The Party or the Purse? Unequal Representation in the U.S. Senate

Jeffrey Lax*  
Department of Political Science  
Columbia University  
JRL2124@columbia.edu

Justin Phillips
Department of Political Science  
Columbia University  
JHP2121@columbia.edu

Adam Zelizer
Department of Political Science  
Columbia University  
APZ2002@columbia.edu

October 11, 2017

Abstract

Recent work in political science has argued that policy outcomes at the national level are more responsive to the preferences of the affluent than to the preferences of lower-income Americans, so much so as to perhaps lead to conclusions of elite domination. This line of work tends to minimize or disregard party—not only any differences between the behavior of Democrats and Republicans, but also any extra responsiveness to a representative’s fellow partisans back home (e.g., a Democratic Senator in WV giving extra weight to WV Democrats). We bring party back in to disentangle the influence of the affluent from that of partisan responsiveness. We use 50 roll-call votes from the past eight legislative sessions, including many important economic, social, and foreign policy votes. We estimate constituent preferences by income and party within state using advances in multilevel regression and poststratification (MRP). Paying attention to party changes our understanding of unequal representation: A senator’s co-partisan constituents overpower class clout. Democratic senators’ votes match public opinion more than those of Republicans. The rich do get what they want more often, but only from Republican senators, and only when Republican constituents align with the rich.

*This project was funded in part by a grant from the Russell Sage Foundation.
1 Introduction

There is a growing popular consensus that America democracy provides disproportionate political representation to the wealthy. This consensus is buttressed by a well-known body of political science research showing that government policy is more responsive to the preferences of the affluent than it is to the preferences of either the middle class or the poor (Bartels 2008; Gilens 2005, 2012; Rigby and Wright 2011; Gilens and Page 2014). The existence of a class-based political inequality is normatively troubling in part because it implies that low-income individuals may be unable to use democratic processes to secure policies that slow or reverse America’s already burgeoning economic inequality. It also raises the specter of a vicious cycle in which the disproportionate influence of the affluent leads to policies that further exacerbate economic inequality and thereby further enhance the political power of those already at the top of the economic ladder.

The claim of unequal responsiveness, however, has not gone unchallenged. A handful of dissenting studies find little or no evidence that the poor and middle class consistently lose to the affluent when it comes to battles over public policy (Ura and Ellis 2008; Soroka and Wlezien 2008, 2011). Others note that the implications of unequal responsiveness may be overstated. Enns (2015a,b), for example, notes that because policy preferences seldom differ by income groups, low- and middle-income individuals receive a great deal of “coincidental representation” even when politicians respond primarily to the affluent. Branham et al. (2017) find that the ideological impact of affluent influence is attenuated by the fact that well-to-do constituents have a mix of liberal and conservative policy preferences.

As demonstrated by these conflicting sets of studies and given the methodological concerns we discuss below, there remain unresolved debates regarding the pervasiveness, the nature, and the importance of unequal responsiveness. Indeed, even if one accepts that unequal responsiveness is common, we know relatively little about the conditions under which it is likely to arise or how it compares to other documented “distortions” in representation, such as the tendency of lawmakers to respond more to the preferences of their co-partisans than to the median voter (e.g., Kastellec et al 2015). Furthermore, given the high correlations that often exist between the preferences of
different income subgroups, it has been difficult for existing work to separate unequal influence from epiphenomenal congruence between preference and policy.

We investigate the claim of unequal representation in national policymaking, doing so in new way. Rather than looking at system level outcomes like most existing studies, we consider the responsiveness of members of Congress, comparing the roll call votes of individual senators to the preferences of their constituents across a variety of income categories. Most importantly, we also bring party back in, which means asking whether senators listen to their co-partisans more, giving them extra weight and perhaps choosing to please them rather than the home-state median voter. It also means looking at behavioral differences between Democratic and Republican senators.

We focus on a series of roll-call votes (39 in total) from eight prior legislative sessions. These include some of the most important economic, social, and foreign policy votes cast by members of Congress during this period of time. Our sample of votes includes healthcare reform, President Obama’s stimulus bill, an extension of the Bush tax cuts on capital gains, the Federal Marriage Amendment, and a vote to withdraw American military personnel from Iraq.

To estimate public opinion we will rely upon multilevel regression and poststratification (MRP). This technique, first presented by Gelman and Little (1997), uses national surveys and advances in Bayesian statistics and multilevel modeling to generate opinion estimates by demographic-geographic subgroups. MRP has been shown to produce accurate estimates of public opinion by state and by congressional district. Here, because of the importance of accurately estimating preferences across incomes groups, we developed a more nuanced MRP that allows for the effects of income on opinion to differ across states, effectively incorporating the finding of Gelman, et al. (2007) that the impact of income on political preferences differs across states. The survey data we employ come from the Cooperative Congressional Election Study (CCES), the National Annenberg Election Survey, and a variety of other reputable polling firms (e.g., Gallup, Pew, etc.). The surveys ask respondents how they would vote on a variety of salient pieces of legislation if they were a member of Congress or how they would like their member of Congress to vote. By using policy-specific survey questions, we are able to place our measures of public opinion and roll
call votes on a common metric, avoiding problems of inference that arise when scholars employ aggregate liberalism or other indirect measures of preferences (Achen 1978; Matsusaka 2001).

We employ our estimates of opinion in two ways to assess democratic responsiveness. First, we examine the strength of association between the preferences of different income groups and Senators’ roll call votes. To the extent that policymakers respond more to the preferences of their higher-income constituents (as found in Gilens 2012), we expect higher-income groups’ preferences to be better predictors of roll call votes than the preferences of lower-income groups, net of the various control variables we include in our analyses. Second, we consider congruence, that is, the matching of policy to the majority preferences within each income category. In particular, we focus on those policy areas where there is disagreement across income groups. If senators are more responsive to their wealthy constituents, we should observe a higher rate of congruence for the top income groups. There is an important advantage to analyzing congruence with data like these—the high correlation between preferences across income categories can make it hard to identify the unique impact of preferences at different income levels (due to multicollinearity among the preferences of all three groups in a single regression model). Our congruence analysis compensates for this. Indeed, even given uncertainty in estimating exact opinion levels, estimates of what the majority wants are more robust, and may yield even starker differences in income group policy success.

In addition, we will also document the extent to which the quality of representation received by the lower and middle classes varies across issue areas. Are these voters better represented on social or economic matters? Are elected officials making predictable tradeoffs across income groups and issues areas? That is, are they choosing to represent the affluent when it comes to most policy decisions, but deferring to lower- and middle-income voters under certain circumstances? Furthermore, since we have preferences and policy (i.e., votes) on a common metric, we can evaluate hypotheses that representational inequality varies by lawmaker type. Existing work, because of either the particular preference measures employed (Bartels 2008) or the outcomes studied (Gilens 2012), has been unable to consider this sort of variation. Though we only begin to do so here,
we can, for example, interrogate the frequently offered hypothesis that representational inequality stems in part from the fact that politician themselves tend to be more affluent than the average voter, and thus are simply pursuing the interests with which they are familiar. Another possibility is that increased Republican power at the Federal level drives increased attention to the wealthy. To evaluate this hypothesis, we consider whether Republican lawmakers are more likely than their Democratic counterparts to follow the wishes of wealthier constituents.

As part of this project, we also compare differential responsiveness by income to another potential pathology in representation—the tendency of lawmakers to respond more to the opinions of their co-partisans than to the opinions of the median voter. Recent empirical work has found that senators more heavily weight the preferences for their partisan base when casting roll call votes on the confirmation of nominees to the Supreme Court (Kastellec et al. 2015). We extend this existing work by considering differences in responsiveness to partisan subconstituencies across a range of issues and placing this in the context of varying responsiveness across economic class. We also explore the possibility that what looks like asymmetric responsiveness by income, may in fact be, partisan responsiveness or a symmetries in responsiveness across parties, as in Krimmel et al. (2016). To facilitate this analysis we not only estimate state-level public opinion by income groups, but also (separately) by partisanship, generating estimates of support for each roll call vote by a senator’s Democratic, Independents, and Republican constituents.

