STRATEGIC EXTREMISM: WHY REPUBLICANS AND DEMOCRATS DIVIDE ON RELIGIOUS VALUES*

EDWARD L. GLAESER
GIACOMO A. M. PONZETTO
JESSE M. SHAPIRO

Party platforms differ sharply from one another, especially on issues with religious content, such as abortion or gay marriage. Given the high return to attracting the median voter, why do vote-maximizing politicians take extreme positions? In this paper we find that strategic extremism depends on an intensive margin where politicians want to induce their core constituents to vote (or make donations) and the ability to target political messages toward those core constituents. Our model predicts that the political relevance of religious issues is highest when around one-half of the voting population attends church regularly. Using data from across the world and within the United States, we indeed find a nonmonotonic relationship between religious extremism and religious attendance.

I. INTRODUCTION

In the United States, religious attendance predicts Republicanism at least as well as income does [Fiorina 2005]. Figure I shows the share who voted for Bush in November 2004 by race and income bracket, using data from the National Election Pool Exit Poll. Figure II shows the share of respondents who voted for Bush by religious attendance, using the same sample. Figure III shows that the correlation between income and party affiliation has been roughly constant since the 1960s, but the correlation between religious attendance and party affiliation has risen over this period.[1] This trend has accompanied—and may even be caused by—increasing divergence of party positions on religious issues. For example, in 2004 the Republican party platform says that "the unborn child has a fundamental right to life that cannot

* We are grateful to Alberto Alesina, Robert Barro, Gary Becker, Morris Fiorina, Elhanan Helpman, David Laibson, Rachel McCleary, Andrei Shleifer, Lawrence Summers, and seminar participants at Harvard University, Brown University, and Boston University for helpful comments. Ponzetto acknowledges financial assistance from the Marco Fanno Foundation. Shapiro acknowledges financial assistance from the Institute for Humane Studies, the Center for Basic Research in the Social Sciences, and the National Science Foundation. e-mail: eglaeser@harvard.edu, ponzetto@fas.harvard.edu, and jmshapir@uchicago.edu.

1. Figure III also illustrates the impact that individual candidates have on the correlation between religious attendance and voting Republican. For example, that correlation was minimal in the 1976 election when the Democratic candidate was a born-again Christian.

The Quarterly Journal of Economics, November 2005

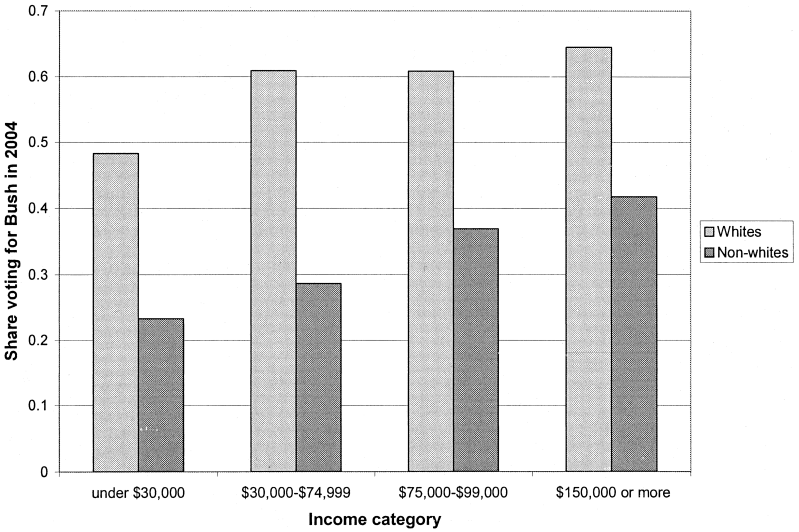

FIGURE I
Income and Republicanism in the 2004 Election
Data are from the National Election Pool Exit Poll 2004. Data include voters voting for Democratic or Republican candidate in the November 2004 presidential election. Shares are weighted as recommended by the data providers.

be infringed," while the Democrats in the same year "stand proudly for a woman's right to choose." We will refer to such divergent party platforms as extremism.

Traditional median-voter results (e.g., Hotelling [1929]) make extremism difficult to understand. After all, vote-maximizing politicians are supposed to cater to the middle, not the edges of the distribution (see Downs [1957] and Becker [1958]), at least in majoritarian systems [Cox 1990]. Political theorists who try to explain extremism emphasize the primary system or the ideological preferences of the candidate or party leaders (as in Alesina [1988]).[2] While the primary system is important and politicians' preferences certainly matter, this paper explains why extremism occurs for purely strategic, i.e., vote-maximizing, reasons in a majoritarian system with only one issue.

2. But see Murphy and Shleifer [2004] and Kirchgässner [2003] for recent exceptions. Murphy and Shleifer [2004] show that the effects of social networks on beliefs can lead to an incentive to move away from the political center. Fiorina [1999] reviews the political science literature on polarization.

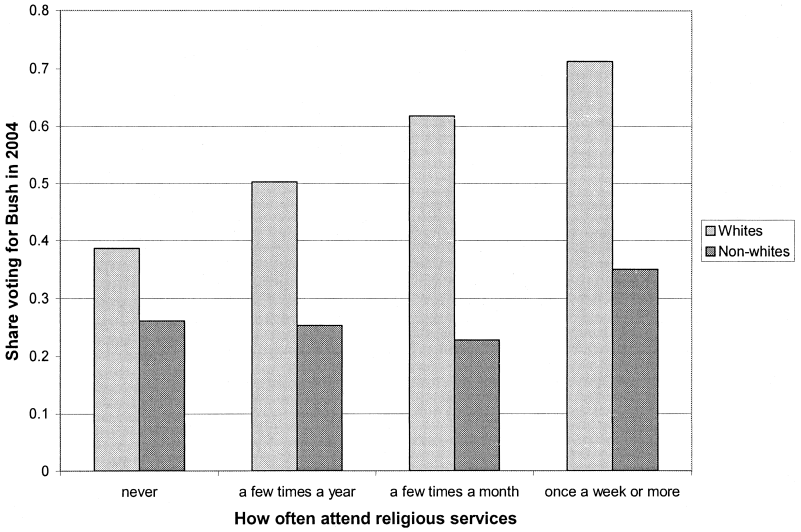

FIGURE II
Church Attendance and Republicanism in the 2004 Election
Data are from the National Election Pool Exit Poll 2004. Data include respondents who voted for a Democratic or Republican candidate in the November 2004 presidential election. Shares are weighted as recommended by the data providers.

There are two necessary conditions for extreme political platforms that deviate sharply from the median voter's preferences to be vote-maximizing. First, as Downs [1957] recognized, there must be two electoral margins: an extensive margin where a politician competes for voters from the other party and an intensive margin where the politician attempts to bring his own voters into the voting booth or elicit financial contributions. If there is no intensive margin and therefore no reason to cater to the party faithful, politicians will lose votes if they move their policies away from the preferences of the median voter. Second, a move away from the center must increase turnout (or donations) among a politician's own supporters more than among his opponent's supporters.[3]

In this paper we present a new model of strategic extremism that explains why a politician deviating from the median

3. Riker and Ordeshook [1973] satisfy these formal requirements with a model in which voters care more about the position of their preferred candidate than about the position of the other candidate. In Section IV we provide evidence inconsistent with this preference-based explanation for extremism.

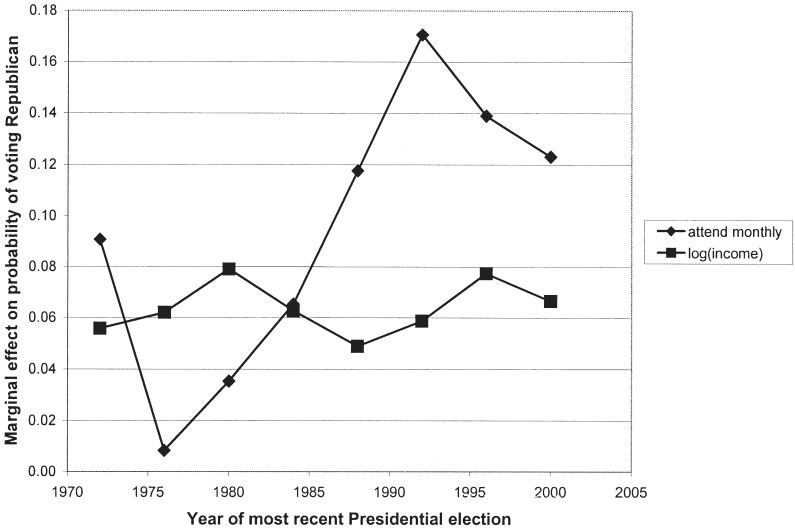

FIGURE III

Trends in the Determinants of Voting Republican

Data are from the General Social Survey. Data reflect marginal effects evaluated at sample means from probit models of the propensity to vote Republican. Sample includes respondents who voted for a Democratic or Republican candidate in the previous presidential election. All regressions include controls for years of schooling, age, age^2, race, gender, and a dummy for missing income data.

will gain more from energizing his own supporters than he loses by further alienating his opponent's supporters. Our key assumption is that awareness of a politician's message is higher among the politician's supporters than among his opponent's supporters. This asymmetry means that when a politician's policies deviate from those preferred by the median voter, he energizes his own supporters (who are more likely to be aware of this deviation) more than he energizes his opponent's supporters (who are less likely to be aware of this deviation). Recent efforts by the Bush and Kerry campaigns illustrate the edge that politicians have in communicating with their own supporters. For example, during the Republican National Convention there was a "closed, invitation-only Bush campaign rally for Christian conservatives" at which "Senator Sam Brownback of Kansas called for a broad social conservative agenda notably different from the televised presentations at the Republican convention" [Kirkpatrick 2004b]. The Kerry

campaign also appeared to be targeting public appearances to reach loyal Democrats [Borsuk 2004].[4]

In Section II we begin by briefly addressing the issue of voter turnout. Is it plausible that politicians can be tailoring their messages to increase turnout? Both politicians and commentators argue that Democrats and Republicans target messages at particular voters in an attempt to increase turnout. Voter turnout appears to respond to the dimensions along which politicians differ. For example, turnout among the highly religious increased by seven percentage points from 1976, when Republicans and Democrats barely differed on religion-related issues, to 1984, when Reagan faced Mondale in a race with much starker divisions.

In Section III we present our model of strategic extremism. With only one political issue, extremism increases with the variance of voter preferences, the informational asymmetry between a politician's supporters and his opponent's, and the ability of politicians to target political messages to their supporters. When voters differ along two attributes, such as the desire for income redistribution and abortion-related policies, extremism is more likely along the issue where there is greater heterogeneity of preferences [Mullainathan and Shleifer 2005; Irmen and Thisse 1998]. Extremism is also more likely along the issues that determine informational groups. If a candidate's audience is particularly defined by religion, than the candidate will be more extreme in his religious positions. If the candidate's audience is defined by economics, the economic policies will become more important. These findings echo Murphy and Shleifer's [2004] discussion of the role of social groups in politics.[5]

After presenting the model, Section IV discusses alternative explanations for extremism. A key difference between a model of strategic extremism and a model in which extremism reflects politicians' preferences is that, when extremism is strategic, politicians' policies will be more moderate than their messages. When extremism reflects leaders' preferences, policies will be more extreme than political messages. We examine policies and plat-

4. See Farrell and Gibbons [1989] for a different approach to communication with multiple audiences.

5. We use the term social group to distinguish these groups from pressure groups and interest groups, which have received considerable attention in the literature (see Becker [1983], Dixit and Londregan [1995], and Grossman and Helpman [2002]).

forms on tax policy and abortion over the last 25 years to test these implications. The economic messages in platforms are extremely moderate, but there are big differences in mean tax rates between Democratic and Republican regimes. Conversely, political messages about abortion tend to extremes, but abortion rates are independent of the party in power. These results suggest that differences in economic policies between the parties reflect the preferences of party leaders but that differences in abortion and other religion-related policies reflect political strategy.

In Section V we examine a key prediction of the model: religious determinants of political orientation will be maximized when about 50 percent of the population attends church regularly. There is a strong nonmonotonic relationship across countries between church attendance at the national level and the extent to which religion determines right-wing orientation. In countries with very low levels of church attendance, such as Norway or Russia, religion is uncorrelated with political preferences. The same fact is true in countries, like the Philippines, with very high levels of religious attendance. The countries with strong connections between religion and political orientation are all those, like the United States, where about one-half of the population attends church once per month or more. This fact persists when we examine changes in religiosity across countries over time rather than cross-sectional differences in religiosity across countries. After looking across countries, we turn to American states. Since there are few states where much less than one-half of the population attends church regularly, we focus on whether increased church attendance decreases the extent to which religiosity determines voting Republican. In states like Mississippi, with high attendance levels, there is little connection between religion and political orientation. In low-attendance states like California there is much more connection between religiosity and being a Republican.

