Estimating the defense spending vote☆

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A B S T R A C T

Systematic evidence linking defense spending preferences to electoral choice has evaded scholars. This is surprising, given the relative importance of defense spending in terms of the overall budget, as well as the popular conception that increases in defense spending must be offset by decreases in social spending. I develop a theory that identifies the conditions *where*, *when*, and *for whom* defense spending preferences influence vote choice. I then introduce a new method that isolates the *defense spending vote* with a series of survey-specific models that account for factors unique to the particular situation in that country. I find that—contrary to conventional wisdom—defense spending preferences consistently influence vote choice. This presents an opportunity for right-wing parties and those that emphasize military buildups to attract votes, especially during times of heightened international tensions. These results highlight a strong connection between voters' preferences and electoral support in terms of national security issues, and speak to a number of important literatures including the constraining effects of public opinion on foreign policy and democratic representation.

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1. Introduction

Thus far, systematic evidence linking the preferences of the public regarding the size of the military to electoral choice has evaded scholars. The only evidence that we can draw originates from single-country examinations of vote choice in times of extremely high salience of foreign affairs in highly unique countries, such as support for Ronald Reagan in 1980 (Miller and Shanks, 1982), and to a lesser extent 1984 (Shanks and Miller, 1990), or the British Conservatives in 1987 (Miller et al., 1990).

The lack of evidence is somewhat puzzling considering a few realities of democratic politics. First, defense spending occupies a considerable, but highly variable, component of

the budget in advanced democracies, typically only second to welfare spending. Second, parties often take strategic decisions to make foreign and defense issues points of contention around which parties can compete in elections (e.g., Miller and Shanks, 1982). Finally, members of the elite, in addition to opinion leaders and members of the media, often characterize budgetary decisions as a zero-sum proposition where increases in one area must be offset by decreases in others. If the political discourse operates in this manner, then even if one is concerned more generally about the budget but not military spending in particular, then these fiscal preferences should be reflected in electoral decisions.

I develop a theory that explains *why* and *when* defense spending preferences have a substantively meaningful effect on vote choice in advanced democracies. The beneficiaries of such preferences are right-wing parties and/or those that emphasize military buildups in their party programs. The effects of partisan emphasis on the defense spending vote are conditioned by the presence of international hostilities—which increases the salience of national

security issues—and the party's credibility as a governing alternative. I test these hypotheses on International Social Survey Programme (ISSP) data from 26 democracies and 51 surveys ranging from 1985 to 2008. I define what I call the *defense spending vote*, which is the direct relationship between defense spending preferences and support for a party. This extremely flexible research design offers a variety of advantages over the pooled model, most principally the ability to demonstrate the conditions where there is a defense spending vote as well as which parties benefit from these preferences.

From a standpoint of representative democracy, the lack of evidence of electoral representation is somewhat puzzling given the wealth of evidence connecting spending preferences to policy outcomes. These studies of political moods tie overall shifts in public opinion to policy outputs (e.g., Stimson et al., 1995; Stimson, 1999), and provide consistent evidence that the public responds to deviations in policy away from the public's preferred position (Wlezien, 1995, 1996). Aside from actually incentivizing the leaders to shift their preferences closer to those of the public, one mechanism through which we can connect public preferences to policy outputs is by using elections to either change the bargaining position of government parties, or change the government parties altogether. Failure to see a relationship between defense spending preferences and the vote would suggest that leaders largely have free range to choose from a variety of budgetary tools to accomplish their political objectives. If, on the other hand, that we observe electoral accountability in reasonable ways according to individual-, party- and nation-specific determinants, then it would contradict pessimists who question the extent to which individuals can formulate and access their foreign policy preferences (e.g., Almond, 1950). Furthermore, identifying the defense spending vote might elucidate the credible mechanism linking foreign policy behavior (such as international conflict) to public opinion.

This project examines a central component of accountability in advanced democracies. First, I briefly review the literature connecting spending preferences and foreign policy issues to electoral considerations. Next, I present a model that explores how defense spending attitudes influence vote choice decisions. Finally, I offer a number of explanations for the variation in the defense spending vote across parties. The collective body of results suggests strong representative links in terms of defense spending, and offers evidence that national security influences electoral outcomes in a wide range of contexts.

2. Literature review

The primary means of ensuring policy responsiveness in modern democracies is through frequent elections. Simply by either rewarding or sanctioning politicians for their policy performance, voters can alter the composition of government and ultimately attempt to draw future policy closer to their preferred point. While individual-level studies of electoral choice have typically focused on the role of demographic variables such as class (e.g., Alford, 1963), partisanship (Campbell et al., 1960), income (Gelman, 2008),

perceptions of economic performance (Lewis-Beck, 1988), or other valence variables (Clarke et al., 2009), the role of foreign affairs has been minimized (see Aldrich et al., 2006 for a review). Exceptions include individual-level surveys that track the electoral consequences of foreign policy after a war (Page and Brody, 1972; Norpoth, 1987; Clarke et al., 2009), or studies of public opinion in one country across multiple wars (Berinsky, 2009). Defense spending represents a massive component of the budgets of modern democracies, so one might assume that there is relatively close convergence between the positions that politicians take and their electoral consequences.

Clear evidence for this type of accountability is elusive, and is limited to a few American elections where defense spending is quite salient. For example, in the 1980 presidential election, Reagan is judged to have benefited greatly from his position advocating a massive increase in defense spending (Miller and Shanks, 1982). The impacts of taking this position are substantively meaningful, and are second only to welfare spending attitudes in terms of influencing which candidates respondents support (Jacoby, 1994). The defense spending vote is elusive in that even the same candidate might no longer take advantage of ownership of the same issue in the following election. Shanks and Miller (1990) show that the advantage Reagan gained from this position in 1980 was drastically reduced in 1984, presumably due to a shift in public opinion toward reduced spending.[1]