In studying differential responsiveness, the preferences estimates we generate provide important new descriptive statistics about subnational public opinion. These estimates tell us how much the opinions of the wealthy differ from those of the middle- and lower-classes at the state level. Our estimates also answer questions about which issues areas have the largest class-based differences and the states in which differences are largest. Our estimates also tell us the corresponding information about state-level differences in opinion between Democrats and Republicans, placing class and partisan differences in context. Therefore we can also discuss on which dimension conflict occurs.

Overall, our investigation will advance the growing literature on the political economy of
inequality by developing a more complete understanding of the dimensions, causes, and dynamics—both micro and macro—of differential representation. By identifying alternative sources of representational inequality, our findings could be of practical use to reformers within and outside of government.

2 Thinking About Representation

We strongly agree with Gilens (2012, 47) that there is “no single right way” to study representation and differences in representation, but we should note the fault lines and explain why we make the choices we do. We do this in the context of the substantive inquiries of this paper. See Erikson (2015) for a recent overview and discussion of the relevant literature, including the reasons why the rich might have disproportionate influence (also see Bartels 2008, 252, and Gilens (2012, etc.).

The key fault lines in the recent responsiveness literature are as follows, with overlap among them. Should we use aggregate measures of policy and preference such as ideology scores (“lumping”) or study individual policies or votes and opinion about them (“splitting”)? Should we focus on aggregate policy outcomes such as actual policy change or the votes by representatives leading to such outcomes (another form of lumping versus splitting)? Should we focus on broad or diffuse ideology or specific public opinion? Should we look at responsiveness to public opinion (over time or cross-sectionally), or should we also consider congruence (votes or outcomes matching majority preference)? We strongly prefer multipronged attacks on studying representation, with a prioritization given to actual votes cast by those who might be responding to public opinion, with measures of opinion directly related to the choices at hand. We prefer to consider both responsiveness and congruence. Multiple metrics and details of responsiveness are necessary to make responsiveness a useful metric of democratic representation.

Some argue that it not reasonable to expect issue-by-issue responsiveness, that we should focus on ideological responsiveness only (Erikson, slides cite here). In line with this, Bartels looks for partisan differences using measures of diffuse ideology. Lump ing this way does average out idiosyncratic variance, and it avoids making too much out of narrow policy questions that the
public over which will not have meaningful opinion. (To be sure, it is not necessarily the case that the public has a meaningful conception of liberal versus conservative sufficient to treat ideology measures as precisely as they are sometimes.)

We disagree that one should only focus on the aggregate ideological level and will argue for the use of opinion on specific policy measures. Consider first the problems shown in Erikson, Wright, McIver (1993, 93), in that one cannot distinguish accurate representation from hyper- or hypo-representation or distinguish liberal or conservative bias, using lumpy responsiveness only. If the scales of opinion and of policy-making are not the same, the slope and intercept do not have a direct meaning, so that the responsiveness curve observed can be too steep or too shallow, and shifted left or right, and we will not know. Without a common scale, it is hard if not possible to draw any conclusions on degrees of representation (or compare degrees of representation) or of policy bias. If policy has conservative bias relative to opinion, stronger responsiveness can be worse than no or weaker responsiveness in terms of people getting what they want. If we do not know what slope should occur, comparisons across subgroups become equally meaningless. As Gilens (2012, 41) puts it, “broad measures of liberal versus conservative leanings conceal... and hinder.”

Some toy examples will show additional problems with aggregate or lumping demonstrations of responsiveness. Suppose we have three states (conservative state C, liberal state L, and a moderate state M, based on average opinion across issues) and three liberal policies a state might have. We might graph a liberal opinion index and a liberal policy index, and see a comforting responsiveness curve:

*Responsiveness in Example 1: Lumping*
Yet here are the opinion measures that we averaged to form the opinion index and the policy outcomes in the state (with a checkmark indicating the state has the policy) we counted to form the policy index:

**Opinion and Policy: Example 1**

<table>
<thead>
<tr>
<th>State</th>
<th>Policy 1</th>
<th>Policy 2</th>
<th>Policy 3</th>
<th>Opinion Index</th>
<th>Policy Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>99</td>
<td>45✓</td>
<td>45✓</td>
<td>63</td>
<td>2</td>
</tr>
<tr>
<td>M</td>
<td>41✓</td>
<td>65</td>
<td>65</td>
<td>57</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>55</td>
<td>0</td>
</tr>
</tbody>
</table>

If we graph responsiveness separately for each policy, we get the following:

**Responsiveness in Example 1: Splitting**

For each policy, responsiveness is actually perverse, with more liberal opinion “causing” a lower chance of the liberal policy. Obviously, we do not expect actual perverse responsiveness; the point is that even perverse responsiveness is fully compatible with the lumping appearance of “normal” responsiveness. Now consider a second example, using the same approach, and graphing
Responsiveness with a splitting approach:

**Opinion and Policy: Example 2**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>0</td>
</tr>
<tr>
<td>M</td>
<td>55 ✓</td>
<td>35</td>
<td>36</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>01</td>
<td>55 ✓</td>
<td>64 ✓</td>
<td>40</td>
<td>2</td>
</tr>
</tbody>
</table>

**Responsiveness in Example 2: Splitting**

For each policy, the responsiveness curve looks normal, with higher liberal opinion associating with a greater “chance” of the liberal policy. Here are the opinion and policy details, and a graph doing a lumping comparison of policy and opinion.

**Opinion and Policy: Example 2**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>0</td>
</tr>
<tr>
<td>M</td>
<td>55 ✓</td>
<td>35</td>
<td>36</td>
<td>42</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>01</td>
<td>55 ✓</td>
<td>64 ✓</td>
<td>40</td>
<td>2</td>
</tr>
</tbody>
</table>

**Responsiveness in Example 2: Lumping**
We now find perverse lumping responsiveness, where actually policy was responsive to opinion, policy by policy. Even a common scale formed through lumping can be highly misleading.

It is in our view too lenient a test to pat democratic representation on the head for, say, making abortion policy more conservative when it is opinion on immigration issues that got more conservative, yet lumping to produce policy indices or ideological scores does just that. If one does not think that ideological responsiveness matters deep down because the voters get actual policies they way, if it is really about only the ideological feel of a policy basket without looking inside at any contents, then one cannot say the careful, clever, and nuanced showings of ideological responsiveness say much about democratic representation. More liberal states or voting records could match liberal opinion, without any meaningful representation actually taking place. If you think lumping responsiveness is worthy of study and of normative value, it must be because you think the contents of the policy basket matter.

We seek to avoid the aforementioned scale and aggregation problem by splitting, that is, by estimating opinion on specific policies, so that they automatically fall on the same directly meaningful scale. To be sure, we agree that it is unrealistic to expect the public to have opinions on minute policy details. We prefer splitting and then lumping, in which a large number of reasonably salient policies are tied to specific opinion, and then we compare a large number of them, constructing indices, etc., as needed, gaining the same benefit of washing out idiosyncratic variance. This is particularly important for dichotomous congruence measures, which can depend too sharply on the 50-50 cutpoint if one is not careful. Then too, congruence without responsiveness is nice for constituents but does not suggest anything about actual responsiveness (policy can match majority will sometimes even when responsiveness is perverse). Responsiveness without congruence means either bias or a weaker opinion-policy link.

This places our work closer, in methodological style, to that of Gilens than that of Erikson or Bartels. Like Gilens, we recognize that dyadic work tying opinion and policies has issues as well (see Gilens 2012, 44), including that the agenda of items that can be voted on or passed can be censored by institutional actors. Some things are not voted on, and some are not polled. We
have limited our work to more salient items, as indicated by having been polled, but in our current scope focusing on those items receiving votes, we do risk overstating responsiveness compared to issues that do not come up for a vote.