II. Motivating Evidence on Extremism and Voter Turnout

II.A. Divergence of Party Platforms

Over the last three decades, Republican and Democratic platforms have moved definitively away from the center on religious values. Consider, for example, trends in party platform statements about abortion. Between 1976, the first year in which

either party's platform mentioned abortion, and 2004, the Republican party moved to the right on this issue:

> We protest the Supreme Court's intrusion into the family structure through its denial of the parents' obligation and right to guide their minor children. The Republican Party favors a continuance of the public dialogue on abortion and supports the efforts of those who seek enactment of a constitutional amendment to restore protection of the right to life for unborn children [Republican Party Platform 1976].
>
> As a country, we must keep our pledge to the first guarantee of the Declaration of Independence. That is why we say the unborn child has a fundamental individual right to life which cannot be infringed. We support a human life amendment to the Constitution and we endorse legislation to make it clear that the Fourteenth Amendment's protections apply to unborn children. Our purpose is to have legislative and judicial protection of that right against those who perform abortions. We oppose using public revenues for abortion and will not fund organizations which advocate it. We support the appointment of judges who respect traditional family values and the sanctity of innocent human life [Republican Party Platform 2004].

At the same time, the Democratic platforms trended leftward:

> We fully recognize the religious and ethical nature of the concerns which many Americans have on the subject of abortion. We feel, however, that it is undesirable to attempt to amend the U. S. Constitution to overturn the Supreme Court decision in this area [Democratic National Platform 1976].
>
> We will defend the dignity of all Americans against those who would undermine it. Because we believe in the privacy and equality of women, we stand proudly for a woman's right to choose, consistent with Roe v. Wade, and regardless of her ability to pay. We stand firmly against Republican efforts to undermine that right. At the same time, we strongly support family planning and adoption incentives. Abortion should be safe, legal, and rare [Democratic National Platform 2004].

As Figure III illustrates, and as many political scientists have noted, this trend in party language has been accompanied by a strengthening of the connection between religious attendance and party affiliation (see Layman [1997] and Fiorina [2005]). Recent decades have also witnessed a rise in evangelical Christianity among Republicans and increasing secularization among Democrats (see Layman [1999, 2001]).

In contrast to positions on issues with religious content, much of the verbiage in both platforms on economic issues seems quite moderate and similar across platforms. Indeed, both parties appear to be sending the message that they will reduce the tax burden on American businesses:

> We believe that the private sector, not government is the engine of economic growth and job creation . . . . . Under John Kerry and John Edwards, 99 percent of American businesses will pay less in taxes than they do today [Democratic Party Platform 2004].
>
> Small business . . . . deserve far better treatment from government than they have received. We will provide it through many of the initiatives explained elsewhere in his platform: lower tax rates, ending the death tax, cutting through red tape . . . [Republican Party Platform 2004].

A strong theory of extremism should be able to explain not only why there has been an increase in extremism on religion-related issues over the last three decades, but why extremism seems to be more prevalent on these issues than on matters of economic policy such as taxation.

II.B. The Importance of Voter Turnout

Our model will depend on party leaders' ability to increase turnout by targeting specific populations. There is abundant anecdotal information suggesting that politicians target specific populations and tailor their messages to increase enthusiasm in those populations. Platforms, and citizens' information about these platforms, can meaningfully affect voter turnout. Current mobilization efforts make it clear that politicians are trying to increase turnout by using organizations, such as churches, to communicate platforms and stimulate voter participation. At the West County Assembly of God outside of St. Louis,

> They hold open meetings for parishioners each month. They inform church members about socially conservative electoral issues. They register them to vote at stands outside the sanctuary on designated "voter registration" Sundays. Last week, the "moral action team" even drove church members to the polls, and they plan to do the same for this fall's general election as well . . .
>
> According to campaign memorandums, [the Bush campaign] has asked "people of faith team leaders" to help identify thousands of "friendly congregations" around the country. It asked religious outreach volunteers to petition their pastors to hold voter registration drives, and to speak on behalf of the campaign to Bible studies and church groups [Kirkpatrick 2004a].

These coordination activities are part of a more general strategy which puts "top priority on maximizing voter turnout among conservative constituencies already disposed to back the president" [Calmes and Harwood 2004]. Such anecdotes support the idea that political messages sent to these groups are more extreme than the messages broadcast to the general public. While

the Republican and Democratic conventions both tried to present a mainstream message, there were abundant reports of much more extreme discussions behind closed doors.

A related phenomenon, known as "dog whistle politics," recently emerged in the United Kingdom. The term dog whistle refers to a message that can be heard only by some members of the electorate. For example, Tory language on immigration emphasized that "some immigration is essential"—a message perceived by some as telegraphing to anti-immigration voters that the amount of immigration permitted by the current government is excessive [*The Economist* 2005]. Widespread discussion of dog whistle messages in the popular press suggests that such two-pronged language now plays an important role in British politics, perhaps because of a desire on the part of politicians to ignite the party faithful without energizing their opponents' supporters.

Are politicians right? Is turnout an important margin that can shape presidential elections? Certainly, there have been examples where turnout changed significantly at least in part due to more extreme political platforms. The Republican (and Democratic) move toward extremes on abortion was discussed above. If turnout responds to these more extreme views, then we should expect to see increased turnout among particularly pro-choice or pro-life voters during this period. To examine this possibility, we looked at changes in turnout between 1976 and 1984 by religious attendance. In 1976 both Carter and Ford were relatively centrist on religious issues. In 1984 there was a big gap between the platforms of Reagan and Mondale.

As Figure IV illustrates, the move away from the center on religious issues appears to have had a disproportionately positive impact on turnout among more religious Americans. Among those who attend church more than once a week, the probability of an eligible citizen voting increased by almost five percentage points. Reagan's more extreme policies on abortion and other issues appear to have had a significant impact on the level of voter turnout among religious Americans.

A similar pattern can be detected in the changes in voter turnout among American states between the 2000 and 2004 presidential elections. Among nonbattleground states in which less than half the population attended church monthly in 2000, the rate of turnout among the voting-eligible population increased by 4.7 percentage points. By contrast, in nonbattleground states

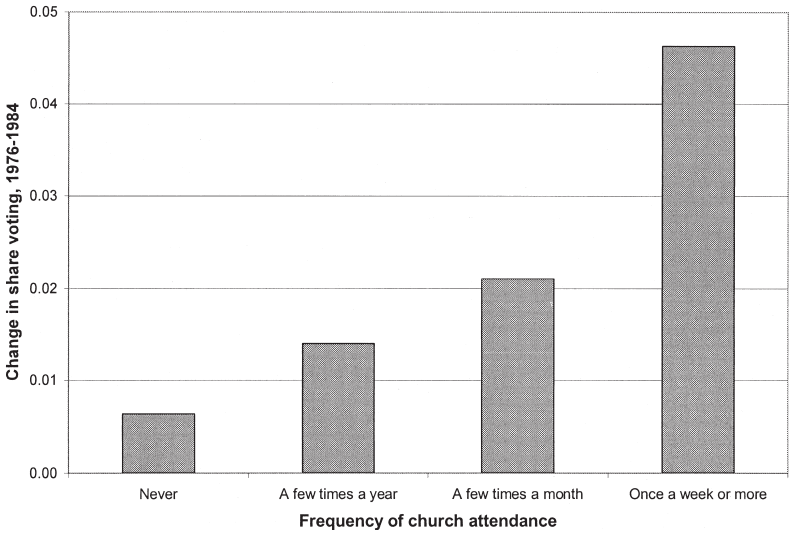

FIGURE IV
Religion and Voter Turnout, 1976–1984

Data are from the General Social Survey 1972–2002 cumulative file. Data reflect shares of respondents in each group participating in the most recent presidential election. "Never" refers to those never attending church. "A few times a year" refers to those who report attending less than once a year, about once or twice a year, or several times a year. "A few times a month" refers to those who report attending about once a month, two to three times a month, or nearly every week. "Once a week or more" refers to those who report attending every week or several times a week.

with a majority of residents attending church monthly in 2000, the increase in turnout was 6.7 percentage points. This difference is economically significant in comparison to the standard deviation of changes in turnout (about 2.3 percentage points), and in comparison to Bush's margin of victory in the two-party popular vote (about 2.8 percentage points). Additionally, when we regress the change in turnout on the share of the population attending church monthly and a control for whether the state was a battleground in 2000, we find a statistically significant positive effect of church attendance.[6] Evidence such as this suggests that voter turnout does create incentives for candidates to move their platforms away from the political center.

6. Data on voter turnout as a share of voting-eligible population are from McDonald [2004] and are calculated using the methodology of McDonald and Popkin [2001]. Data on share attending church monthly are from years 1990–1998 of the DDB Needham Lifestyle Survey described in Putnam [2000].

III. A Model of Strategic Extremism

In this section we present a model where two parties choose policies to attract voters. Our critical assumption is that politicians' policy statements are not directly observed by all citizens, but rather that some party affiliates have a higher probability of learning the party platform. This targeted information assumption generates extremism in cases where standard models predict convergence to the median voter's ideal point.

To see why targeted information generates divergent platforms in equilibrium, consider an extreme case in which each politician's platform is known only to members of his own camp. Consider a proposed equilibrium in which both politicians' platforms agree with the politics of the median voter. In this case, a right-wing politician who treats the left-wing politician's policies as fixed will obtain half of the total vote by sticking at the center. But, if he moves slightly to the right, he will look more attractive to his own supporters, making them more likely to show up at the polls. Since this deviation would be hidden from left-wing citizens, his move will *not* help to energize his opponent's supporters. Thus, the right-wing politician will be tempted to move to the right, and thus platform convergence is not an equilibrium of the game.

By contrast, consider a proposed equilibrium where both politicians propose policies close to the average preferences of their supporters. In this case, a deviation to the right would alienate a right-wing politician's more moderate supporters, and a move to the left would do the same for the extremists in his party. When these forces offset each other, he will want to maintain his position. This is true even when all citizens—including those on the left—correctly anticipate the platform that the right-wing politician will pursue in equilibrium. Even if left-wing citizens know that the right-wing politician will take an extreme position, the right-wing politician has no incentive to move to the center. As new policies are only observed by the right-wing politician's own supporters, moving to the center will alienate these right-wing voters and generate no support among opposing voters. The important force that maintains divergent platforms is not hidden information in equilibrium, but rather hidden information out of equilibrium: the fact that politicians can deviate from their equilibrium strategies in ways known only to members of their own camp.

Formally, we assume that two parties, labeled L and R, compete for votes. Each party chooses a policy proposal to maximize the difference between its votes and the votes of its opponent.[7] After a party chooses its policy proposal, a set of citizens see that proposal; others do not see the proposal. In equilibrium, all citizens have correct beliefs about parties' platforms, but, importantly, some would not directly observe deviations from equilibrium play.

Citizens receive utility from voting for politicians whose proposed policies are close enough to their own, and utility from voting against politicians whose policies are different enough from their own. There are also costs of voting, which differ among individuals, and people vote only when the utility gains from voting outweigh the costs of voting.[8] By assuming that people get utility directly from voting, we are deliberately sidestepping the thorny issue of why people vote. The most straightforward justification for this assumption is that voters' decisions are emotional, not based on any estimation of how their votes will impact government policy [Schuessler 2000]. It is also possible to interpret the changes to voter utility from voting as reflecting voters' utility under different policy regimes. However, this interpretation requires policy proposals to have predictive content (or be binding) and for individuals to overestimate the relevance of their vote to political outcomes.

There exists an n-dimensional policy space represented by $[-1,1]^n$. We refer to policies with negative values as left-wing positions and policies with positive values as right-wing positions. Voters have preferences represented by an ideal point in this space, and parties propose policies or platforms which are also points in this space. The distribution of citizens' ideal policies along each dimension of the policy space is independent and symmetric around the origin. As the origin represents the preferred policy of the median voter, we will refer to the distance between the origin and parties' proposed policies as the extent of extremism. Each citizen is also characterized by a cost of voting,

7. This specification would be consistent with politicians maximizing the probability of victory if, for example, each party's vote totals were affected by exogenous shocks whose difference is uniformly distributed. We therefore take it to be an approximation of politicians' objective functions in a deterministic context such as the one we analyze.

