Supplemental Material for: "Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate"

September 14, 2015

A Survey Methodology

To measure the ideological preferences of donors, I conducted an original survey of campaign contributors in the summer and fall of 2013. The Federal Election Commission (FEC) requires that any contributor who gives more than $200 to a federal candidate register their name, contribution amount, contribution recipient, and address. This list of donors is available to the public.[1] Using the list of donors and addresses, I mailed 15,500 letters to contributors who are associated with the 22 senators who sought reelection in 2012. The letter asked the donors to complete an online survey regarding their political opinions.

I specifically consider reelection-motivated senators in this study for several reasons. Given that senators face election every 6 years, their fundraising strategies vary over the course of their term significantly. In fact, many senators do not actively fundraise in the first year or two after winning an election. Additionally, legislators who announce their retirement drastically reduce their fundraising efforts thereafter. Thus, I consider only those senators who would be immediately concerned with appealing to donors and voters by looking at the 22 senators who faced the voters in 2012.

To draw the survey sample, I stratified the population of donors in four different ways. First, the sample is stratified by senator. Within each senator, I then draw respondents from thee different groups. The first group are donors who reside outside of the senator's state yet contributed to the senator in the 2012 election cycle. This is an important population of contributors who are often omitted in traditional surveys that identify respondents as contributors. For example, the CCES study asks respondents if they contributed money to candidates for the Senate. However, they only ask if the donor gave to their own

[1] The list is comprehensive among donors who give more than $200. Small donors who give less than $200 are not required to register with the FEC. However, candidates do report the amount of money in aggregate they received from unitemized contributions. On average these small contributions add up to a very small percent of the candidate's overall contributions (usually less than 5 percent) (Open Secrets, 2014).

senator or another senator. Those who respond that they gave to "another senator" do not indicate which of the other senators they gave to. This would not be concerning when studying the preferences of donors if legislators raised a small proportion of their money from out of district sources. However, this is not the case (Bramlett, Gimpel, and Lee, 2011). In fact, every re-election seeking senator raised a significant proportion of individual contributions from out-of-state.

After sampling out-of-state donors, I next drew an equal number of within-state donors for each senator. These are contributors who both gave to the senator in the 2012 election cycle and reside in his or her state.

Finally, I drew a sample of donors who reside in the same state as the senator, are of the same party as the senator, but did not contribute to the senator in this election cycle. Since the FEC does not record the party of the donor, I estimated the contributor's party by looking at the percentage of donations from each contributor that went to candidates from each party. Those who gave more than 75% of their money to Republican candidates I considered Republicans. The same was true for Democrats. The overwhelming majority of donors support candidates from one party only. In 2012, 95% of individual donors fit into one of the two categories outlined above. The survey then asked donors to indicate their actual partisanship. In only 3% of cases the estimated party did not match the donors' actual partisanship. The reason for sampling these same-party and same-state donors who did not give directly to the senator is as follows. While incumbents raise a great deal of their individual contributions from out-of-state, challengers exhibit the opposite pattern. The majority of challenger money comes from donors inside the challenger's state. Thus, incumbent senators may pay particular attention to in-state donor's preferences even if they are not giving directly to the senator since any possible primary challenger is likely to raise most of her money from these people.

Mixed-mode surveys administered through the mail that then direct respondents to complete the

questionnaire online are known to have a low response rate (*Anonymized*). To increase response rates, each letter contained a $1 bill as a token of appreciation for completing the survey. This technique has been shown to increase response rates dramatically (James and Bolstein, 1990). The overall survey response rate was 14 percent. Low response rates, however, are less concerning if respondents are representative of the population of interest. In this survey, respondents contributed more money on average than non-respondents. However, after applying post-survey weights, respondents are representative of the population of donors on donation amount, state of residence, and proportion of money given to either party. Weighting to the population of interest can only be done on variables for which we know in both the population and the sample. Since the FEC file does not contain demographic information for each donor, we cannot weight according to demographic factors.

To account for the differences between respondents and the population, I implement post-survey weights that adjust the sample to better fit the population of interest. To do so, I calculate a probability of responding to the survey using a logistic regression for each senator's donor population with the dependent variable being 1 for survey respondents (Schonlau et al., 2009). I include dummies for "in-state", "out-state", "in-state, potential donor", and a continuous variable for the total amount of contributions given by the donor. Ideally, an inverse probability weighting model would include other demographics to provide for balance in these factors as well. However, the donor file from which respondents are sampled does not contain any of this information. Using the regression results, I calculate a probability of responding to the survey. The weights are then the inverse of this predicted probability. To avoid giving too much influence to outlying observations, I truncate the highest 10% of the weights and assign them a weight equal to the 90th percentile.

Figure A1 shows the distribution of donation amounts in the population, among survey respondents, and among survey non-respondents after applying the weights. We see that after weighting the distri-

butions are very similar. This lends evidence in support of the survey being a representative sample of donors opinions. In Figure A2 and Figure A3 I show the results of weighting state by state. The circles represent the unweighted proportions, the "x"s show the proportions in the population, and the triangles show the proportions in the survey after applying the weights. We see that in nearly all cases, weighting brings the survey proportions closer to the proportions in the population of donors. Figure A3 shows the median contribution amount by senator for the same three subsamples of the survey. Again, we see that the median contribution amount of the weighted survey data moves closer to the median contribution amount in the population.