Our line of attack is also delineated by our focus on a level of choice beneath aggregate policy outcomes. Gilens argues for the study of policy changes rather than votes, on the basis of prioritizing bottom-line outcomes: “If representatives’ votes reflect their constituents’ wishes, but other elements of the legislative process prevent those wishes from being realized in policy outcomes, the resulting responsiveness is of little benefit to the public” (Gilens 2012, 41). On the other hand, Gilens argues we should dismiss epiphenomenal responsiveness, discounting his own finding that the poor often get what they want because they happen to agree with the rich. This suggests a prioritization of causality, which would lead one instead to focus on the votes of senators and other elite actors, instead of prioritizing bottom-line outcomes. There would then seem some tension in these recommendations, as we seek to build on Gilens.

We would resolve this as follows: Responsiveness does require causality, which would occur through actual elite choice. How much we care as as normative matter about responsiveness and differences in responsiveness, and how much we would prioritize the study of unequal responsiveness as scholars, does indeed depend on aggregate policy outcomes (not just votes) but also on coincidental representation.

We do not dismiss coincidental representation, because, on the one hand, it help us understand the scope of the damage from unequal representation; on the other, it helps us remember the second-hand damage that can be done from unequal responsiveness. We certainly agree with the core of Gilens’s argument, that causality, to the extent we can tease it out, is the key. But (1) we want to understand the bottom-line impact of unequal representation for the poor and (2) we do not want to dismiss lesser representation of the poor if—as will be the case—it turns out to happen more on the basis of partisan distortions rather than class ones. We think differences in class representation matter even if class is not the prime mover.

In line with this, we study actual votes cast by legislators (here, senators) rather than policy
outcomes alone. Political actors (possibly) care about responding to opinion, not a personified Senate cast as a unitary actor making a choice.

There are further benefits. When it comes to the role of party, Gilens can only look for partisan differences in terms of periods of Democratic and Republican control. He finds inequality “appears to be somewhat greater” between the affluent and the poor under Republican control and greater between the affluent and the middle under Democratic control, comparing coefficient sizes in bivariatite regressions. He also finds responsiveness to all income brackets to be greater overall under Republican control. (He notes that periods of party control might be very different, comparing the Johnson and Bush years, for example.) Instead, by focusing on actual votes by individual senators, we can compare co-partisan responsiveness to class-based responsiveness, to put affluent influence into partisan context. We also can document any behavioral differences between Democratic and Republican senators.¹

Of course, dealing with multiple measures of opinion is quite tricky, given frequent correlation between the opinion of different subgroups, raising problems of multicollinearity and correlated measurement error (see careful discussion in Gilens 2012, chapter 3). Because of multicollinearity, Gilens avoids running multivariate regression using multiple types of opinion. Instead, Gilens runs separate bivariate regressions of policy on rich opinion and of policy on poor opinion (on the full data or on the subsetted data based on opinion gaps). The coefficients on opinion from each separate regression are then compared.

We make our results comparable by following the Gilens approach in part of what follows, while also finding other ways to deal with the problem of multicollinearity. In particular, we look at what happens when a majority of a class subgroup opposes another, etc. We worry that running separate regressions only “solves” the multicollinearity problem by creating omitted variable bias within each regression if both rich and poor opinion each have an effect. The degree of bias will vary in each model, undercutting simple comparison of coefficients.²

¹To be clear, with a larger timeframe, such as in Gilens (2012), we would also look at majority control of the Senate, etc.
²In Gilens, the coefficients are compared directly, not with a test of statistical significance of the difference. Sometimes it is noted that one is significant and the other is not, but “the difference between ‘significant’ and ‘not significant’
The largest findings of affluent influence in Gilens (2012) are based on taking a subset of the data based on opinion differences (e.g., a 10 point gap between rich opinion and poor opinion). We do similarly, as needed.

3 Methodology & Data

3.1 Opinion

To estimate state public opinion by income groups and by partisan identification we will rely upon multi-level regression and poststratification (MRP). This technique, first presented by Gelman and Little (1997), uses national surveys and advances in Bayesian statistics and multilevel modeling to generate opinion estimates by demographic-geographic subgroups. MRP has been shown to produce accurate estimates of public opinion by state and by congressional district (Park, Gelman, and Bafumi 2006, Lax and Phillips 2009a, 2013, Rodden and Warshaw 2012), using a relatively small number of survey respondents—as few as contained in a single (moderately-sized) national poll—and fairly simple demographic-geographic models of preferences (Lax and Phillips 2009a). Indeed, MRP has emerged as the new “gold standard for estimating constituency preferences from national surveys” (Selb and Munzert 2011, p. 455).

MRP proceeds in two stages. In the first stage, a multilevel model of individual survey response is estimated, with opinion modeled as a function of a respondent’s demographic and geographic characteristics. The state of the respondents is used to estimate state-level effects, which themselves are modeled using additional state-level predictors such as aggregate demographics. Residents from a particular state yield information on how responses within that state vary from others after controlling for demographics. All individuals in the survey, no matter their location, yield information about demographic patterns which can be applied to all state estimates. The second step of MRP is poststratification: the opinion estimates for each demographic-geographic respondent type are weighted (poststratified) by the percentages of each type in the actual popula-
lation of each state. This allows us to estimate the percentage of respondents within each state by income category and partisanship who have a particular issue position or policy preference.

In stage one, we model survey response (i.e., whether a respondent supports a given policy proposal) as a function of a respondent’s race and gender combination (males and females divided into four racial categories—black, Hispanic, white, and other), age (18-29, 30-39, 40-49, 50-59, 60-69, and 70+), education (less than a high school education, high school graduate, some college, college graduate, and post-graduate education), partisan affiliation (Democrat, Independent, or Republican), income category, and state. We also include interactions between income, state, and party which allow the effect of income to vary by states and party within states.

Income effects occur as follows. There are 14 to 16 income categories, depending on the poll. We allow for random effects by category. There is a linear trend across these based on the midpoint of each category. We also take the square root of this midpoint for an additional trend variable, in case the trend is not linear. We allow both these continuous trend variables to vary by state.

As a state level predictor, we use DPSP which stands for demographically purged state predictor. This measure was created by Lax and Phillips (2013) and is based upon their work estimating state-level policy preferences across a wide range of issues (see Lax and Phillips 2012). In essence, DPSP is the average liberal/conservative shift in state-level public opinion, after controlling for a variety of demographic predictors. Because DPSP was estimated across a wide set of policies it is a good default for state level intercept shifts when using MRP to predict opinion on a given issue.

With the results of this modeling stage, we then estimate opinion for each of our demographic-geographic respondent types. We do, however, face a complication that is not present in most applications of MRP. Typically, researchers poststratify their estimates using population frequencies from the Census “5-Percent Public Use Microdata Sample’s” or the American Community Survey. Unfortunately, these data do not include partisan identification. Thus, using standard MRP one can estimate the level of support for, say, President Obama’s health care reform among middle-income
college-educated black females aged 18-29 in California, but one cannot estimate the level of support among Republican, Independent or Democratic individuals of the same type. Fortunately, a recent paper by Kastellec et al (2015) presents a solution to this dilemma, using the Census data as a starting point. Their approach involves using an additional stage of MRP to generate a new post-stratification file that includes party. We begin by collecting data on individual survey responses about partisan identification (i.e. whether a respondent is a Democrat, Republican, or an Independent) across multiple points in time spanning the years of our public opinion surveys. We then model partisanship as a function of demographic and geographic variables. Specifically, we treat partisanship as a response variable and apply standard MRP to estimate the distribution of partisanship across the full set of “demographic-geographic types” from above. We then have an estimate of the proportion of Democrats, Independents, and Republicans among, say, income-category-3 (30 to 40K) college-educated black females aged 30-45 in California.