8. The phenomenon of voters basing turnout on the intensity of their preference for the preferred candidate has sometimes been called "abstention from alienation" [Guttman, Hilger, and Shachmurove 1994].

c, which is independent of policy preferences and characterized by cumulative distribution function $Z(c)$. The timing of the model is the following:

1. All citizens have conjectures $\bar{\mathbf{x}}^P \in [-1,1]^n$ about the political proposal of each party P, and potentially an informational affiliation with one or both parties.
2. Parties simultaneously choose platforms in the space $\mathbf{x}^P \in [-1,1]^n$ to maximize their margin of victory, and these platforms are observed by a fraction $\bar{\theta}$ of the party's affiliates, and by a fraction $\theta \leq \bar{\theta}$ of nonaffiliates. Citizens who do not observe the platform maintain their initial conjectures $\bar{\mathbf{x}}^P$ about party platforms.
3. The election is held, and citizens decide whether to vote and, if so, for which party.

We will define an equilibrium as a set of conjectures and platforms where all conjectures are correct given the eventual platforms, and each party's platform maximizes its margin of victory holding constant the actions of the other party and the beliefs of those who do not observe the platform directly (share $(1 - \theta)$ of nonaffiliates and share $(1 - \bar{\theta})$ of affiliates). Although the assumption of correct conjectures in equilibrium is standard, it is not necessary, and our proofs allow for more general beliefs.

We solve the model recursively starting at period 3 and the voting decision. Each citizen receives utility from voting for party P equal to

$$S_P = B - \sum_{i=1}^{n} \mu_i M(|\hat{x}_i^P - x_i^*|), \quad \text{where} \quad \sum_{i=1}^{n} \mu_i = 1,$$

where B measures the psychological gain from expressing support for one's favorite policy vector $\mathbf{x}^*$, the weights μ_i represents the salience of each dimension of the policy space in citizens' minds, and $M(\cdot)$ is an increasing, convex, and bounded function. The function $M(\cdot)$ captures the fact that citizens will receive less utility if they vote for a candidate whose perceived policy proposals $\hat{\mathbf{x}}^P$ differ from their own ideal proposals. People also receive utility from voting against party P equal to $-S_P$. The benefit from voting is then given by

$$V(\mathbf{x}^*,\hat{\mathbf{x}}^L,\hat{\mathbf{x}}^R) = \max\left\{ \begin{array}{l} \Sigma_{i=1}^n \mu_i[M(|\hat{x}_i^L - x_i^*|) - M(|\hat{x}_i^R - x_i^*|)], \\ \Sigma_{i=1}^n \mu_i[M(|\hat{x}_i^R - x_i^*|) - M(|\hat{x}_i^L - x_i^*|)] \end{array} \right\},$$

which is less than an upper bound $\bar{V}$. Conditional on voting,

people will support the party that is closer to their ideal platform, and as the act of voting imposes a cost c, people will vote when

$$c \leq V(\mathbf{x}^*, \hat{\mathbf{x}}^L, \hat{\mathbf{x}}^R).$$

We assume that c has full support on the interval $[0,\bar{V}]$, so that for every possible vector of voter preferences there are always voters who abstain. Parties anticipate that voters will make their decisions in this manner, and in period 2 of the game, they select their proposed policy to maximize their votes minus the opponent's votes, taking the opponent's proposed policy as given.

We make two assumptions about functional forms that greatly simplify calculations.

ASSUMPTION 1. The loss function is quadratic:

$$M(|\hat{x}_i^P - x_i^*|) = (\hat{x}_i^P - x_i^*)^2.$$

ASSUMPTION 2. The distribution of the cost of voting is uniform:

$$Z(c) = \begin{cases} 0 & \text{if } c < 0 \\ c/\bar{V} & \text{if } c \in [0,\bar{V}] \\ 1 & \text{if } c > \bar{V}. \end{cases}$$

Assuming functional forms for preferences is costly because we have lost the ability to consider the empirical implications of different forms of loss functions. As loss functions are not directly observable, this problem may not be too severe. The assumption of a uniform distribution of voting costs is also restrictive, and in Proposition 2 below we consider the implications of a possible generalization.

III.A. Political Competition with One Issue

Extremism requires that immoderation has a stronger positive impact on one's own supporters than it has a negative impact on the opponent's voters. In this model, differential impact occurs because the politician's affiliates are more aware of changes in the politician's policies. This differential awareness might occur because individuals pay more attention to their own candidate, but it can also result from politicians strategically targeting where they broadcast their messages. Examples of this targeting include direct mailing, television ads in particular markets, speeches to the party faithful, and the use of allies, like religious leaders or unions, to broadcast information to a particular group. The model requires politicians to have some ability to provide

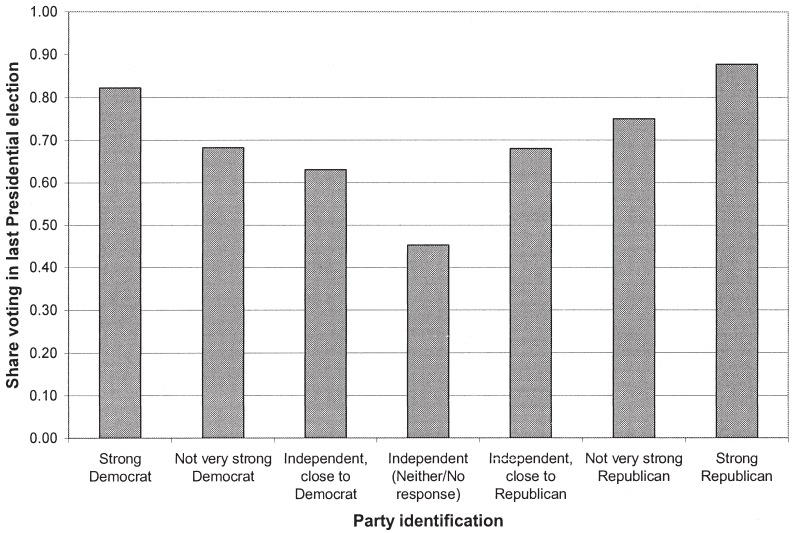

FIGURE V
Ideology and Voter Turnout
Data are from the General Social Survey 1972–2002 cumulative file. Data reflect shares of respondents in each group participating in the most recent presidential election.

their own supporters with more information about proposed policies.

In this section we assume that there is only one policy dimension. As such, a voter whose ideal policy is x_i^* and who believes that the two parties are offering policies $\hat{x}_i^R$ and $\hat{x}_i^L$ will perceive net benefits of $2x_i^*(\hat{x}_i^R - \hat{x}_i^L) - (\hat{x}_i^R)^2 + (\hat{x}_i^L)^2 - c$ of voting for the right-wing candidate R. When $\hat{x}_i^R > 0 > \hat{x}_i^L$, then the net benefits of voting for the right-wing candidate always rise with x_i^*, and the net benefits of voting for the L candidate always fall with x_i^*, so these assumptions predict the pattern of voter turnout seen in Figure V.

Given these assumptions about voting behavior, if a party has some affiliates who are more likely to be aware of the party platform, and if those affiliates do not have views that perfectly mirror those of society as a whole, then the median voter result vanishes.

PROPOSITION 1. A party with a positive measure of affiliates will adopt a platform that coincides with the position of the me-

dian voter if and only if there is no informational difference between affiliates and nonaffiliates ($\bar{\theta} = \theta$) or there is no difference between the ideal policies of the average affiliate and the average voter.

The proposition tells us that any informational difference among voters is enough to break down the rush to the center. We now consider the platform decision of a party with right-wing affiliates and the determinants of the extremism of this party's platform. A natural measure of extremism is the value of x^R which captures the distance between the party's platform and the ideal platform of the median voter. (Symmetric results apply to party L.)

PROPOSITION 2. If party affiliates are on average better informed about the party platform ($\bar{\theta} > \theta$) and more conservative than nonaffiliates, the party will adopt a right-wing platform, so $x^R > 0$.

The party's extremism (i.e., the value of x^R) is increasing in its ability to convey information to its affiliates ($\bar{\theta}$), and decreasing in its tendency to convey information to nonaffiliates (θ). The value of x^R increases as the number of party affiliates increases (holding their average ideal policy constant) and increases as the average ideal policy within party affiliates becomes more conservative (holding the number of party affiliates constant).

If right-wing party affiliates include all citizens i for whom $x_i^* > 0$ and no others, then extremism is increasing in the heterogeneity of voters' preferences (as measured by the mean deviation of their distribution).

If the distribution of the cost of voting is generalized to include a point mass $z_0 \in [0,1]$ of voters with zero cost of voting as well as a uniform density of voters $z(c) = (1 - z_0)/\bar{V}$ for all $c \in [0,\bar{V}]$, extremism can only emerge if $z_0 < 1$ and its extent (i.e., the value of x^R) is monotone decreasing in z_0.

This proposition has several elements. First, it shows that any party whose affiliates are more conservative than the national norm will tend to choose a conservative platform. This result will be true even if both parties have an information advantage in reaching conservative voters. In that case, both parties will choose conservative platforms, so the first result

highlights that policies will cater to groups that are more likely to be aware of party platforms.

This proposition also yields comparative statics on the extent of extremism. Extremism is more likely when the information asymmetry between affiliates and nonaffiliates is greater. If the news media rapidly ensure that any speech given to the party faithful is broadcast universally, then this will reduce extremism relative to a world in which these speeches are kept private. Extremism is also a function of the number of party affiliates. When there are few party affiliates, then it makes little sense to cater to them by taking an extreme position. As the number of party affiliates rises, the gains from appealing to them also rise. The amount of extremism will also rise with the amount of sorting into the affiliate group. As the group that is particularly aware of changes to party platforms becomes more extreme, then policies will also become more extreme. If we further assume that everyone whose views are to the right of some cutoff is a party affiliate, then extremism rises with the heterogeneity of voters' preferences.

The last result in the proposition shows that further comparative-statics results can be obtained by generalizing the distribution of the cost of voting. Specifically, we modify the uniform distribution by adding a point mass in the origin, representing a group of people who always turn out to vote. The larger this group, the less important is the turnout margin, and the closer is the outcome to the median-voter result.

III.B. Political Competition with Two Issues

We now focus on the case with two issues A and T where issue T carries weight $\mu \in (0,1)$ in voters' utility function. These letters might stand for abortion and taxes. An individual who perceives the two parties has having platforms $(\hat{T}_L,\hat{A}_L)$, $(\hat{T}_R,\hat{A}_R)$ and whose ideal policies are (t,a) receives benefits from voting for the R candidate equal to two times:

$$\Delta(t,a;\Omega) = \mu(\hat{T}_R - \hat{T}_L)\left(t - \frac{\hat{T}_L + \hat{T}_R}{2}\right) + (1-\mu)(\hat{A}_R - \hat{A}_L)\left(a - \frac{\hat{A}_L + \hat{A}_R}{2}\right),$$

where Ω is the belief set $((\hat{T}_L,\hat{A}_L),(\hat{T}_R,\hat{A}_R))$. The benefits of voting for the L candidate are -1 times that amount.

We consider the optimal policy choice for party R; the choice for party L remains symmetric. The probability of a voter being an affiliate is described by the function $\pi_R(t,a)$ of his ideal policies. Extremism in the T dimension equals T_R and extremism in the A dimension is A_R, i.e., the difference between the policy platforms and the preferences of the median voter. The core results of the previous section extend to two dimensions, but now we can also make predictions about which issues are most prone to extremism.

PROPOSITION 3. A party with a positive measure of affiliates will adopt a platform that coincides with the position of the median voter if and only if there is no informational difference between affiliates and nonaffiliates ($\bar{\theta} = \theta$) or there is no difference between the ideal policies of the average affiliate and the average voter along either policy dimension. If party affiliates are on average better informed about the party platform ($\bar{\theta} > \theta$) and more conservative than nonaffiliates along both dimensions, then the party will choose a platform that is right-wing along both dimensions. The party's extremism along both dimensions will increase with its ability to convey information to its affiliates ($\bar{\theta}$) and to withhold it from nonaffiliates ($-\theta$); moreover, it will increase as the number of party affiliates increases (keeping their average ideal policy constant), or their average conservatism increases (keeping their number constant).

The party platform will be more extreme on the issue where the average preference of affiliates is more different from the median-voter position ($T_R \gtreqless A_R \Leftrightarrow E(t|R) \gtreqless E(a|R)$). If all voters for whom $t + a > 0$ are party affiliates, then a monotonic increase in the heterogeneity of voters' preferences on one issue increases extremism on that issue and reduces it on the other.

The first part of this proposition directly repeats the core results of the previous subsection. Extremism occurs whenever there is some ability to target information to a group whose preferences differ from the preferences of the nation as a whole. Again, extremism rises with the degree to which information can be targeted and also with the size and bias of the group of party affiliates.

The second part addresses the question of which dimensions will tend to dominate party politics. Will parties differ from the median voter primarily along dimension T or dimension A?