We can look at the thermostatic model for guidance as to the connection between spending preferences and policy representation. The thermostatic model consistently shows that deviations in spending away from the public's preferred level are met with public opinion shifts in the opposite direction (Wlezien, 1995). The US represents the most common example of this response, but the pattern has also been demonstrated in Canada (Soroka and Wlezien, 2004) and Great Britain (Soroka and Wlezien, 2005). Though the correlation is not that novel in the US, the credible mechanisms linking preferences to output are not obvious. Two mechanisms are most likely. First, changes in preferred levels of spending are observed by forward-looking politicians motivated by reelection, and so they modify their spending priorities to be more consistent with the public's preferences (Wlezien, 1996; Stimson et al., 1995). In the metaphor of a thermostat, this is the case where the furnace responds to the thermostat's signal to turn up the heat. The second mechanism is that the public votes against parties that fail to respond to their preferences (the thermostat sends another signal to the furnace regarding preferred temperature). Both of these mechanisms ensure representation by leaders through electoral accountability, either through anticipation of elections, or through the electoral results themselves. Identifying and estimating a defense spending vote would provide additional support for the thermostatic model, since it would

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[1] The shift in defense spending attitudes between 1980 and 1984 is quite substantial: "four years later the balance was almost reversed as a better than 4-1 margin favoring increased defense spending was replaced by a 3-1 margin favoring reduction" (Shanks and Miller, 1990: 169).

show the viability of both mechanisms: that voters' decisions are influenced by defense spending (the latter mechanism), which induces representative behavior by leaders (the former mechanism).

While these studies are helpful in demonstrating that national security preferences can, in fact, influence partisan preferences, the lessons we learn from these unique circumstances are few. Since these studies largely examine vote choice in one election, they focus on the issues that were judged to be influential after the fact. These studies also happen to be limited to the superpower with the largest defense budget (US), during the largest peacetime military buildup (1980s). Making these circumstances all the more unique is the extensive media coverage highlighting the substantial distance between the two major parties' positions on defense spending. Much like the drunk looking for his lost keys under the lamppost, these elections are destined to feature a defense spending vote. This project offers a solution to the lack of generalizability by developing a theory that explains the conditions under which voters support a particular party based on defense spending preferences. Instead of inferring the presence of a defense spending vote in a few choice elections where election observers had already highlighted the importance of national security issues, this analysis sheds light on the conditions that actually make spending a key part of the electoral calculation. In the next section I present my theory explaining the sources of the defense spending vote as well as its beneficiaries.

3. Theory

Since voters' attitudes about defense spending are rarely fixed components of an overall structure of spending attitudes (Jacoby, 1994), citizens form opinions "on-the-fly" by incorporating the information provided through elite discourse (Zaller, 1992). With respect to defense spending, individuals might have a range of opinions, but respond to the questioner by incorporating those opinions that, due to elite discourse, happen to be salient at that time (Zaller, 1992: 36). Those issues that are more salient are easier to quickly retrieve from memory (accessible), and are thus more likely to be used when choosing who to support (Lavine et al., 1996). The public's preference over policies is unlikely to have much influence on individual electoral decisions unless it is coupled with periods of heightened salience for those issues (e.g., Rabinowitz et al., 1982; Krosnick, 1988).

Various issues potentially increase the salience of defense spending, making those preferences more accessible to voters. First, much as Ronald Reagan did in the 1980 presidential election, strategic elites can activate these beliefs by making defense and foreign policy issues points of contention during campaigns (Miller and Shanks, 1982). Simply by taking a position that is easily differentiable from the position taken by its primary competitors, the party can improve the potential for citizens to use those differences in their vote choice (for an example of ambiguous positions minimizing the electoral impact of a salient issue, see Page and Brody, 1972).

Second, though Singer (2011: 292) notes that defense and security issues are a distant third to economic performance and social policy for the public's "most important problem", the salience will likely rise given threats from international hostilities. Schultz (2001: 73–76) analyzes time series data of respondents selecting foreign affairs issues as the most salient in combination with the number of ongoing crises involving the US. He concludes that "the overall salience of foreign affairs has been quite large in some periods, especially when international tensions were high", and "the public is clearly aware of its government's participation in international crises: concern about foreign affairs rises and falls in lock-step with US involvement" (Schultz, 2001: 74).

Third, the media determines to a great extent what information voters can use to formulate their preferences. Media fulfill a powerful agenda-setting function, as increases in news stories produce a public that is more concerned with foreign policy issues, and those times with greater media coverage improved the accessibility of those opinions when determining political support (Soroka, 2003; see also Krosnick and Kinder, 1990). Moreover, the salience of foreign and military affairs is dependent on whether those issues are prominent in the media (e.g., Baum and Groeling, 2005). If those international events are being covered by the media on a consistent basis, then preferences about how to finance the country's response to those international events are likely to be available and accessible for voters. Indeed, Soroka (2003) shows that increased media coverage of international hostilities increases the public's perception of the salience of foreign affairs.

Preferences for defense spending operate most obviously as a proximity issue. To the extent that these attitudes influence vote choice, they do so through voters selecting the party that advocates similar spending preference; hence, voters preferring cuts to defense spending will support those parties advocating cuts, and vice versa. Defense spending preferences might also indirectly tap into valence assessments such as the best party to manage foreign policy. Foreign policy issues that begin as position issues with leaders from different parties advocating different strategies and objectives can eventually shift to principally involving valence concerns (Clarke et al., 2009) such as the public's perception of the leader's competence, integrity, and leadership ability (Berinsky, 2009). The leader's performance during the international crisis provides useful information about the leader's ability to govern (Richards et al., 1993), which can be used by rational voters to form expectations about future performance (e.g., Clarke et al., 2009; Nincic and Hinckley, 1991).

The first goal of this project is to determine if the conventional wisdom—the absence of a defense spending vote—is correct. It is reasonable to expect that defense spending would influence the outcome of US presidential elections during the 1980s, but it is perhaps more counterintuitive to believe that those same preferences would influence the vote in a small European democracy experiencing peace in the post-Cold War era. Yet, this simple proposal ignores the fact that, even in peacetime, defense spending taps into many economic dimensions of politics,

including budgetary tradeoffs, economic redistribution and public financing. If other issues such as redistributive preferences and socio-demographics are more important in determining vote intention than defense spending then we should see no evidence of defense spending preferences. On the other hand, if defense spending preferences influence the vote, then that would be evidence that voters also weigh these budgetary issues. The first hypothesis tests this proposition.