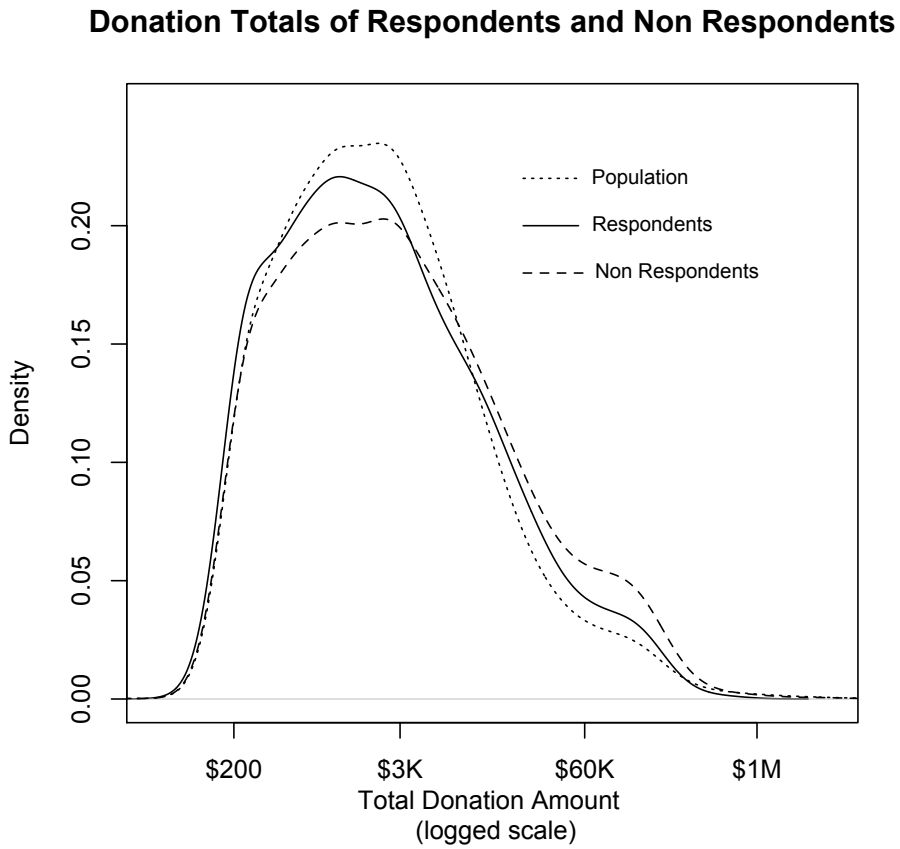

Figure A1: **Donor Survey Weighting** - The dotted line shows the distribution of contribution amounts among the donor population. The solid line shows the distribution of contribution amounts by all respondents to the survey. Finally, the dashed line shows the distribution of donation amounts among non-respondents to the survey. The three distributions are very similar to one another.

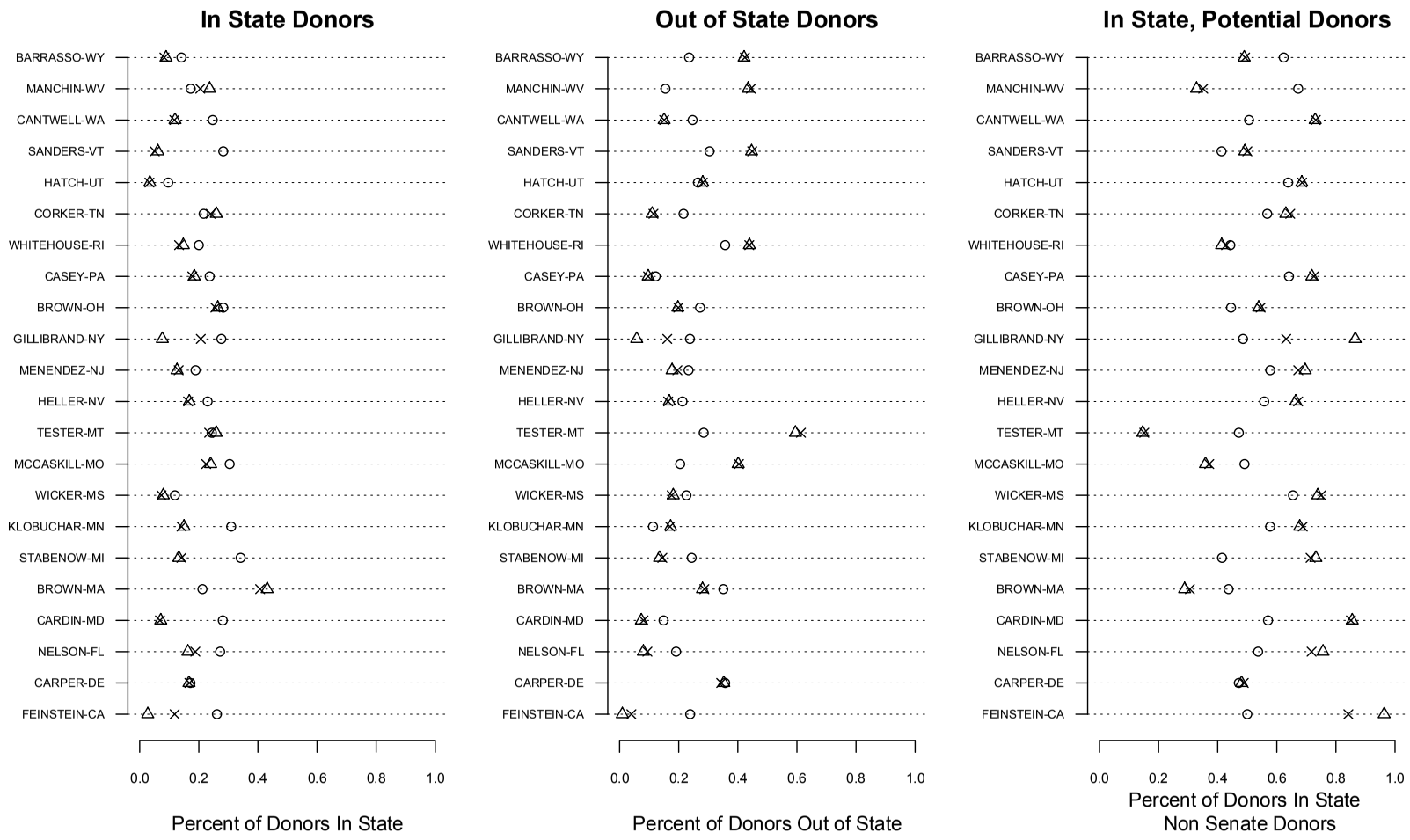

Figure A2: **Results of Weighting -** The circles show the percentages in the unweighted survey data. The circles show the percentages in the unweighted survey data. The x's show the percentages in the weighted survey data. In nearly all cases, weighting brings the sample closer to the population proportions.