Parties' extremism is determined by the preferences of their affiliates. If their affiliates are particularly chosen on the basis of dimension A, then the parties will divide more clearly over that dimension. As such, if religious views exert a stronger push toward political involvement, then we might expect religious issues to divide parties.

The final result in the proposition emphasizes the importance of belief heterogeneity in the population as a whole. Differences of opinion or circumstance will also increase extremism, and extremism will be more likely on the issue with greater heterogeneity. Greater heterogeneity of opinion on religion-related issues over the past 30 years might explain some part of the rising political differentiation based on religion. Presumably, rising income inequality would tend to create further differentiation on economic grounds, although this does not seem to have happened over the last 30 years. There is, however, a case that rising inequality during the late nineteenth century led to a political shift where parties, such as the Democrats with William Jennings Bryan, began to become more extreme in economic platforms (as opposed to classic divisions based on the Civil War, Prohibition, and religion or "Rum, Romanism, and Rebellion").

Thus far, we have demonstrated that the presence of affiliate groups whose members are privy to information about party platforms can generate extremism, and that the degree of extremism depends on the importance of the turnout margin, the degree of informational differences between affiliates and nonaffiliates, the heterogeneity of voter preferences, and the size and preferences of the affiliate group. In the next two subsections we turn to the question of how affiliate groups are formed.

III.C. Social Organizations and Party Affiliation

In our model, party affiliation means differential access to information about the party platforms. One way in which parties may gain the ability to broadcast messages is to have access to a selected subgroup of the population, such as a church or a union. In this subsection we take the existence of such subgroups as given, and ask how their existence influences the choice of political platform. We assume that there is no way to target voters other than to have access to these particular groups. We assume that there are two groups, whose membership is deterministic and not exclusive nor exhaustive. The first, which we label "the church," comprises all voters with a sufficiently conservative pref-

erence with respect to issue a; the second, which we label "the union," comprises all voters with a sufficiently progressive preference with respect to issue t. If we further assume that party R has a relationship with the church and can broadcast its platform to church members, and party L can broadcast its message particularly to union members, then Proposition 4 follows.

PROPOSITION 4. If party R has access, through the church, to all voters for whom $a > \alpha$ and party L has access, through the union, to all voters for whom $t < \tau$, then both parties will move away from the median-voter position whenever $\bar{\theta} > \theta$. The R party platform will differ from zero only along the a dimension, and the L party platform will differ from zero only along the t dimension.

R-party extremism is maximized at a value of α in the interval $(0,(\bar{\theta} - \theta)/(\bar{\theta} + \theta))$, and L party extremism is maximized at a value of τ in the interval $(-(\bar{\theta} - \theta)/(\bar{\theta} + \theta),0)$. The value of α that maximizes R-party extremism is increasing in the party's ability to convey information to its affiliates ($\bar{\theta}$) and to withhold it from nonaffiliates ($-\theta$); the value of τ that maximizes L-party extremism is decreasing in the same parameters.

Since the value of α that maximizes extremism is in the interior of the interval $(0,(\bar{\theta} - \theta)/(\bar{\theta} + \theta))$, the relationship between extremism and group size is necessarily nonmonotonic. Moreover, extremism is maximized when less than one-half of the population is in the group. As group size decreases from its extremism-maximizing level, the gains from extremism fall because the group becomes increasingly small and politically marginalized. As group size increases from its extremism-maximizing level, the gains from extremism also fall because the group itself becomes increasingly moderate and representative of the country as a whole. When we make stronger assumptions about preferences, the relationship between extremism and group size becomes more straightforward.

Consider, for example, the case of a uniform distribution of preferences on the interval $(-1,1)$, with $(\bar{\theta} - \theta)/(\bar{\theta} + \theta) = 0.2$. The assumption that $(\bar{\theta} - \theta)/(\bar{\theta} + \theta) = 0.2$ means that the probability that a church member learns of the R party platform is 3/2 of the probability that a nonchurch member learns of that platform. Given this assumption, extremism is maximized when the church contains 45 percent of the population. When $(\bar{\theta} - \theta)/(\bar{\theta} + \theta) < 0.2$,

i.e., there is less information asymmetry, the extremism-maximizing church size lies between .45 and .5. When $(\bar{\theta} - \theta)/(\bar{\theta} + \theta) = 0.3$, the extremism-maximizing church size is .42; and when $(\bar{\theta} - \theta/(\bar{\theta} + \theta) = 0.1$, the extremism-maximizing church size is .47.

Are affiliate groups beneficial to their respective parties? In fact, if citizens' beliefs about parties' positions are correct in equilibrium, each party would prefer to drop its affiliate group. Since all citizens correctly anticipate the strategy each party will play, any gains from secret moves to the right or left are eliminated in equilibrium. By dropping its affiliate group, a party essentially commits not to make secret deviations, and it therefore achieves the benefits of being expected to stick to the middle. Of course, affiliate groups can be beneficial, if some voters have incorrect beliefs, or if affiliate groups provide other advantages.[9]

III.D. Endogenous Affiliation

We have so far assumed that groups are formed exogenously and then used by politicians. In some settings, however, it is more natural to think of voters as choosing their own group affiliations, which in turn affect the messages they receive. For example, voters with different views may choose to use news media with different political orientations (see Mullainathan and Shleifer [2005], Gentzkow and Shapiro [2005], and Gentzkow, Glaeser, and Goldin [2004]) or may affiliate with a church or organization because of their political opinions. In this section we show that our core results are robust to allowing citizens to choose their own group in an initial stage of the model.

This stage will be based on initial beliefs about party platforms and must occur before the parties broadcast their platforms. A natural basis for affiliation could be the original position of the parties: specifically, we suggest that the electorate is initially split among right-wingers and left-wingers based on their relative preference for the platforms $\bar{\mathbf{x}}^L$ and $\bar{\mathbf{x}}^R$ that they originally believe the parties to be adopting. The benefit from affiliating with a party equal

$$J_P(\mathbf{x}^*) = \Gamma - \sum_{i=1}^{n} \lambda_i (\bar{x}_i^P - x_i^*)^2 \quad \text{with} \quad \sum_{i=1}^{n} \lambda_i = 1.$$

9. For example, if voters incorrectly believed that a party had unpopular policies for historical reasons, the ability to access an affiliate group and change its opinions could be quite valuable.

We further assume that this is always positive, which means that everyone will always affiliate with one of the two parties.[10] (This assumption will tend to reduce extremism since many moderates will avoid party affiliation if affiliation can be costly.) A particularly natural assumption is that the values of λ_i, that determine affiliation, are the same as the parameters, μ_i, that determine voting, but we present results here for the more general case. Finally, we will specialize for simplicity to the unidimensional case ($n = 1$), noting that we provide a partial characterization of equilibria in the two-dimensional game in Glaeser, Ponzetto, and Shapiro [2004].

We assume that people's initial beliefs about party platforms are rational in the sense that they correctly anticipate the parties' equilibrium platforms; moreover, we focus on equilibria in which the parties' positions in the policy space are symmetric around the origin. We can then prove the following.[11]

PROPOSITION 5. The one-dimensional political game with endogenous affiliation has a unique pure-strategy rational-expectations equilibrium in which the parties' positions are symmetric around the origin, and in this equilibrium party R locates at $\xi = (\bar{\theta} - \theta)E(|x|)/(\bar{\theta} + \theta)$. Extremism (or ξ) increases with $\bar{\theta}$, decreases with θ, and increases with the heterogeneity of voters' preferences (as measured by the mean deviation of their distribution).

Thus, the key comparative statics of our model remain in the case where affiliation is determined endogenously.

This model helps us consider the welfare consequences of strategic extremism. Since parties' positions are symmetric, both parties have an even shot at victory, just as they do in a standard

10. We assume that affiliation is randomized with equal probabilities if $J_L = J_R$.

11. It is possible to have an equilibrium where both parties are expected to choose the median position, affiliation with the two parties is completely random, and parties do therefore continue to choose the median policy. However, this equilibrium is highly unstable in the sense that it would break down if there is any deviation in affiliation, so that both parties do not have ideologically identical affiliates. As soon as there is any deviation in the distribution of affiliates, the parties have an incentive to choose extreme policies.

We do not find this equilibrium interesting because of its instability, and we assume that there is some differentiation in initial beliefs about the parties' platform. As long as there is some difference in initial beliefs, even if that difference is arbitrarily close to zero, citizens affiliate with party R if their ideal policy is $x^* > 0$ and with party L if $x^* < 0$. Symmetry then means that both final policies and initial beliefs about policies will be symmetric around the origin.

Hotelling model with no private information. Thus, political parties' welfare is unaffected by the option to secretly go extreme. The median voter, on the other hand, is made worse off by targeted messages, since they lead to equilibrium deviations from the median voter's ideal point, and thus to welfare losses for the average citizen.

IV. Alternative Explanations of Extremism

IV.A. Political Extremism as a Result of Voters' Preferences

In the previous section, extremism had a stronger positive impact on one's own supporters than it had a negative impact on the opponent's voters because of different awareness of changes in the political platform. However, extremism can also come about because citizens care more about the platform of the candidate they support than about the candidate they oppose. In such a model (presented formally in Riker and Ordeshook [1973, p. 359], as well as in Glaeser, Ponzetto, and Shapiro [2004]), parties will have an incentive to diverge from the median voter's preferred party because of the turnout margin, since the gain from increases in turnout among a candidate's own supporters exceeds the losses from increasing turnout among his opponent's supporters.

Technically, such a model has the undesirable property that it requires greater mass away from the median voter—that is, citizens' preferences must be clustered at the extremes of the distribution. More substantively, the assumption that voters care more about the platforms of their own candidates seems arbitrary, as well as at odds with much anecdotal description of the motivations of John Kerry's supporters in the 2004 United States presidential election. Finally, this model generates the testable prediction that voter turnout will be highest for voters whose policies exactly match those of the candidates, not for voters in the extreme tails of the ideological distribution. Yet Figure V shows that voter turnout is monotonically rising with self-described ideological extremism (data from the General Social Survey, 1972–2002).[12] Unless we believe that party platforms are at the extremes of the preference distribution, these data seem to

12. Rosenstone and Hansen [1993] also find that individuals with stronger party identification are more likely to participate in elections.

reject the prediction that turnout is declining in distance from the platform. By contrast, our model of strategic extremism predicts that turnout will be higher in the extremes of the preference distribution, as long as there is any difference between the platforms of the two candidates.

Taken together, these arguments suggest that voters' preferences are not a satisfactory explanation for the divergence in party platforms from the preferences of the median voter. In the next subsection we consider the alternative view that the preferences of candidates or parties are instead responsible for this behavior.

IV.B. Strategic Extremism versus Candidate Preference Extremism

In this subsection we allow politicians to have preferences over policies, and we address the policy decisions of politicians after they have been elected. The key implication of the theory is that platforms will be more extreme than policy outcomes when extremism is strategic, but less extreme when extremism reflects candidate preferences (or the primary process). We assume that politicians weigh their desire to fulfill their own policy preferences against their desire not to contradict their stated party platforms. We assume that politicians' choices in the election are not impacted by these ex post considerations. (This assumption can be justified if politicians' preferences are lexicographic and they care about winning more than anything else.)

The party that wins the election subsequently decides which policy to enact by weighing two considerations: the personal preferences of the politician in office, and the political cost of being seen to deviate from one's electoral platform. Specifically, we assume that

$$U_P(\mathbf{x}) = G - \beta \sum_{i=1}^{n} v_i L(|x_i - x_i^*|) - (1 - \beta) \sum_{i=1}^{n} v_i L(|x_i - x_i^P|),$$

$$\text{where} \quad \sum_{i=1}^{n} v_i = 1,$$

where $\mathbf{x}^*$ denotes the preferences of the politician and $\mathbf{x}^P$ his electoral platform, $\beta \in [0,1]$, and $L(\cdot)$ is an increasing and strictly convex function on $\mathbb{R}^+$ such that $L(0) = 0$. We assume that

R-party politicians have preferences that are equally conservative on all issues $\mathbf{x}^* : x_i^* = x_R^* \geq 0 \forall i = 1, \ldots, n$ while analogously L-party politicians have preferences that are equally progressive on all issues $\mathbf{x}^* : x_i^* = x_L^* \leq 0 \forall i = 1, \ldots, n$.

For simplicity, suppose that $L(\cdot)$ is quadratic, so that $L(z) = z^2$ for all z. Then, considering the standard case where party R's platform is unambiguously right-wing and party L's unambiguously left-wing ($\mathbf{x}^R \geq 0 \wedge \mathbf{x}^L \leq 0$), the first-order condition for a maximum immediately proves the following.