Hypothesis 1. *Defense spending preferences influence vote intention.*

The second goal of this project is to determine *when*, *where* and *for whom* the defense spending vote occurs. The example of America's military buildup in 1981 offers an apt illustration of how strategic partisan elites claim ownership of military spending during times of heightened salience of foreign affairs issues. In response to the Iran Hostage crisis and the Soviet invasion of Afghanistan in 1979, the Republican Party decided to turn foreign affairs into a campaign issue due to their perceived advantage over the Democrats (Bartels, 1991: 459). These efforts are clear in the Republican Party's manifesto:

> "The [Carter] Administration's neglect of America's defense posture in the face of overwhelming evidence of a threatening military buildup is without a parallel since the 1930s. The scope and magnitude of the growth of Soviet military power threatens American interests at every level[…] Despite the growing sentiment for a stronger defense, candidate Carter ran on a promise of massive cuts in US defense spending, one promise he has kept[…] We have depleted our capital and must now devote the resources essential to catching up" (Congressional Quarterly 1980, quoted in Bartels, 1991: 459).

The dual circumstances of the Iran Hostage crisis and the Soviet invasion of Afghanistan elevated foreign issues in the public's consciousness, even eclipsing other issues such as the economy and energy dependence[2] (*New York Times* January 13, 1980; see Miller et al., 1990: 102–106 for evidence of how British perceptions of issue salience respond to international events). The increased media coverage, coupled with the prominent differences in the major parties' positions on military spending (Downs, 1957: Chapter 3; Page and Brody: 1972), made it easier for voters to use their military spending preferences when choosing between candidates. Given that parties tend to implement policies that reflect their policy programs (Budge and Hofferbert, 1990), and that voters can correctly position parties in terms of defense spending (Miller et al., 1990: 106–107), voters can easily connect their vote to actual policy outputs. Thus, I expect that parties' emphasis of foreign policy issues and the presence of international hostilities will combine to shape elite discourse on military

spending (Whitten and Williams, 2011), and will help determine which parties benefit from the defense spending vote.

Strategic elites emphasize certain issues within the campaign in order to claim ownership of those issues (Petrocik, 1996; Budge and Farlie, 1983). In this manner, party leaders survey the conditions at the time, consider the relative salience of various issues, evaluate voters' perceptions of their competence on those salient issues, and craft strategies that either emphasize or deemphasize those issues. The electoral consequences of perceived competence in salient foreign affairs issues are well-established (Clarke et al., 2009; Gadarian, 2010). Since rightist parties have a substantial advantage over leftist parties when it comes to fulfilling promises for extensive military buildups (Budge and Hofferbert, 1990; Palmer, 1990; Wlezien, 1996), further emphasizing those issues is a particularly fruitful strategy. Thus, parties that emphasize pro-military spending positions as well as more rightist parties will benefit from those voters who prefer more defense spending.

Hypothesis 2a. *The sign and magnitude of the defense spending vote depends on the particular partisan emphasis during election campaigns.*

Hypothesis 2b. *The effects of partisan emphasis on the defense spending vote are exaggerated by the presence of hostile international conditions.*

Beyond their actual emphasis of these issues during campaigns, other features influence which parties are held accountable for defense spending preferences. Consider the decision by a voter with defense spending preferences that are inconsistent with the status quo whether to support an opposition party or a government party. The government party has been in office for most likely a few years, which is ample time for their spending priorities to become a reality. The voter would then judge whether spending outcomes were consistent with the voter's preferences, and consider these differences when voting. Of course, it might also be valuable to consider the extent to which the government party controlled these policy outcomes. The party of the Prime Minister certainly has greater influence over the size of the military budget due to the substantial ministerial autonomy granted to the parties as a result of the coalition formation process (e.g., Austen-Smith and Banks, 1990; Laver and Shepsle, 1990). With these considerations in mind, the voter would want to attribute blame accordingly. On the other hand, opposition parties were not immediately in government (and may not have ever been in government), so they lack an actual record of policy outcomes for the voter to consider (Cho and Endersby, 2003). Instead, voters have to rely on the campaign promises of what an opposition party would do if given the opportunity, which may be heavily discounted due to coalition negotiations (Mershon, 2002). Thus, while the government's position on defense spending is easily inferred from its record, the positions of opposition parties are much more uncertain.

Hypothesis 3. *The magnitude of the defense spending vote is conditional on having greater control over the defense budget.*

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[2] A CBS News/New York Times Poll conducted from January 9–13, 1980 found that 42% of respondents identified "foreign policy" as the "most important problem facing the country today" compared to 37% selecting "the economy" and 10% selecting "energy".

In the next section, I describe a research design that is novel in its attempts to estimate a party-specific defense spending vote that controls for unique individual-, survey- and country-specific circumstances.

4. Research design

I theorize that individuals incorporate their preferences for defense spending into their considerations of vote choice. The size and magnitude of the defense spending vote, however, depends the characteristics of the party itself. The ideal data source for spending preferences as well as vote intention is the International Social Survey Programme, Role of Government Modules. The key independent variable is similarly worded across all four modules: "Listed below are various areas of government spending. Please show whether you would like to see more or less government spending in each area. Remember that if you say 'much more', it might require a tax increase to pay for it". I recode this variable so that the range goes from 1 (spend less) to 3 (spend more). The dependent variable is the commonly-used measure of electoral support: "If there were a general election tomorrow which political party do you think you would be most likely to support". For the five surveys without the vote intention question (USA 1985, 1990 and 1996, Hungary 1990 and Italy 1990), I use vote choice from the previous election.[3]

Though the modules are grouped into four years (1985, 1990, 1996 and 2006), the actual fieldwork dates of the survey may be 1–2 years before or after those dates. To ensure that the public is responding to actual economic and international conditions at the time of the survey, I measure these variables according to the fieldwork dates (not the years of the module) listed in Table 1.[4]

The goal of this project is to isolate and explain the defense spending vote. Toward this end, I specify a model that incorporates preferences for social spending, economic preferences regarding government-financed job creation, redistribution and tax rates, socio-demographics, and perceptions of international threats. Though the main core of variables is available for nearly all elections, some of the variables are only asked in certain modules (see the Appendix for more coding decisions). Party choice is specified with the following model:[5]

Vote Choice = *f*(Spending Preferences, International Threats, Socio-Demographics).where

- **Spending preferences** includes the following: *defense spending* and *health spending* (both coded 1 for "less" and 3 for "more"), whether the respondent favors government-financed job creation (*create jobs*), whether the respondent favors cutting government spending (*cut spending*), whether the respondent believes that household taxes are too high (*taxes high*), whether the government should redistribute wealth (*redistribute*), and whether those with high incomes should pay higher tax rates (*progressive tax*).
- **International threats** includes the following: whether the respondent feels that the world is getting worse (*world worse*) and whether the government has been unsuccessful at dealing with international threats (*retrospective threats*).
- **Socio-demographics** includes the following: age (*age*), gender (*male*), income (*income quartiles*), whether the respondent is a public employee (*public employee*), a member of a labor union (*union*), has a college degree (*college*), frequency of church attendance (*religiosity*), and whether the respondent is a part of the lower/ working class (*lower class*).