We then break down our estimates by state quintile, forming five equally sized groups within each state, broken down by income, so that we can look at the opinion of the “rich” (top quintile), “poor” (bottom quintile), or middle (middle quintile).

The survey data that we rely upon to generate our estimates of constituent opinion come from the comment content portion of Cooperative Congressional Election Survey (CCES), the National Annenberg Election Survey, and a variety of other reputable polling firms such as Gallup and Pew.

### 3.2 Votes

From these surveys, we have identified questions that ask respondents their preferences on roll call votes that were actually taken by members of Congress. For example, in 2012, one such questions asked respondents whether they would support a plan to extend Bush era tax cuts for incomes below $200,000; another asked whether the Affordable Care Act should be repealed. The survey data employed ask respondents how they would vote on these issues if they were a member of Congress. Across the surveys with which we are working, we have identified 39 such questions. These include some of the most important economic, social, and foreign policy votes
cast by members of Congress during the past four legislative sessions. Our sample of votes includes healthcare reform, President Obama’s stimulus bill, an extension of the Bush tax cuts on capital gains, the Federal Marriage Amendment, and a vote to withdraw American military personnel from Iraq.

Table 1 provides a list of the 50 issues/roll call votes for which we measure constituent preferences (XXX needs to be updated with full list). For each, we measure the share (of those with an opinion) who favor a “yes” vote (note that a separate MRP model is estimated for each issue). We generate measures of preferences by income quintile and by party (Republicans, Democrats, and Independents) in each state.

4 Opinion, Votes, and Representation

4.1 Degrees of Disagreement

We begin with a discussion of our opinion estimates—how much does state-level public opinion differ as a function of economic class and political party? As has prior research (see Gilens 2012), we find that, on average, there are not large differences between the preferences of high- and low-income Americans. Across all of the roll call votes included in our empirical analysis, the average state-level difference in opinion between the top and bottom quintiles is only 9.3 percentage points. Correspondingly, the average within-state correlation between the opinions of the upper and lower classes is a fairly high 0.52 This does not mean, however, that there are not instances of disagreement. In our state-level opinion estimates, we find that the top and bottom quintiles prefer different policy choices (i.e., are on opposite sides of the 50% opinion threshold) approximately 22% of the time.

Figure 1 displays, by roll call vote, the average state-level differences in opinion between the top and bottom income quintiles, grouping the roll calls into three issue types—security, economic, and social. Within our sample, we tend to observe the smallest class-based differences in opinion on social issues, where the average state-level difference between the opinion of the top and bottom quintile are only 4.3 percentage points. On security and economic matters, class-based
Within the economic category (in particular) there is a great deal of variation in the amount of class-based polarization across issues. We often observe, for example, high levels of polarization on roll call votes that those that either largely benefit high-income earners (for example, reducing the capital gains tax or adopting the Bush tax cuts) or that clearly benefit low-income individuals (for example, funding the State Children’s Health Insurance Program). In fact, the most polarizing issue in our sample is a 2006 vote to extend a previously enacted capital gains tax cut, for which the average difference in support between the top and bottom income quintiles was over 27 percentage points. We also tend to observe relatively highly opinion polarization on free trade issues, where the average class-based difference in opinion is 14 points. That we observe some of the largest amounts of class-based opinion polarization on issues such as these lends face validity to our estimates while also suggesting that if the rich do indeed have a disproportionate influence on the roll call voting behavior of lawmakers, the resulting policies may further economically disadvantage the poor.

The overall patterns noted above are generally also true when we consider our data state by state (shown more fully in Figure A4). In nearly all states, class-based polarization on social issues is lower than such polarization on the “average” issues or for either economic or security matters. The range of class polarization across states is fairly modest—Mississippi is the most polarized (with an average opinion difference between the top and bottom income quintiles of approximately 12 percentage points), while California is the least polarized (with an average difference of about 7 points).

How do differences in opinion by income compare to partisan differences on the same set of issues? We observe that partisan opinion polarization is much higher. In fact, there is not a single issue in our sample for which class-based opinion polarization (averaged across states) is larger than partisan opinion polarization (again averaged across states). More specifically, the mean state-level difference in opinion between Democrats and Republicans is approximately 39 percentage points, compared to only 9 percentage points for economic class). Thus, while the
top and bottom income quintiles in a state agree on many issues, self-identified Democrats and Republicans do not. We find that, within a given state, the Democrats and Republicans disagree 69% of the time (compared to only 22% by class). This means that on the types of salient issues we study here, a senator’s Democratic and Republican constituents are likely to pressure her to cast very different votes and, therefore, she has often have to decide which group to prioritize.

That being said, the extent of partisan disagreement varies, as shown in Figure 2. Security issues are most polarizing, with an average state-level partisan difference of 47 percentage points, compared to differences of 42 and 37 points for social and economic matters. Interestingly, however, among economic matters we observe the greatest cross-issue variation in the size of partisan polarization. For example, on some economic issues, such as the Affordable Care Act (both its adoption and potential repeal) and President Obama’s economic stimulus bill, the average within-state difference in Democratic and Republican opinion is quite high (around 70 percentage points). On other economic issues, such as middle class tax cuts and free trade agreements, partisan differences are much smaller (approximately 10 percentage points).

Across states there is relatively little variation in the extent of partisan polarization. That is, for any given roll call, most states have a similar degree of partisan opinion polarization (shown in Figure A2, which displays partisan opinion polarization by state). Average state-level polarization only ranges from a high of 40.4 percentage points in California to a low of 38.6 in Rhode Island. Partisan polarization is, on average, lowest for economic matters and higher on social and security issues.

Figure 3 further captures the extent to which state opinion is much more polarized by party than class. The hollow points on the graph show for each of our 39 issues the percentage of states in which the median members of the high- and low-income quintiles have different policy preferences; the solid points show the percentage of states in which Democrats and Republicans disagree. There is only one issue for which class disagreement is more common than partisan disagreement—support for the U.S.-Korea Free Trade Agreement. For nearly all other issues, partisan disagreement is much more common.
Figure 4 summarizes the rates of disagreement together. The left plot averages across state for each issue. The right plot averages within state across issues. Either way, partisan disagreement, far more than class disagreement, characterize the senator’s dilemma in pleasing constituents.

### 4.2 Responsiveness and Differential Responsiveness

Now that we have specific opinion estimates related to actual votes (data from Congressional Quarterly), we can consider the relationship between the preferences of different income groups and the roll call votes cast by their senators. Because preferences across income quintiles are so highly correlated, it is difficult to get clear and precise separation of degrees of influence when including multiple measures of preference. Recall that in Gilens’s work (2012), this was handled by running separate bivariate regressions, each potentially suffering from omitted variable bias. We start by following this path, and then show what we can from multivariate regressions and other ways of attacking the data.

The idea is that if we take the preferences of one group at a time—low-income constituents (the bottom quintile), middle-income constituents, or high-income constituents (the top quintile)—and then compare the coefficients on opinion across models, the larger the coefficient, the greater the influence. If senators tend to listen more to the wealthy, then the coefficient on opinion should be largest in the model that estimates the relationship between wealthy opinion and roll call voting.

The results of these regressions are reported in Table 3. In these crude regressions, public opinion is a strong predictor of senatorial roll call voting in each model. However, as we anticipated from the work of Gilens (2012), the size of the coefficient on opinion increases as one moves from lower to higher income groups. An extra one point of support among the rich is associated with an increase in the probability of a yes vote of .68 percentage points. An extra point of support from the poor only .27 percentage points, less than half as much. This is similar to what Gilens (2012) found for policy change. We add in co-partisan opinion as an alternative. The result is even more striking, with approximately a one-to-one relationship between opinion of a senator’s co-partisans back home and the senator’s vote.