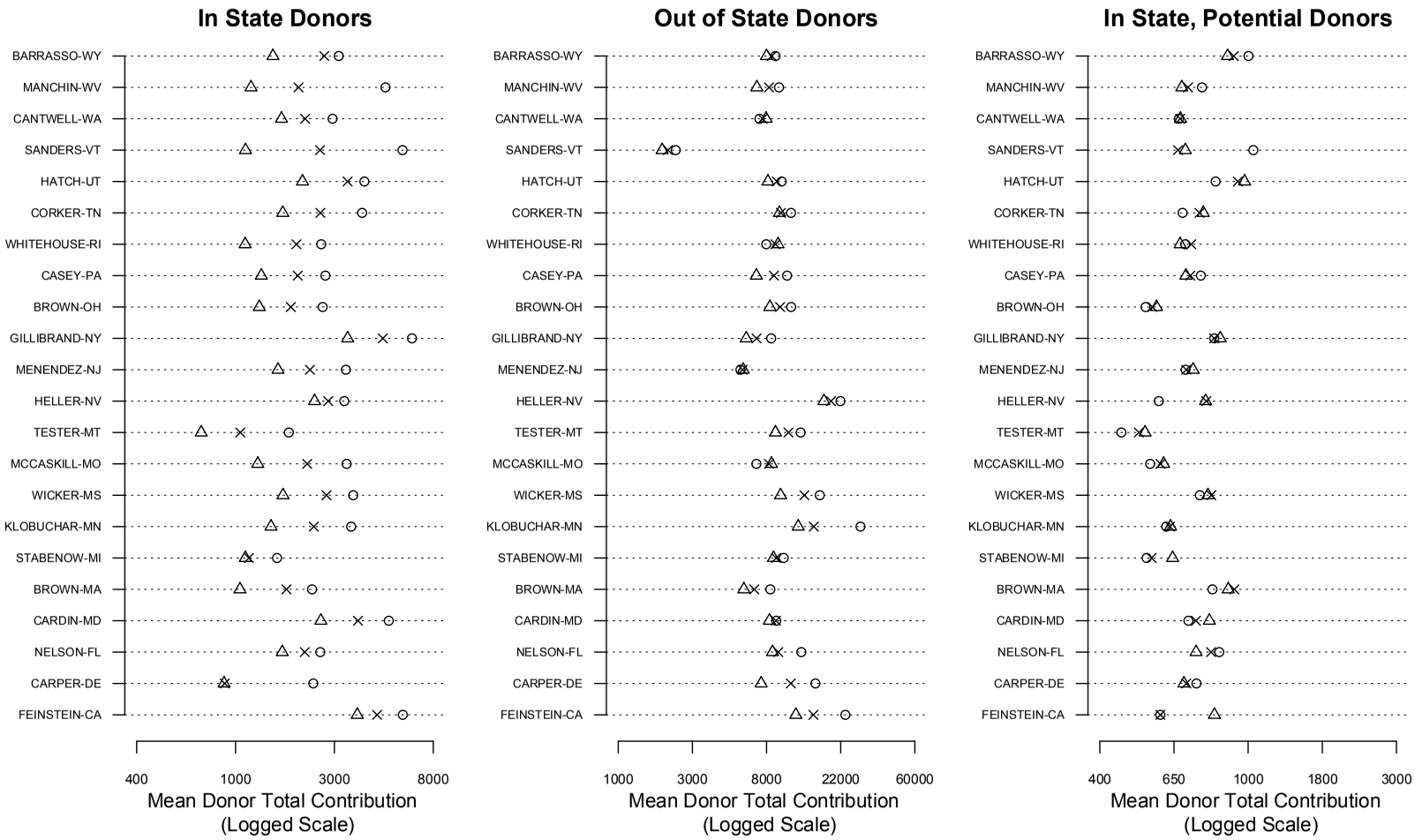

Figure A3: **Results of Weighting -** The circles show the median total contribution amount in the unweighted survey data. The circles show the amounts in the unweighted survey data. The x's show the amounts in the weighted survey data. In nearly all cases, weighting brings the sample closer to the population proportions.

B Additional Empirical Results

B.1 Distribution of Donor Ideal Points

Figure A4 shows the distribution of estimated ideal points for the donors in the survey. The colors correspond to the party of the donor. Blue donors identify with the Democratic Party. Red donors identify with the Republican Party and grey donors do not identify with a party. As seen in the figure, most donors have ideologically extreme positions. There are very few donors with centrist, moderate positions. This is especially true among donors who identify with one of the two parties. Independent donors tend to be more moderate, however, there are very few of these donors. The overwhelming majority of donors identify with one or the other party.

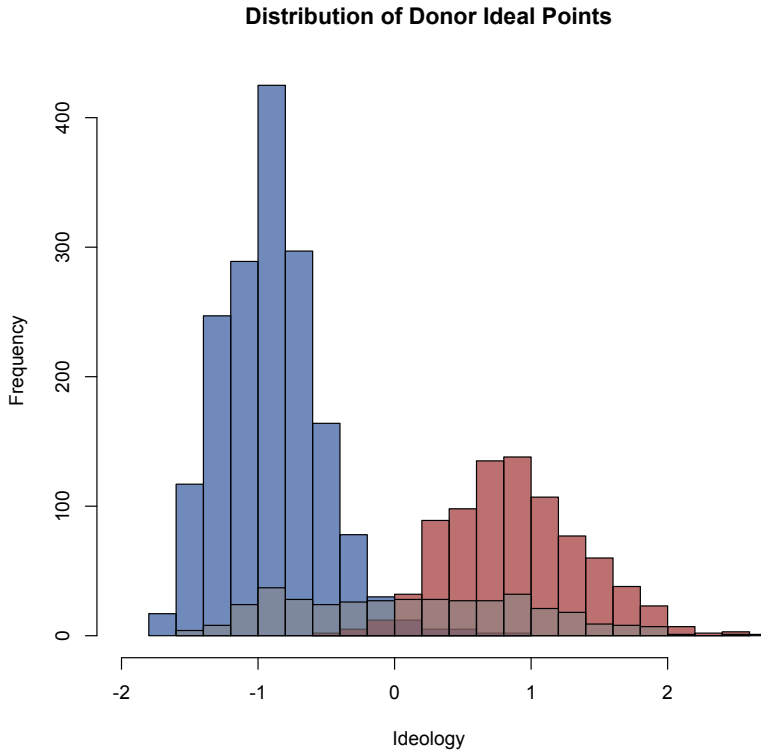

Figure A4: **Distribution of Estimated Donor Ideologies**

B.2 Out of State Donors

Figure A5 shows an example of the geographic distribution of individual donors for a senator from each party. Each point represents a donor who gave to the senator, with the size of the point proportional to the donation amount. We see that a large fraction of individual contributors reside outside of each senator's state. Using Senator Hatch as an example, a survey that did not identify out of state contributors would not consider contributors who comprise nearly 90 percent of Hatch's financial support. In 2012 the average proportion of donations to senators coming from out of state was greater than 50%, as shown in Figure **??** in the main text of the paper.