I also expect that a party's defense spending vote will be moderated by its partisan emphasis, the presence of international hostilities, and whether it controls the Prime Minister. The Comparative Manifesto Project (Klingemann et al., 2006) offers an ideal data set to test these hypotheses. Recall that the military buildup of the 1980s played a prominent role in the 1980 Republican Party Platform. Though often not widely read by the public, a party's manifesto is given substantial media coverage and introduces the common themes of the campaign; "the campaign document is the only statement of policy made with authority on behalf of the whole party", so its importance is not to be minimized (Klingemann et al., 1994: 21). I measure partisan emphasis in two ways. First, I use the Comparative Manifesto project's "rile" variable which has a theoretical range of −100 (far left) to +100 (far right) for *ideology*. Second, I calculate the *defense spending emphasis* with the same manifesto data by subtracting the percentage of negative statements about defense spending from the percentage of positive statements.[6] This provides a continuous measure with negative values indicating anti-defense spending positions and positive values indicating pro-defense spending positions. I anticipate that parties' efforts to increase defense spending will be displayed prominently in their manifestos, with the requisite media coverage and attention from political elites.

To measure international hostilities, I count the number of hostile militarized interstate disputes (MIDs) involving that country in the 36 months prior to the start of the fieldwork from the Correlates of War project (version 4.0).[7] Schultz (2001: 73–76) has demonstrated that the public's attention to international crisis is directly related to the hostility of the crisis. This count variable therefore includes only those disputes that reach the level of a use of force or war.

Finally, I expect that the defense spending vote will be largest for the party that occupies the Prime Minister. I use

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[3] There is no "last vote" question in 2006 for the USA so I dichotomize the party affiliation variable.

[4] In those surveys where the previous vote is used, the conditions are measured at the previous election.

[5] Some variables are only available for certain modules, such as *taxes high* (I), *redistribute* (I–III), *progressive tax* (I–II), *world worse* (I), *retrospective threats* (IV), and *lower class* (I–III). The availability of other questions depends on the survey and country.

[6] More specifically, this is "per104" minus "per105".

[7] A series of hypothesis tests (shown in the *Additional Materials* file) suggests that the most appropriate length of time in terms of model fit (R^2 and RMSE) is 36 months.

Table 1
Sample characteristics.

Country	Module	Fieldwork[a]	Parties	Disputes[b]	Observations
Austria	I	02may1986–30jun1986	2	0	548
Australia	I	01nov1986–31dec1986	3	0	974
	II	01mar1990–31jul1990	4	0	1454
	III	01jan1996–31dec1996	4	0	1343
	IV	11jul2007–16oct2007	4	0	1391
Bulgaria	III	01feb1997–31may1997	2	0	380
Canada	III	01nov1996–30dec1996	5	2	320
	IV	03mar2006–31oct2006	4	1	374
Croatia	IV	01oct2006–30nov2006	4	0	185
Czech Republic	III	15oct1996–14dec1996	6	0	507
	IV	19oct2006–27nov2006	5	0	474
Denmark	IV	30jan2008–05may2008	7	0	843
Finland	IV	20sep2006–24nov2006	6	0	501
France	III	07oct1997–07dec1997	6	1	670
Germany	I	14may1985–30aug1985	4	0	460
	II	12mar1990–25may1990	4	0	1088
	III	29feb1996–01jul1996	4	1	1016
	IV	18mar2006–21aug2006	5	0	757
Hungary	II	01may1990–30may1990	6	0	439
	III	01oct1996–31oct1996	6	0	501
	IV	05jan2006–23jan2006	3	0	449
Ireland	III	01may1996–30jun1996	3	0	277
	IV	01oct2005–28feb2006	3	0	240
Italy	II	08apr1990 - 22apr1990	4	0	383
Japan	III	05jul1996–08jul1996	4	0	338
	IV	18nov2006–26nov2006	3	1	408
Latvia	IV	29may2007–19jun2007	3	0	107
Netherlands	IV	01mar2006–31dec2006	6	0	593
New Zealand	III	24apr1997–05aug1997	4	0	483
	IV	10aug2006–10oct2006	4	0	381
Norway	II	28feb1990–13jul1990	6	0	558
	III	01feb1996–31may1996	6	0	595
	IV	20sep2006–17nov2006	7	1	827
Poland	III	01oct1997–31dec1997	5	0	508
	IV	06feb2008–25feb2008	4	0	582
Portugal	IV	09oct2006–19feb2007	4	0	444
Slovenia	III	01nov1995–31dec1995	6	0	321
	IV	01oct2006–30nov2006	6	0	255
Spain	IV	01jan2006–31dec2006	5	1	750
Sweden	III	01feb1996–31may1996	5	0	527
	IV	07feb2006–28apr2006	7	0	618
Switzerland	III	12may1998–09nov1998	6	0	704
	IV	08feb2007–14aug2007	5	0	383
United Kingdom	I	01apr1985–30may1985	4	2	462
	II	01mar1990–30jun1990	4	0	639
	III	01may1996–30jun1996	3	3	582
	IV	01jun2006–30nov2006	3	1	501
United States	I	01jan1985–31dec1985	2	3	271
	II	01feb1990–30apr1990	2	3	597
	III	01feb1996–25may1996	2	8	715
	IV	07mar2006–08aug2006	2	9	945

[a] January 1 (December 31) is treated as the first (last) day of fieldwork if dates are unavailable.
[b] Number of hostile disputes 36 months prior to survey.

the Seki and Williams (2014) update to the Woldendorp et al. (2000) data set to code the Prime Minister's party as well as the largest opposition party in terms of seat share.

5. Estimating the defense spending vote

My theory posits that some parties will have larger defense spending votes than other parties. While I have presented a series of possible explanations for these variations, unique circumstances exist in each country that are often unmeasurable. In addition to directly influencing which parties will be helped and hurt by the defense spending vote, these unobserved characteristics could

potentially condition the effects of the key explanatory variables.