We now take this still further. Figure 5 shows curves for responsiveness to poor, rich,
statewide, and co-partisan opinion. We show responsiveness curves for all senators (the top row) and separately for Democrats (the middle row) and Republicans (the bottom row). For all senators, as in Table 3, the slope is steeper for rich than poor, but steeper still for co-partisans. Democrats seem responsive to the preferences of all four categories. Republican voting behavior does not track any of the opinion groups except for co-partisans. ³

4.3 Congruence

A second approach to analyzing our data is to look not just at responsiveness (i.e., the correlation between opinion and roll call votes), but also to consider congruence, that is, whether a group actually gets the vote that it desires from its senator (as represented by the majority of the group, in turn as represented by its median preference). We report the results of this analysis in Table 2. If the opinions of the well-to-do matter more, we should expect to observe the members of the highest quintile prevailing more frequently. The top row of the table is the share of the time (across all issues) that the top and bottom quintiles get their desired vote. Each does so a majority of the time, with the top quintile prevailing slightly more frequently (of course one might not expect to observe much of a difference here, since on most of the issues in our study members of the top and bottom quintile share similar preferences). Recognizing this, we conduct the same basic analysis, but this time focus only on those issues where the top and bottom quintile (in a given state) disagree. The results of this analysis are reported in the bottom row of the table. Here we observe a bigger difference in success across income quintiles. When there is disagreement, the top quintile prevails over the lowest income quintile approximately two-thirds of the time. This result is again consistent with a world in which the opinions of the well-to-do carry more weight with elected officials than do the opinions of lower-income individuals.

We now shift to the senator as unit. Figure 7’s top left panel plots each senator by her degree of congruence with her low- and high-income constituents, whether or not they agree with each other. Points along the 45° line are senators who vote in line with each group at the same

³The odd negative coefficients (“anti-responsiveness”) that turn up in multivariate regressions with our data or that of Gilens turn out not to be because of multicollinearity (or not only because of it, at least); Republicans look to be anti-responsive to opinion of the poor in their states even in a bivariate regression.
level. Higher points are more congruent with rich medians; to the right are senators voting in congruence with the poor. The circles are Democrats, who vote on average with public opinion of both groups more than do the Republicans (the triangles). That is, both rich and poor are more likely to see their preferences converted into actual senate votes by the Democrats. There does seem to be a slight “bias” towards congruence with the rich among Republicans (above the 45° line) and towards the poor among Democrats (below it). The top right panel show congruence rates with partisan medians, with each side voting with their co-partisans often and displeasing their opposing partisan constituents often. The bottom panel shows congruence rates with partisan medians and statewide medians. Democrats again are more likely to vote in line with their states. 4

Both sides can be seen to vote on average at the same rate with their fellow partisans.

4.4 Taking Sides

Congruence so far need not be zero-sum—rich and poor medians often agree, as do party medians. What happens when they clash? Figures 8, 9, and 10 limit the sets of votes to these, so that we only need one dimension. Every vote is a choice for the senator between pleasing one median or the other. We plot the senators’ vote percentages, dividing Democratic and Republican senators, and showing the distributions of each side’s record, below and above the line.

In the first panel of Figure 8, we see the expected partisan split—when the party medians in a senator’s state disagree (as they do approximately two-thirds of the time), each side strongly but not monolithically favors the position of co-partisans.

In the second panel, senators to the left vote more with their poor constituents and those to the right with the rich, when poor and rich medians disagree. Democrats are spread out but on average tip a bit towards the poor. Republicans far more strongly vote in line with the rich. Of the 843 times their rich and poor medians disagree, the Democrats side with the rich 41% of the time, while the Republicans side with the rich 88%. The average finding of pro-rich bias (67%) is being largely driven by Republican senators. On average the Democrats pull this a bit back the other way (all but 20 of the 75 Democratic senators captured in this vote set; no Republican

---

467% of Democratic votes are congruent statewide but only 47% of Republican votes. The median Democratic senator has a congruence score of 69%; the median Republican 54%.
senator tilts more to the poor). The third panel shows that the same pattern occurs when we limit the subset of votes further to when rich and poor opinion in the state are separated by at least 10 percentage points. The fourth and fifth panels pit the statewide medians against the rich and poor medians respectively. Democrats put the statewide median ahead of the rich slightly, splitting between statewide and poor. Republicans strongly put the rich ahead of the statewide median, and statewide over the poor. A final base piece in shown in the top panel in Figure 9 shows that both parties’ senators match co-partisan median opinion more than their statewide medians.

Now it is time to combine these threads, income and party. The second panel in Figure 9 shows how senators choose sides when their co-partisan median opposes the position of their rich median. The rich median may beat the poor 2 to 1 when opposed, but the partisan medians beat the rich 3 to 1. Republicans, who were seen to drive the rich victory rate above, actually tilt a bit more than Democrats towards the partisan choice when doing so means voting against the rich medians. Both parties side with co-partisans over the poor (third panel).

Do the rich still beat the poor 2 to 1 when the partisan median agrees with the poor? The fourth panel in Figure 9 comes as close to answering this as possible, given the sparseness of data subsets. Of the 47 times when the Republican median in the state sided with the poor median in the state over the rich median in the state, the Republican senators went with party and poor over rich 36 times, or 77%. Democratic senators voted with party and poor over rich 67% of the time. While the Republicans drive the high victory rate of rich medians over poor medians, that in turn depends on Republican constituents aligning with the rich; when they align with the poor, the rich congruence advantage becomes a poor one.

The bottom panel of Figure 9 shows what happens when we dig further, now looking at congruence rates with rich and poor medians within each party (e.g., taking all Democrats that fall into the top 20% of the state by income, what is the median position?). Rich partisans beat poor partisans again at a high rate, 72%, with Republicans a bit higher.

---

5 Senator Obama’s one vote within this set was a vote for FISA, the rich median’s position in Illinois, but not that of the poor median.

6 These votes are: 21 stem cell research, 9 school vouchers, 5 Iraq war (2002), and a smattering of others.
Figure 10 explores another side of party power: how does a senator vote when the modal position of her co-partisan Senate peers conflicts with that of her constituents? Votes in which the median co-partisan senator disagrees with the statewide median are shown in the first panel; with poor constituents in the second panel; with rich constituents in the third panel; and with partisan constituents in the fourth panel. Throughout, the elite position beats the stance of the constituent group or subgroup. We do not see pure party-line voting, but the party position trumps that of rich and of the partisan non-elite 83 and 82% of the time respectively.

4.5 Stronger Preferences and Degrees of Incongruence

Gilens and others have pointed out that dichotomous classifications and the close calls they ignore can be problematic: e.g., a narrow 51% majority misses out on getting what it wants; the rich and poor are said to split even when they fall very close but on opposite sides of the 50% cutpoint; or the difference in levels of support between the two groups is close at any level. Gilens also presents a solution, to focus only on the subset of data where the gap in support between the groups is “large” relative to some threshold (Gilens suggests a 10 point gap) or to focus on times a group can be said to “strongly favor” a position in that a supermajority favors it (Gilens suggests 75%). After all, making a 55% of a group unhappy is quite different from making 75% of that group unhappy.7

Does limiting the scope to larger disagreements or focusing on more nuanced measures of congruence change our findings? The main findings remain, but we uncover further evidence of partisan differences and show that the existence of stronger preferences can favor the poor as well as rich, depending on what the scope of comparison is.

We start by limiting the scope to times of “stronger” preferences or disagreement, but keeping congruence itself a dichotomous categorization (the median member gets what it wants or she does not). Recall that, overall, the rich median gets 60% congruence and the poor median 52%. When the rich feel strongly (their level of opinion is above 75 or below 25, so that there

7Supermajority support within a group is not, to be clear, quite the same as having strong preferences in terms of intensity. 80% of a group can mildly prefer policy x to policy y or 55% of the same group could desperately want policy x over y.
is a supermajority position one way or the other of over 75%), and the poor do not (their level of support is in between 25% and 75% inclusive), then the rich median sees congruence 86% of the time and the poor median 83%, a three-point gap. On the other hand, when the poor feel strongly and the rich do not, the poor median get 60% and the rich median 59%, a one-point gap in favor of the poor.

