Modeling spending preferences & public policy

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ABSTRACT

Understanding preferences over government spending is important for understanding electoral behavior and many other aspects of the political world. Using data on relative preferences for more or less spending across different issue areas, we estimate the general spending preferences of individuals and congressional candidates along a left-right spending dimension. Our modeling approach also allows us to estimate the location of policies on this same dimension, permitting direct comparison of people's spending preferences with where they perceive policy to be. We find that public shows very low levels of polarization on spending preferences, even across characteristics like partisanship, ideology, or income level. The distribution of candidates' spending preferences shows much more sorting by party, but candidates are significantly less polarized than is contemporary voting in Congress.

1. Introduction

Deciding how much to spend and on what is one of the most consequential tasks of a modern day government. The United States government, despite spending a relatively small percent of the country's GDP in comparison to many advanced industrialized democracies, still spends an amount roughly equal to one fifth of the nation's economic output. At the same time, the size of government, which is closely linked to spending, is commonly seen as one of the most prominent issue dimensions dividing the two major political parties in modern U.S. politics, playing a significant role in electoral politics. This makes understanding preferences for spending, particularly in relation to spending levels on specific issues, a particularly important task for scholars.

However, the usual instrument for measuring public opinion — the survey question — has some difficulties measuring spending preferences, which limits the study of spending preference and policy in the electoral arena. While it is easy to imagine that survey respondents can provide meaningful answers to questions on non-spending issues, such as "Do you believe that same-sex marriage should be legal?" or "Under what circumstances do you think that abortion should be allowed?," spending policy is denominated on a scale that is virtually unfathomable to all but the most informed policy wonks.[1] Therefore, surveyors usually ask a less demanding question about respondents' relative preferences — whether they would like to see spending increased, decreased, or kept about the same.[2] A notable application of this logic is the thermostatic model of public opinion and policy (Wlezien, 1995; Soroka and Wlezien, 2010; Wlezien and Soroka, 2012; Pacheco, 2013). In this model, citizens' relative preferences represent the difference between

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[1] Previous work has highlighted the difficulty that citizens have in estimating quantities such as the inflation or unemployment rates (Conover et al., 1986) or overall economic conditions (Holbrook and Garand, 1996). Gilens (2001) shows that perceptions about the percent of the federal budget devoted to foreign aid are often very far from the true values. Spending levels would seem to be an order of magnitude more difficult to comprehend. Even knowing whether spending on most areas is measured in millions, billions, or trillions is likely beyond the capacity of many Americans. Ansolabehere et al. (2012) show that survey respondents can understand familiar economic quantities, particularly when provided with benchmarks. This work, however, focuses on numbers that respondents are likely to come into direct contact with in the course of their daily lives such as the price of gasoline. Our focus on federal spending levels seems quite different from these quantities.

[2] There are, of course, other ways of measuring preferences related to spending. One such way is to ask about the general level of spending or taxation rather than spending on a given policy (for examples, Hansen, 1998; Krimmel and Rader, 2017). Using relative preferences gives us the advantage of being able to use multiple questions to jointly scale preferences of the public and congressional candidates together (see Ansolabehere et al., 2008, for a discussion of why using multiple measures of preferences is especially useful).

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the citizen's preferred, or ideal, policy position and the actual location of policy on a given issue. Other scholars have focused on determining how spending preferences on specific issues influences voters' electoral choice (Williams, 2015) or how personal experience with welfare benefits can affect vote choice (Orriols, 2010).

While relative preferences are interesting, they are limited in what they can tell us by themselves. We cannot, for example, measure *distance* — that is, when two people both say that they prefer greater spending, we cannot say whether one of them prefers much more and the other just a little more, or whether they both want a great deal more. Similarly, when a respondent answers that spending is "about right," we have no way of knowing whether spending is exactly right for them or whether they would prefer a little more or a little less. This is important if we want to compare how well represented different groups of the public, if we seek to understand the role of spending preferences in electoral decisions, or if we are interested in studying polarization. Relative preferences also do not give us information on respondent's *overall* spending preferences. While ideology represents a simplification of politics into a left-right space, we lack a comparable measure for spending preferences.[3]

In the next section, we develop a model that uses respondents' stated relative spending preferences to estimate an overall spending preference for each respondent. Previous research has already shown that it is reasonable to scale some issues together to measure underlying spending preferences (Jacoby, 1994; Schneider and Jacoby, 2005; Jacoby, 2008). Our model also estimates the position of spending policy on each specific issue on the same scale as respondent preferences. Following this, we use data from the 2014 General Social Survey (GSS) to estimate the model and discuss the parameter estimates.[4] In addition to constructing a measure for spending preferences and policy location, we also contribute to two debates in the literature.