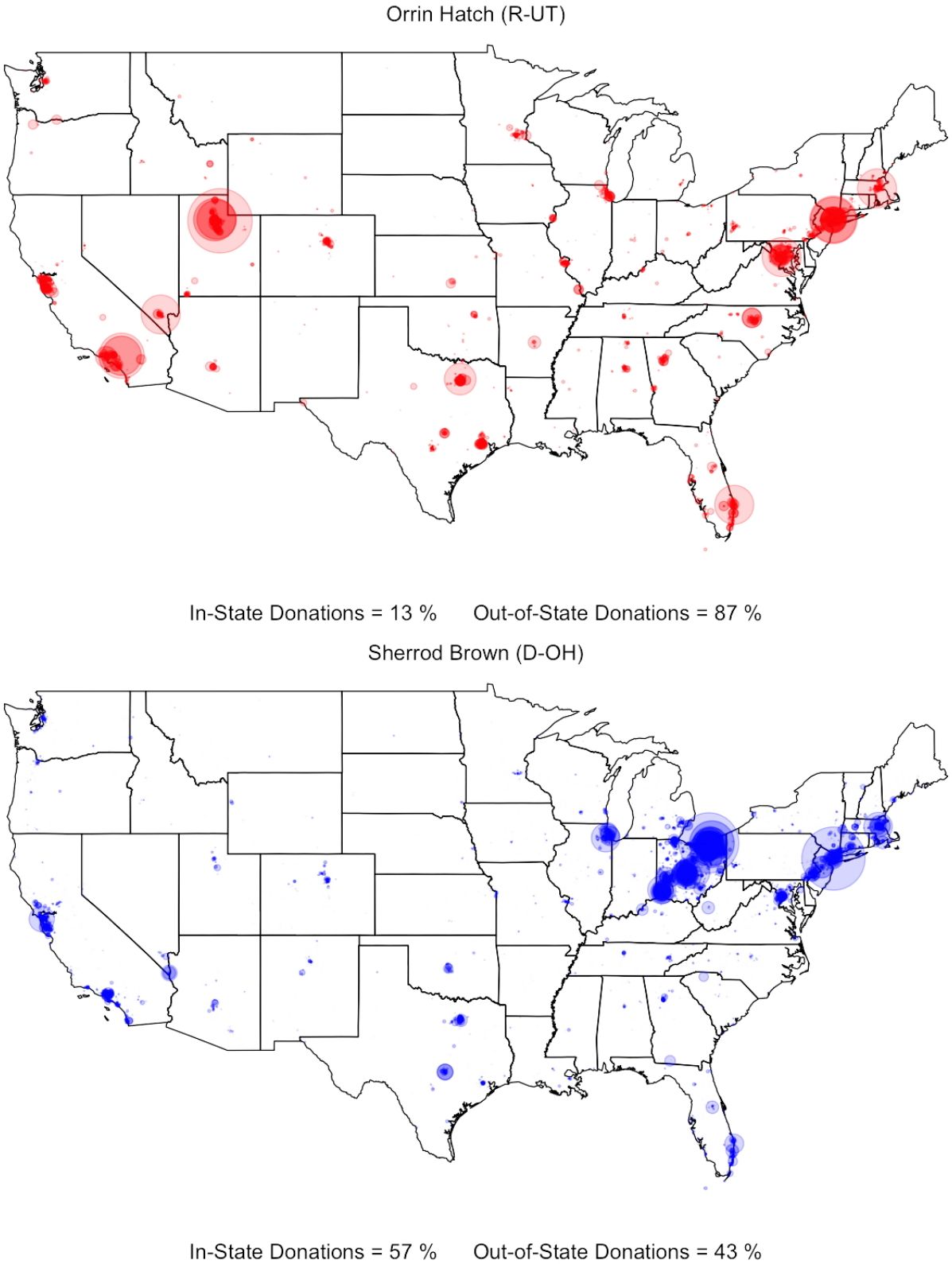

Figure A5: **Senator's Donors Are Largely from Out-of-State** - Unlike voters, donors are not constrained to contribute only to candidates from their district or state. In fact, much of senator's money comes from donors who do not live in the state represented by the senator. This figure shows two examples of the geographic diversity in donor locations for a Republican and Democratic senator. Both Senator Hatch and Senator Brown of Ohio were running for reelection in 2012. Senator Hatch raised 87% of his money from individual donors outside of Utah. Senator Brown also raised a large share of his individual donor money (43%) from outside of Ohio.

B.3 Validity of Ideal Points

One possible critique of the estimated ideal points is that those voters who are estimated to have moderate ideal points are in fact not that moderate. It could rather be the case that moderates are simply extreme on issues, but inconsistent as to which side of the political spectrum they fall (Converse, 1964). For example, a respondent who believes abortion should be outlawed entirely (extremely conservative position) but favors expanding Medicare to cover all Americans (extremely liberal position) may appear moderate when this voter in reality is anything but moderate. To test for this, I consider the five questions in the CCES that had more than four possible response options ranging from very conservative to very liberal. The questions addressed the topics of abortion, climate change, economic growth, political ideology, and support for the Tea Party. For each of these questions I calculate whether the respondent gave an extreme response (i.e. the most extreme response option on either side of the scale). Figure A6 shows the estimated ideology of each respondent plotted against the number of extreme responses they provided. The red line shows a loess smoothed regression line. We see that those with moderate estimated ideal points provided fewer extreme responses than those on the ideological edges. These results support the idea that voters with centrist ideal points truly are moderate ideologically, rather than simply extreme but ideologically inconsistent. This also lends support to the validity of the estimates used in the previous sections that show senators are out of line with the preferences of the majority of their voters who have moderate ideal points.

In a working paper, Lewis and Tausanovitch (n.d.) critique models that "link" different groups in ideal point models and suggest that the decision making process among two different groups is sufficiently different as to render comparisons of ideal points across groups invalid. I address this concern in a variety of ways. First, I include as many questions as possible to help address the critique that voters

or donors are casting fewer votes than legislators in ideal point models. Furthermore, in a simple linear model of self-placed ideology regressed on the estimated ideal point, the difference in slopes between voters and donors is quite small (.41 - non-donors, .47 - donors), suggesting that the relationship between expressed ideology and the estimated ideal points is similar across groups.

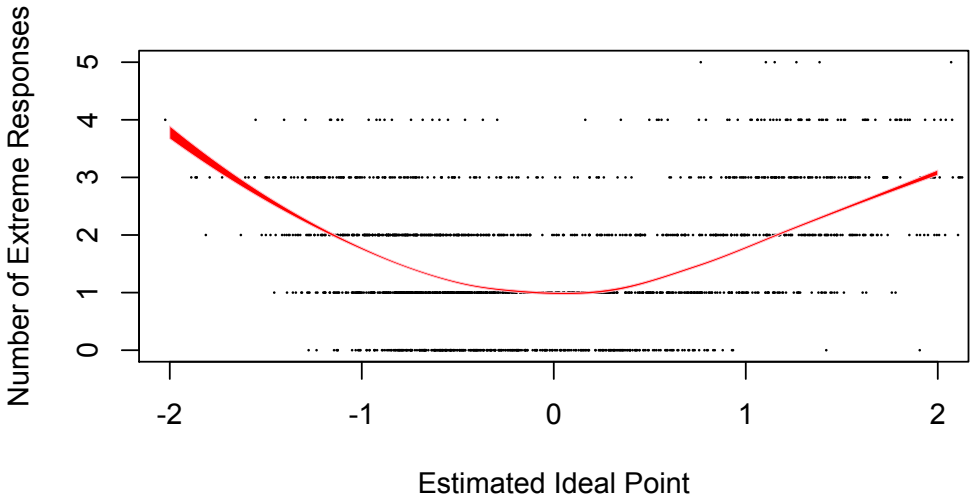

Figure A6: **Ideology and Extreme Survey Responses** - This figure shows the estimated ideal point of voters (x-axis) and the number of extreme responses they provided (y-axis) to five CCES questions that had 4 or more response options. The red line is a loess smoothed regression line. Those with moderate ideal points give fewer extreme responses (1 on average), rather than simply providing extreme responses to questions but on opposite sides of the political spectrum.