These gaps obviously do not cancel out: each side, when feeling strongly, is more likely to get what it wants than the other side, but this is more true for the rich than the poor.\textsuperscript{8} Still, if these two situations, of only rich strong preference or of only poor strong preference, were equally likely to occur, the average gap would only favor the rich median by .9 points. Moreover, the former situation occurs in only 76 votes, but the latter in 712 votes. Thus, the poor’s strong-preference advantage is weaker than that of the rich, but occurs more often; the rich’s is stronger but occurs less often. If we weight the gaps by the number of times the opinion configurations actually occur, the average gap actually favors the poor median by .5 points. Ignoring how often the strong-preference situations occur can lead to misreading the normative bite of the influence of strong preference.

On top of all that, if we divide up Republican and Democratic senators, we find that the extra “oomph” the rich get from having “strong preferences,” compared to the poor when they do, comes only from Republican votes. When only the rich have strong preferences, Republican votes are congruent with the rich median 93% of the time and with the poor median 91%. When only the poor have strong preferences, Republican votes are congruent with rich and poor medians 37% and 35% of the time respectively. The gap actually favors the rich median either way, around two points, regardless of weighting. In order, the Democrats’ equivalent numbers are 76%, 73%, 78%, and 81%. That is, the Democrats give a 3-point gap in favor of rich congruence when only the rich have strong preferences and a similar 3-point gap in favor of poor congruence when only the poor have strong preferences. However, since the latter occurs 379 times and the former only 33, the average gain is almost three points in favor of the poor median. Again, affluent influence has a

\textsuperscript{8}Of course, it is still true that the rich are more likely to get what they want than the poor, but it is the question of how much more “strong-preference” benefits the strong-prefering group that we focus on here.
strong partisan color.

Next, we explore degrees of incongruence, by asking instead what percent of the group has the position congruent with the senator’s vote (what percentage of each group, rich or poor, would vote the same way the senator did). For lack of a better term, we will call this measure of nuanced congruence “happiness.” Again, as in the cruder results, the rich tend to be happier with senators’ votes than the poor. The rich happiness rate is 53% and the poor 52%. That is, there is a one percentage point difference between how much of the top quintile is happy with votes compared to the bottom quintile. Call this the happiness gap favoring the rich. When the support levels of rich and poor differ by more than 10 points, the happiness gap is 2 points. When they differ by more than 20, or if the rich and poor medians disagree, the happiness gap is 5 points. When the rich feel strongly but not the poor, the happiness gap favors the rich by 7 points. When only the poor feel strongly, the happiness gap favors the poor by only 3 points. But, since the latter situation occurs more often, the weighted average happiness gap favors the poor by 2 points.

Republican senators when only the rich or only the poor feel strongly give happiness gaps of 9 or 4 points respectively, favoring the rich in either case. Democrats give a happiness gap of 4 points favoring the rich when only the rich feel strongly and 9 points favoring the poor when only the poor feel strongly.

5 Discussion and Conclusion

Our findings are compatible with the core findings of Gilens (2012) and its progeny: the rich get what they want more often than the poor. Importantly, we demonstrate this in a new setting, focusing on the roll-call votes of senators and the opinions of their home-state constituents. Differences in responsiveness matter more when preferences differ between groups, and we document various degrees of difference across a wide range of issues.

That being said, our findings also challenge the “economic elite domination model” (e.g., Gilens and Page 2014, Gilens 2012, Bartels 2008). Erikson (2015, 24) describes the literature as a “consistent narrative that political representation may be a luxury available to the wealthy alone.” We see the scope of this domination as more limited than is often suggested, and we see the nature
of the problem as different as well. While these scholars do not ignore party, almost all coverage of this work and many of the explicit conclusions in the work downplay, omit, or deny the role of party, pointing the finger only at class inequities. There are limits to what we can learn from aggregate ideology scores and aggregate policy outcomes. Our evidence from actual senator voting behavior reveals a partisan story more than a class story, and a more complicated partisan story at that.

There are indeed worrisome differences in class representation, but they seem to due to partisan distortions and asymmetries, more than pure economic inequality. The patterns above suggest that many victories of the rich medians are themselves as epiphenomenal as the coincidental representation of the poor dismissed by Gilens (2012). The rich do get what they want more often, but only from Republican senators, and only when the preferences of Republican constituents align with the preferences of the rich. Affluent influence rests on Republican senators accurately representing Republican constituents, combined with Republican dominance during the period in question. If the rich are getting what they want, it is more through electing Republicans who over-represent Republicans, than by influencing senators once in office. And that only works when Republican constituents want what the rich want.

One reason our findings may differ from those of others could be that we are studying one compact period, and affluent influence could vary over time (as Erikson 2015 notes). To the extent that it does, one might look to other deeper causes for this.

Our findings of partisan distortion (relative to a median voter model or one of undifferentiated responsiveness) connect and expand on other recent findings. One line of work shows over-representation of co-partisan constituents relative to other constituents, with Kastellec, et al. (2015) showing differential responsiveness to co-partisans by senators voting on Supreme Court nominations. Other than this co-partisan effect, this work did not look for other differences in behavior between Democratic and Republican behavior. Another line of work treated opinion homogeneously, but found partisan differences in responsiveness to opinion in general, with Krimmel, et al. (2016) finding that white Democrats in Congress (House and Senate) responded more
to opinion on gay rights far more than Republicans or non-white Democrats. Here, we show in a more general scope of roll call votes that it is useful to treat both types of partisan asymmetry together.

There are various reasons politicians might focus more heavily on co-partisan constituents, such as partisan primaries (and see Kastellec, et al. 2015). Other recent work explains why Democrats and Republicans might behave differently with respect to public opinion and even their own co-partisans. Barker and Carmen (2012) argue that paying attention opinion is more important for Democrats than Republicans, on the basis of extensive survey data on cultural differences. Republican constituents (and generally those more likely to be Republican such as traditionalistic Christians) do not expect or want public opinion to be followed to the same extent, preferring a “trustee” model of principled judgment over a “delegate model” of following public will. Of course, it could be that the aversion to following public opinion over “principle” is based on assumptions that public opinion is on average more liberal than that of Republicans, so that it could be that Republican constituents would be fine with greater responsiveness to Republican opinion. It seems clear from this present project and other work that Republican senators are indeed following Republican opinion, just not general opinion. Sorting all this out is a promising subject for future work. Another future line of attack would connect our findings to the working paper by Broockman and Skovron (2017), which finds that “politicians of both parties dramatically overestimate their constituents support for conservative policies” and that “Republicans overestimate constituency conservatism especially.” These types of bias in estimating constituent opinion might even explain some of our results.

Normatively, the implications of partisan inequities or party-caused inequities are quite different, pointing, for those reform-minded, to different policy or institutional interventions to equalize responsiveness. Gilens (2015, 1069) argued that from a normative standpoint partisan representation does not constitute the challenge to democracy posed by income based representational inequality. We are not sure we agree fully with this, but we also see the two as more closely entwined and think the evidence strongly suggests the former is responsible to a large extent for
observations of the latter.

