WVS and the only question on welfare support is asked slightly differently. 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. In additional validation of the basic patterns, we find that religious attendance predicts social conservatism around the world as measured by questions regarding child obedience/ownership, women's role, sexual activity, and moral absolutism

[^8]
## (Appendix Table XVII).

### 2.2. Differences in Social Insurance by Denomination

This sub-section presents evidence that, not only are more religiously intense individuals more socially conservative and fiscally conservative, but denominations that provide more mutual insurance are more socially conservative and fiscally conservative. ${ }^{20}$ Data on philanthropic giving come from the 2001 Center on Philanthropy Panel Study portion of the Panel Study of Income Dynamics; the only 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 to schools, hospitals, arts, and international aid are excluded. ${ }^{21}$ This data is merged with the GSS. Summary statistics by denomination and denomination categories are taken from Smith

[^9]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.
(2004). The degree of within-group giving varies widely across denominations. 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). ${ }^{22}$ The percentage of overall income given to religion also roughly corresponds with the same ordering. ${ }^{23}$

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

$$
\text { WelfareSupport }_{i}=\beta \text { Denomination }_{i}+\alpha^{\prime} \text { Controls }_{i}+\varepsilon_{i}
$$

For each fiscal or social attitude, individuals who are members of more conservative/liberal denominations report more extreme positions. ${ }^{24}$ Groups with greater within-group giving, such as Mormons and Evangelical Protestants, tend to be more socially conservative on prayer, abortion, women's roles, and premarital sex. They are also more fiscally conservative, being less supportive of welfare and equality and being more likely to identify as Republican, politically conservative, and fundamentalist. ${ }^{25}$

Appendix Table X reports results from average effect estimations based on regressions where different opinions are regressed on the fraction of charitable giving that goes to religion. ${ }^{26}$ Regressions are of the form:

$$
\text { WelfareSupport }_{i}=\beta \text { WithinGroupGiving }_{i}+\alpha^{\prime} \text { Controls }_{i}+\varepsilon_{i}
$$

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. With this suggestive evidence that the degree of mutual insurance provided by religious groups is associated with social and fiscal conservatism, we now turn to the model.

[^10]
## 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. In a seminal work documenting government crowd-out of religious insurance, Gruber and Hungerman (2007) write that "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 1800 s 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 causes, educational services such as job training and basic hygienic instruction, and various programs to aid the poor."

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


Consistent with their discussion, in our analysis of the General Social Survey (GSS), we document that across all religions, higher attendance is correlated with responding to the question, "If you were ill, how much would people in your congregation help you out?," with the answer, "a great deal," 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 $60 \%$ more likely to receive a great deal of help from the congregation. ${ }^{27}$

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 variance $\sigma^{2}$, and they prefer higher expected value and lower variance in income: ${ }^{28}$

$$
\begin{equation*}
\mu-\frac{1}{2} \sigma^{2} \tag{1}
\end{equation*}
$$

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

[^11]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: $R(0)=0, R^{\prime}>0, R^{\prime \prime}<0$, and $0<R^{\prime}(0) \leq 1$. The assumptions capture the fact that deadweight loss to taxes is 0 when taxes are 0 and increases with taxation. ${ }^{29}$

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:

$$
\begin{equation*}
[(1-\tau)+R(\tau)] \mu-\frac{1}{2}(1-\tau)^{2} \sigma^{2} \tag{2}
\end{equation*}
$$

The FOC yields:

$$
\begin{equation*}
\left[-1+R^{\prime}(\tau)\right] \mu+(1-\tau) \sigma^{2}=0 \tag{3}
\end{equation*}
$$

or,

$$
\begin{equation*}
\frac{\mu}{\sigma^{2}}=\frac{1-\tau}{1-R^{\prime}(\tau)} \tag{4}
\end{equation*}
$$

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:

$$
\begin{equation*}
(1-\tau) \sigma^{2}=\left(1-R^{\prime}(\tau)\right) \mu \tag{5}
\end{equation*}
$$

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-

[^12]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. ${ }^{30}$ 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 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 will maximize at time $t=1$ :

[^13]\[

$$
\begin{equation*}
[(1-\tau-d)+R(\tau)+P(d)] \mu-\frac{1}{2}(1-\tau-d)^{2} \sigma^{2} . \tag{6}
\end{equation*}
$$

\]

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

$$
\begin{equation*}
\frac{\mu}{\sigma^{2}}=\frac{1-\tau-d}{1-R^{\prime}(\tau)} . \tag{7}
\end{equation*}
$$

The first implication is that, if $R^{\prime}(0)$ is 1 or very close to 1 , the agent will surely use the state to insure, even if there is already church insurance. Conversely, if $P^{\prime}(0)$ is 1 or very close to 1 , the agent will surely use religion to insure, even if there is already government provided insurance. That is because of the distortive effects of both state and church funding. These distortions increase with the level of insurance. Thus, the agent would prefer to have some insurance from both sides rather than the entire insurance from one place.

By the implicit function theorem:

$$
\begin{equation*}
-R^{\prime \prime}(\tau) \frac{\partial \tau}{\partial d} \frac{\mu}{\sigma^{2}}=-\frac{\partial \tau}{\partial d}-1, \tag{8}
\end{equation*}
$$

or,

$$
\begin{equation*}
\frac{\partial \tau}{\partial d}=\frac{1}{-1+R^{\prime \prime}(\tau) \frac{\mu}{\sigma^{2}}} . \tag{9}
\end{equation*}
$$

So,

$$
\begin{equation*}
\frac{\partial \tau}{\partial d}<0 \tag{10}
\end{equation*}
$$

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. Hamburger (2002) notes that church and state separation is a continuum from one extreme to another.

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 nostate religion (complete separation of church-state) and examined in the previous sub-section. 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:

$$
\begin{equation*}
[1-\tau-d+(1-\gamma) R(\tau)+P(d)(1+\gamma R(\tau))] \mu-\frac{1}{2}(1-\tau-d)^{2} \sigma^{2} \tag{11}
\end{equation*}
$$

or

$$
\begin{equation*}
[1-\tau-d+R(\tau)+P(d)-(1-P(d)) \gamma R(\tau)] \mu-\frac{1}{2}(1-\tau-d)^{2} \sigma^{2} \tag{12}
\end{equation*}
$$

First, for a given level of $\tau$, and $d$, the agent gets less insurance income, as part of the insurance goes through the double distortion of the state and church revenue systems, so the level of insurance decreases overall. The distortion is value destroying, so tax preferences when $d$ is low may actually be lower when $\gamma$ is high in the static model.

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:

$$
\begin{equation*}
\left[-1+R^{\prime}(\tau)-\gamma(1-P(d)) R^{\prime}(\tau)\right] \mu+(1-\tau-d) \sigma^{2}=0 \tag{13}
\end{equation*}
$$

or,

$$
\begin{equation*}
\frac{\mu}{\sigma^{2}}=\frac{1-\tau-d}{1-R^{\prime}(\tau)+\gamma(1-P(d)) R^{\prime}(\tau)} \tag{14}
\end{equation*}
$$

The FOC then implies:

$$
\begin{equation*}
\left[R^{\prime \prime}(\tau) \frac{\partial \tau}{\partial \gamma}-\left(1-P(d) R^{\prime}(\tau)-\gamma(1-P(d)) R^{\prime \prime}(\tau) \frac{\partial \tau}{\partial \gamma}\right] \mu-\frac{\partial \tau}{\partial \gamma} \sigma^{2}=0\right. \tag{15}
\end{equation*}
$$

or,

$$
\begin{equation*}
\left[R^{\prime \prime}(\tau)(1-\gamma(1-P(d)))-\sigma^{2}\right] \frac{\partial \tau}{\partial \gamma}=(1-P(d)) R^{\prime}(\tau) \tag{16}
\end{equation*}
$$

or,

$$
\begin{equation*}
\frac{\partial \tau}{\partial \gamma}=-\frac{(1-P(d)) R^{\prime}(\tau)}{\left(-R^{\prime \prime}(\tau)\right)(1-\gamma(1-P(d)))+\sigma^{2}} \tag{17}
\end{equation*}
$$

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

$$
\begin{equation*}
\frac{\partial \tau}{\partial \gamma}<0 \tag{18}
\end{equation*}
$$

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

$$
\begin{equation*}
\frac{\partial^{2} \tau}{\partial \gamma \partial d}>0 \tag{19}
\end{equation*}
$$

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

$$
\begin{equation*}
\frac{\partial^{2} \tau}{\partial d \partial \gamma}=\frac{\partial^{2} \tau}{\partial \gamma \partial d}>0 \tag{20}
\end{equation*}
$$

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:

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

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

$$
\begin{equation*}
\gamma=\gamma^{e} \tag{22}
\end{equation*}
$$

### 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 judiciate) church-state separation. ${ }^{31}$ 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. The 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 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:

[^14]|  | $\gamma=0$ |  |  | $\gamma=1$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  | 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:

$$
\begin{equation*}
\gamma_{t}=\alpha-\beta d_{t} \tag{23}
\end{equation*}
$$

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:

$$
\begin{equation*}
w_{t}=\alpha_{\gamma}-\beta_{\gamma} \gamma+\alpha_{d}-\beta_{d} d+\beta_{\gamma d} \gamma d . \tag{24}
\end{equation*}
$$

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. ${ }^{32}$ When there are few religious individuals, elites curb tax preferences by keeping a large state church. ${ }^{33}$ Thus, the second partial with

[^15]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:
$$
w_{t}=\left(\alpha_{\gamma}-\beta_{\gamma} \alpha+\alpha_{d}\right)+\left(\beta_{\gamma} \beta-\beta_{d}+\alpha \beta_{\gamma d}\right) d_{t}-\beta_{\gamma d} \beta d_{t}^{2},
$$
or,
$$
w_{t}=b_{1}+b_{2} d-b_{3} d^{2} .
$$

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:

$$
\begin{equation*}
n_{t}=\frac{1}{\phi w_{t}}=\frac{1}{a_{1}+a_{2} d_{t}-a_{3} d_{t}^{2}}, \tag{25}
\end{equation*}
$$

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:

$$
\begin{equation*}
d_{t+1}=d_{t}(1-\delta)+n_{t} . \tag{26}
\end{equation*}
$$

Therefore, the steady state would satisfy:

$$
\begin{equation*}
d=d(1-\delta)+\frac{1}{a_{1}+a_{2} d-a_{3} d^{2}} . \tag{27}
\end{equation*}
$$

Or,

$$
\begin{equation*}
\delta a_{3} d^{3}-\delta a_{2} d^{2}-\delta a_{1} d+1=0 . \tag{28}
\end{equation*}
$$

This equation has three roots. If all are real, $d(1-\delta)+\frac{1}{a_{1}+a_{2} d-a_{3} d^{2}}$ will intersect the $45^{\circ}$ 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 $d=1$.