First, our estimates of citizens' ideal points and policy positions suggest that spending on most policies is lower than many individuals' preferences. There may be systematically lower spending levels than a majority prefers, though limitations of the data make this difficult to say with certainty. These results are in line with scholars who suggest that the government budget is too small (Downs, 1960). Since increased spending is usually associated with liberalism, our results are also in line with studies that find that policy is oftentimes to the right of what people want (Lax and Phillips, 2012; though they focus at the state level).

Second, we also show that there is little polarization in the public, at least with regard to spending preferences. Although the public may be polarized on other issues, it does not appear to be polarized by spending preferences.[5] Additionally, there is virtually no difference in spending preferences across income levels, and only a little across party lines or self-reported ideology. This suggests that, with regard to spending preferences at least, there is little polarization in the public.

From there, we apply our framework to estimate spending preferences of citizens and candidates in congressional elections on the same scale. This is possible because the 1998 GSS and the 1998 National Political Awareness Test, a survey fielded to candidates running for election to the U.S. Congress, used identical or nearly identical questions about spending preferences. These results allow for the direct comparison of spending preferences of the mass public and political elites.

We show that while there is very little partisan polarization among the spending preferences of ordinary citizens, congressional candidates show relatively strong divergence by party in terms of their preferred level of government spending (this is in line with other literature on the subject; see for example Theriault, 2006, 2013). Again, comparing spending levels with spending preferences we find that spending on most policies is lower than median preferences.

2. An item response model of spending preferences

Because measuring absolute spending preferences directly through survey questions is infeasible, we propose a model that uses data on relative preferences across specific spending areas to estimate absolute preferences for overall spending. Our approach is related to that of Richman (2011), who combines DW-NOMINATE scores (Poole and Rosenthal, 2011) with legislators' expressed relative preferences in order to estimate the positions of status quo locations. Instead of using exogenous preference estimates, however, we estimate both the preferences of individuals (and later, candidates) and the locations of spending policy in specific areas on a common overall spending dimension.

We build on the ideal point framework commonly used to measure ideology and other latent attitudes in political science (see, for example, Poole and Rosenthal, 1991; Heckman and Snyder, 1996; Clinton et al., 2004). Let x_i represent individual i's ideal point along a spending dimension.[6] Since we are dealing with spending issues, x_i represents a respondent's overall preference for government spending.

Under our model, person i's preferred spending level in policy area j is given as:

$$y_{ij}^* = x_i \beta_j + \varepsilon_{ij} \tag{1}$$

where x_i is individual i's overall spending preference, β_j is an issue-specific discrimination parameter, and $\varepsilon_{ij} \sim N(0,1)$ is a disturbance term assumed to be independent across respondents i and issues j.

We do not directly observe y_{ij}^*, but instead observe the response y_{ij}, referred to in the literature as a "relative preference," a trichotomous outcome of either "too much," "about right," or "too little," assumed to be generated according to:

$$y_{ij} = \begin{cases} \text{"too much"} & \text{if } y_{ij}^* < \kappa_{1j} \\ \text{"about right"} & \text{if } \kappa_{1j} \leq y_{ij}^* < \kappa_{2j} \\ \text{"too little"} & \text{if } \kappa_{2j} \leq y_{ij}^* \end{cases} \tag{2}$$

where κ_{1j} and κ_{2j} are question-specific cutpoints between the three response options.

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[3] Of course, the work on the public's "mood" is related to this (Stimson, 1991; Erikson et al., 2002; Enns and Kellstedt, 2008). Stimson, however, includes non-spending information in his measure. There are also other attempts at creating a spending-specific mood measure (Ura and Ellis, 2012), which we discuss more below.

[4] We also analyze a question wording experiment embedded in the GSS for a majority of the spending issues, showing that most estimates are unaffected by changes in wording.

[5] The literature on polarization is vast and somewhat polarized itself. Abramowitz and Saunders (2008); Baldassarri and Gelman (2008); Webster and Abramowitz (2017), for example, argue that the public is more polarized. Fiorina and Abrams (2008); Levendusky (2009) argue otherwise. Others argue that polarization is more complicated. Perhaps it has occurred in some issue areas, like climate change (McCright and Dunlap, 2011), or only among partisans (Lelkes, 2016).

[6] Others have argued that individuals' spending preferences (x_i in our model) are related and unidimensional (for example Jacoby, 1994, 2008). If preferences in a certain policy are either only weakly related or unrelated to this single dimension, as some previous research finds, then the associated discrimination parameter β will be at or near zero.