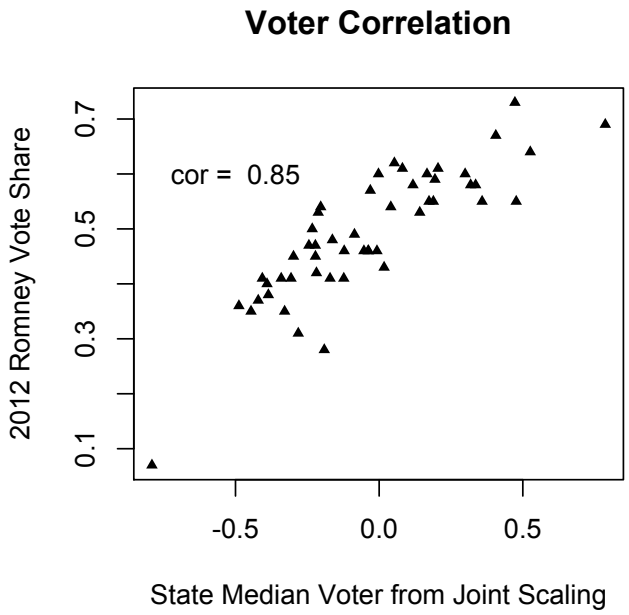

Figure A7: Correlation between estimated ideal points of voters and 2012 Republican vote shares by state. We see that states with more conservative voters as estimated by the ideal point model and CCES data tend to have higher Romney vote shares. The correlation is quite high at .85.

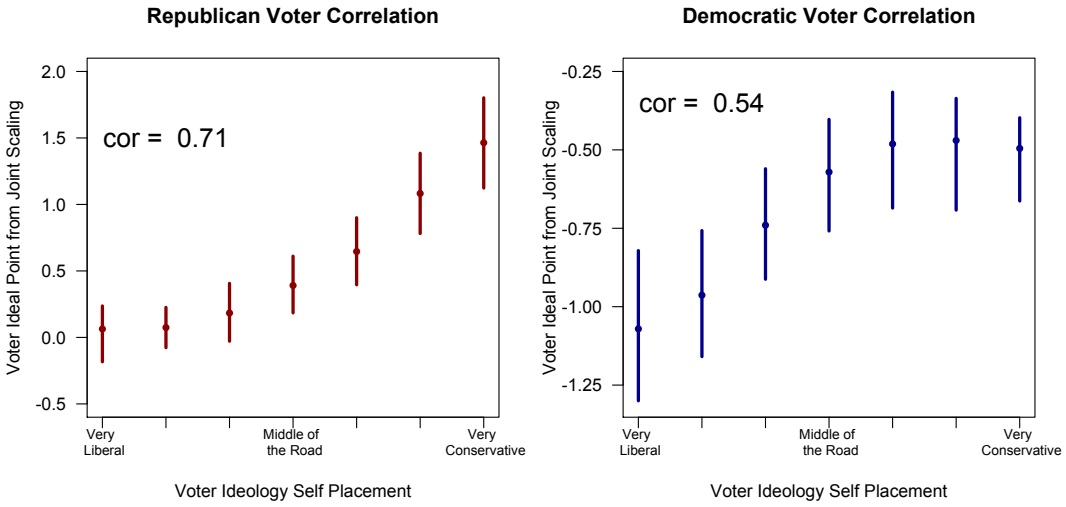

Figure A8: Correlation between voters' self-reported ideology in the CCES survey and their estimated ideologies using the joint scaling method. Each point is the average ideal point among voters for each option on a seven point Likert Scale of political ideology. The vertical bars show the values of the 10th to 90th percentile of the data. The left panel shows Republican respondents and the right panel shows Democratic respondents. As seen in each panel, the within party correlations are quite high and the figures trend in the direction we would expect.

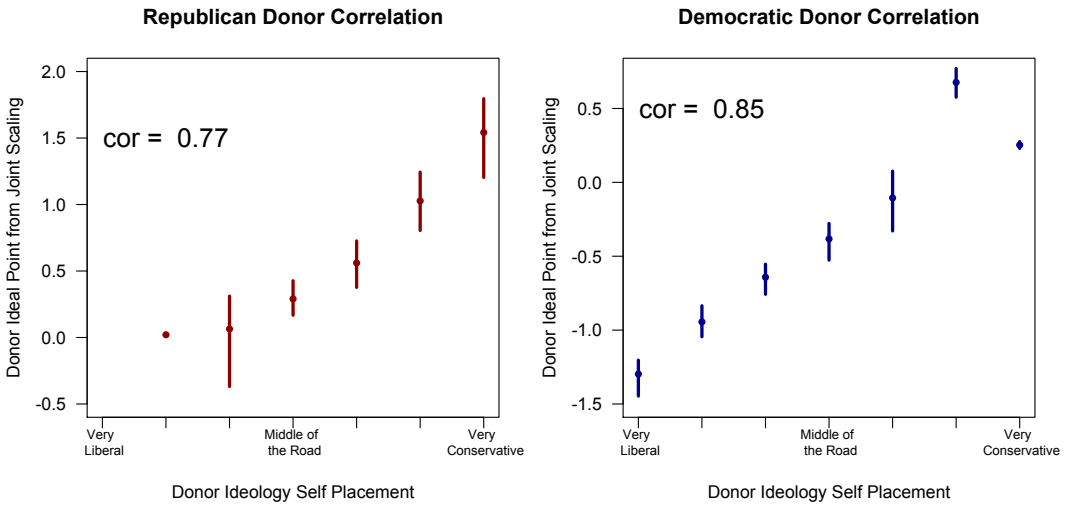

Figure A9: Correlation between donors' self-reported ideology in the CCES survey and their estimated ideologies using the joint scaling method. Each point is the average ideal point among voters for each option on a seven point Likert Scale of political ideology. The vertical bars show the values of the 10th to 90th percentile of the data. The left panel shows Republican respondents and the right panel shows Democratic respondents. As seen in each panel, the within party correlations are quite high and the figures trend in the direction we would expect.