Figure 4: Multiple Steady States


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

We present evidence that social conservatives become fiscal liberals when there is a state church. We bring together several data sources on church-state separation. Cross-country data come from the World Christian Encyclopedia, which is the source for Barro and McCleary (2005), and the U.S. State Department's International Religious Freedom Reports, which is aggregated by Finke and Grim (2006)..$^{34}$ The World Christian Encyclopedia classification of which countries have state churches is largely based on constitutional features (Barrett 1982, Barrett, Kurian, and Johnson 2001)) and is somewhat opaque as to the mechanisms. For a list of countries, see Appendix Table XVIII.

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) 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. Preferences for redistribution should depend more on the policy actually conducted within the country. 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.

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 conversion and prosyltizing 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.

[^16]Minority religious groups can face zoning restrictions or find it difficult to attain tax-exempt status. Government favoritism also involves state action and frequently works in tandem with government regulation. Social regulation refers to the restrictions placed by other religious groups and is not dependent on the state's action (Finke and Grim 2006).

Our within-country analysis uses Establishment Clause cases coded from the U.S. Supreme Court and U.S. Circuit Courts. Other datasets used in the Circuit Courts analysis include: judicial biographies to instrument for the direction of the case and District Court data to instrument for the presence of a case. ${ }^{35}$ Our longitudinal analyses draw on data from the Swedish and Norwegian Election Surveys. Both sets of data will be described further below.

### 4.1. Cross-Country Evidence on Fiscal and Social Conservatism/Liberalism

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:

$$
\begin{aligned}
& \text { Wel fareSupport }_{i j}=\beta_{0} \text { Attendance }_{i j}+\beta_{1} \text { Attendance }_{i j} \times \text { StateChurch }_{j} \\
&+\beta_{2} \text { StateChurch }_{j}+\alpha^{\prime} \text { Controls }_{i j}+\varepsilon_{i j}
\end{aligned}
$$

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 6.3 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. ${ }^{36}$ The bars indicate the coefficient between religious attendance and welfare support for each country in the

[^17]TABLE II
Fiscal Conservatism and Church-State Separation Across the World

|  | Gov. responsibility |  |  |  | Reduce inequality |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(1)$ | $(2)$ | $(3)$ |  | $(4)$ | $(5)$ | $(6)$ |
| Attendance | -0.00883 | $-0.0216^{* * *}$ | $-0.0181^{* * *}$ |  | 0.00382 | 0.00480 | 0.00352 |
|  | $(0.00534)$ | $(0.00562)$ | $(0.00575)$ |  | $(0.00652)$ | $(0.00897)$ | $(0.00766)$ |
| Attendance $\times$ Has SC |  | $0.0309^{* * *}$ |  |  | -0.00244 |  |  |
|  |  | $(0.0114)$ |  |  | $(0.0134)$ |  |  |
| Attendance $\times$ Belong to SC |  |  | $0.0420^{* *}$ |  |  |  | -0.00327 |
|  |  |  | $(0.0161)$ |  |  | $(0.0131)$ |  |
| Belongs to SC |  |  | $-0.304^{*}$ |  |  |  | 0.119 |
|  |  |  | $0.163)$ |  |  | $(0.117)$ |  |
| Mean of dep. variable | 6.239 | 6.239 | 6.239 |  | 5.946 | 5.946 | 5.946 |
| $\mathrm{R}^{2}$ | 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).

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:

$$
\begin{aligned}
\text { WelfareSupport }_{i j}=\beta_{0} \text { Attendance }_{i j} & +\beta_{1} \text { Attendance }_{i j} \times \text { BelongToStateChurch }_{i j} \\
& +\beta_{2} \text { BelongToStateChurch }_{i j}+\alpha^{\prime} \text { Controls }_{i j t}+\varepsilon_{i j}
\end{aligned}
$$

where BelongToStateChurch ${ }_{i j}$ 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 associated with more positive attitudes to government welfare. For members of a state church, an

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.
individual who moves 6 categories of religious attendance decreases 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. ${ }^{37}$ 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 insurance 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 ${ }^{38}$ ). 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. While each measure appears individually significant in interaction with religious attendance, 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.

### 4.2. U.S. Supreme Court: Time-Series

We now return to the puzzle of why the Social Gospel movement shifted to the Religious Right. A much-debated voting pattern is that religiosity has increasingly predicted Republican voting (Glaeser, Ponzetto, and Shapiro 2005). This alignment has not always existed and the relationship between religious attendance and Republican voting was actually declining before 1976. Figure 7 displays, for each electoral vote, the regression coefficients from regressions of Republican voting

[^18]on church attendance. In 1968, the association was roughly 0.017 , dipping to 0.005 in 1976, and increasing to its peak of 0.036 in 2004. ${ }^{39}$

The previous sections showed an alignment between fiscal and social conservatism at the individual level within countries that appeared to be explained by a mechanism for social insurance as measured by within-group giving, and this alignment reversed for members of the state church. To mitigate concerns that the cross-country test of church-state separation is driven by omitted country-level factors, we construct a time-series of church-state separation judicial decisions within the U.S. We investigate whether that reversal can also be found across time within the U.S. as judicial decisions gradually separated church and state, and at different speeds in different time periods. Students of U.S. history often perceive the U.S. as always having church-state separation, but this is a view rejected by legal scholars (Hamburger 2002, Feldman 2005). We briefly summarize their arguments in the appendix.

We find that the switch in the relationship between church attendance and Republican voting is positively associated with judicial decisions on separation of church and state. Appendix Table

[^19]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".

TABLE III
Welfare Attitudes and Church-State Separation Across the World

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attendance | $\begin{aligned} & \hline-0.00883 \\ & (0.00534) \end{aligned}$ | $\begin{gathered} -0.0330^{* * *} \\ (0.00718) \end{gathered}$ | $\begin{gathered} -0.0251^{* *} \\ (0.00982) \end{gathered}$ | $\begin{gathered} -0.0275^{* *} \\ (0.0105) \end{gathered}$ | $\begin{gathered} -0.0338^{* * *} \\ (0.00837) \end{gathered}$ | $\begin{gathered} -0.0144 \\ (0.0119) \end{gathered}$ |
| GRI $\times$ Attendance |  | $\begin{gathered} 0.00668^{* * *} \\ (0.00182) \end{gathered}$ |  |  |  | $\begin{aligned} & 0.0102^{* * *} \\ & (0.00310) \end{aligned}$ |
| SRI $\times$ Attendance |  |  | $\begin{aligned} & 0.00353^{*} \\ & (0.00186) \end{aligned}$ |  |  | $\begin{aligned} & -0.00560^{*} \\ & (0.00287) \end{aligned}$ |
| GFI $\times$ Attendance |  |  |  | $\begin{aligned} & 0.00347^{*} \\ & (0.00193) \end{aligned}$ |  | $\begin{aligned} & -0.00543 \\ & (0.00380) \end{aligned}$ |
| Attendance $\times$ Government favoritism |  |  |  |  | $\begin{gathered} 0.00787^{* * *} \\ (0.00257) \end{gathered}$ | $\begin{gathered} 0.00816 \\ (0.00539) \end{gathered}$ |
| Mean of dep. variable | 6.239 | 6.287 | 6.287 | 6.287 | 6.287 | 6.287 |
| $\mathrm{R}^{2}$ | 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.

Figure 7


Notes: The graph shows the coefficient of church attendance on the probability of voting Republican by election year with $95 \%$ confidence intervals.

XIX document U.S. Supreme Court activity (where the Supreme Court either made a decision or let stand a lower court decision) on church-state separation in public schools. Appendix Figure 2 shows the net number of decisions each year that increase or decrease separation of church and state. These decisions include disallowing religious instruction in public schools (1948), disallowing prayer in public schools (1962), disallowing Bible recitation in public schools (1963), disallowing direct government assistance to religious schools (1971), disallowing tax deductions and reimbursements for children in religious schools (1973), disallowing display of the Ten Commandments (1980), ruling that the equal treatment of creation science and evolution is unconstitutional (1981), and disallowing graduation prayer (1992). The data in Appendix Table IX comes from About.com ${ }^{40}$ ("Supreme Court Decisions-Religion in Schools"), which draws from Hall and Ely 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).