The solution that I take in this project is to estimate survey-specific models of vote choice, which offers a number of desirable properties. First, I can estimate a model containing all of the possible control variables that are available to that country in that survey. By comparison, estimating one full model on the pooled data would unfortunately require dropping a variable (such as *income quartiles*) if it is missing in any one of the 51 surveys. Second, survey-specific models allow the coefficients to vary according to the factors unique to that time and place that are unobserved to the researcher. The alternative is to estimate

one model on the pooled sample. While this would produce generalizable inferences, it would come at the expense of possibly biasing the inferences due to unit heterogeneity. Third, though parties' baseline levels of support remain largely consistent across time, there are ebbs and flows of support across surveys for a variety of often idiosyncratic reasons. The constants in each model provide an estimate of these varying bases of support for parties. Finally, since the choices of parties available to voters across elections is different (i.e., two-party versus multiparty systems), estimating one complete model on the pooled sample would require a great deal of aggregation in terms of combining possible electoral choices. While no options are ideal, the least problematic would be combining votes into either government or opposition parties. In addition to throwing away a lot of information about electoral choice, this would mask interesting variation about which parties voters support (Whitten and Palmer, 1996).

The three hypotheses require a rather unique research design that first obtains survey-specific estimates of the defense spending vote and then uses meta-analysis to explain the variations across elections, countries and years. Duch and Stevenson (2005, 2008) offer a five-step method to make these types of inferences. First, I estimate multinomial logits of vote intention in each separate election.[8] Assume that there are J unordered parties numbered 1 through J, and let the probability that individual i votes for party m given the values of the explanatory variables (listed above) to be $\Pr(y_i = m|\mathbf{x_i})$. The probability of voter i supporting the first party is: $\Pr(y_i = 1|\mathbf{x_i}) = \frac{1}{1+\sum_{j=2}^{J} \exp(\mathbf{x_i}\beta_j)}$. For the other parties in that election ($m > 1$), the probability is the following: $\Pr(y_i = m|\mathbf{x_i}) = \frac{\exp(\mathbf{x_i}\beta_m)}{1+\sum_{j=2}^{J} \exp(\mathbf{x_i}\beta_j)}$. Note that we are able to derive separate parameter estimates for every variable in $\mathbf{x}$ for $j - 1$ parties, thus allowing us to identify which parties receive how much of the defense spending vote.

Second, I set the values of the control variables equal to those of every respondent in the survey. Since the substantive effects of the variables are "hyper-conditional" on the values of the other explanatory variables (e.g., Berry et al., 2010), this is a preferable alternative than simply setting all the values at some arbitrary mean value that may not reflect an actual configuration of values (Hanmer and Kalkan 2012). Third, I define the *defense spending vote* as the change in probability of voting for party j, given an increase in defense spending attitudes (*dsa*) from favoring "less" (1) to "more" (3), or

$$\frac{\Delta \Pr(y_i = m|\mathbf{x_i})}{\Delta dsa} = \Pr(y_i = m|\mathbf{x_i}, dsa = 3) - \Pr(y_i = m|\mathbf{x_i}, dsa = 1). \quad (1)$$

Fourth, I calculate the defense spending vote for each party (j), across each observation (i). Finally, I average all of these effects across the N respondents in that survey.

In the next section I first generate the survey-specific estimates of the defense spending vote and then I shift my focus to explaining the variation across elections.

6. Findings

6.1. Identifying the defense spending vote

I first hypothesize that changing defense spending preferences from favoring "less" to "more" will have substantively meaningful effects on individuals' vote choice. Since I expect that some parties will benefit from the defense spending vote and others will be damaged by it, the effect will be negative in some cases, zero in some cases, and positive in others.

Fig. 1 tests this hypothesis by depicting the defense spending vote (described above) for each party in the sample, ordered from the most negative effect to the most positive effect. The first inference is that the effects of defense spending preferences vary widely across the sample, and are split almost evenly by those parties that lose (46.2%) and those that gain (53.8%). The range of the defense spending vote is substantial, in that the minimum value means that voters reduce the probability of voting for the Social Democratic Party of Switzerland in 1998 by −0.35, and the maximum value means that voters increase the probability of voting for Christian Democrats of Germany in 1985 by 0.36. Even after estimating models that allow the effects of spending preferences, economic values, and socio-demographics to vary according to the particulars of each election, defense spending preferences have a substantively strong effect.

Moreover, the confidence intervals represent the uncertainty surrounding each change in predicted probability; if the 90% confidence intervals overlap zero, then one cannot reject the possibility that defense spending preferences have no influence on support for that party. Defense spending preferences have a statistically significant effect on support for over a third of the parties (34.5%), with about the same fraction experiencing statistically significant negative (32.8%) and positive (36.5%) effects. By itself, this pattern is difficult to interpret in the context of vote choice models overall.[9] To demonstrate the substantive effects (shown in the *Additional Materials* file), I also generate the survey-specific change in party support for a substantial shift in the *income quartiles* variable from 1 (the lowest quartile) to 4 (the highest quartile). Even though income taps into multiple dimensions of politics (such as class, education, economic redistribution, etc), it influences party support to a lesser extent (it ranges from −0.29 to 0.30 with a standard deviation of 0.09) and in fewer cases than defense spending preferences (statistically significant at the 90% level for only 19.7% of the parties).

This evidence suggests that defense spending preferences certainly have more consistent effects on electoral

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[8] Some of the estimates for smaller parties are unstable because of the few respondents selecting those parties, so I remove the parties receiving fewer than 25 votes from the analysis.