Getting both the scope and the underlying causes of unequal influence right is important because scholars pay attention, shifting resources across research agendas. If we only look at the role of money in politics, and ignore partisan distortions of representation, we not only get an incomplete picture of American democracy, but we will likely misunderstand even the parts we do see.
This figure shows the difference in opinion between the top- and bottom-income quintiles, averaged by issue across states. The lower and upper “hinges” in the boxplot correspond the 25th and 75th percentiles. The upper (lower) whisker extends from the hinge to the highest (lowest) value that is within 1.5 of the range of the hinge.
This boxplot shows the difference in opinion between self-identified Democrats and Republicans, averaged across states by issue.
In contrast to focusing on the difference in percentage points separating different opinion groups, we now show how often the median member of one group is on the opposite side from the median member of the other. The rates of class disagreement and of partisan disagreement are shown for each issue, averaged across states.
We plot the rate of class median disagreement against the rate of partisan median disagreement. The left panel shows this by issue (averaged over states). The right shows this by state (averaged over issue). The 45° line is shown.
Figure 5: Responsiveness

Linear regression lines and lowess curves show responsiveness to poor, to rich, to statewide, to copartisan, and to opposing party opinion. We show responsiveness curves for all senators (the top panel) and separately for Democrats (the middle panel) and Republicans (the bottom panel). The relative distribution of opinion is shown along the x-axis.
Figure 6: Responsiveness by Bill

Mean Constituent Opinion by Issue

Mean Elite Vote by Issue
Figure 7: Congruence with Opinion Groups by Senator: Class, Partisan, and State

The top left shows the congruence rates of Democratic and Republican senators with high- and low-income median constituents. The top right shows rates of congruence with the party medians. The bottom left shows congruence rates with state medians vs. partisan medians (of the senator’s party). The bottom right shows congruence with the median constituent of the senator’s own party within the high and low income quantiles. Republicans are red triangles; Democrats blue circles. The size of the point is scaled to the number of votes cast by the senator.
Each panel shows how senators vote when a pair of medians conflict. E.g., the first shows each senator’s voting percentage when his/her poor and rich medians conflict, ranging from voting 100% with the poor median (and 0% with the rich) on the left to 100% with the rich (0% with poor) on the right. Triangle sizes are scaled to the number of votes by senator and are jittered for visibility. Gaussian density distributions are shown for each party. Republicans are shown above the lines; Democrats below.
Figure 9: Taking Sides when Medians Conflict: Class and Party and State

Each panel shows how senators vote when a pair of medians conflict. Triangles are scaled to represent the number of votes by each senator and are jittered to enhance visibility. Gaussian density distributions are estimated for each party. Republicans are shown above the lines; Democrats below.
Figure 10: Taking Sides when Medians Conflict: Class and Party and State

More... xxx
<table>
<thead>
<tr>
<th>Bill Name</th>
<th>Survey Year</th>
<th>N</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>House Budget</td>
<td>2012</td>
<td></td>
<td>Budget plan would cut Medicare and Medicaid by 42%. Would reduce debt by 16% by 2020.</td>
</tr>
<tr>
<td>Middle Class Tax Cut</td>
<td>2012</td>
<td></td>
<td>Would extend Bush-era tax cuts for incomes below $200,000. Would increase the budget deficit by an estimated $250 billion.</td>
</tr>
<tr>
<td>Tax Hike Prevention</td>
<td>2012</td>
<td></td>
<td>Would extend Bush-era tax cuts for all individuals, regardless of income. Would increase the budget deficit by an estimated $405 billion.</td>
</tr>
<tr>
<td>Birth Control</td>
<td>2012</td>
<td></td>
<td>Let employers and insurers refuse to cover birth control and other health services that violate their religious beliefs.</td>
</tr>
<tr>
<td>US-Korea Free Trade</td>
<td>2012</td>
<td></td>
<td>Remove tariffs on imports and exports between South Korea and the U.S.</td>
</tr>
<tr>
<td>Affordable Care Act Repeal</td>
<td>2012</td>
<td></td>
<td>Repeal the Affordable Care Act.</td>
</tr>
<tr>
<td>Keystone Pipeline</td>
<td>2012</td>
<td></td>
<td>A bill to approve the Keystone XL pipeline from Montana to Texas and provide for environmental protection and government oversight. through 2014 and include 4 million additional children.</td>
</tr>
<tr>
<td>SCHIP</td>
<td>2010</td>
<td></td>
<td>Program insures children in low income households. Act would renew the program through 2014 and include 4 million additional children.</td>
</tr>
<tr>
<td>Affordable Care Act</td>
<td>2010</td>
<td></td>
<td>Requires all Americans to obtain health insurance. Allows people to keep current provider. Sets up health insurance option for those without coverage. Increases taxes on those making more than $280,000 a year.</td>
</tr>
<tr>
<td>Judicial Appointment</td>
<td>2010</td>
<td></td>
<td>Appoint Elena Kagan to the U.S. Supreme Court</td>
</tr>
<tr>
<td>Financial Reform</td>
<td>2010</td>
<td></td>
<td>Protects consumers against abusive lending. Regulates high risk investments known as derivatives. Allows government to shut down failing financial institutions.</td>
</tr>
<tr>
<td>“Don’t Ask, Don’t Tell”</td>
<td>2010</td>
<td></td>
<td>Would allow gays to serve openly in the armed services. a court order.</td>
</tr>
<tr>
<td>TARP</td>
<td>2010</td>
<td></td>
<td>$700 billion loans to banks to stabilize finance</td>
</tr>
<tr>
<td>Iraq Withdrawal</td>
<td>2008</td>
<td></td>
<td>Withdraw Troops from Iraq within 180 days.</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>2008</td>
<td></td>
<td>Increase Minimum Wage from $5.15 to $7.25</td>
</tr>
<tr>
<td>Stem Cell Research</td>
<td>2008</td>
<td></td>
<td>Allow federal funding of embryonic stem cell research.</td>
</tr>
<tr>
<td>FISA</td>
<td>2008</td>
<td></td>
<td>Allow U. S. spy agencies to eavesdrop on overseas terrorist suspects without first getting a court order.</td>
</tr>
<tr>
<td>SCHIP</td>
<td>2008</td>
<td></td>
<td>Fund a $20 billion program to provide health insurance for children in families earning less that $43,000</td>
</tr>
<tr>
<td>Federal Assistance for Housing Crisis</td>
<td>2008</td>
<td></td>
<td>Federal assistance for homeowners facing foreclosure and large lending institutions at risk of failing.</td>
</tr>
<tr>
<td>Extend NAFTA</td>
<td>2008</td>
<td></td>
<td>Extend the North American Free trade Agreement (NAFTA) to include Peru and Columbia.</td>
</tr>
<tr>
<td>Bank Bailout</td>
<td>2008</td>
<td></td>
<td>U. S. Governments $700 Billion Bank Bailout Plan</td>
</tr>
<tr>
<td>Gay Marriage</td>
<td>2006</td>
<td></td>
<td>Constitutional Amendment banning Gay Marriage</td>
</tr>
<tr>
<td>Partial Birth Abortion</td>
<td>2006</td>
<td></td>
<td>A ban on a type of late-term abortion sometimes called “partial-birth abortion”.</td>
</tr>
<tr>
<td>Stem Cell Research</td>
<td>2006</td>
<td></td>
<td>Should the federal government should fund stem cell research?</td>
</tr>
<tr>
<td>Iraq Withdrawal</td>
<td>2006</td>
<td></td>
<td>Should the President begin phased redeployment of U.S. troops from Iraq starting this year and submit to Congress by the end of 2006 a plan with estimated dates for continued phased withdrawal.</td>
</tr>
<tr>
<td>Illegal Immigration</td>
<td>2006</td>
<td></td>
<td>A plan to offer illegal immigrants who already live in the U.S. more opportunities to become legal citizens.</td>
</tr>
<tr>
<td>Minimum Wage</td>
<td>2006</td>
<td></td>
<td>A proposal to increase the federal minimum wage from $5.15 to $6.25 within the next year and a half.</td>
</tr>
<tr>
<td>Capital Gains Tax</td>
<td>2006</td>
<td></td>
<td>A proposal to cut taxes on the money people make from selling investments, also referred to as capital gains (a bill to extend capital gains tax cuts passed in 2001).</td>
</tr>
<tr>
<td>CAFTA</td>
<td>2006</td>
<td></td>
<td>A new free trade agreement that reduces barriers to trade between the U.S. and countries in Central America.</td>
</tr>
<tr>
<td>Prescription Drug Benefit</td>
<td>2004</td>
<td></td>
<td>A bill to amend title XVIII of the Social Security Act to provide for a voluntary prescription drug benefit under the Medicare program.</td>
</tr>
<tr>
<td>Partial Birth Abortion</td>
<td>2004</td>
<td></td>
<td>A ban on a type of late-term abortion sometimes called “partial-birth abortion”.</td>
</tr>
<tr>
<td>Limiting Medical Malpractice Lawsuits</td>
<td>2004</td>
<td></td>
<td>A bill to reform the medical malpractice system</td>
</tr>
<tr>
<td>Assault Weapons Ban</td>
<td>2004</td>
<td></td>
<td>A bill to extend the assault weapons ban.</td>
</tr>
<tr>
<td>Iraq War Authorization</td>
<td>2002</td>
<td></td>
<td>A vote to authorize military intervention in Iraq.</td>
</tr>
<tr>
<td>Estate Tax Repeal</td>
<td>2002</td>
<td></td>
<td>A proposal to permanently eliminate the federal estate tax.</td>
</tr>
<tr>
<td>School Vouchers</td>
<td>2001</td>
<td></td>
<td>A proposed school voucher program in ten cities.</td>
</tr>
<tr>
<td>Patriot Act</td>
<td>2001</td>
<td></td>
<td>Expand the legal tools federal law enforcement can use to stop terrorism.</td>
</tr>
<tr>
<td>Bush Tax Cuts</td>
<td>2001</td>
<td></td>
<td>Proposal to cut taxes.</td>
</tr>
</tbody>
</table>