Figure 8


Figure 8 shows that increases in church-state separation precede increases in the strength of the relationship between church attendance and Republican voting. The x-axis marks the net number of judicial decisions increasing or decreasing church-state separation in the four years prior to an election year. The y-axis marks the change in the coefficient on the relationship between church

[^20]attendance and Republican voting. An OLS regression of the form:
$$
\Delta \text { ChurchAttendance_RepublicanVoting }_{t}=\beta_{o} \Delta \text { ChurchStateSeparation }_{t}+\varepsilon_{t}
$$
yields an estimate of $\beta_{0}$ of $0.0027(0.0010)$, a positive relationship that is statistically significant at the $5 \%$ level. A leads regression using change in voting patterns regressed on the following period's church-state separation decisions yields a coefficient of $-0.0005(0.003)$.

This coefficient suggests one judicial decision increasing church-state separation would increase how strongly church attendance predicts Republican voting by 0.033 . To explain a shift in the coefficient between church attendance and Republican voting of 0.16 ( 0.01 in 1976 to 0.17 in 1992) would require roughly 4.8 judicial decisions.

### 4.3. U.S. Circuit Courts: Random Variation

### 4.3.1. Institutional Background ${ }^{41}$

The Supreme Court analysis is limited to a time-series, so we turn to the U.S. Circuit Courts, where there is regional variation and random assignment of judges. 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 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 9 displays District Court boundaries in dotted lines and Circuit Court boundaries-encompassing

[^21]between 5 and 13 Districts each-in solid lines. ${ }^{42}$
Figure 9


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 (about 1 case per Circuit per year is related to separation of church and state), but 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 persuasive precedent on state courts within the Circuit. ${ }^{43}$

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. ${ }^{44}$ 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 have reported adjusting 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 highlight the

[^22]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), we might expect to see an effect of Circuit Court decisions on social outcomes.

We code all church-state separation precedent from 1964-2011 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, ${ }^{45}$ Federal Judicial Center, and data collection reported in Chen and Yeh (2013). To illustrate the identification strategy, Figure 10 shows that excess variation in Democratic judges is random. Figure 11 shows that there is a strong first stage relationship. Circuit-years with more Republicans are more likely to vote for allowing prayer in public schools.

Figure 10: Random Variation by Circuit


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

### 4.3.2. Estimation

We seek to estimate whether church-state separation is followed by increasing alignment between the religious-right and Republican identification. Our structural specification is a distributed lag:

[^23]\[

$$
\begin{aligned}
& Y_{i c t}=\beta_{0}+\sum_{n} \beta_{1 n} L a w_{c(t-n)}+\sum_{n} \beta_{2 n} \mathbf{1}\left[\mathrm{M}_{\mathrm{c}(\mathrm{t}-\mathrm{n})}>0\right]+\beta_{3} C_{c}+\beta_{4} T_{t}+\beta_{5} C_{c} * \text { Time } \\
& +\sum_{n} \beta_{6} W_{c(t-n)}+\beta_{7} X_{i c t}+\varepsilon_{i c t}
\end{aligned}
$$
\]

Strong self-identity as a Republican is the dependent variable, $Y_{i c t}$ for individual $i$ in Circuit $c$ and year $t .{ }^{46}$ We estimate a distributed lag effects of $L a w_{c t}$, which is the percentage of cases in a Circuityear that voted to separate church and state. Many Circuit-years do not have decisions, so we define $L a w_{c t}$ to be 0 when there are no cases and introduce a dummy, $\mathbf{1}\left[M_{c t}>0\right]$, for presence of an appeal. We then interact $L a w_{c(t-n)}$ and $\mathbf{1}\left[\mathrm{M}_{\mathrm{c}(\mathrm{t}-\mathrm{n})}>0\right]$ with Fundamentalism, so we can observe whether

[^24]- 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, $X_{i c t}$, 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 $t-n$.

Figure 11: Proportion of Decisions Voting Against Church-State Separation

church-state separation precedent is followed by Fundamentalists more strongly self-identifying as Republican. We report $\frac{\sum_{n} \beta_{1 n}}{n}$ and joint significance of the lag interaction coefficients. ${ }^{47}$

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). ${ }^{48}$ To construct our potential LASSO instruments, we use 30 biographical characteristics ${ }^{49}$ and their interactions at the judge level ${ }^{50}$ and panel level ${ }^{51}$ yielding a total of 900 possible instruments.

Results are reported in Table IV. Both the OLS and IV estimates indicate that after legal precedent separating church and state, fundamentalists began identifying more strongly as Republican in the 4 years after a decision. No reverse causality is observed as the lead coefficients are insignificant.

### 4.4. Swedish Abolition of State Church in 2000: Differences-in-Differences-in-Differences Panel

## Study

Since the Reformation in the 16th century, the Nordic countries have had state churches. Among other powers, the state provided or administered the funding of churches and had a major influence on the naming of priests and bishops. Sweden has debated the potential abolition of the state

[^25]church since the 1970s. ${ }^{52}$ Following the 1994 recommendations of the "Preparatory Committee on Church Matters," separation of state and church was passed in the parliament in December 1995 with support of all parties except the Left party, which favored an even stronger separation. The change in the relationship was implemented as of January 1, 2000. The Church of Sweden was then free from the state, but remained an open national Evangelical-Lutheran church. Also, unlike other religious bodies, the Church of Sweden had an automatic right of state support in levying church fees (Sidenvall 2012). However, non-members of the Church of Sweden were not subject to church taxes any longer (Ekström 2003, 214). Before the separation of the state and the Church of Sweden, children of parents who were members of the Church of Sweden automatically became members of the Church of Sweden. After the separation decision, children only become members if they were baptized (see Brohed (2005, Ch. 20 and 26) for details). In addition, local parishes and the state appraised and divided up vast amounts of church property. The church was required to cut its $\$ 1.68$ billion annual budget, most of which was collected through taxes. After the year 2000, the church, rather than the state, appointed bishops.

The Norwegian church-state model was quite similar to the Swedish model, but for a long time there was no serious debate on separating state and church. However, in 2006, the Gjønnes commission recommended a partial separation that was passed in the parliament and implemented in May 2012. The Church of Norway was no longer formally a state church; it was transformed into a

[^26]TABLE IV
Fiscal and Social Conservatism/Liberalism and Church-State Separation within the U.S.

|  |  |  |  | Dependent <br> Panel A |
| :--- | :---: | :---: | :---: | :---: |
| $\quad$ OLS | LASSO IV | Obs | Variable <br> Average Interaction Lag Effect | $(1)$ |
|  | $(2)$ | $(3)$ | $(4)$ |  |
| Identify as Strong Republican | 0.004 | 0.009 | 42837 | 0.098 |
| Joint P-value | 0.057 | 0.000 |  |  |
| Panel B |  |  |  |  |
| Average Interaction Lead Effect |  |  |  |  |
| 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.
"people's church." Still, financing remained a governmental duty. See Thorkildsen (2012) for further details.

Separation of state and church in Scandinavia, even though not adjudiciated, was not really a matter of popular vote. There was little popular debate; instead, a long series of committee reports were issued between church and government (Rasmussen 2007, 1). Debate, if any, was mainly within the Church of Sweden. The Centre party (Centern) was the only political party voicing any real disagreement (Ekström 2003, 223). In the end, the decision was taken by a small group at the top of the party.

We study whether the Swedish abolition of the state church in 2000 had an impact on preferences, specifically on the relationship between religiosity and preferences for redistribution. To account for trends unrelated to the abolition of the state church, we compare redistributive preferences in Sweden to preferences in Norway, which retained its state church throughout the period we study. We use a differences-in-differences-in-differences approach between Sweden and Norway before and after the Swedish abolition of the state church in 2000. Data are drawn from the election studies in the two countries. Swedes with greater self-reported Christian values become more inclined to cut taxes on high income individuals after separation. Descriptive statistics can be found in Appendix Table V.

Table V shows the results of these regressions. Columns (1) to (5) measure redistributive preferences by the answer to questions on whether taxes on high incomes should be reduced; Columns (6) to (10) look at beliefs about whether income differences should be reduced, which serves as a check that the first question measures welfare attitudes rather than attitudes towards inequality. We measure religiosity by the respondent's answer on a five point scale to whether it would be beneficial for their society to be more closely aligned with Christian values because consistent data on religious attendance is unavailable. ${ }^{53}$

Column (1) indicates that there is a weak correlation between religiosity and conservatism on tax policy. In Column (2), we run the full differences-in-differences-in-differences specification. The most important variable is the triple interaction of the effect of Christian values for Swedish respondents after the 2000 abolition of the state church. This estimate has a significantly positive value, indicating that religious Swedes became more fiscally conservative after 2000. One standard

[^27]deviation in Christian values corresponds to a shift in 0.16 greater support for cutting taxes after the Swedish reform, or $10 \%$ of a standard deviation in support for taxes.

In Columns (3) and (4), we repeat similar estimations, but now include individual fixed effects. As there is little variation in a given respondents' reported importance of Christian values, it is difficult to get a meaningful estimate of the effect of a change in this variable as revealed by Column (3). However, when we look at the change in the state church regime in Column (4), it is again apparent that abolishing the state church made religious Swedes more fiscally conservative.

Finally, in Column (5), we only look at the last election before and the first election after the 2000 abolition. We regress preferences expressed after the abolition on the answer to the same question expressed before the abolition, as well as the importance of Christian values expressed before the abolition, and this variable interacted with being Swedish. This regression indicates that Swedes with strong Christian values became more fiscally conservative than other respondents.