Average Respondent-Leigislator Ideological Distance		
	Mean Ideological Distance	95% C.I.
Democratic Donors	-0.10	[-0.12, -0.08]
Democratic Partisans - Election Senators	-0.24	[-0.24, -0.23]
Democratic Partisans - All Senators	-0.27	[-0.27, -0.26]
Democratic Supporters - Election Senators	-0.29	[-0.30, -0.27]
Democratic Voters - Election Senators	-0.85	[-0.87, -0.84]
Democratic Voters - All Senators	-0.89	[-0.90, -0.89]
Democratic Random Representation	-0.95	[-0.96, -0.94]
Republican Donors	-0.02	[-0.06, 0.02]
Republican Partisans - Election Senators	0.01	[-0.03, 0.04]
Republican Partisans - All Senators	0.16	[0.15, 0.17]
Republican Supporters - Election Senators	0.08	[0.05, 0.12]
Republican Voters - Election Senators	0.72	[0.69, 0.76]
Republican Voters - All Senators	0.97	[0.96, 0.98]
Republican Random Representation	1.04	[1.03, 1.05]

Table A1: **Mean Ideological Distance**

B.4 Ideological Congruence

Table A1 presents the same information as in Figure **??** but in table form so as to show exactly the point estimates and confidence intervals.

Figure A10 shows the ideological congruence between senators and voters, co-partisans, supporters, and all voters. Here I show the median distance rather than the average pairwise distance as reported in the main text of the paper. We see that the results are very similar to Figure **??** in the main text of the paper, which calculates average pairwise distances for the same groups.

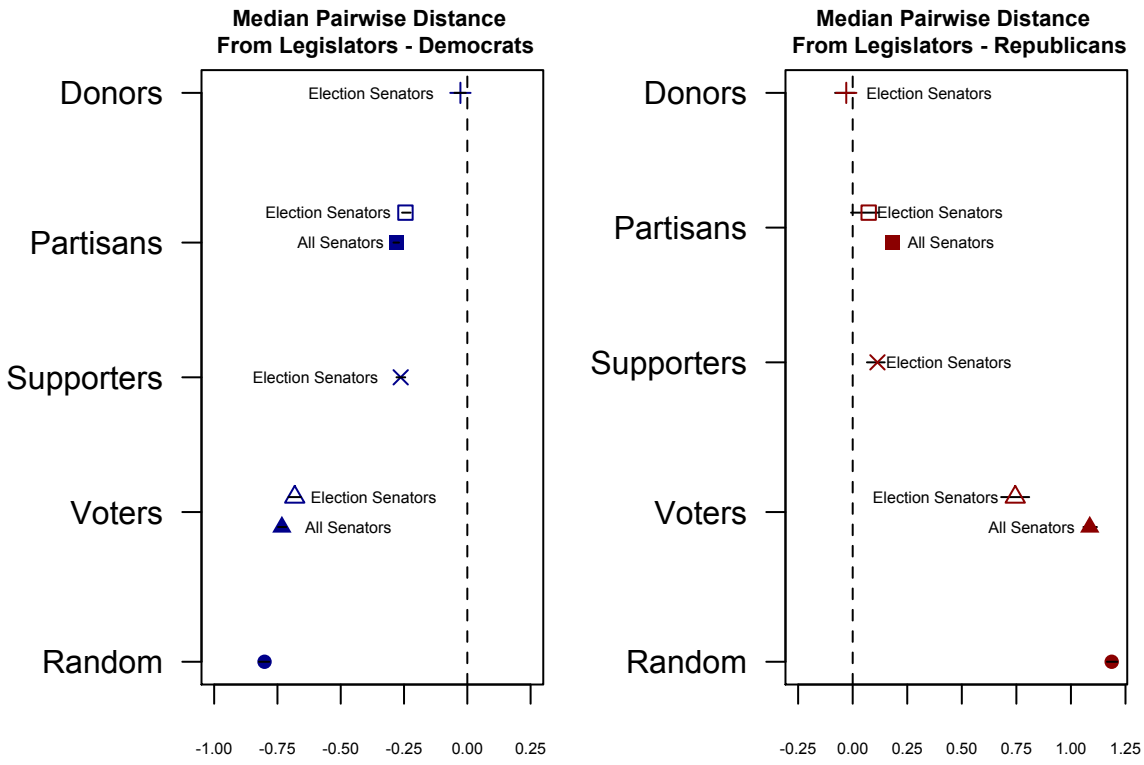

Figure A10: **Median Distance between Legislators and Donors, Partisans, Supporters, and Voters** This figure shows the median distance for each of these four groups. Additionally, the bottom point shows the median distance between voters and a randomly assigned senator. The distance is calculated by taking the median of the difference between the senator's ideal point and voters' (or co-partisan, or donor, etc.) ideal points. The degree of congruence between senators and donors is higher (the distance is nearly zero) than among any other group. Furthermore, we see only slightly more congruence between senators and their voters than if legislators had been randomly assigned to voters. Points contain 95% confidence intervals (bootstrapped), but are often too small to be seen.

B.5 CCES

One possible critique of these results is that the CCES survey over samples voters from one of the two parties in each state and thus the estimate of the median voter in each state is biased. While the CCES provides evidence that the survey is indeed representative of state demographics (CCES, 2012), an additional test of the partisan balance in the CCES would be to plot the percentage of Republicans and Democrats in each state against an external measure of partisan strength, such as presidential vote shares. Figure A11 shows that states with higher proportions of Republican (Democratic) respondents also had higher Republican (Democratic) vote shares in the 2012 election. This provides evidence for the partisan balance of the CCES, thus also supporting the validity of the ideal point estimates of the median voter and co-partisans in each state.

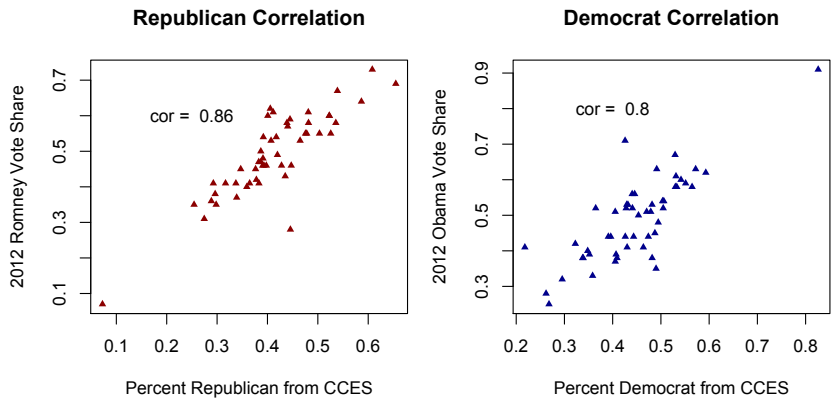

Figure A11: **CCES Partisans and 2012 Vote Share** - We see a strong relationship between the CCES partisanship by state and the actual vote share in the 2012 election, lending evidence for the validity of the CCES survey's partisan balance by state.