Table 1: Issues Included in Analysis
### Table 2: Congruence by Income Quintile

<table>
<thead>
<tr>
<th></th>
<th>Bottom Quintile</th>
<th>Top Quintile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of time the group</td>
<td>52%</td>
<td>60%</td>
</tr>
<tr>
<td>gets its desired vote</td>
<td>(1,970 out of 3,791)</td>
<td>(2,265 out of 3,791)</td>
</tr>
<tr>
<td>(Across all issues)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of time the group</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>gets its desired vote</td>
<td>(274 out of 843)</td>
<td>(569 out of 843)</td>
</tr>
<tr>
<td>(When the poor disagree)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with the rich)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Congruence of Senator Vote by Constituent Group & Party (%)

<table>
<thead>
<tr>
<th></th>
<th>All Senators</th>
<th>Dems</th>
<th>Reps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>57</td>
<td>67</td>
<td>47</td>
</tr>
<tr>
<td>Poor</td>
<td>52</td>
<td>67</td>
<td>36</td>
</tr>
<tr>
<td>Rich</td>
<td>60</td>
<td>64</td>
<td>56</td>
</tr>
<tr>
<td>Poor vs. Rich</td>
<td>33 vs. 67</td>
<td>59 vs. 41</td>
<td>12 vs. 88</td>
</tr>
<tr>
<td>Co-Partisan</td>
<td>74</td>
<td>74</td>
<td>74</td>
</tr>
<tr>
<td>Opp-Partisan</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Co vs. Opp</td>
<td>82 vs. 18</td>
<td>82 vs. 18</td>
<td>82 vs. 18</td>
</tr>
</tbody>
</table>

### Table 3: Responsiveness of Senator Votes to Opinion

<table>
<thead>
<tr>
<th>Opinion of...</th>
<th>All Respondents</th>
<th>Bottom Quintile</th>
<th>Statewide</th>
<th>Top Quintile</th>
<th>Co-partisans</th>
</tr>
</thead>
<tbody>
<tr>
<td>All votes (N = 3,791)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.44</td>
<td>0.27</td>
<td>0.42</td>
<td>0.68</td>
<td>1.04</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.05)</td>
<td>(0.06)</td>
<td>(0.03)</td>
</tr>
</tbody>
</table>

Linear probability model. Standard errors are not clustered by senator or bill. All coefficients are significant at $p < 0.05$. 

39
References

MANY CITES MISSING! UPDATE!!


Erikson, Robert S. Annual Review Political Science.

Erikson, Wright, McIver


Appendix

Figure A4 shows, by state, class-based opinion polarization averaged across all issues (shown by the dark circles) and by each of our three issue types (shown by the lighter-colored circles, squares, and triangles). The figure demonstrates that the overall patterns noted above are generally also true when we consider our data state by state. The squares, which represent state-level polarization on social issues, are almost universally located to the left of the dark circles. This indicates that, in nearly all states, class-based polarization on social issues is lower than such polarization on the “average” issues or for either economic or security matters. Figure A4 also ranks states by their average amount of class-based polarization across all issues. The range across states is fairly modest—Mississippi is the most polarized (with an average opinion difference between the top and bottom income quintiles of approximately 12 percentage points), while California is the least polarized (with an average difference of about 7 points).
Figure A1: Class Opinion Polarization by State

This graph shows the average difference in opinion between the top and bottom income quintile for each state. The dark circle represents the average difference across all issues, while the triangle is for economic issues, the light-colored circle for security issues, and the square for social issues.

Appendix (ii)
This graph shows the average difference in opinion between self-identified Democrats and Republicans for each state. The dark circle represents the average difference across all issues, while the triangle is for economic issues, the light-colored circle for security issues, and the square for social issues.

Appendix (iii)
Figure A3: How Often Class Medians Disagree by State:

We show the rate of class disagreement (the rich median opposing the policy preference of the poor median within state) for each state, averaged across issues.

Appendix (iv)
This graph shows the average difference in opinion between the top and bottom income quintile for each state. The dark circle represents the average difference across all issues, while the triangle is for economic issues, the light-colored circle for security issues, and the square for social issues.
We show the rate of party disagreement (the Democratic median opposing the policy preference of the Republican median within state) for each state, averaged across issues.

Appendix (vi)
Let us break down all votes, as shown in Figure A6. The full area captures all 3,791 votes cast by senators on the bills in question. Divisions left to right break votes down by issue type, within each vertical division. The top set of rectangles, almost half the votes, represent votes that please both the bottom and top quintiles (the medians within both quintiles agreed and got what they wanted). The middle set of rectangles capture votes that were against both the median rich person and median poor person in the senator’s state. Finally, the bottom, capturing only 1/5 of all votes, are times when a senator had to vote with one key quintile and against the other. Taking each vote type in turn, we show which choice the senator made.

In economic votes, given conflict, the rich won out over the poor on 60% of economic votes, 65% of social votes, and 81% of security votes. It is these differences (eg. the 10% advantage the wealthy observe on economic issues above the 50% level that would indicate balanced rich and poor representation) that show the extra influence of the rich over the poor. Other times, both or neither get what they want.

That advantage on economic issues is small relative to all votes cast and to the number of votes where senators vote against BOTH the poor and the wealthy. If the poor had equal influence in those times of conflict on economic votes, they would get 1.1% more senator votes on economic issues (a “whopping” 42 votes out of 3,791), 0.6% on social issues, and 2.2% on security votes.
Figure A6: Mapping the Votes of Senators

Sample includes 4882 total votes

- 46% align with BOTH groups (2269 out of 4882)
- 34% align with NEITHER group (1677 out of 4882)
- 19% align with ONE group (935 out of 4882)

- 81% Rich (191 out of 492)
- 61% Rich (301 out of 492)
- 39% with Poor (191 out of 492)
- 61% with Rich (301 out of 492)

The full area represents all votes cast, broken down vertically by alignment with the rich and/or poor medians and horizontally by issue. Within that, at the bottom, when votes align with one or the other class median but not both, the votes are divided by which one got what she wanted. The differences within the bottom “row”, within each issue, of the sizes of those are the class influence effect.

Appendix (viii)