We may be concerned that attitudes about taxes on high incomes capture attitudes towards inequality rather than attitudes towards insurance. In Columns (6) to (10), we study the same specifications as Columns (1) to (5), but look instead at attitudes to inequality (without specific attention given to government actions). Inequality attitudes are measured so that high values indicate a more conservative attitude, i.e. acceptance of inequality. From Column (6), we see that more religious respondents are more accepting of income differentials. However, this acceptance did not increase in Sweden after the state church abolition-instead, it decreased as we see from Column (7), meaning that religious Swedes preferred more equality. Again, there is little to learn from changes in reported attitudes to Christian values (Column 8). However, Column (9) confirms that, comparing within individuals over time, the abolition of the state church did not make religious Swedes more pro-inequality. Finally, looking at changes in preferences before and after the abolition in Column (10), the same pattern of increased inequality aversion for religious Swedes emerges, although the results are not statistically significant.

The World Value Survey also covers a period before and after the Swedish separation of church and state. Barro and McCleary code Sweden as having a state church. The results are similar if we recode to no state church after 2000. If we analyze only Swedish data in a before-after analysis, the estimates are imprecise, but have the same sign as in our voter panel analysis.
Table V: Preferences and state church: Sweden versus Norway

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

(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.

## 5. DISCUSSION

### 5.1. Religious Attendance, Church-State Separation, and Welfare State

The ideal experiment to test for multiple steady states would temporarily shock parameter values to see if countries shift from one steady-state basin of attraction to another. In its absence, we report that, on average, some countries sustain high religiosity, high church-state separation, and low welfare state, whereas others sustain low religiosity, low church-state separation, and high welfare state in a larger sample than has been used in previous research (Barro and McCleary 2005). Religious attendance is higher in countries without a state church (Table VI). $26 \%$ of respondents in countries with a state church attend monthly while $38 \%$ of respondents in countries without a state church attend monthly. This correlation has also been documented by Finke and Stark (1992), Iannaccone (1998), and Barro and McCleary (2005); for cross-country negative correlations between religiosity and size of welfare state, see Gill and Lundsgaarde (2004), Scheve and Stasavage (2006), and Cavanaugh (2005).

TABLE VI

| Church attendance in countries with and without a state church |  |
| :--- | :---: |
|  | Fraction with at least monthly attendance |
| Countries with state church | $0.425^{* * *}$ |
|  | $(10.26)$ |
| Countries without state church | $0.465^{* * *}$ |
|  | $(11.10)$ |
| Difference | -0.0404 |
|  | $(-0.69)$ |
| $N$ | 238981 |

## Notes:

1. Data are from World Values Survey cumulative file, waves 1-5. Standard errors in parentheses are adjusted for correlation within country of residence. *, ** and ${ }^{* * *}$ denote significance at the 10,5 and $1 \%$ level.
2. Data on church-state separation 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.

### 5.2. Alternative Theories

Existing work on the decline of the Social Gospel movement and the rise of the Religious Right tend to be descriptive (Carter 1956; Bateman 1998). Hood, Hill, and Williamson (2005) and Wood-
berry and Smith (1998) detail how conservative groups associated with the Social Gospel movement withdrew from society in the 1940s and eventually formed branches currently classified as fundamentalist (Hood, Hill, and Williamson 2005) and Evangelical (Hubbard 1991), with a defining characteristic of both groups being the importance of the proper interpretation of the Christian Bible. Traditionalist factions within the evangelical movement rejected the progressivism of the Social Gospel (Midgley 1990).

To the extent there are explanations for the changing nature of religious movements, scholars variously cite the growth of religious pluralism, the acceptance of scientific findings, the rapid increase in urbanization, new forms of media, and the Cold War. Others argue that the Social Gospel declined because of the World Wars and Prohibition. However, countries where religious groups are pro-welfare also experienced the Cold War and scientific development. Others theories argue that Roe v. Wade caused religious liberals to join conservatives. While this may explain some of the patterns we observe, the alignment we see today between fiscal and social conservatism occurs in many countries, not all of which experienced Roe v. Wade.

Theories about church-state separation also tend to be descriptive, the one exception being the view that richer countries are less likely to have a state religion. This theory fails to explain European countries becoming richer but not dismantling their state religions. Another explanation attributes the lack of separation of church and state in much of western Europe to the general statist nature of these countries (van Bijsterveld 2000). However, the shift within the U.S. to more church-state separation since the time of the New Deal would not be consistent with this theory. Others state that the separation between state and religion in the U.S. is due to the presence of religious diversity (Barro and McCleary 2006; Kuru 2007); yet, some European countries have a large Muslim minority and have not separated church and state.

## 6. CONCLUSION

We have found that fiscal and social conservatives and fiscal and social liberals tend to come hand-in-hand in countries without a state church. Religious individuals are fiscal conservatives because the welfare state crowds out religious insurance (Gruber and Hungerman 2007). Risksharing 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), which is more effective without alternative forms of social insurance. Religious groups with greater within-group giving are more against the welfare state and more socially conservative, i.e., sanctioning against out-groups. Risk-sharing mechanisms by religious groups helps complete a missing market for credit. Fundamentalism can persist if optimal insurance is a substantial fraction of wages (Chetty 2004).

In countries with a state church, the alignment reverses: Social conservatives become fiscal liberals. With less church-state separation, taxes contribute to the insurance mechanism of religious groups. We apply this framework to explain the changing nature of religious movements. In the U.S., the Social Gospel movement was a Protestant Christian intellectual movement prominent in the early 20th century that applied Christian ethics to social problems, such as economic inequality (Fogel 2000). Prohibition, the constitutional ban on alcohol, was also attributable to the Social Gospel movement. While the exact reason for decline in the Social Gospel movement is debatable, most scholars agree that it peaked in the early 20th century. The rise of the Religious Right began in the 1940s and has become more influential since the 1970s. Why was the Social Gospel movement replaced by the Religious Right? The development of credit markets provides one answer (Hirschman 1982). Non-elites are frequently excluded from credit and insurance markets (Banerjee, Béabou, and Mookherjee 2006). As elites gain access to credit markets, they desire a lower tax burden (Acemoglu and Robinson 2000). In our model, they have incentives to adjudiciate increasing church-state separation, which creates a constituency for lower taxes. ${ }^{54}$ This holds only if religious voters exceed non-religious voters. Otherwise, elites prefer a state church to curb the secular left, which is consistent with many European countries' experience with low religiosity and large state churches.

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 the Religious Right, but 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.

[^28]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 effective only one-third of the time (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. This perspective sheds light on debates in international law and the dynamics of credit market access, theocracy, and fundamentalism in developing and reconstructing war-torn countries.

Certainly, some countries are exceptions to our theory (see Figure 5). In addition, many formerly Communist countries have had elites who can disregard the voting preferences of the poor. Indeed, many of the countries with a state church that are an exception to the theory are formerly Communist (e.g., Serbia, Romania, Slovenia, Czech Republic, Vietnam, Slovakia, Latvia, Lithuania, China, Albania, Estonia, Serbia, and Russia).

Other forms of social insurance may also be competitive with religious groups. Alternative social insurance in the form of credit (including government-subsidized loans) reduced the effect of economic shocks on religious participation and intensity (Chen 2006; Chen 2010). Glaeser and Scheinkman (1998) argues that this may be a reason for religious usury restrictions.

Our empirical analysis presents evidence that fiscal and social conservatism and fiscal and social liberalism are correlated-at the individual level within countries-and that religious groups with greater within-group giving are more against the welfare state and more socially conservative. We develop novel evidence on church-state separation. The relationship between fiscal and social attitudes disappears when there is a state church and is reversed for members of the state church. The documented patterns on welfare attitudes are specific to attitudes towards insurance rather than
attitudes towards inequality more generally. The change in the association is mediated specifically through government regulation of religion-"restrictions placed on the practice, profession, or selection of religion by the official laws, policies, or administrative actions of the state"-rather than other policies associated with having a state church. The findings are not due to nonlinearities and are robust to dropping those who claim no religion.

The reversal is unlikely to be driven by omitted environmental variables. Separation of church and state precede alignment between fiscal and social conservatism. We use decisions in the U.S. Supreme Court. Because the time-series is limited, we also exploit random jurisprudential variation in U.S. Circuit Courts where judges are randomly assigned. Establishment Clause jurisprudence appears causally linked to the rise of the Religious Right. We present corroborating evidence on the causal link in a differences-in-differences-in-differences panel analysis of individual voters in Scandinavia followed before and after the 2000 Swedish separation of church and state. Swedes with strong Christian values became more fiscally conservative, though their attitudes towards inequality generally were unchanged.

Some argue that depending on the welfare state is the same as worshipping the government as if it were God. While theory predicts political positions will map along a single axis (DeMarzo, Vayanos, and Zwiebel 2003), no obvious theory explains why political alignments exist along this diagonal. Taken together, our results contribute to a theoretical and empirical literature on the interaction of economic forces and normative commitments. ${ }^{55}$

[^29]
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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: ${ }^{56}$
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.

[^30]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 Attendence 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:

## 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: natcity natcityy natcityz 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 doest 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 spkhomo.

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 watever 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 (Waves 1-5).
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 indivicual 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, Dindep, 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. Countries with no state religion include Australia, Belgium, Canada, France, Mexico, and the United States. Countries with state religion include Iceland, Denmark, Norway, United Kingdom, Italy, Iran, Iraq, Libya, Nepal, and Greece, just to name a few. The entire list is in Table 1a-1g of Barro and McCleary (2005). The dataset is merged with the WVS by country.