PROPOSITION 6. The enacted policy is a linear combination of the electoral platform and the elected politician's ideal policy

$$\mathbf{x} = \beta \mathbf{x}_P^* + (1 - \beta)\mathbf{x}^P,$$

where P denotes the party of the electoral winner. Therefore, the enacted policy is more extreme on one issue than on another if and only if the electoral platform is.

This provides some intuition about the issues on which policy extremism ought to exceed platform extremism, and vice versa. In particular, consider a two-dimensional case in which party R wins the election. Let (T_R, A_R) denote the party's platform, and x_R^* its ideal policy on both issues. It then follows immediately that the enacted policy of party R is more conservative than its platform on issue T and less conservative than its platform on issue A if and only if $T_R < x_R^* < A_R$. Therefore, if extremism is driven by strategic concerns, not preferences, then we should expect to see extreme platforms, and less difference in actual policies. If extremism is driven by preferences, then platforms will be more moderate than eventual policies.

A clean test of these predictions is beyond the scope of this paper. As a starting point, however, we note that the number of abortions per 1000 live births from 1970–2000 was about 313 in years with a Democrat in the White House and 294 in years with a Republican in the White House—a small and statistically insignificant difference ($p = 0.4710$ in a two-sided t-test). By contrast, in the case of taxes, the data show more divergence in policy than in rhetoric. Under Democratic administrations, mean tax rate as a share of GDP was about 11 percent, as compared with 10 percent under Republican and administrations during fiscal years 1970–2000. This difference is statistically distinguishable from zero ($p = 0.0002$) and large, representing about

one-standard deviation in the tax share over this time period. Moreover, the difference survives controls for the average annual unemployment rate. Though these facts are consistent with the view that platforms diverge more than policies on abortion, whereas the reverse occurs on taxes, the myriad institutional factors that come between the president and the outcomes we measure mean that these findings must be taken as preliminary and suggestive rather than conclusive. Hopefully, future work will undertake more careful measurement of the differences between stated platforms and realized policies in order to tease apart the alternatives we have outlined in this subsection.

V. Evidence on Organization Size and Political Extremism

The previous section emphasized that strategic extremism is a function of social organizations and underlying belief heterogeneity. In our empirical work we will focus primarily on social organizations, largely because organization size is more straightforward to measure in a way that is comparable across space and time. Additionally, heterogeneity in beliefs seems more likely to itself be caused by political strategies, which seems a less significant concern in the case of organization strength.

We focus on churches, one of the developed world's most important social organizations. This organization is without peer for its combination of size, significance to its members, and history. Within the United States, 89 percent of respondents in the General Social Survey since 1990 report being a member of a religious group. Churches are also particularly natural topics of investigation because we know that they regularly connect with politics. In many European countries, while the Church does not explicitly endorse candidates, church resources and preaching have often backed Christian Democratic candidates. Within the United States as well, right-wing candidates today regularly seek support from church leaders and try to connect to the church faithful.[13] Churches are natural social organizations to study also because they have obvious policy domains. Churches do not naturally sort along economic or foreign policy lines, and as such, we should particularly expect to see links between the size of reli-

13. Additionally, while the historical relationship between the right and the church may explain anticlericalism in the European left, it is hard to tell a similar story for the United States. Some role for the endogenous formation of party platforms seems essential.

gious organizations and the degree to which politics is polarized along religious grounds.

We will focus on the key, and perhaps somewhat surprising, implication of the model about the role of social groups that the link between group size and political polarization along the issue related to that group is nonmonotonic. This leads us to two related tests of the hypothesis. First, in situations where church membership size varies between zero and 100 percent, we will test for the existence of a nonmonotonic relationship between church size and the political relevance of religion. Second, in situations where church membership is mostly greater than one-half of the population, we will look for a decreasing relationship between group size and the political relevance of the group's core issue.

Our basic measure of polarization along religious grounds is the extent to which religiosity predicts supporting the right-wing candidate. In almost no cases is there a reversal where religious people are more likely to support the left. If there is a tight connection between religion and supporting the right-wing candidate, we will consider a place to be highly polarized along religious grounds.

As such, for our cross-country work on church size, our core regression will take the form,

$$\begin{aligned}\text{Support for the Right} = {} & b * \text{Religious Belief} \\ & + c * \text{Religious Belief} * \text{National Church Size} \\ & + d * \text{Religious Belief} * (\text{National Church Size})^2 \\ & + \text{Controls} + \text{Country and Year Fixed Effects}.\end{aligned}$$

The model predicts that c will be positive and d will be negative and that the maximum impact of religious belief occurs in countries where around one-half of respondents attend church regularly.

In our cross-state work on religion, we will estimate

$$\begin{aligned}\text{Support for the Right} = {} & b * \text{Religious Beliefs} \\ & + c * \text{Religious Beliefs} * \text{Church Size} + \text{Controls} \\ & + \text{State and Year Fixed Effects}.\end{aligned}$$

The model predicts that c will be negative in this case, since more than one-half of the population are generally religious adherents.

Before turning to the regressions, we discuss our data sources and core stylized facts.

V.A. Data Sources: The World Values Survey and the General Social Survey

Our work uses two primary data sets: the World Values Survey [Inglehart et al. 2000] and the General Social Survey [Davis, Smith, and Marsden 2003]. The General Social Survey (GSS) is an annual survey taken of a random sample of United States residents. It contains questions on a host of demographics as well as religion. Religious attendance is scored on a nine-category scale ranging from never attending a religious institution to attending more than once per day. The key political variable will be whether the respondent voted for a Republican in the last election. We will eliminate those observations where individuals either did not vote or voted for an independent.

The World Values Survey (WVS) was loosely modeled on the General Social Survey and its questions are quite similar. The survey was conducted in three major waves in 1981–1984, 1990–1993, and 1995–1997, and we will use data from all three waves. Like the General Social Survey, the World Values Survey has questions on many basic demographic variables and a categorical variable on church attendance. Instead of using votes in the last election, since electoral differences across countries make this quite problematic, we will use respondents' self-reported political orientation as our measure of support for the right. The World Values Survey asks people to self-report their political orientation (left versus right) on a ten-point scale which we have standardized by subtracting the mean for each country-wave pair and dividing by the standard deviation. Our measure of support for the right will be a person's value on this scale.

We also require measures of church attendance. (We use the phrase "church attendance" throughout the paper to refer to the attendance of religious services more generally.) We take attending once per month or more as our measure of membership in a religious organization. For some purposes, it may make sense to rely on different cutoff values, and our results are robust to slightly different definitions, but we believe that monthly attendance comes closest to the spirit of the model. People who attend less than once per month are unlikely to receive much information either from the pulpit or from other church-related activities.

People who attend once per month or more can be thought of as regularly receiving some information through the church.

All of our regressions will include country or state fixed effects to capture the extent that political support differs over space. We also allow religion to have different effects in different elections. In our fixed-effect regressions, we also include an interaction between country (in the World Values Survey) or state (in the General Social Survey) and religiosity.[14]

V.B. Cross-National Evidence on Church Attendance

Our first regressions look at the connection between church size and religious polarization in politics. There is remarkable heterogeneity in the World Values Survey in the amount of church attendance across countries. In some places, such as the Scandinavian countries or the Russian Federation, 10 percent or less of the population attends church once per month or more. In the United States in wave 3 of the survey around 60 percent of respondents attend church once per month or more. In the Philippines 90 percent attend church once per month or more. As such, cross-national investigation of church attendance gives us our best chance of measuring the connection between organizational size and polarization for a wide range of organizational size.

There are many different measures of religious belief that we can use. In the regressions in Table I, we use self-reported answers to the question: how important is God in your life? This question is scored on a ten-point scale ranging from "not at all" to "very." We have standardized this measure by subtracting the mean for the country-wave and dividing by the standard deviation, so that a unit increase can be interpreted as an increase of one standard deviation from the mean. Our results are generally robust to alternative measures of religious belief. Our regressions include controls for gender, income, age, age squared, and years of completed schooling.

In the first column of Table I, we show the basic connection

14. As the World Values Survey and the General Social Survey contain many observations with missing data, especially for income, and since these missing observations do not appear to be randomly selected, we include observations that are missing one or more of the control variables. We then give that observation a value for missing variable equal to the mean in the control and include a set of dummy variables each of which takes on a value of one when a particular control variable is missing. We never impute values for any of the variables whose coefficients are reported in the tables.

TABLE I
CROSS-COUNTRY DETERMINANTS OF RIGHT-WING ORIENTATION
DEPENDENT VARIABLE: RESPONDENT'S IDENTIFICATION WITH THE POLITICAL RIGHT (STANDARDIZED)

	(1)	(2)	(3)	(4)	(5)	(6)
Importance of God in life (standardized)	0.1639	0.0301				
	(0.0149)	(0.0334)				
Importance of God × Share monthly		0.8215	0.7965	0.7748	0.8321	1.1488
		(0.2105)	(0.1933)	(0.3305)	(0.1761)	(0.3028)
Importance of God × (Share monthly)^2		−0.9135	−0.8876	−0.8138	−0.7673	−1.5635
		(0.2385)	(0.2140)	(0.4103)	(0.1923)	(0.3255)
Importance of God × SD(religious beliefs)					1.3176	
					(0.4395)	
Imp. of God × wave?	NO	NO	YES	YES	YES	YES
Imp. of God × country?	NO	NO	NO	NO	NO	YES
Share monthly attendance that maximizes extremism		0.4497	0.4487	0.4760	0.5423	0.3674
		(0.0262)	(0.0228)	(0.0579)	(0.0537)	(0.0549)
Sample	All	All	All	Democracies	All	All
N	111883	111883	111883	67813	109930	111883

Data are from World Values Survey cumulative file, waves 1–3. All estimates are from OLS regressions. Standard errors in parentheses are adjusted for correlation within country of residence. All specifications include dummies for country of residence, survey wave, gender, and controls for income, age, age^2, years of completed schooling, and dummies for missing data on these controls. Standard errors for share maximizing extremism are calculated using the delta method. SD(religious beliefs) is the standard deviation across individuals the country-wave pair of the share of the following beliefs held: belief in God, life after death, the soul, the Devil, hell, heaven, and sin.

between identification with the political right and people's opinions about the importance of God. The coefficient on the importance of God is .16, meaning that as the importance of God to the respondent rises by one standard deviation, the respondent's tendency to support the right rises by .16 standard deviations. This coefficient is extremely significant statistically, and it also seems economically significant to us.

This pooled regression masks the considerable heterogeneity that exists across countries. Figure VI shows the coefficients from country-level versions of regression (1) where the tendency to identify with the right is regressed on self-reported importance of God.[15] In some countries, such as India or Turkey, the correlation is more than double our pooled estimates

15. Norris and Inglehart [2004] also study the connection between religiosity and political orientation in the World Values Survey. We note that our results are robust to using party preference rather than stated left-right political orientation as a dependent variable.

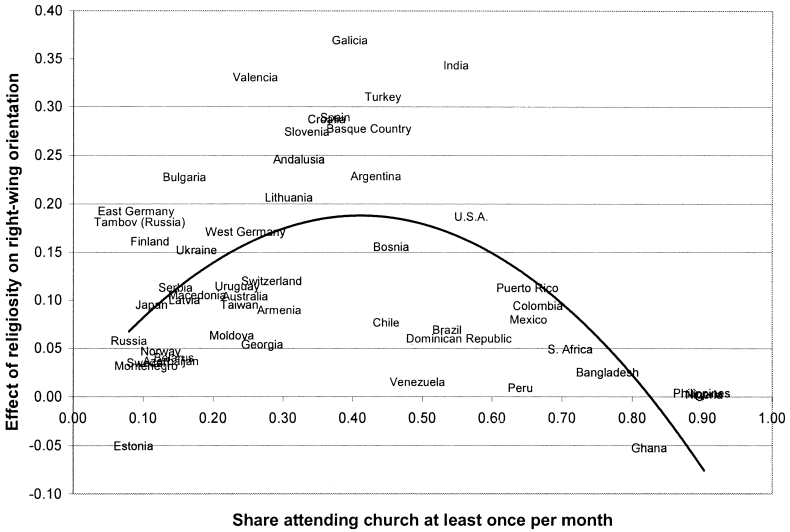

FIGURE VI

The Political Role of Religion Across Countries

Data are from Wave 3 of the World Values Survey. Vertical axis shows the estimated effect of a one-standard deviation increase in the importance of God in the respondent's life on the respondent's identification with the political right. Horizontal axis shows the share of respondents in the country who report attending church (or analogous religious institution) once a month or more.

(.34 and .32, respectively). The estimated coefficient in the United States is slightly higher than that for the world as a whole. Then there are many countries such as Norway, Bangladesh, and the Philippines where the coefficient is essentially zero.