B.6 Wealth and Congruence within Party

The results presented in Figure A12 replicate those in Figure **??**, but consider only co-partisans rather than all voters in a senator's state. Congruence is higher among donors than among wealthy non-donor partisans.

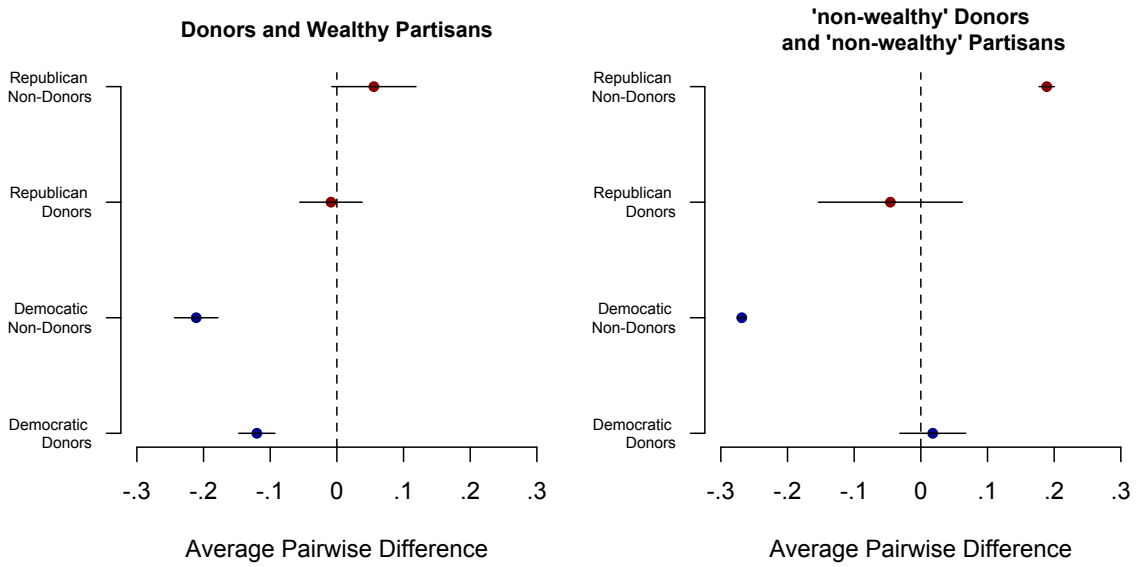

Figure A12: **Average Distance: Senators-Donors and Senators-Wealthy Co-partisans** - This figure shows the average pairwise distance between senators and donors and senators and *wealthy* co-partisans. We see that even when considering only wealthy co-partisans that congruence is larger among donors than among non-donors.

B.7 Partisan Activists

One concern could be that donors have such high congruence not because they give money, but rather are active in communicating with legislators or are involved in other forms of advocacy towards legislators than are non-donors. Thus, the mechanism by which representation takes place is through the active transmission of interests through activism rather than through donations. A full test of this hypothesis warrants a paper-length investigation of its own, however, to initially test this hypothesis I use a question included in the CCES survey that asked respondents if, "During the last year, did you [attend a political meeting] [work for a campaign]." If respondents indicated they had participated in either of these activities, I code them as "activists". Admittedly, this is a course measure of activism and a full survey battery of questions would better address the level of political activity a voter engages in. However, this is not the primary purpose of this study and is left for future work. Using this variable, I regress the absolute distance between respondents and their legisaltors on indicator variables for whether or not the respondent is a donor, voter (the omitted category), copartisan, or an activist. I also include variables for whether or not the respondent is of the same party as the legislator and interact this with activism to see the effect of being an activist in the same party as the legislator. The results show that donors and copartisans have much lower (more congruent) ideological distances than voters. Copartisan activists are no different from non-activist copartisans (0.169 - 0.17), while out-party activists are especially ideologically distant from their senators (0.169). The results are displayed in Table A2.

Dependent Variable: Respondent-Leigislator Ideological Distance	
Donor	-1.03^{***}
	(0.01)
Co-partisan	-1.11^{***}
	(0.004)
Activist	0.17^{***}
	(0.01)
Co-partisan $\times$ Activist	-0.18^{***}
	(0.01)
Republican Senator	0.09^{***}
	(0.01)
Independent Senator	-0.17^{**}
	(0.09)
Income	0.01^{***}
	(0.001)
Constant	1.63^{***}
	(0.01)
State Fixed Effects	✓
Observations	51,384

$^{*}p < 0.1$; $^{**}p < 0.05$; $^{***}p < 0.01$

Table A2: **Ideological Distance and Political Activism**

B.8 Effect Heterogeneity

To test for differences across senators, I analyze the degree of congruence among senators who are "partisan mismatches". These are cases where the party of the senator does not align with the overall partisan composition of the state. In these cases, legislators may have less leeway to disregard the preferences of voters in favor of the preferences of their co-partisans and donors. Instead, they may give greater weight to the ideological positions of voters. In these states, this may be the case as successful candidates must win over a significant portion of independent voters who are more likely to vote based on ideological proximity than partisans (Jessee, 2009). Moreover, these legislators must also convince many voters of the opposing party to vote against their partisan leanings, which is a difficult undertaking given the correlation between partisanship and vote choose (Bartels, 2000). As an example of these "partisan mismatches", Figure A13 shows the distribution of ideal points for voters, co-partisans, and donors for three such states. In each case, we see that a significant proportion of voters have ideal points on the other side of the ideological spectrum from the partisans and donors of the senator's party. Likewise, we also see that in these three cases the senators' ideal points appear to be further from the median ideology of their donors and much closer to the median voter's ideal point.