The second church-state separation dataset comes from Finke and Grim (2006). ${ }^{57}$ Specifically we use three standardized indices described in the main text-Government Regulation of Religion (GRI), Government Favoritism of Religion (GFI), and Social Regulation of Religion (SRI))-as well as a variable on favoritism (refering 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?"). The dataset is merged with the WVS by country.

[^31]
## A.4. Donation Data

Philanthropic data comes from the 2001-2009 extract of the Panel Study of Income Dynamics. ${ }^{58}$ 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 variable is, for each religious group, the average proportion of giving going to religion. It is first computed using the SRC representative subsample in the COPPS philantropic data, and merged with the GSS data by religious preference.

## A.5. Data on opinions in Norway and Sweden

The data on public opinions in Norway and Sweden are drawn from the electoral studies of the two countries. The Swedish election surveys collect data for 1991, 1994, 1998, 2002, and 2006. See Oscarsson and Holmberg (2009) for survey details and, e.g., Bergman and Bolin (2011) for an overview of Swedish politics. The Norwegian election surveys collect data for 1989, 1993, 1997, 2001 and 2005. See Aardal, Høstmark, Lagerstrøm, and Stavn (2007) for survey details and, e.g., Narud and Strøm (2011) for an overview of Norwegian politics. In each survey, between 2000 and 4000 representative respondents were interviewed. In the Swedish survey, the question on Christian values were asked on a 10 point scale, which we reduce to a 5 -point scale to match the Norwegian survey. The 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: U.S. CHURCH-STATE SEPARATION

Students of U.S. history often perceive the U.S. as always having church-state separation. However, according to legal scholars (Hamburger 2002, Feldman 2005), church-state separation was neither sought nor intended by the founding generation and did not become an American ideal until late 19th century and 20th century. Advocates of separation sought to exclude clergymen from civil office on the grounds that civil office would distract clergyman from focusing on their higher obligations. They did not come close to seeking separation as we understand it today. These advocates did not seek to limit religion: they merely sought to limit the ability of government to use its civil power to appoint religious leaders. They viewed religion as the source of the moral underpinnings of society, critical to the stability of government, and did not seek separation because they believed that religion was the essential moral basis for government. The controversy was whether clergymen could participate in politics.

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. Hamburger (2002) notes that throughout the twentieth century historians perpetuated the misperception that the principle of separation was rooted in eighteenth century thought, thus giving historical credence to separation's ostensible constitutional authority.

[^32]Hamburger (2002) and Feldman (2005) argue that the initial impetus to separate church and state was the large number of Catholic immigrants to the U.S. in the late 19th century. 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. In response, there was a proposal to ban government funding of religious institutions in the 1870s. In fact, before the welfare state, government support for the poor was often distributed through religious organizations. The secular movement promoting fiscal separation of church and state did not begin until the 1920s-in the U.S. by elites, and in Europe by non-elites. The debate over religious and government interaction continues into the present day in the debate over government funding of faith-based organizations, which supply social services to over 70 million Americans each year.

## APPENDIX C: TABLES AND FIGURES

The tables are organized as follows. First, we present summary statistics of all datasets. Second, we include extended analyses of fiscal and social conservatism/liberalism in the U.S. considering various interactions, variable re-definitions, sub-samples, and detailed estimates. Third, we show further analyses of within-group giving, fiscal and social conservatism, and social insurance. Fourth, we present analyses of fiscal and social attitudes around the world. Fifth, we list the countries with and without church-state separation in our data and then list the U.S. Supreme Court cases on church-state separation. Finally, the figure presents the correlation between religious attendance and the principal components of fiscal and social attitudes. The main text does not refer to these tables in the order shown below.

## APPENDIX TABLE I

Outcome variables in the US data

| Variable | GSS name | Range | Mean | Obs |
| :---: | :---: | :---: | :---: | :---: |
| Fiscal variables |  |  |  |  |
| 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) | eqwithy | 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 |
| Moral variables |  |  |  |  |
| 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) | xmarsex | 1-4 | 3.63 | 34019 |
| Extramarital relation (ii) | xmarsex1 | 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 | 4.75 | 2.76 | 1.99 |
|  | $(2.91)$ | $(3.01)$ | $(2.55)$ | $[0.00]$ |
| Social Regulation Index (SRI) | 4.32 | 5.33 | 3.61 | 1.72 |
|  | $(2.90)$ | $(3.07)$ | $(2.56)$ | $[0.01]$ |
| Government Favoritism Index (GFI) | 5.61 | 6.96 | 4.66 | 2.30 |
|  | $(2.45)$ | $(1.87)$ | $(2.38)$ | $[0.00]$ |
| Government favoritism for specific group | 3.26 | 4.46 | 2.41 | 2.05 |
|  | $(1.83)$ | $(1.47)$ | $(1.56)$ | $[0.00]$ |

[^33]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 <br> $(1)$ | Moral conservative <br> $(2)$ |
| :--- | :---: | :---: |
| Religious attendance | $0.0114^{* * *}$ | $0.0871^{* * *}$ |
|  | $(0.00249)$ | $(0.00199)$ |
| Fundamentalist | 0.0133 | $0.217^{* * *}$ |
|  | $(0.0131)$ | $(0.0104)$ |
| Attendance $\times$ Fundamentalist | 0.00435 | -0.00384 |
|  | $(0.00396)$ | $(0.00322)$ |
| 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.
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 VII

Fiscal and Social Conservatism/Liberalism in the U.S. - Alternative variable definition


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 | $0.0189^{* * *}$ |  | $0.0174^{* * *}$ |  | $0.0978^{* * *}$ |  | $0.0919^{* * *}$ |
|  | $(0.00180)$ |  | $0.00189)$ |  | $(0.00306)$ |  | $(0.00247)$ |
| Fundamentalist |  | $0.0647^{* * *}$ | $0.0464^{* * *}$ |  | $0.327^{* * *}$ | $0.238^{* * *}$ |  |
|  |  | $(0.0163)$ | $(0.0138)$ |  | $(0.0263)$ | $(0.0118)$ |  |
| Observations | 44330 | 43311 | 43003 |  | 45690 | 44661 | 44345 |

B. Black

|  | Fiscal conservative |  |  |  | Moral conservative |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(1)$ | $(2)$ | $(3)$ |  | $(4)$ | $(5)$ | $(6)$ |
| Religious attendance | -0.0000616 |  | 0.000932 |  | $0.0597^{* * *}$ |  | $0.0586^{* * *}$ |
|  | $(0.00393)$ |  | $(0.00385)$ |  | $(0.00469)$ |  | $(0.00512)$ |
| Fundamentalist |  | -0.0184 | -0.0182 |  |  | $0.118^{* * *}$ | $0.0809^{* * *}$ |
|  |  | $(0.0127)$ | $(0.0159)$ |  | $(0.0144)$ | $(0.0184)$ |  |
| 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.
3. 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.

Fiscal and Social Conservatism/Liberalism in the U.S. - Detailed estimates

|  | (1) |  | (2) |  | (3) |  |  |  | Obs. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Relig. attendance |  | Socially conservative |  | Relig. attendance |  | Socially conservative |  |  |
| Fiscal conservative |  |  |  |  |  |  |  |  |  |
| 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 |
| Moral conservative |  |  |  |  |  |  |  |  |  |
| 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 3. 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. $6_{\text {Number of observations is the minimum number of }}$ observations, taken from specification (3).

## APPENDIX TABLE X

Within-Group Giving and Fiscal/Social Conservatism in the US

|  | Fiscal conservative <br> $(1)$ | Moral conservative <br> $(2)$ |
| :--- | :---: | :---: |
|  |  |  |
| Within-group giving | $0.421^{* * *}$ | $1.055^{* * *}$ |
|  | $(0.0373)$ | $(0.0828)$ |
| 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 |
| :---: | :---: | :---: | :---: |
| Fiscal conservative |  |  |  |
| 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 |
| Moral conservative |  |  |  |
| 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

| Social Insurance and Religion |  |  |  |
| :--- | :---: | :---: | :---: |
|  | Congregation helps you a great deal if ill |  |  |
|  | $(1)$ | $(2)$ | $(3)$ |
| Religious attendance | $0.0838^{* * *}$ |  |  |
|  | $(0.00961)$ |  |  |
| Evangelical protestant (d) |  | $0.378^{* *}$ | $0.570^{* * *}$ |
|  |  | $(0.157)$ | $(0.0419)$ |
| Mainline protestant (d) |  | $0.280^{*}$ | $0.462^{* * *}$ |
|  |  | $(0.163)$ | $(0.0594)$ |
| Catholic (d) | 0.0998 | $0.273^{* * *}$ |  |
|  | $(0.138)$ | $(0.0383)$ |  |
| Other religion (d) | $0.482^{* * *}$ | $0.718^{* * *}$ |  |
|  |  | $(0.0778)$ | $(0.0720)$ |
| Jewish (d) | 0.0996 | $0.333^{* * *}$ |  |
|  |  | $(0.165)$ | $(0.0947)$ |
| No religion |  | 0.143 |  |
|  |  |  | $(0.0972)$ |
| Observations |  | 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 | $0.0144^{* * *}$ |  | $0.00783^{* * *}$ |  | $-0.0111^{* * *}$ |  | $-0.00855^{* * *}$ |  |
|  | $(0.00251)$ |  | $(0.00205)$ |  | $(0.00128)$ |  | $(0.00165)$ |  |
| Social conservativism |  | $0.238^{* * *}$ | $0.225^{* * *}$ |  |  | $-0.0827^{* * *}$ | $-0.0657^{* * *}$ |  |
|  |  | $(0.0224)$ | $(0.0239)$ |  | $(0.0113)$ | $(0.0125)$ |  |  |
| $\mathrm{R}^{2}$ | 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.
Appendix Table XIV: Within-Group Giving and Fiscal/Social Conservatism in the U.S