[9] The variations in terms of magnitude of effects and statistical significance in Fig. 1 are certainly comparable to Duch and Stevenson's (2008: 64) estimates of the economic vote for the chief executive.
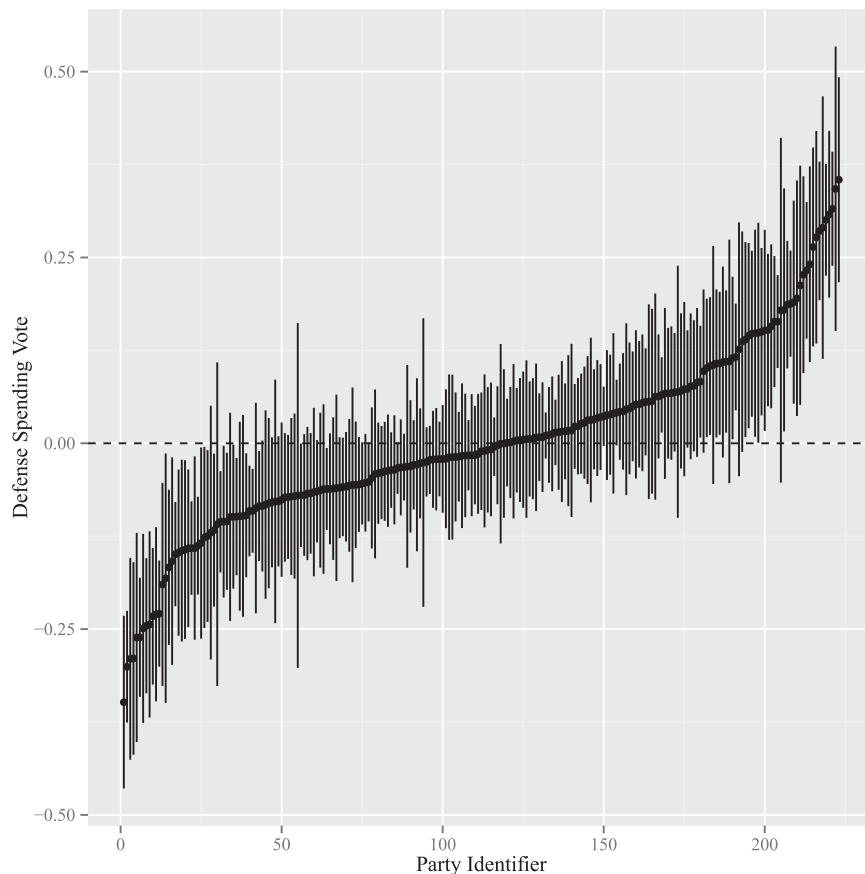
Note: Estimates of the defense spending vote for each party (and 90% confidence intervals), derived from the survey-specific models. The defense spending vote represents the change in the probability of voting for party j, given a shift in defense spending attitudes from favoring "less" to "more". This effect is averaged over the entire sample of respondents for each survey. *Party identifier* refers to the party-specific estimates of the defense-spending vote sorted from smallest to largest.

Fig. 1. Defense spending vote for each party in the sample.

outcomes than the paucity of single-election surveys in unique cases would suggest. However, while it is helpful to identify the presence of a defense spending vote, it is more worthwhile to explain the situations where defense spending varies in importance.

6.2. Explaining the defense spending vote

I theorize that voters will incorporate their defense spending preferences into their vote choice based on the party's general ideological predisposition as well as their emphasis of military spending issues during the election campaign. The next step, then, is to determine if knowing a party's left-right position or its emphasis of military spending helps us predict that party's defense spending vote. If it does, then it supports the hypothesis that left parties (and those that emphasize cuts in defense spending) are hurt by the defense spending vote while right parties

(and those that emphasize increases in defense spending) benefit.

Fig. 2 plots the estimates of the defense spending vote along the party's left-right position (left panel) and along the party's emphasis of defense spending (right panel) from the Comparative Manifesto Project. The figures also include lines from regressing the defense spending vote on the respective variable[10] and rugplots to show the distributions.

In both cases, the relationship is in the expected direction, with right-wing governments and those emphasizing military spending more likely to benefit from defense spending preferences.[11] Furthermore, those variables

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[10] I weight the estimates by the inverse of the standard errors of the predicted probability differences (Lee and Forthofer, 2006), and I account for heteroskedasticity by clustering the standard errors by party.

[11] As one would expect, these two measures are positively correlated ($r = 0.43$, p-value < 0.01).
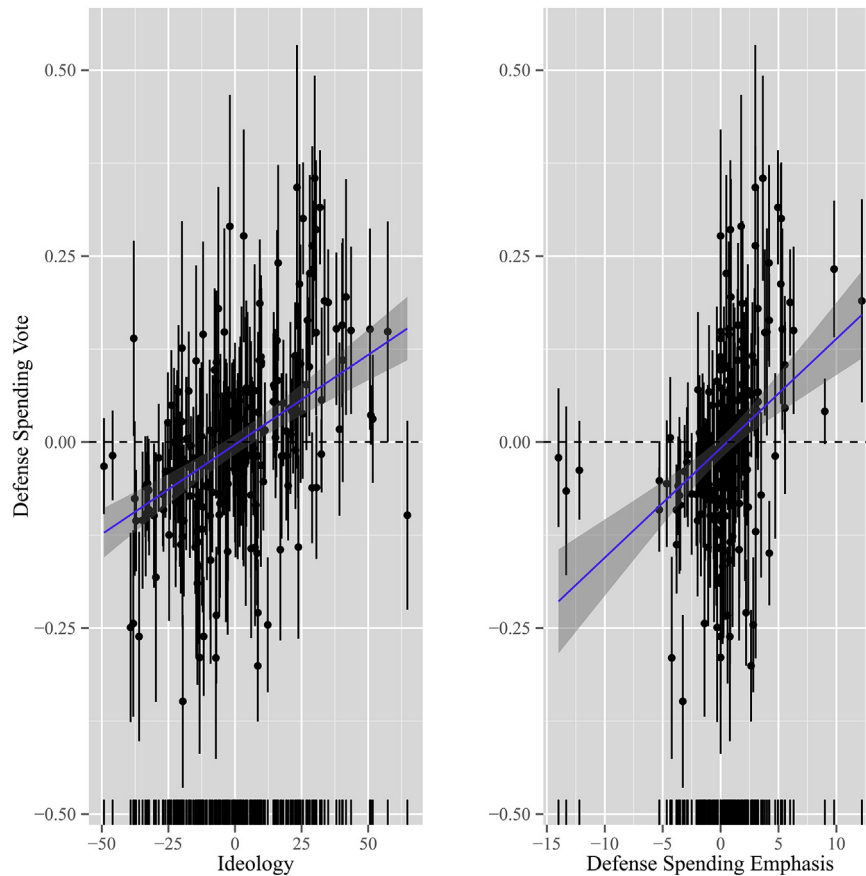
Note: This figure plots the defense spending vote (and 90% confidence intervals) against the party's left-right position (left panel) and its defense spending emphasis (right panel). Regression lines are the following: Vote = -0.003 + (Ideology $\times$ 0.002); R^2=0.22 (left panel) and Vote = -0.008 + (Emphasis $\times$ 0.015); R^2=0.15 (right panel).