The model predicts a nonmonotonic relationship and that is exactly what we see. With few exceptions, most countries with religious attendance below 25 percent have weak connections between religious identification and right-wing status. There is also no country with religious attendance above 60 percent that has an above-average connection between right-wing status and religiosity. All the countries with extremely tight connections between religion and political orientation have monthly church attendance values between .3 and .6.

Perhaps it is unsurprising that the countries with little religion also have little connection between religion and political orientation. It seems to us somewhat more counterintuitive that there is no connection between religion and politics in those

countries with extremely high levels of religious attendance, although this is exactly what is predicted by the model. The countries with moderate attendance levels that do not conform well with the theory are Chile, Brazil, the Dominican Republic, and Venezuela. One potential explanation for these observations is the history of liberation theology and left-wing clerics opposing military regimes.

To test for the nonmonotonic impact of church membership on the religion-right-wing connection, in regression (2) of Table I, we interact the self-report of the importance of God with the share of the country's respondents attending church more than once per month and the square of that variable. We also include the raw values of the church attendance variable in the regression and allow importance of God to differ during the different waves of World Value Survey. Regression (2) shows both a strong positive interaction between national church attendance and the impact of the importance of God for low levels of national church attendance and a strong negative quadratic term. Both the linear and quadratic terms are highly significant statistically. The connection between right-wing status and self-reported importance of God appears to be maximized when about 45 percent of the population attends church. Specification (3) demonstrates that this finding is robust to allowing the effect of religiosity to vary with survey wave, thus identifying our key interaction terms only using cross-sectional variation in church attendance.

In the fourth regression of the table, we repeat regression (3) only for those countries with Polity III democracy scores averaging at least 5 from 1970–1995. Of course, political competition also occurs in countries that are not democracies and people have political preferences even when they do not have a chance to vote. Nonetheless, our model is specifically based on political competition in a democratic setting, so it makes sense to ensure that these results are robust to excluding nondemocracies for the sample. In this case, the linear term remains significantly positive, and the quadratic term remains significantly negative. The effect of religion on being right-wing is now maximized when 48 percent of the population attends church at least once per month.

Column (5) incorporates a test of another of the model's predictions: that increasing heterogeneity is associated with greater extremism. In particular, we include an interaction between the stated importance of God in the respondent's life and

the standard deviation of religious beliefs in his country (and survey wave).[16] These interaction terms are positive and statistically significant, as predicted by the model. Equally important is the fact that including these measures of heterogeneity does not eliminate the nonmonotonic relationship between country-level church attendance and religious extremism. Since the prediction that group size enters nonmonotonically is far more specific to our model than the prediction that heterogeneity exacerbates divergence, it is reassuring that our key findings are not eliminated by including heterogeneity measures in the estimation.

In regression (6) we return to our entire sample of countries and allow each country to have a different inherent connection between religiosity and right-wing status. This specification is akin to a country fixed effects specification where the country fixed effect is not in the level of right-wing status (we always have that fixed effect) but rather in the connection between religious intensity and being right-wing. In this case, all of our identification comes from changes in church attendance over time. Put differently, we ask in regression (6) whether changes in church attendance across countries are related to changes in the connection between religiosity and political affiliation in the manner predicted by our model. In this specification, we again find a significant positive linear impact of national church attendance on the importance of God coefficient and a significant negative quadratic impact of national church attendance on the same coefficient. In this case, the impact of importance of God is maximized when 37 percent of the population attends church once per month or more. Thus, evidence from changes as well as levels confirms the basic result that medium-sized groups are most conducive to polarization.

While we have focused on the role of churches in defining religious cleavages, we can also ask whether trade unions have an analogous impact on economic cleavages. Figure VII shows the relationship between the correlation between income and right-wing orientation and trade union density (from Blanchflower [1996]) for wave 2 of the World Values Survey. In some countries, such as France and Austria, the coefficient is less than .05 (the

16. We measure an individual's religious beliefs by computing the share of the following items the individual reports believing in: God, life after death, the soul, the Devil, hell, heaven, and sin.

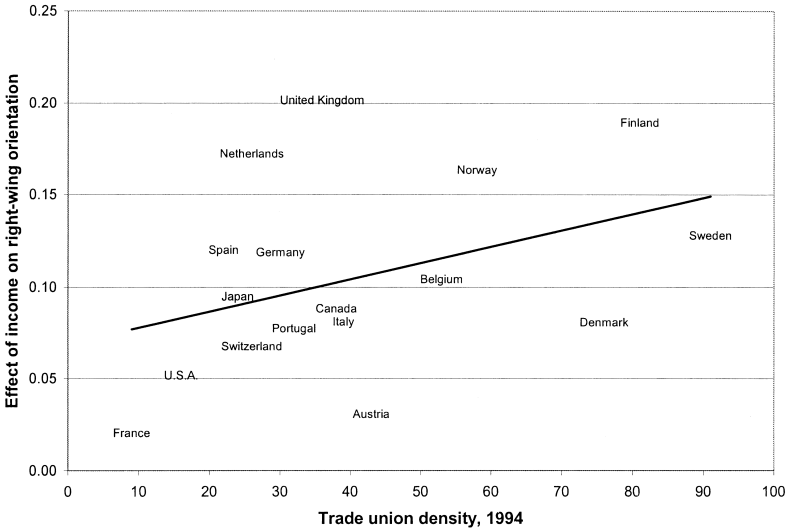

FIGURE VII

Unions and the Political Importance of Income across Countries

Data are from Wave 2 of the World Values Survey. Vertical axis shows the estimated effect of a one-standard deviation increase in income on the respondent's identification with the political right. Horizontal axis shows Blanchflower's [1996] measure of trade union density in 1994.

United States coefficient is also quite low). In other places such as the Netherlands or the United Kingdom, the coefficient is much larger, and there is a strong connection between income and right-wing status. The figure shows a strong tendency of the coefficient on income to rise with trade union density for trade union density levels below 40 percent and then little pattern after that. Small samples make it difficult to discern whether there is indeed a nonmonotonic relationship, but it does seem that at low levels of unionization, increases in the density of unions are associated with greater partisanship along economic lines.

V.C. United States Evidence on Church Attendance

In Table II we regress voting for a Republican in the last election on church attendance, and controls for income, education, age, age squared, and gender. We include state and year fixed effects. Reported coefficients are marginal effects from probits evaluated at sample means. The first specification looks at the impact of going to church at least once per month on voting

TABLE II
CHURCH ATTENDANCE AND THE ROLE OF RELIGION IN VOTING (GSS)
DEPENDENT VARIABLE: DID RESPONDENT VOTE FOR REPUBLICAN CANDIDATE IN LAST PRESIDENTIAL ELECTION?

	(1)	(2)	(3)	(4)	(5)
Attend church at least once a month	0.0999	0.3261			
	(0.0127)	(0.0503)			
Attend at least once a month × Share attending monthly in state		−0.4888	−0.4214	−0.2698	−0.2279
		(0.1139)	(0.1169)	(0.1393)	(0.2087)
Attend at least once a month × SD(religious beliefs)				0.5804	
				(0.2552)	
Attend monthly × election?	NO	NO	YES	YES	YES
Attend monthly × state?	NO	NO	N0	NO	YES
N	16641	16641	16641	16066	16641

Data are from General Social Survey cumulative file, 1972–2002. Only respondents voting for either Democrat or Republican in previous election have been included. All estimates are marginal effects from probit models evaluated at sample means. Standard errors in parentheses are adjusted for correlation within state of residence. SD(religious beliefs) is the standard deviation across individuals the state in the 1991 sample of the share of the following beliefs held: belief in God, life after death, miracles, the Devil, hell, and heaven. All specifications include dummies for state of residence, year of most recent election, race, gender, and controls for the log of real income, age, age^2, years of completed schooling, and dummy for missing income data. Samples exclude Utah residents.

Republican. There is a strong positive effect. People who attend church once per month are ten percentage points more likely to vote Republican than people who attend church less frequently than that. This basic result can be found using a large number of different measures of religiosity such as the continuous measure of church attendance or qualitative variables about the importance of God.

This basic coefficient on religious attendance obscures the considerable variation that exists among states.[17] Figure VIII shows the coefficients from regressions like regression (1) that were run separately for each state. In some places, like Washington or Oregon, the coefficient is more than .2. In other places, such as the Carolinas, the coefficient is less than .05. Figure VIII shows the relationship between these estimated coefficients and the share of respondents in the state who attend church at least once per month. Since these shares are generally more than 50

17. We identify a respondent's state by matching primary sampling units to metropolitan areas, and connecting metropolitan areas with states.

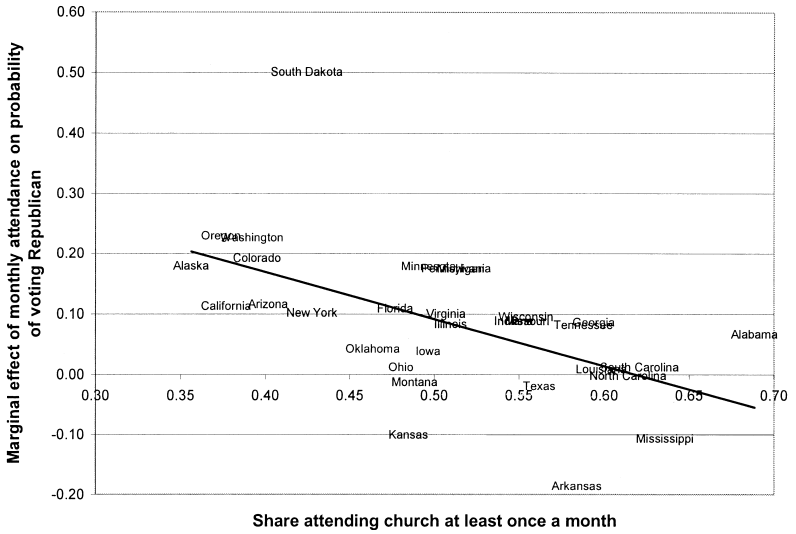

FIGURE VIII

The Political Role of Religion across American States

Data are from General Social Survey cumulative file, 1972–2002. Only respondents voting for either Democrat or Republican in previous election have been included. Vertical axis shows the marginal effect of monthly church attendance from probit models evaluated at sample means. The dependent variable is a dummy for Republican vote in the previous presidential election, and all specifications are run separately for each state, including dummies for year of most recent election, race, gender, and controls for the log of real income, age, age^2, years of completed schooling, and a dummy for missing income data. Sample excludes Utah residents.

percent across states (and almost always more than 40 percent), the model predicts a negative relationship and that is indeed what we observe in the graph. The highly religious states have less connection between religion and voting Republican than the moderately religious states.

In regression (2) of Table II we estimate the interaction between the share in the state attending church at least once per month and the individual's own religious attendance. The impact of religion on voting Republican decreases sharply with the share of the state that is itself religious. In regression (4) we augment this specification by allowing the effect of monthly attendance to vary with election year, so that we identify the interaction effect solely from cross-sectional differences among the states. The results are quite similar.

Regression (4) incorporates a test of the model's prediction

that greater heterogeneity in preferences increases the degree of extremism. In particular, we interact monthly attendance with a measure of the heterogeneity in religious beliefs in the individual's state of residence, taking advantage of a 1991 GSS module.[18] As the model predicts, we find that religious attendance is a stronger predictor of Republicanism in states with greater heterogeneity in religious beliefs. Including this term reduces the point estimate of the interaction between individual attendance and state religiosity, but it remains marginally statistically significant and comparable in magnitude to the estimate in column (3).

In regression (5) we include interactions between state dummies and individual religious attendance. This procedure duplicates our methodology in the previous table where we allowed each country to have its own connection between religion and right-wing orientation. This estimation relies on changes in religious attendance within the state, not on variation across states. The estimate of the cross effect between average religious attendance in the state is still negative and not statistically distinguishable from the estimate in regression (3). However, the standard error on this estimate is so large that it is also not statistically distinguishable from zero. Our variation in state church attendance over time is extremely noisy, and as such it is unsurprising that our results are not precise.

Table III reproduces the specifications of Table II using the American National Election Studies [Sapiro and Rosenstone 2002]. The National Election Studies (NES) have been conducted since 1948, and are designed to track the determinants of voter behavior over time. As in Table II, our main interest will be in asking whether church attendance matters less for voting behavior in highly religious states.

In specification (1) of Table III, we reproduce the basic finding that monthly churchgoers are significantly more likely to vote Republican during the period 1972–2002. In specification (2) we interact the monthly attendance dummy with a measure of the share of people who attend church monthly or more in the respondent's state and election year. As in Table II, we find a

18. We measure an individual's religious beliefs by computing the share of the following items the individual reports believing in: God, life after death, miracles, the Devil, hell, and heaven.