|  | (1) |  | (2) |  | (3) |  | (4) |  | (5) |  | (6) |  | Obs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mormon |  | Evangelical protestant |  | Mainline protestant |  | Catholic |  | Other religion |  | Jewish |  |  |
| Fiscal conservative |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Confidence: Business (ii) | $0.3796^{* * *}$ | (0.1070) | 0.2618*** | (0.0631) | 0.1169* | (0.0624) | $0.3127^{* * *}$ | (0.0725) | 0.0743 | (0.0757) | 0.0337 | (0.1582) | 3004 |
| Confidence: Business (i) | $0.1621^{* * *}$ | (0.0214) | $0.1261 * * *$ | (0.0233) | $0.1337 * * *$ | (0.0158) | $0.1423^{* * *}$ | (0.0205) | 0.0265** | (0.0099) | 0.0812** | (0.0343) | 28251 |
| Confidence: Financial inst | 0.1353** | (0.0422) | 0.1279*** | (0.0148) | 0.1322*** | (0.0137) | 0.1075*** | (0.0167) | 0.0188 | (0.0233) | 0.0745** | (0.0228) | 26771 |
| Confidence: Organized labor | -0.0034 | (0.0403) | 0.0033 | (0.0179) | -0.0109 | (0.0275) | -0.0765*** | (0.0189) | 0.0133 | (0.0239) | -0.0045 | (0.0241) | 27713 |
| Equalize incomes (i) | 0.1491 | (0.2500) | 0.2175 | (0.1827) | 0.0159 | (0.1584) | 0.0790 | (0.1715) | -0.0434 | (0.2167) | -0.0468 | (0.3291) | 1425 |
| Equalize incomes (ii) | $0.2457 * *$ | (0.0982) | 0.1394** | (0.0528) | 0.0251 | (0.0658) | 0.0898* | (0.0458) | -0.0899 | (0.0746) | 0.0781 | (0.0648) | 5307 |
| Equalize wealth (i) | 0.8253*** | (0.1167) | 0.3220*** | (0.0527) | 0.0676 | (0.0689) | 0.2004*** | (0.0235) | -0.0370 | (0.0814) | 0.2404** | (0.1033) | 22254 |
| Equalize wealth (ii) | 0.8900** | (0.2669) | 0.5301 | (0.3989) | 0.1866 | (0.4894) | -0.1868 | (0.3817) | -0.7888 | (0.7920) | -0.8033 | (0.8134) | 545 |
| Equalize incomes (iii) | 0.5851*** | (0.0922) | 0.1893*** | (0.0551) | 0.1125 | (0.0630) | 0.1112*** | (0.0153) | -0.0730 | (0.0433) | 0.0694 | (0.0813) | 8124 |
| Gov. help general | $0.3347^{* * *}$ | (0.0316) | 0.1459*** | (0.0302) | 0.0560 | (0.0483) | 0.0107 | (0.0153) | -0.0835 | (0.0696) | -0.2361*** | (0.0644) | 20920 |
| Gov. help poor | $0.3816^{* * *}$ | (0.0831) | 0.1710*** | (0.0379) | 0.0649 | (0.0391) | 0.0595 | (0.0363) | -0.0417 | (0.0701) | -0.0805** | (0.0318) | 21469 |
| Gov. help sick | $0.5262^{* * *}$ | (0.0959) | $0.2568^{* * *}$ | (0.0323) | 0.1256** | (0.0543) | 0.1045** | (0.0410) | -0.1072** | (0.0402) | -0.2249*** | (0.0588) | 21510 |
| Help cities (i) | 0.0286 | (0.0292) | 0.0760*** | (0.0198) | 0.0320 | (0.0180) | 0.0130 | (0.0206) | -0.0449* | (0.0211) | -0.1983*** | (0.0393) | 22051 |
| Help cities (ii) | 0.1946*** | (0.0464) | 0.1397*** | (0.0267) | 0.0531 | (0.0319) | 0.0233 | (0.0185) | -0.0209 | (0.0300) | -0.2950*** | (0.0219) | 13462 |
| Help cities (iii) | 0.2720 | (0.2814) | -0.0420 | (0.1243) | -0.0530 | (0.2077) | -0.0035 | (0.1295) | 0.0165 | (0.1467) | -0.3996 | (0.2510) | 318 |
| Pro environment (i) | $0.2623 * * *$ | (0.0350) | $0.1437 * * *$ | (0.0171) | 0.0818*** | (0.0147) | $0.0688^{* * *}$ | (0.0122) | -0.0140 | (0.0214) | -0.0379 | (0.0413) | 23876 |
| Pro environment (ii) | $0.2587 * * *$ | (0.0633) | 0.1500*** | (0.0365) | 0.0501* | (0.0230) | $0.0732^{* *}$ | (0.0265) | -0.0189 | (0.0371) | -0.0482 | (0.0397) | 15027 |
| Pro environment (iii) | 0.3349 | (0.1971) | 0.2140 | (0.1455) | -0.1235 | (0.2054) | 0.0213 | (0.1528) | -0.1588 | (0.1766) | -0.3429 | (0.2729) | 344 |
| Pro welfare (i) | 0.1606** | (0.0549) | 0.1379*** | (0.0162) | 0.0370 | (0.0239) | 0.0756*** | (0.0210) | -0.0253 | (0.0193) | -0.1397** | (0.0433) | 23969 |
| Pro welfare (ii) | 0.2134*** | (0.0301) | 0.0553* | (0.0271) | -0.0354 | (0.0284) | -0.0134 | (0.0142) | -0.0573 | (0.0346) | -0.0005 | (0.0322) | 15336 |
| Pro welfare (iii) | 0.0518 | (0.0940) | 0.1859 | (0.1012) | -0.0494 | (0.1361) | -0.0085 | (0.1279) | -0.0641 | (0.0965) | -0.0358 | (0.2162) | 352 |
| Pro health (i) | $0.1513^{* * *}$ | (0.0239) | $0.0723^{* * *}$ | (0.0140) | 0.0491* | (0.0230) | 0.0154 | (0.0136) | 0.0174 | (0.0189) | -0.0790** | (0.0265) | 24284 |
| Pro health (ii) | 0.1950*** | (0.0355) | 0.0696** | (0.0241) | 0.0389 | (0.0246) | 0.0375 | (0.0212) | 0.0723 | (0.0413) | $-0.0871^{* * *}$ | (0.0241) | 15311 |
| Pro health (iii) | -0.0665 | (0.1257) | 0.0169 | (0.1449) | -0.1569 | (0.1601) | -0.0444 | (0.1355) | -0.1323 | (0.2831) | -0.3898* | (0.1694) | 345 |
| Cut taxes | 0.1053*** | (0.0169) | 0.0577*** | (0.0132) | 0.0292* | (0.0157) | 0.0554*** | (0.0073) | 0.0074 | (0.0156) | 0.0588** | (0.0141) | 23148 |