Fig. 2. Partisanship and the defense spending vote.

individually explain 22% and 15% of the variation in the defense spending vote, respectively (the full set of results are provided in the *Additional Materials* file). Since the "observations" in these figures are themselves estimates from multinomial logits they necessarily violate the assumption that observations are fixed in repeated sampling (Kennedy 2003: 157), so one must be cautious about interpreting the statistical significance of the macro relationship. Nevertheless, it is clear that a party's ideological position and partisan emphasis play key roles in connecting defense spending preferences to vote choice.

The salience of defense spending—and thus the ability of voters to easily access and use their preferences—likely depends on international issues. The degree to which voters are aware of and incorporate perceptions of international hostilities is an empirical question. Indicators of model fit suggest that the appropriate variable is to measure the number of hostile militarized interstate disputes (MIDs) in the 36 months prior to the election (though the results are largely similar if limited to the 6-, 12-, and 24-

months prior). If international hostilities heighten the importance of issues of national security in general and defense spending in particular, then I expect to see that the effects of partisanship and defense spending emphasis are exaggerated during these times.

Fig. 3 replicates the plots from Fig. 2 for subsamples where countries experienced at least one hostile MID in the 36 months prior compared to countries with no disputes.[12]

As expected, the slope of the line for the subsample representing hostile conditions is steeper than the slope for the full sample of parties. This suggests that international hostilities—and the accompanying increase in media coverage and elite discourse—play a crucial intervening role in the effects of partisanship on the defense spending vote.

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[12] 42 of the 208 estimates have non-zero values for this variable, including parties in the US, UK, Canada, France, Germany, Japan, Spain and Norway (see the final column of Table 1).
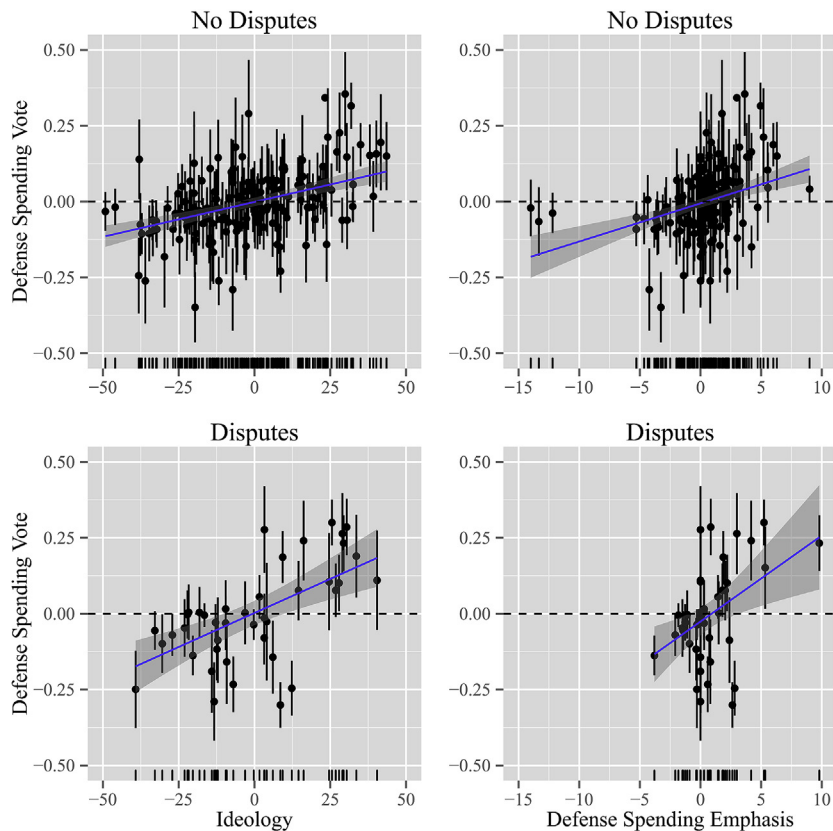
Note: This figure plots the defense spending vote (and 90% confidence intervals) against the party's left-right position (left panel) and its defense spending emphasis (right panel). Lines depict separate predicted regression values for samples with and without hostile MIDs in the 36 months prior.

Fig. 3. Partisanship, international hostilities and the defense spending vote.

The final conditional hypothesis is that the effects of defense spending preferences will be tied to the extent to which the party is identifiable as having influenced the size of the defense budget. The easiest way to assess this relationship is to divide the defense spending votes into whether the party controls the Prime Minister or not, and whether the party belongs to a left- or right-wing party family.[13]

The left panel of Fig. 4 shows box–whisker plots of the defense spending vote according to whether the left- or right-wing party occupied the Prime Minister or not. The bulk of the observations for left parties (both non-PM and PM) are negative while the bulk of the observations are positive for right parties which is consistent with Fig. 2. More importantly, Fig. 4 provides support for Hypothesis 3 since it shows that the effects of partisanship on the defense

spending vote are exaggerated for the party that controls the PM; left PMs are hurt more by the defense spending vote than non-PM left parties, and right PMs gain more from the defense spending vote than non-PM right parties.

The right panel of Fig. 4 further explores this relationship by comparing the defense spending vote of PM parties to the largest opposition parties. If voters base their decisions on defense spending preferences, then the most likely targets (or beneficiaries) of the defense spending vote are the largest opposition parties. Fig. 4 shows that, while right-wing parties clearly benefit at the expense of left-wing parties, there is little difference in the magnitude of the defense spending vote for the PM compared to the largest opposition party. This suggests that partisanship is a stronger determinant of the defense spending vote than control over the defense budget.