TABLE III
CHURCH ATTENDANCE AND THE ROLE OF RELIGION IN VOTING (NES)
DEPENDENT VARIABLE: DID RESPONDENT VOTE FOR REPUBLICAN CANDIDATE IN LAST PRESIDENTIAL ELECTION?

	(1)	(2)	(3)	(4)	(5)
Attend church at least once a month	0.1237	0.2676			
	(0.0115)	(0.0685)			
Attend at least once a month × Share attending monthly in state		−0.2954	−0.3419	−0.2841	−0.3820
		(0.1402)	(0.1464)	(0.1336)	(0.1756)
Attend at least once a month × SD(religious beliefs)				0.7509	
				(0.4381)	
Attend monthly × election?	NO	NO	YES	YES	YES
Attend monthly × state?	NO	NO	NO	NO	YES
N	8882	8882	8882	7046	8882

Data are from National Election Study cumulative file, 1948–2000. Only years 1972–2000 are used due to a change in the survey question about religious attendance beginning in 1970. Only respondents voting for either Democrat or Republican in previous presidential election have been included. All estimates are marginal effects from probit models evaluated at sample means. Standard errors in parentheses are adjusted for correlation within state of residence. SD(religious beliefs) is the standard deviation across individuals the state in the 1991 GSS sample of the share of the following beliefs held: belief in God, life after death, miracles, the Devil, hell, and heaven. All specifications include dummies for state of residence, year of most recent election, race, gender, income category (as shown in Figure I), and controls for the age, age^2, and years of completed schooling.

statistically significant negative interaction: church attendance has less of an effect on the probability of voting Republican in highly religious states. The coefficient is similar in magnitude to the analogous coefficient in Table II. In regression (3) we include dummies for most recent presidential election year interacted with monthly attendance to control for time effects, and find similar results. Column (4) includes an interaction between monthly attendance and the standard deviation in religious beliefs in the respondent's state, measured using data from the 1991 GSS. Religiosity is a stronger predictor of Republicanism in states with greater heterogeneity, although the effect is only marginally statistically significant. Including this term does not eliminate the economic or statistical significance of the interaction between individual attendance and state-level religiosity. Column (5) of Table III repeats the specification of column (3), allowing the effect of monthly attendance to differ freely by state. Again we find a significant negative interaction, although the standard

errors are larger due to the inclusion of state fixed effects interacted with monthly attendance.[19]

Given these results, it is natural to wonder whether the rise of religion as a determinant of political affiliation can be attributed to a broad secular decline in religious adherence. The evidence is mixed, however, on whether such a decline actually occurred during the time period we study. In the General Social Survey the share of people attending church monthly went from 50.9 percent to 47.2 percent between the 1972 and 2000 elections. By contrast, the World Values Survey shows no decline in religiosity over a similar period [Norris and Inglehart 2004]. Given the ambiguity in these data, it seems reasonable to conclude that if a decline did occur, it was probably too small by itself to have had a substantial impact on political platforms.

Relatedly, given the political importance of unions, one might expect the decline in unions during this period to have led to a decline in the political importance of income, since union density has now fallen far below the point where the model predicts that the impact of the group would be the largest. As Figure III shows, however, there does not seem to be any significant decline in the political importance of income to correspond to the fall in unionism. It is possible, of course, that politicians take time to react to such changes, and therefore that this decline will manifest itself in political platforms in future election years.

VI. Conclusion

Even in majoritarian systems, there are often major differences in policies between political candidates. There is rarely complete convergence by candidates to the views of the median voter. In the United States today, the gulf between the Republican and Democratic parties on religiously oriented issues like abortion is quite significant. In this paper we have explored the reasons why political platforms might be extreme rather than moderate.

Our model emphasizes the role of the intensive margin of getting voters into the voting booth and informational asymmetries in creating extremism. If politicians care only about attract-

19. Our findings in Tables II and III are robust to including dummies for Protestant and Catholic denomination in all models. We also obtain similar results using data on votes for Senate instead of President.

ing the median voter and have little interest in inducing their core supporters to show up, then there will be little extremism. Even with an important voter turnout margin, a second asymmetry is required so that when politicians deviate from the center they benefit more from attracting their own supporters than they lose from alienating their opponent's supporters. The heart of our model is that when a politician deviates from the center, his own supporters are more aware of this deviation than his opponent's supporters. With a single relevant policy dimension, extremism is more likely when the information asymmetry is more extreme and when informational groupings are more closely tied to political tastes. Extremism is also, unsurprisingly, more common when underlying preferences are more extreme.

The model with two issues predicts that the relevance of organizations to political extremes is nonmonotonic in the size of the organization. When the organization is quite small, it is politically irrelevant. When the organization is very large (i.e., more than 50 percent of the population), it no longer creates the opportunity for the transmission of targeted messages. Looking across countries in the world, we confirm this nonmonotonicity in the case of religion. Countries with either very high or very low levels of church attendance have little connection between religiosity and right-wing orientation. Extreme connections between religion and politics occur only for countries where church attendance is around 50 percent. Across American states, we find a negative relationship where higher church attendance decreases the connection between religiosity and voting Republican.

In this paper we have avoided discussing institutions that might tend to further or modify extremism, but this is clearly an important topic for future research. Some of these institutional links have already been examined by Cox [1990] and others, but this paper suggests further directions for research on constitutional design. For example, if geography creates a natural ability for politicians to target their messages, i.e., if people in your own area are more aware of your policies than people elsewhere, then national systems are always at risk of politicians proposing extreme regional policies. One way to counter this tendency is to have voting systems, like the United States' electoral college, that limit the value of getting extra votes in one particular geographic area.

Appendix

Proof of Propositions 1 and 2. Denoting as $\Omega = (\hat{x}_L, \hat{x}_R)$ the position of the parties as perceived by a given voter and as $\Theta(\Omega)$ the distribution of beliefs, the margin of victory for party R is

$$\int_{-1}^{1} \int_{\Omega} \left(Z\left(2(\hat{x}_R - \hat{x}_L)\left(x - \frac{\hat{x}_R + \hat{x}_L}{2} \right) \right) - Z\left(-2(\hat{x}_R - \hat{x}_L)\left(x - \frac{\hat{x}_R + \hat{x}_L}{2} \right) \right) \right) d\Theta(\Omega) f(x)\, dx,$$

whose derivative with respect to x_R is

$$\int_{-1}^{1} 2(x - x_R) \int_{\Omega} z\left(2\left| (x_R - \hat{x}_L)\left(x - \frac{x_R + \hat{x}_L}{2} \right) \right| \right) \chi\ (\hat{x}_R = x_R)\ d\Theta(\Omega) f(x)\ dx,$$

where we denote with $\chi(\cdot)$ the characteristic or indicator function.

Thus, considering the uniform distribution of costs and the assumptions on the availability of updated information on the party platform, and letting the probability of a voter being an affiliate be described by the function $\pi(x)$ of his ideal policy, the optimal platform choice for the party, regardless of initial beliefs and of the opponent's actions, is

$$x_R = \frac{(\bar{\theta} - \theta) \int_{-1}^{1} x\pi(x) f(x)\ dx}{\theta + (\bar{\theta} - \theta) \int_{-1}^{1} \pi(x) f(x)\ dx}.$$

Notice that

$$\Pi_R = \int_{-1}^{1} \pi(x) f(x)\ dx \in [0,1]$$

equals the size of the group of party affiliates, which can also be interpreted as the unconditional probability of a voter being an affiliate; while the ideal policy of the average party affiliate is

$$E(x|R) = \frac{1}{\Pi_R} \int_{-1}^{1} x\pi(x) f(x)\ dtx \geq E(x) = 0,$$

where the inequality is derived from the natural assumption that

R-party affiliates are on average more conservative than voters as a whole.

Therefore,

$$x_R = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} E(x|R).$$

It follows immediately that, when $\Pi_R > 0$, the median-voter result obtains in two cases only: in the absence of informational asymmetries: $\bar{\theta} = \theta$; or in the absence of any difference in the preferences of the average affiliate and nonaffiliate: $E(x|R) = E(x) = 0$. Whenever there are both an informational and an ideological difference between affiliates and nonaffiliates, $x_R > 0$.

Furthermore, the party's extremism is then monotone increasing in its ability to convey information to its affiliates

$$\frac{\partial x_R}{\partial \bar{\theta}} = \frac{\theta \Pi_R}{[\theta + (\bar{\theta} - \theta)\Pi_R]^2} E(x|R) \geq 0$$

and to withhold it from nonaffiliates

$$\frac{\partial x_R}{\partial \theta} = \frac{-\theta \Pi_R}{[\theta + (\bar{\theta} - \theta)\Pi_R]^2} E(x|R) \leq 0$$

as well as increasing in the number of affiliates (keeping their average conservatism constant)

$$\frac{\partial x_R}{\partial \Pi_R} = \frac{\theta(\bar{\theta} - \theta)}{[\theta + (\bar{\theta} - \theta)\Pi_R]^2} E(x|R) \geq 0$$

and in the average conservatism of affiliates (keeping their number constant)

$$\frac{\partial x_R}{\partial E(x|R)} = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} \geq 0.$$

If $\pi(x) = \chi(x > 0)$, $\Pi_R = \frac{1}{2}$ and $E(x|R) = E(|x|)$,

$$x_R = \frac{\bar{\theta} - \theta}{\bar{\theta} + \theta} E(|x|),$$

which immediately shows that extremism is increasing in the heterogeneity of voters' preferences, measured by the mean deviation of their distribution.

When the distribution of the cost of voting is generalized to include a point mass $z_0 \in [0,1]$ of voters with zero cost of voting

as well as a uniform density of voters $z(c) = (1 - z_0)/\bar{V}$ for all $c \in [0,\bar{V}]$, the margin of victory for party R is

$$\frac{1 - z_0}{2} \int_{-1}^{1} \int_{\Omega} (\hat{x}_R - \hat{x}_L) \left(x - \frac{\hat{x}_R + \hat{x}_L}{2} \right) d\Theta(\Omega) f(x)\, dx + z_0 \left(1 - 2 \int_{\Omega} F\left(\frac{\hat{x}_R + \hat{x}_L}{2} \right) d\Theta(\Omega) \right),$$

whose derivative with respect to x_R is

$$\frac{1 - z_0}{2} \int_{-1}^{1} (x - x_R)[\theta + (\bar{\theta} - \theta)\pi(x)] f(x)\, dx - z_0 \int_{\Omega} f\left(\frac{x_R + \hat{x}_L}{2} \right) \chi\,(\hat{x}_R = x_R)\, d\Theta(\Omega).$$

As shown above, the first term is a decreasing function of x_R that equals zero when

$$x_R = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} E(x|R) > 0$$

under the weak assumption that R affiliates are on average more conservative that nonaffiliates. The second term, instead, is always negative. Hence the modified distribution generates less extremism than the uniform.

In the limit, as $z_0 \to 0$, we have our standard result $x_R = (\bar{\theta} - \theta)\Pi_R E(x|R)/(\theta + (\bar{\theta} - \theta)\Pi_R)$, and as $z_0 \to 1$, convergence to the mean as a corner solution when voters' beliefs are rational.