| Moral conservative |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abortion: Any reason (i) | 0.4362*** | (0.0395) | 0.3178*** | (0.0165) | 0.2042*** | (0.0131) | 0.2699*** | (0.0151) | 0.1410*** | (0.0138) | -0.0815** | (0.0254) | 24546 |
| Abortion: Any reason (ii) | $1.1627^{* * *}$ | (0.2713) | 0.9605*** | (0.1363) | 0.2005 | (0.2034) | 0.6398*** | (0.1688) | $0.6971^{* * *}$ | (0.1408) | -0.7163*** | (0.1712) | 1046 |
| Abortion: Defect( ii) | 1.0288*** | (0.1738) | 0.4093** | (0.1355) | 0.1708 | (0.1687) | $0.3731^{* * *}$ | (0.1078) | $0.6005^{* *}$ | (0.2581) | -0.3630*** | (0.0965) | 992 |
| Abortion: Defect (i) | 0.2472*** | (0.0206) | 0.1615*** | (0.0078) | $0.0808^{* * *}$ | (0.0097) | $0.1520^{* * *}$ | (0.0132) | $0.1398{ }^{* * *}$ | (0.0151) | -0.0082 | (0.0142) | 29695 |
| Abortion: Mother's health | $0.0301 * * *$ | (0.0077) | $0.0667^{* * *}$ | (0.0067) | $0.0241^{* * *}$ | (0.0060) | $0.0864^{* * *}$ | (0.0096) | $0.0768^{* * *}$ | (0.0097) | -0.0057 | (0.0064) | 29803 |
| Abortion: Preference | $0.4548^{* * *}$ | (0.0445) | $0.3242^{* * *}$ | (0.0156) | 0.2109*** | (0.0178) | $0.2908^{* * *}$ | (0.0145) | 0.1469 *** | (0.0098) | $-0.1024^{* * *}$ | (0.0217) | 29710 |
| Abortion: Family poor (i) | $0.4568{ }^{* * *}$ | (0.0381) | $0.3124^{* * *}$ | (0.0164) | 0.1911*** | (0.0143) | $0.2763^{* * *}$ | (0.0135) | $0.1359 * * *$ | (0.0092) | -0.0893*** | (0.0238) | 29643 |
| Abortion: Family poor (ii) | 1.1862** | (0.3818) | $0.7118^{* * *}$ | (0.1505) | $0.4958^{* * *}$ | (0.1291) | 0.5530*** | (0.1099) | $0.5838{ }^{* * *}$ | (0.1596) | -0.7700*** | (0.1482) | 953 |
| Abortion: Rape | $0.1537 * * *$ | (0.0151) | $0.1501^{* * *}$ | (0.0126) | $0.0769^{* * *}$ | (0.0154) | $0.1382^{* * *}$ | (0.0146) | 0.1133*** | (0.0087) | -0.0017 | (0.0099) | 29489 |
| Abortion: Mother single | $0.4380^{* * *}$ | (0.0412) | 0.3165*** | (0.0165) | 0.2012*** | (0.0131) | $0.2864^{* * *}$ | (0.0125) | $0.1426^{* * *}$ | (0.0063) | -0.1169*** | (0.0285) | 29661 |
| Teacher: Atheist | $0.1402^{* * *}$ | (0.0225) | 0.2396*** | (0.0112) | $0.1747^{* * *}$ | (0.0102) | $0.1557^{* * *}$ | (0.0121) | $0.1051^{* * *}$ | (0.0158) | $0.0913^{* * *}$ | (0.0223) | 26584 |
| Teacher: Homosexual | $0.1222^{* * *}$ | (0.0163) | $0.1934 * * *$ | (0.0116) | 0.0915*** | (0.0149) | $0.0380^{* * *}$ | (0.0062) | $0.0868^{* * *}$ | (0.0091) | $-0.0725^{* * *}$ | (0.0131) | 25538 |
| Conf. in org. religion (i) | $0.6798^{* * *}$ | (0.0738) | 0.5198*** | (0.0153) | $0.5482^{* * *}$ | (0.0203) | $0.5557^{* * *}$ | (0.0140) | 0.1809*** | (0.0185) | $0.2912^{* * *}$ | (0.0221) | 28402 |
| Conf. in org. religion (ii) | 1.2998 | (0.7948) | 0.8264** | (0.3377) | $1.9508^{* * *}$ | (0.3752) | $1.0908^{* * *}$ | (0.2878) | 0.5748 | (0.9217) | 1.3902* | (0.6136) | 346 |
| Legalize marijuana (i) | $0.3221^{* * *}$ | (0.0210) | 0.2635*** | (0.0160) | 0.2036*** | (0.0190) | 0.2104*** | (0.0151) | 0.1306 *** | (0.0217) | 0.0086 | (0.0113) | 25058 |
| Legalize marijuana (ii) | $0.6965^{* * *}$ | (0.0955) | 0.3986*** | (0.0651) | $0.3557^{* * *}$ | (0.0706) | $0.2347^{* * *}$ | (0.0604) | 0.2195** | (0.0768) | -0.1226 | (0.1191) | 542 |
| Homosexual relations (i) | $1.2708^{* * *}$ | (0.0808) | 1.0583*** | (0.0405) | $0.6896^{* * *}$ | (0.0335) | $0.6545^{* * *}$ | (0.0291) | 0.4096*** | (0.0412) | -0.2016*** | (0.0550) | 25144 |
| Homosexual relations (ii) | $1.1738^{* * *}$ | (0.1771) | 1.0146*** | (0.0725) | $0.6288^{* * *}$ | (0.1100) | 0.5379*** | (0.0614) | $0.4523 * * *$ | (0.1045) | -0.3890* | (0.2020) | 3873 |
| Book in library: Atheist | 0.0919*** | (0.0238) | $0.2207^{* * *}$ | (0.0132) | $0.1278{ }^{* * *}$ | (0.0160) | $0.1043^{* * *}$ | (0.0124) | $0.0566^{* * *}$ | (0.0094) | -0.0001 | (0.0113) | 26821 |
| Book in library: Homosexual | $0.1243^{* * *}$ | (0.0225) | $0.2088^{* * *}$ | (0.0106) | $0.0973^{* * *}$ | (0.0170) | $0.0585^{* * *}$ | (0.0081) | $0.0773^{* * *}$ | (0.0114) | -0.0290 | (0.0211) | 25651 |
| Pornography laws | 0.3932*** | (0.0344) | 0.2915*** | (0.0156) | $0.1441^{* * *}$ | (0.0173) | $0.1573^{* * *}$ | (0.0129) | $0.1697^{* * *}$ | (0.0239) | -0.0773** | (0.0297) | 26022 |
| Religiosity | 2.5331 *** | (0.0588) | $2.3437^{* * *}$ | (0.0091) | 2.2966*** | (0.0138) | $2.2136^{* * *}$ | (0.0120) | 2.3820*** | (0.0256) | $2.1999^{* * *}$ | (0.0330) | 40473 |
| Free speech: Atheist | 0.0533** | (0.0183) | $0.1678^{* * *}$ | (0.0126) | $0.1148^{* * *}$ | (0.0171) | $0.0948^{* * *}$ | (0.0087) | 0.0554*** | (0.0087) | $0.0522^{* * *}$ | (0.0125) | 27271 |
| Free speech: Homosexual | $0.0958^{* * *}$ | (0.0208) | $0.1562^{* * *}$ | (0.0132) | 0.0660*** | (0.0080) | $0.0301 * * *$ | (0.0089) | $0.0827^{* * *}$ | (0.0057) | -0.0276* | (0.0141) | 25690 |
| Extramarital relation (i) | $0.5248^{* * *}$ | (0.0327) | $0.4368^{* * *}$ | (0.0306) | $0.3314^{* * *}$ | (0.0176) | $0.3229^{* * *}$ | (0.0209) | $0.2233{ }^{* * *}$ | (0.0276) | 0.0396 | (0.0401) | 26059 |
| Extramarital relation (ii) | $0.4831^{* * *}$ | (0.0468) | 0.4022*** | (0.0341) | $0.2803^{* * *}$ | (0.0757) | $0.3034^{* * *}$ | (0.0371) | $0.1927^{* *}$ | (0.0605) | 0.1466 | (0.1151) | 4112 |

[^34]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 | $\mathbf{0 . 9 1}$ | 77730 | 0.052 | 26 |
| Evangelical Protestants | 908 | 1139 | $\mathbf{0 . 8 2}$ | 49755 | 0.018 | 1271 |
| Mainline Protestants | 740 | 1193 | $\mathbf{0 . 6 2}$ | 72310 | 0.010 | 997 |
| Catholics | 491 | 962 | $\mathbf{0 . 5 1}$ | 71010 | 0.007 | 1451 |
| Other | 750 | 1504 | $\mathbf{0 . 5 0}$ | 49780 | 0.015 | 938 |
| Jewish | 1127 | 2791 | $\mathbf{0 . 4 0}$ | 125160 | 0.009 | 142 |
| None | 221 | 553 | $\mathbf{0 . 4 0}$ | 54360 | 0.004 | 663 |
| Notes: |  |  |  |  |  |  |

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) |  |  | -. $0955^{* *}$ | (.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) |  |  | . $144^{* *}$ | (.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) |  |  |  |  |  |  | -. 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 ${ }^{2}$.
3. Missing values in control variables are replaced by the value 0 and a dummy for the variable being missing is

## APPENDIX TABLE XVII

Social Conservatism around the World

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

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 ${ }^{2}$.
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 | Armenian Apostolic Church |
| Australia | Armenia |
| Brazil | Buddhist |
| Canada | Thailand |
| Chile | Jew |
| China | Israel |
| Taiwan | Muslim |
| 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 | Orthodox |
| Lithuania | Bulgaria |
| Mali | Belarus |
| Mexico | Georgia |
| Netherlands | Moldova |
| New Zealand | Ukraine |
| Nigeria | Macedonia |
| Philippines | Protestant |
| Poland | Finland |
| Puerto Rico | Norway |
| Romania | Great Britain |
| Russian Federation | Roman Catholic |
| 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 | The Church of Sweden |
| 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: US Supreme Court Decisions on Church-State Separation

| 1940 | Minersville School District v. Gobitis (1940) <br> In an 8-1 Court Decision, the Court ruled that a school district's interest in creating national unity <br> was sufficient to allow them to require students to salute the flag. |
| :--- | :--- |
| 1943 | West Virginia State Board of Education v. Barnette (1943) <br> none |
| The Court ruled 8-1 that a school district violated the rights of students by forcing them to salute the <br> American flag. |  |
| 1947 | Everson v. Board of Education (1947) <br> decrease |
| Supreme Court decision finding that a New Jersey law providing for reimbursement to parents of <br> parochial school students for transportation costs on public busses is constitutional. |  |
| 1948 | McCollum v. Board of Education (1948) <br> By a 6-1 vote the Supreme Court agreed with Mrs. McCollum, an atheist mother, and disallowed the <br> practice of having religious education to take place in public school classrooms during the school day. |
| increase |  |

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 unconstituional.

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 McClean v. Arkansas (1981)
increase The Court found that Arkasas' "blanced 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 thought 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 unconstitional.

1985 Wallace v. Jaffree (1985)
increase The Court found that an Alabma law requiring that each school day begin with a one minute period of "silent meditation or voluntary prayer" was unconstitional.

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 Peloza 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 $\quad$ 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 ACLU v. Black Horse Regional Board of Ed. (1995)
increase 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.
$1997 \quad$ Agostini v. Felton (1997)
decrease 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 Good News Club v. Milford Central School District (1998)
increase 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 using it for specifically religious purposes.

