#### Measuring Constituent Policy Preferences in Congress, State Legislatures and Cities

### Online Appendix A: Estimating the Preferences of Sub-Constituencies

Many questions of representation concern the relative weight that elected officials attach to the preferences of various sub-constituencies (Fenno 1978). Our large sample enables us to go beyond estimates of the average preferences in each state or district to estimate the preferences of various types of sub-constituencies. These estimates could enable scholars to better address a variety of substantive questions on representation. For instance, scholars could use our estimates of the preferences of partian sub-constituencies to examine whether legislators are differentially responsive to citizens in their own party (Clinton 2006).

As in the main body of the paper, we estimate two different measures of the policy preferences of Democrats and Republicans in each state. First, we use simple disaggregation to estimate the mean policy preferences of Democrats and Republicans in each state and congressional district. Second, we generate MRP estimates of the policy preferences of Democrats and Republicans in each state and congressional district (Kastellec, Lax, and Phillips 2011). The MRP model is similar to the one in the main body of our paper. However, we allow the geographic intercepts to vary for members of each partisan sub-group. Figure 1 shows our estimates of the preferences of Democrats and Republicans in each state.

#### Figure 1 about here

In order to validate our estimates of the preferences of partisan sub-constituencies in each state, we pooled the 2004 and 2008 state exit polls. This approach yields samples with more than 2,500 respondents in most states. Using this data, we estimate the average Democratic presidential vote share and 3-point self-identified ideology of Democrats and Republicans in

each state.<sup>1</sup> Both of these measures are relatively weak at differentiating more ideologically moderate and extreme partisans. For instance, in many states, more than 90% of Democrats support the Democratic presidential candidate and 90% of Republicans support the Republican presidential candidate. But they are a good means to roughly assess the quality of our measures and compare the accuracy of MRP and disaggregation. Unfortunately, there are no survey weights available to make the exit polls representative at the congressional district level. As a result, we are not aware of any good technique to validate our estimates of sub-constituencies for congressional districts.

Our validation analysis leads to two main conclusions. First, we find that our estimates of the policy preferences of partisan sub-constituencies are highly correlated with exit poll results. As a result, we believe our estimates of the preferences of the partisan sub-constituencies are sufficiently accurate to be useful in substantive research. For instance, they could be used to examine legislators' responsiveness to their partisan base versus the district at-large. In the future, our super survey could be jointly scaled with legislators' ideal points to compare the spatial positions of legislators and their partisan bases (Bafumi and Herron 2010).

Second, we find that our MRP estimates of the preferences of partisan sub-constituencies are somewhat more accurate than disaggregated estimates of the partisans' preferences. This is true despite our very large sample size. In smaller survey samples, MRP would probably dramatically outperform disaggregation for estimating the preferences of partisan sub-constituencies. In the future, we believe that the MRP approach holds strong promise to substantially improve our estimates of the preferences of sub-constituencies. We plan to continue to explore more complicated MRP models for the preferences of partisan sub-constituencies.

<sup>&</sup>lt;sup>1</sup> We use survey weights to ensure that our samples are representative of voters in each state.





State

## Policy Preferences of Voters by State (Based on MRP models)

This graph shows our MRP estimates of the policy preferences of Democrats, Republicans, and the mean voter in each state. The graph also shows confidence intervals for each estimate.





# Correlation of Policy Preferences of Partisan Sub–Constituencies with Exit Polls

This figure shows the relationship between our estimates of citizens' policy preferences at each geographic level and measures of Democrats and Republicans presidenital vote and 3-point ideology from pooled samples of the 2004 and 2008 state exit polls. The hollow dots show the correlation with disaggregated estimates of citizens' policy preferences using our super-survey, and the black dots show the correlation with MRP estimates of citizens' policy preferences.