By the second-order condition, the second derivative of the margin of victory with respect to x_R is negative; since the cross derivative with respect to z_0 is negative by inspection,

$$\frac{\partial x_R}{\partial z_0} < 0.$$

Proof of Proposition 3. The margin of victory for party R is

$$\int_{-1}^{1} \int_{-1}^{1} \int_{\Omega} (Z(2\Delta(t,a;\Omega)) - Z(-2\Delta(t,a;\Omega)))\, d\Theta(\Omega) f(t,a)\, dt\, da,$$

whose gradient with respect to the platform choice of party R, (T_R, A_R), is

$$\begin{pmatrix} 2\mu \int_{-1}^{1} \int_{-1}^{1} (t - T_R) \int_{\Omega} z(2|\Delta(t,a;\Omega)|) \\ \quad \chi(\hat{T}_R = T_R)\, d\Theta(\Omega) f(t,a)\, dt\, da \\ 2(1-\mu) \int_{-1}^{1} \int_{-1}^{1} (a - A_R) \int_{\Omega} z(2|\Delta(t,a;\Omega)|) \\ \quad \chi(\hat{A}_R = A_R)\, d\Theta(\Omega) f(t,a)\, dt\, da \end{pmatrix}.$$

Considering our usual assumptions on the distribution of costs and preferences and on the informational structure, the optimal platform choice for the party, regardless of initial beliefs and of the opponent's actions, is

$$T_R = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} E(t|R)$$

$$A_R = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} E(a|R),$$

where

$$\Pi_R = \int_{-1}^{1} \int_{-1}^{1} \pi(t,a) f(t,a)\, dt\, da \in [0,1]$$

is the size of the group of party affiliates (or the unconditional probability of a voter being an affiliate), and by the assumption that R-party affiliates are on average at least as conservative as voters as a whole on each of the two dimensions:

$$E(t|R) = \frac{1}{\Pi_R} \int_{-1}^{1} \int_{-1}^{1} t\pi(t,a) f(t,a)\, dt\, da \geq 0$$

$$E(a|R) = \frac{1}{\Pi_R} \int_{-1}^{1} \int_{-1}^{1} a\pi(t,a) f(t,a)\, dt\, da \geq 0.$$

Mirroring the one-dimensional case, this shows that convergence to the position of the median voter for a party with a positive mass of affiliates ($\Pi_R > 0$) requires the absence either of informational asymmetries ($\bar{\theta} = \theta$) or of any difference in the average preferences of affiliates and nonaffiliates ($E(t|R) = E(t) = 0 \wedge E(a|R) = E(a) = 0$). The effect of the different variables is also identical; moreover,

$$T_R \lesseqgtr A_R \Leftrightarrow E(t|R) \lesseqgtr E(a|R),$$

which shows that, unsurprisingly, the divergence of the party from the median-voter position is greater on the issue where the difference in preferences between affiliates and nonaffiliates is on average greater.

If $\pi(t,a) = \chi(t + a > 0)$, considering that by independence $f(t,a) = f_T(t) f_A(a)$ and thus by symmetry $f(t,a) = f(-t,a) = f(t,-a) = f(-t,-a)$,

$$\Pi_R = \int_{-1}^{1} \int_{-t}^{1} f(t,a)\, da\, dt = \int_{-1}^{1} F_A(t) f_T(t)\, dt = \frac{1}{2},$$

and

$$E(t|R) = 2 \int_{-1}^{1} t \int_{-t}^{1} f_A(a)\, da f_T(t)\, dt = 2 \int_{-1}^{1} t F_A(t) f_T(t)\, dt$$

$$= 2 \int_{0}^{1} t f_T(t)(2F_A(t) - 1)\, dt \in (0, E(|t|)).$$

We say that the distribution $G(x)$ is monotonically more heterogeneous than $F(x)$ if and only if $g(x) - f(x)$ is monotone nondecreasing on [0,1] (and thus monotone nonincreasing on [−1,0]), or equivalently $G(x) - F(x)$ is convex on [0,1] (and thus concave on [−1,0]), or equivalently (since by symmetry $F(0) = G(0) = \frac{1}{2}$ while $F(1) = G(1) = 1$) $G(x) \leq F(x) \forall x \in [0,1]$ (and thus $G(x) \geq F(x) \forall x \in [-1,0]$).

Therefore, a monotonic increase in the heterogeneity of F_T (weakly) increases $E(t|R)$ because $t(2F_A(t) - 1)$ is (weakly) increasing on [0,1], while it (weakly) reduces $E(a|R)$ because $tf_T(t)$ is (weakly) positive on [0,1].

Proof of Proposition 4. Consider without loss of generality party R, for which $\pi_R(t,a) = \chi(a > \alpha)$: we have $\Pi_R = 1 - F(\alpha)$, $E(t|R) = 0$ and $E(a|R) = (\int_{\alpha}^{1} af A(a)\, da)/(1 - F_A(\alpha)) \geq 0$ so that

$$T_R = 0$$

$$A_R = \frac{1}{\theta/(\bar{\theta} - \theta) + 1 - F(\alpha)} \int_{\alpha}^{1} af_A(a)\, da \geq 0.$$

Notice that, obviously, $\alpha = \mp 1 \Rightarrow A_R = 0$, because an

organization comprising everyone or nobody has no relevance as a channel for informational differentiation; moreover,

$$\frac{\partial A_R}{\partial \alpha} = \frac{f_A(\alpha)}{[\theta/(\bar{\theta} - \theta) + 1 - F_A(\alpha)]^2} \times \left\{ \int_{\alpha}^{1} a f_A(a)\, da - \alpha \left(\frac{\theta}{\bar{\theta} - \theta} + 1 - F_A(\alpha) \right) \right\}$$

so that

$$\frac{\partial A_R}{\partial \alpha} > 0 \; \forall \; \alpha \leq 0,$$

and the maximum effect of the organization on extremism is attained at $\alpha^* > 0$ such that

$$1 - \int_{\alpha^*}^{1} F_A(a)\, da = \alpha^* \left(\frac{\theta}{\bar{\theta} - \theta} + 1 \right).$$

The left-hand side of this equation is an increasing convex function $L(\alpha)$ such that $L(1) = 1$ and $L'(\alpha) = F_A(\alpha) \in [\frac{1}{2}, 1] \forall \alpha \in [0,1]$, while the right-hand side is a line through the origin with slope greater than 1, which ensures uniqueness of the maximum. Since $F_A(0) = \frac{1}{2} \Rightarrow \int_{\alpha}^{1} F_A(a)\, da > ((1 - \alpha)/2) \forall a \geq 0$, we also know that

$$\alpha^* < \frac{\bar{\theta} - \theta}{\bar{\theta} + \theta}$$

and indeed

$$\frac{\partial \alpha^*}{\partial \bar{\theta}} = \frac{\alpha^* \theta}{(\bar{\theta} - \theta)[\theta + (\bar{\theta} - \theta)(1 - F_A(\alpha^*))]} \geq 0$$

$$\frac{\partial \alpha^*}{\partial \theta} = -\frac{\alpha^* \bar{\theta}}{(\bar{\theta} - \theta)[\theta + (\bar{\theta} - \theta)(1 - F_A(\alpha^*))]} < 0.$$

Proof of Proposition 5. We proved in Proposition 1 that regardless of the voters' initial beliefs

$$x_R = \frac{(\bar{\theta} - \theta)\Pi_R}{\theta + (\bar{\theta} - \theta)\Pi_R} E(x|R) \wedge x_L = \frac{(\bar{\theta} - \theta)\Pi_L}{\theta + (\bar{\theta} - \theta)\Pi_L} E(x|L).$$

In any rational-expectations equilibrium in which the par-

ties' positions are symmetric around the origin, all voters with preferences $x > 0$ affiliate with party R and all those with preferences $x < 0$ affiliate with party L. Hence there is a unique such equilibrium,

$$\bar{x}_R = x_R = \frac{\bar{\theta} - \theta}{\bar{\theta} + \theta} E(|x|) = -\bar{x}_L = -x_L.$$

HARVARD UNIVERSITY AND NBER
HARVARD UNIVERSITY
UNIVERSITY OF CHICAGO AND NBER

REFERENCES

Alesina, Alberto, "Credibility and Policy Convergence in a Two-party System with Rational Voters," *American Economic Review,* LXXVIII (1988), 796–805.
Anonymous, "High Pitch, Low Politics," *The Economist* (2005).
Becker, Gary S., "Competition and Democracy," *Journal of Law and Economics,* I (1958), 105–109.
——, "A Theory of Competition among Pressure Groups for Political Influence," *Quarterly Journal of Economics,* XCVIII (1983), 371–400.
Blanchflower, David G., "The Role and Influence of Trade Unions in the OECD," *Report to the Bureau of International Labor Affairs, U. S. Department of Labor,* 1996.
Borsuk, Alan J., "Bush, Kerry Preach to Faithful; Non-Supporters Unlikely to Get Close to Candidates," *Milwaukee Journal Sentinel* (2004), A1.
Calmes, Jackie, and John Harwood, "Campaign '04–Mobilization Plan: Bush's Big Priority: Energize Conservative Christian Base–Unusual Strategy Plays Down Importance of Swing Vote As Demographics Shift—A Coordinator in Each Church," *Wall Street Journal,* (2004), A1.
Cox, Gary W., "Centripetal and Centrifugal Incentives in Electoral Systems," *American Journal of Political Science,* XXXIV (1990), 903–935.
Davis, James A., Tom W. Smith, and Peter V. Marsden, *General Social Surveys, 1972–2002* (Ann Arbor, MI: ICPSR, 2003), Dataset 3728.
Dixit, Avinash, and John Londregan, "Redistributive Politics and Economic Efficiency," *American Political Science Review,* LXXXIX (1995), 856–866.
Downs, Anthony, "An Economic Theory of Political Action in a Democracy," *Journal of Political Economy,* LXV (1957), 135–150.
Farrell, Joseph, and Robert Gibbons, "Cheap Talk with Two Audiences," *American Economic Review,* LXXIX (1989), 1214–1223.
Fiorina, Morris, P., "Whatever Happened to the Median Voter?" Stanford University mimeograph, 1999.
Fiorina, Morris P., Samuel J. Abrams, and Jeremy C. Pope, *Culture War? The Myth of a Polarized America* (New York, NY: Pearson Longman, 2005).
Gentzkow, Matthew A., and Jesse M. Shapiro, "Media Bias and Reputation," Harvard University mimeograph, 2005.
Gentzkow, Matthew, Edward L. Glaeser, and Claudia D. Goldin, "The Rise of the Fourth Estate: How Newspapers Became Informative and Why it Mattered," Harvard University mimeograph, 2004.
Glaeser, Edward L., Giacomo A. M. Ponzetto, and Jesse M. Shapiro, "Strategic Extremism: Why Republicans and Democrats Divide on Religious Values," NBER Working Paper No. 10835, 2004.
Grossman, Gene M., and Elhanan Helpman, *Special Interest Politics* (Cambridge, MA: MIT Press, 2002).
Guttman, Joel M., Naftali Hilger, and Yochanan Schachmurove, "Voting as Investment vs. Voting as Consumption: New Evidence," *Kyklos,* XLVII (1994), 197–207.

Hotelling, Harold, "Stability in Competition," *Economic Journal,* XXXIX (1929), 41–57.
Inglehart, Ronald, and et al. *World Values Surveys and European Values Surveys, 1981–84, 1990–93, and 1995–97* (Ann Arbor, MI: ICPSR, 2000), Dataset 2790.
Irmen, Andreas, and Jean-Francois Thisse, "Competition in Multi-Characteristics Spaces: Hotelling Was Almost Right," *Journal of Economic Theory,* LXXVIII (1998), 76–102.
Kirchgässner, Gebhard, "Abstention Because of Indifference and Alienation, and Its Consequences for Party Competition: A Simple Psychological Model," University of St. Gallen Discussion Paper, 2003.
Kirkpatrick, David D., "Churches See an Election Role and Spread the Word on Bush," *New York Times* (2004a).
——, "The Republicans: The Convention in New York—The Religion Issue," *New York Times* (2004b), P1.
Layman, Geoffrey C., "Religion and Political Behavior in the United States: The Impact of Beliefs, Affiliations and Commitment from 1980 to 1994," *Public Opinion Quarterly,* LXI (1997), 288–316.
——, " "Culture Wars" in the American Party System," *American Politics Quarterly,* XXVII (1999), 89–121.
——, *The Great Divide: Religious and Cultural Conflict in American Party Politics* (New York: Columbia University Press, 2001).
McDonald, Michael P., "Up, Up and Away! Voter Participation in the 2004 Presidential Election," *The Forum,* II (2004).
McDonald, Michael P., and Samuel L. Popkin, "The Myth of the Vanishing Voter," *American Political Science Review,* XCV (2001), 963–974.
Mullainathan, Sendhil, and Andrei Shleifer, "The Market for News," *American Economic Review,* (2005), forthcoming.
Murphy, Kevin M., and Andrei Shleifer, "Persuasion in Politics," *American Economic Review,* XCIV (2004), 435–439.
Norris, Pippa, and Ronald Inglehart, *Sacred and Secular: Religion and Politics Worldwide,* Cambridge Studies in Social Theory, Religion, and Politics (Cambridge, UK: Cambridge University Press, 2004).
Putnam, Robert D., *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon and Schuster, 2000).
Riker, William H., and Peter C. Ordeshook, *An Introduction to Positive Political Theory,* Prentice-Hall Contemporary Political Theory Series (Englewood Cliffs, NJ: Prentice-Hall, 1973).
Rosenstone, Steven J., and John Mark Hansen, *Mobilization, Participation, and Democracy in America,* New Topics in Politics (New York: Macmillan Publishing Company, 1993).
Sapiro, Virginia, and Steven J. Rosenstone, *American National Election Studies Cumulative Data File,* Vol. 8475 (Ann Arbor, MI: ICPSR, 2002).
Schuessler, Alexander A., *A Logic of Expressive Choice* (Princeton, NJ: Princeton University Press, 2000).