1999 DiLorento v. Downey USD (1999)
increase 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 Cole v. Oroville Union High School (1999)
increase 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.
$1999 \quad$ Freiler v. Tangipahoa (1999)
increase 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.
$2000 \quad$ Santa Fe School District v. Doe (2000)
decrease The Supreme Court ruled that official, student-led prayers before a school football game violated the separation of church and state.
$2000 \quad$ Mitchell v. Helms (2000)
increase 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 LeVake v. Independent School District (2001)
increase 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 FFRF v. Rhea County Board of Education (2002)
increase A federal district court decides that a public school cannot have students from the local Bryan College come in to teach Bible classes.

2002 Zelman v. Simmons (2002)
decrease 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 US 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 the Supreme Court Decisions.

[^0]:    * Daniel L. Chen, Toulouse Institute for Advanced Study, daniel.li.chen@gmail.com; Jo Thori Lind, Department of Economics, University of Oslo. j.t.lind@econ.uio.no. Latest version at: http://nber.org/~dlchen/papers/PoliticalEconomy_of_ Beliefs.pdf. We thank our dedicated research assistants for invaluable contributions to this project, numerous colleagues with helpful comments at Bergen, TU Dresden, Duke, University of Chicago (Political Economy, Booth, Applied Microeconomics, and Development), George Mason, Harvard, Iowa State, Munich, NBER Summer Institute (Income Distribution and Macroeconomics), Ohio State, Oslo, Stockholm IIES, UCLA, UCSD, Indiana University-Purdue University Indianapolis, York, Washington University, American Law and Economics Association, Royal Economic Society, Association for the Study of Religion, Economics, and Culture, European Economic Association, Midwest Political Science Association. Work on this project was conducted while Daniel Chen received financial support from the European Research Council, Agence Nationale de la Recherche, Swiss National Science Foundation, National Institute for Child Health and Human Development, and UCLA International Institute; and while Jo Thori Lind received financial support from the Research Council of Norway through the Equality, Social Organization, and Performance (ESOP) Center (project number 179552).

[^1]:    ${ }^{1}$ From financial crises to international trade (Chen 2010; 2014), litigation funding to industry-physician relationships (Chen 2014; Chen, Levonyan, Reinhart, and Taksler 2014), competition to gender inequality (Chen 2012; 2004), economic incentives are linked to a wide range of normative commitments.
    ${ }^{2}$ Fernandez, Purcell, Rinear, and Wiesinger (2003) and Hornberger (1993).
    ${ }^{3} 33 \%$ of Americans belong to a fundamentalist denomination according to the General Social Survey. Appendix Figure 1 shows that the pattern presented in this figure holds for other fiscal attitudes. 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.
    ${ }^{4}$ 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.
    ${ }^{5}$ 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.

[^2]:    ${ }^{6}$ 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.

[^3]:    ${ }^{7}$ 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).
    ${ }^{8}$ For uni-dimensionality of U.S. congressional voting: Converse (1964), Poole and Rosenthal (1991), and Keith T. Poole (1997); for cross-country patterns: Gill and Lundsgaarde (2004), Scheve and Stasavage (2006), and Cavanaugh (2005).

[^4]:    ${ }^{9}$ Previous analyses of church-state separation have documented a negative correlation between religious attendance and having a state church (Finke and Stark 1992; Iannaccone 1998; and Barro and McCleary 2005).

[^5]:    ${ }^{10}$ Data on religious attendance is not available.

[^6]:    ${ }^{11}$ 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.
    ${ }^{12}$ The GSS classifies denominations as religious fundamentalist or not. We report qualitatively similar results

[^7]:    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.
    ${ }^{13}$ Results remain qualitatively unchanged, if instead, 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 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.
    ${ }^{14}$ 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.
    ${ }^{15}$ Addressing missing covariates by dropping observations or by dummying 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.
    ${ }^{16}$ Region is state in the GSS and country in the WVS.
    ${ }^{17}$ Later analyses will check for non-linearities in this relationship.

[^8]:    ${ }^{18}$ 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.
    ${ }^{19}$ See Appendix Table IX for the detailed estimates underlying the graph as well as corresponding regressions on the measure of social conservatism.

[^9]:    ${ }^{20}$ 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.
    ${ }^{21}$ COPPS asks other questions for these donation categories.

[^10]:    ${ }^{22}$ Denomination groupings come from Smith (2004). Analyzing all waves of the COPPS data show the within-group giving percentages are very stable over time.
    ${ }^{23}$ 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 $40 \%$, Jew $15 \%$, None $25 \%$.
    ${ }^{24}$ Appendix Table XIV reports the regressions for all questions.
    ${ }^{25}$ 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.
    ${ }^{26}$ 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.

[^11]:    ${ }^{27}$ The coefficient in Column (1) indicates that moving eight categories of religious attendance from "never attend" to "several times a week" would increase the probability of receiving a great deal of help by over 60 percentage points. But, 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).
    ${ }^{28}$ 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.

[^12]:    ${ }^{29}$ These assumptions guarantee that the deadweight loss is never so high that less is available for redistribution when there are higher taxes.

[^13]:    ${ }^{30}$ Social insurance is not limited to those who participate ex ante. Religious organizations help individuals after they experience negative income shocks possibly due to the fact that social sanctions in religion 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. 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). A strong form of social sanction towards those who belong to other religious organizations or are less religiously intense, provided in the doctrine of many religions, encourage people who receive positive shocks to participate and facilitates religion's function as ex post insurance. Experimentally induced group identity also increases the degree of altruism toward in-group members relative to out-group members (Chen and Li 2009).

[^14]:    ${ }^{31}$ 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).

[^15]:    ${ }^{32} \mathrm{As} \gamma$ goes to 0 , the relationship between $w_{t}$ and $d$ is negative.
    ${ }^{33}$ As $d$ goes to 0 , the relationship between $w_{t}$ and $\gamma$ is negative.

[^16]:    ${ }^{34}$ 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.

[^17]:    ${ }^{35}$ See Chen and Sethi (2011), Chen and Yeh (2012), and Chen, Levonyan, and Yeh (2011) for further details.
    ${ }^{36}$ Detailed estimates with standard errors and broken down by wave are available in Appendix Table XVI.

[^18]:    ${ }^{37}$ Inequality could of course increase income volatility, which in turn could increase demand for insurance. However, it seems likely that most respondents interpret the question mostly in terms of between-individual inequality.
    ${ }^{38}$ Note that people can belong to the state church yet not attend services.

[^19]:    ${ }^{39}$ Source is the General Social Survey. Coefficients are from OLS regressions of the dummy for republican vote on attendance, controlling for the same variables as in Table I.

[^20]:    ${ }^{40}$ Downloaded in 2005.

[^21]:    ${ }^{41}$ This material is largely quoted from Chen and Yeh (2013).

[^22]:    ${ }^{42}$ The Federal Circuit Court does not have jurisdiction based on geography and handles mostly patent cases; therefore it is omitted from our study.
    ${ }^{43}$ Persuasive precedent must be adopted by the state courts to become binding precedent. State courts have a similar heirarchy: district courts, appellate courts, and supreme courts; and an appeal from the state supreme court goes to the U.S. Supreme Court.
    ${ }^{44}$ Except for retirement, Circuit judges typically leave the bench only for a position in the U.S. Supreme Court.

[^23]:    ${ }^{45} \mathrm{http}: / /$ www.cas.sc.edu/poli/juri/attributes.html

[^24]:    ${ }^{46}$ Controls are:

    - Circuit-fixed effects, $C_{c}$, and time-fixed effects, $T_{t}$;

[^25]:    ${ }^{47}$ Litigants' decisions to appeal may be in response to previous years' legal decisions, however, so controlling for $\mathbf{1}\left[M_{c t}>0\right]$ will bias $L a w_{c t}$; 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 $\mathbf{1}\left[M_{c t}>0\right]$ : 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 $\mathbf{1}\left[M_{c t}>0\right]$ and $L a w_{c t}$, 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.
    ${ }^{48}$ 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.
    ${ }^{49}$ 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.
    ${ }^{50}$ For example, the number of racial minority Democrats per seat.
    ${ }^{51}$ For example, the number of Democrats per seat multiplied by the number of racial minority judges per seat.

[^26]:    ${ }^{52}$ See Ekström (2003) and Gustafsson (2003) for detailed accounts of the debate leading up to the abolition of the state church in Sweden.

[^27]:    ${ }^{53}$ 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 V.

[^28]:    ${ }^{54} \mathrm{We}$ find some evidence consistent with credit markets precipitating church-state separation using Barro and McCleary's (2005) data. Countries that founded a stock market at an earlier date less likely to have a state church.

[^29]:    ${ }^{55}$ Bénabou 2012; Chen and Yeh 2014; Chen and Schonger 2014; Chen and Schonger 2013; Chen, Michaeli, and Spiro 2015, Chen 2013; Chen, Moskowitz, and Shue 2014; Chen, Levonyan, Reinhart, and Taksler 2014; Chen, Halberstam, and Yu 2014.

[^30]:    ${ }^{56}$ http://www3.norc.org/GSS+Website

[^31]:    ${ }^{57}$ http://www.thearda.com/Archive/Files/Descriptions/IRFAGG.asp

[^32]:    ${ }^{58}$ Available at http://www.philanthropy.iupui.edu/philanthropy-panel-study.

[^33]:    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.

[^34]:    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.