7. Conclusion

I theorize that defense spending preferences influence vote choice through elite discourse. The magnitude of the defense spending vote depends on factors relating to elite discourse, such as the extent to which a party stresses

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[13] Rather than making some arbitrary distinction of "left" versus "right" parties based on the continuous left-right scale, I follow the lead of Adams et al. (2006: 526) and use party families. Left parties are Communist, Social Democratic and Green while right parties are Conservative, Christian and Nationalist. Center parties (those belonging to the Liberal party family) are excluded, leaving 148 parties.
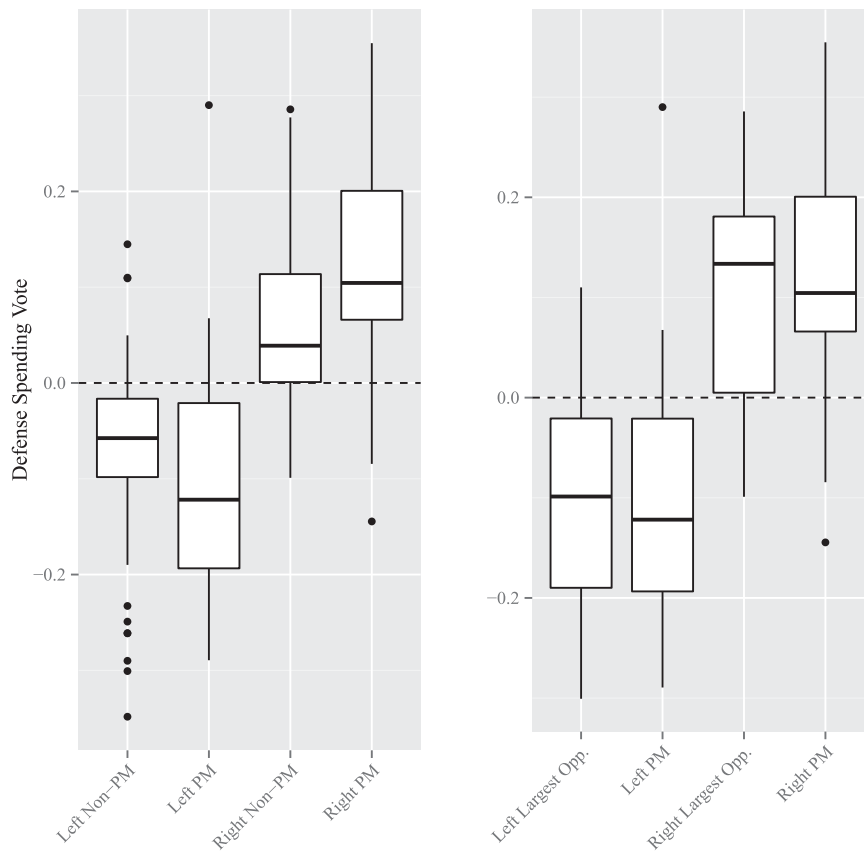
Note: The boxes represent the 25th, 50th and 75th percentiles. Left and right parties are coded based on party families.

Fig. 4. Box–whisker plots of the defense spending vote across partisanship and Prime Minister parties.

military issues in its manifesto, as well as the party's policy-making authority. More specifically, I find that parties that emphasize defense spending or rightist issues, will experience larger gains from the defense spending vote. These effects are conditioned by the relative salience of international threats, as shown by the presence of international hostilities.

Studies have found that defense spending attitudes influence election results in only the rarest of circumstances, such as when it is a highly salient issue due to media emphasis or international events (e.g., Miller and Shanks, 1982). This would suggest that—outside of a few situations where foreign policy events occupy the forefront of the policy agenda—that leaders are not accountable for their spending choices, and therefore relatively free from constraints to present their preferred rates of spending. The findings from this project cast doubt on this assertion, and suggest that attitudes about defense spending are accessible enough to influence electoral considerations in reasonable ways.

This project offers evidence that warrants a reconsideration of how scholars treat foreign policy issues in their models of vote choice for three reasons. First, this is the first project that demonstrates a defense spending vote across a number of advanced democracies facing varying economic and international conditions. Second, this piece suggests that foreign policy influences vote choice through positional issues in addition to valence assessments. Finally, the results provide evidence of a strong link between the emphasis of national security issues in electoral campaigns and vote choice, a finding that suggests that the public exercises significant control over the foreign policy choices of executives.

Appendix

This appendix discusses the question wording and precise coding of the variables used in the multinomial logit models of vote choice. All of these questions are from the various modules of the International Social Science Programme—Role of Government (see Table 1). The model specification for each survey is comprised of all the following variables that are available for that country in that survey.

Spending preferences includes the following:

- *Defense spending*: "Please show whether you would like to see more or less government spending in each area. Remember that if you say 'much more' it might require a tax increase to pay for it [defense spending]". 1 = spend less, 2 = spend the same, 3 = spend more.
- *Health spending*: same coding as above.
- *Create jobs*: "Are you in favor of or against [government financing of projects to create new jobs]?" 0 = against/neither, 1 = favor.
- *Cut spending*: "Are you in favor of or against [cuts in government spending]?" 1 = favor, 2 = neither, 3 = against.
- *Taxes high*: "Do you consider the amount of income tax that your household has to pay is …"? 0 = too low/about right, 1 = too high.
- *Redistribute*: "What is your opinion of the following statement? It is the responsibility of the government to reduce the differences in income between people with high income and those with low incomes." 1 = disagree strongly, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = agree strongly.
- *Progressive tax*: "Some people think those with high incomes should pay a larger proportion of their earnings in taxes than those who earn low incomes. Other people think that those with high incomes and those with low incomes should pay the same proportion of their earnings in taxes. Do you think those with high incomes should … ?" 1 = pay a much smaller proportion, 2 = pay a smaller proportion, 3 = pay the same proportion, 4 = pay a larger proportion, and 5 = pay a much larger proportion.

International threats includes the following:

- *World worse*: "Taking everything in account, the world is getting better." 0 = disagree, and 1 = agree.
- *Retrospective threats*: "How successful do you think the government is nowadays in each of the following areas … [dealing with threats to security]?" 0 = successful/neither and 1 = unsuccessful.

Socio-demographics includes the following:

- *Age*: ranges from 15 to 98.
- *Male*: 0 = female, and 1 = male.
- *Income quartiles*: Household income. Quartiles are determined based on the distribution for each survey. 1 = lowest 25%, 2 = second 25%, 3 = third 25%, and 4 = highest 25%.
- *Public employee*: 0 = does not work for government or nationalized industry, and 1 = works for government or nationalized industry.
- *Union*: 0 = neither is a member, and 1 = respondent or spouse is a member of a labor union.
- *College*: 0 = no college degree, and 1 = college degree.
- *Religiosity*: frequency of church attendance. 0 = never, 1 = 1–2 times per month or a few times a year, 2 = almost every week, and 3 = every week.
- *Lower class*: self-identified social class. 0 = middle/upper class, and 1 = lower class.

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