Online Appendix Table 1 - Results Based on the Perfect that Voted with the Democrat Leader for the Close Elections Sample

| Total <br> Effect <br> $(\gamma)$ | Party <br> Effect <br> $\left(\pi_{1}\right)$ | Incumbency <br> Effect <br> $\left(\mathrm{P}^{\mathrm{D}}{ }_{\mathrm{t}+1}-\mathrm{P}^{\mathrm{R}}{ }_{\mathrm{t}+1}\right)$ | "Elect" <br> Component <br> $($ col.(2)*col.(3)) | "Affect" <br> Component <br> $($ col.(1) - col.(4)) |
| :---: | :---: | :---: | :---: | :---: |
| 0.14 | $(2)$ | $(3)$ | $(4)$ | $(5)$ |
| $(0.02)$ | 0.30 | 0.47 | 0.14 | -0.004 |
| 0.13 | 0.29 | $(0.04)$ | $(0.01)$ | $(0.009)$ |
| $(0.01)$ | $(0.006)$ | 0.46 | 0.13 | 0.00 |

Notes: Standard Errors, in parentheses, are clustered at the district-decade level. The unit of observation is the district-congressional session. Standard errors, in parentheses, are clustered at the district-decade level. The unit of observation is the district-congressional session. Sample size is 1009. My estimates are in black while Lee, Moretti, and Butler's (2004) estimates are below in red italics.

## Other Interest Group Scores

To prove that the earlier affect and elect component estimates are not simply from the use of Americans for Democratic Action (ADA) scores, the authors estimate the results using scores from other interest groups. This includes both "liberal" and "conservative" groups. The liberal groups are defined as those where higher scores indicate voting more liberal.

Appendix Figure 1 combines all the estimates of the total effect and elect components from these various scores. These are estimated using the close sample methodology of Table 1. The 45-degree line represents when total effect and the elect components are identical, indicating that there is no affect component. All the scores lie near the line, indicating that LMB's results are robust to other roll call voting scores. My replication of this analysis again matches the analysis of LMB.

Online Appendix Figure 1 - Total Effect ( $\gamma$ ) vs. Elect Component for Alternative Interest Group


Notes: ACLU = American Civil Liberties Union; ACU = American Conservative Union; AFGE = American Federation of Government Employees; AFSCME = American Federation of State, County, Municipal Employees; AFT $=$ American Federation of Teachers; BCTD $=$ AFL-CIO Building and Construction; CC $=$ Conservative Coalition; CCUS = Chamber of Commerce; LCV = League of Conservative Voters; LWV = League of Women Voters; UAW = United Auto Workers

## Online Appendix 2: Heterogeneity Over Districts

As noted by LMB, candidates' preferred policies could differ across districts. The implicit assumption made in the earlier analysis was that the difference in policy positions between Democrat and Republican candidates was constant across districts. As noted by LMB, this assumption is violated if, for example, the gap in intended policies between Democrats and Republicans from Alabama is different from the gap between Democrats and Republicans from Massachusetts.

LMB show that it is possible to relax the assumption that the difference between parties' positions across districts is the same. LMB estimate the affect and elect components for three different groups: the "top" group, the "middle" group, and the "bottom" group. These distinctions are based loosely on groups discussed in Angrist, Imbens, and Rubin (1996): the "always takers", the "compliers", and the "never takers". The "always takers" are those districts that would have been won by a Democrat at time $t+1$, regardless of receiving the treatment (Democrat) in time $t$, or not. Similarly, the "never takers" are those that would have been won by a Republican at time $t+1$, regardless of treatment assignment at time $t$. Compliers are districts that were won by Democrats at time $t+1$, only because they were quasi-randomly assigned a Democrat at time t . It is possible for the econometrician to determine ex post which group each district falls into.

Appendix Table 2 shows the transition matrix for the close elections sample, with LMB's results presented in red italics to the right of my results. Districts tend to keep the same party in power that was quasi-randomly assigned to them in the previous election, due to the incumbency effect. Those that were assigned Democrats only switch to a Republican 27.4 percent of the time. Those that were assigned a Republican only switch 24.2 percent of the time.

The top, middle, and bottom groups are constructed using the close elections sample discussed earlier, so only elections won or lost by two percentage points are included in any of these three groups. The top group is constructed by including the districts in the top right corner of Appendix Table 2 with the districts that had the largest Democrat vote share at time $\mathrm{t}+1$ and had a Democrat at time t . There are 224 districts in this group. Similarly, the bottom group includes districts from the bottom left corner of Appendix Table 2, and districts with the largest Republican vote share at time $t+1$, that had a Republican at time $t$. There are 250 of these districts. The middle group includes the rest of the districts, of which there are 441 . For a more detailed discussion of how these groups were determined, see LMB, Appendix 3.

Appendix Table 3 shows the average ADA scores for each type of district, by their treatment status in the previous election. Column 4 shows LMB's result. For the top and bottom groups, any difference in the average ADA scores due to treatment status represents only the affect component. There is no elect component in this case, since the treatment had no effect on incumbency status. The results indicate no affect component for these districts. As expected, for the middle group, which includes compliers and districts that were the more marginally won, there is a large difference in average ADA scores. This is because the treatment was mostly effective. So, there is no evidence that competition moderates policies even for districts that defy treatment.

Online Appendix Table 2 - Transition Matrix using the Close Elections Sample

> Percent Democrat, Percent Republican, time t time t

|  | time t | time t |
| :---: | :---: | :---: |
| Percent Democrat, time $\mathrm{t}+1$ | $72.6(72.6)$ | $24.2(24.1)$ |
| Percent Republican, time $\mathrm{t}+1$ | $27.4(27.4)$ | $75.8(75.9)$ |
| Total | 100 | 100 |
|  |  |  |

Notes: See the notes to Table 1. To the left of my estimates are LMB's estimates in parenthesis.

Online Appendix Table 3 - Heterogeneity Estimates by Group Type using the Close Elections Sample

|  | Sample |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Average $\mathrm{ADA}_{t+1}$ in previously Dem. Districts (1) | Average $\mathrm{ADA}_{t+1}$ in previously Rep. districts <br> (2) | $\begin{aligned} & \text { Difference } \\ & \text { (col.(2) - col. (1)) } \\ & (3) \end{aligned}$ | LMB's Difference <br> (4) |
| Top Group | 67.7 | 66.0 | -1.7 | -1.7 |
|  | (3.0) | (2.9) | (3.1) | (3.0) |
| Middle Group | 18.7 | 66.1 | 47.4 | 47.4 |
|  | (1.7) | (1.8) | (1.9) | (1.8) |
| Bottom Group | 21.1 | 16.5 | -4.6 | -4.6 |
|  | (2.2) | (2.1) | (2.4) | (2.3) |

Notes: See the notes to Table 1. Sample sizes are 224 for top group, 441 for middle group, and 250 for bottom group. Lee, Moretti, and Butler (2004)'s results are in column 4.