To test the partisan mismatch hypothesis more comprehensively, I calculate the average distance between each senator and voters, partisans, and donors as was done in the previous section. However, this time I split the sample by whether or not the senator is a partisan mismatch in the state. I consider a senator to be mismatched if voters in her state supported the presidential candidate of the opposite party. For example, Massachusetts overwhelmingly supported President Obama in 2012 while Scott Brown was the Republican senator from this state. Similarly, West Virginia's electoral votes went to Mitt Romney in 2012 while the state is represented by Democratic Senator Joe Manchin. If the hypothesis is confirmed,

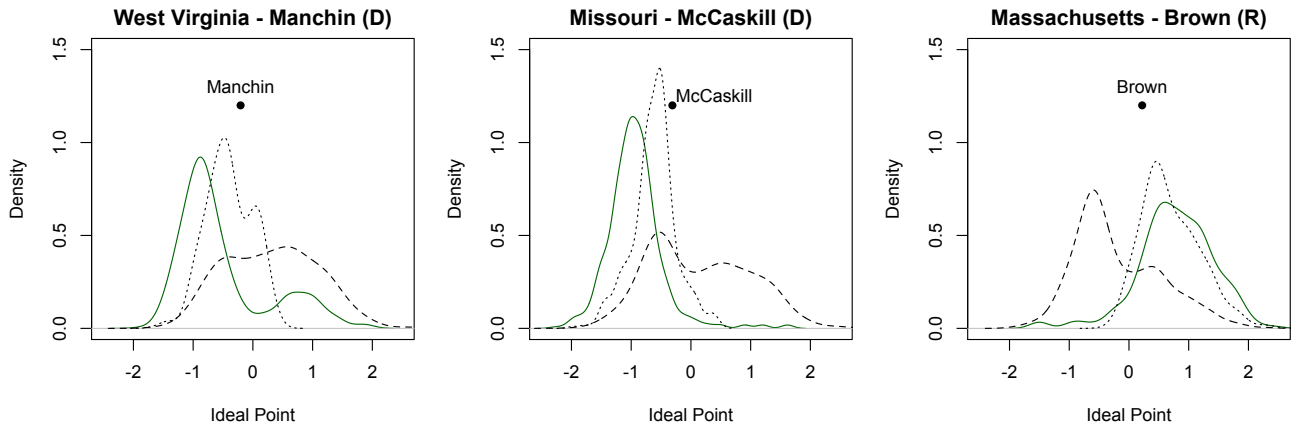

Figure A13: **Examples of Mismatched Senators in WV, MO, and MA** - This show the distributions of ideal points in three "mismatched" states, i.e. states who supported the presidential candidate of opposite party as the incumbent senator in the 2012 election. The dashed line in each panel shows the distribution of ideal points of all voters in the state. The dotted line shows the distribution of ideal points of voters who identify with the party of the incumbent senator. The solid green line shows the distribution of ideal points of the senator's donors. The point shows the estimated ideal point of the senator. The presence of a large proportion of voters from the opposing party and the moderate positions of the senator's ideal points suggests these "mismatched" senators give more attention to the preferences of the average voter.

we should see the average distance between the legislator and her voters decrease in these mismatched states while the average distance between the legislator and her co-partisans and donors should increase.

Figure A14 shows that in mismatched states senators heed more closely to the ideological preferences of the average voter. This is illustrated by the smaller distance between senators and their voters in mismatched states (triangle points) compared to states where the party of the senator aligns with the partisan composition of the state (cicle points). Among co-partisans and donors, the average distance from the senator switches signs, indicating that the senators in mismatched states are more *moderate* than the average co-partisan and donor. Additionally, in these cases, the absolute distance between the senator and donors increases in mismatched states. Each of these results suggests that the ideological pressure applied by the median voter is greater in mismatched states and that there is greater ideological congruence between the median voter and senators in these states.

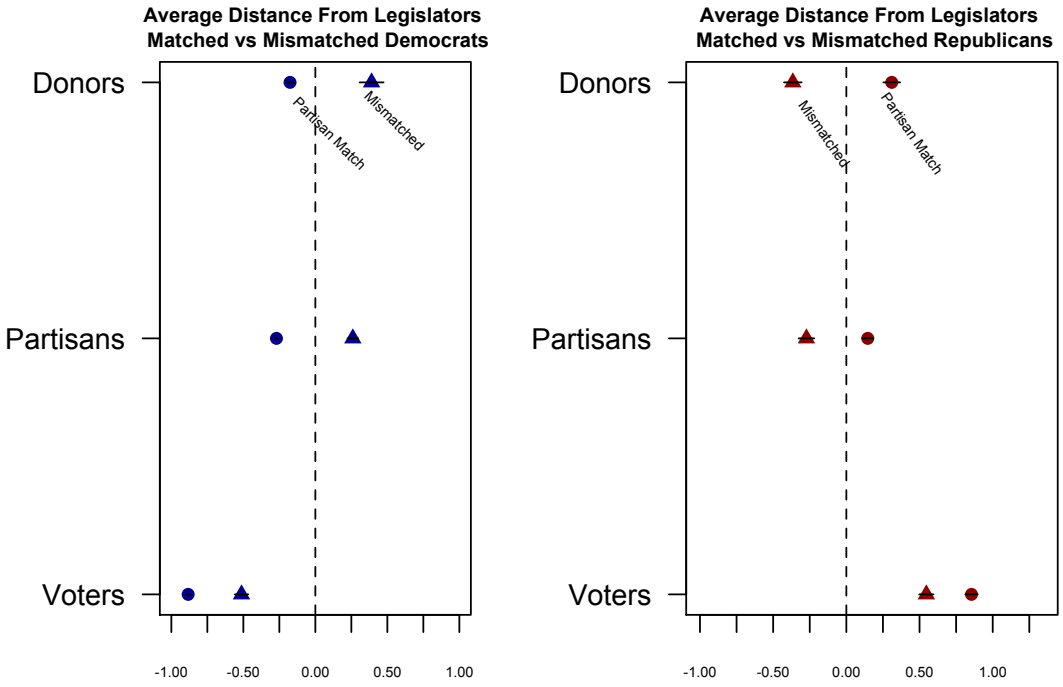

Figure A14: **Average Distance: Party Mismatched versus Party Matching States -** This figure shows the average distance for voters, co-partisans and donors from their respective senators. The figure shows these distances by party, with Democrats in the left panel and Republicans in the right panel. Additionally, triangles show the average distances in states that are partisan mismatches with the senator. I define a partisan mismatch as a state where voters supported the presidential candidate from the opposing party as the senator in the 2012 election. We see that in mismatched states, the average distance between senators and their voters decreases dramatically. Among co-partisans and donors, the distance flips signs. Senators become more moderate than their co-partisans and donors in mismatched states. Additionally, the average distance either remains the same or increases (with the exception of Republican donors).

C Survey Invitation

First_Name Last_Name
Address
City, ST ZIP

Date, 2013

Dear First_Name,

We are writing to ask for your help in understanding the views of registered voters on important political issues facing America. To help give valuable input on these issues, we invite you to participate in a special online survey conducted through [redacted].

You were selected at random from a publicly available list of voters in America. This online survey takes approximately 10 minutes to complete and your answers are completely confidential. None of your information will ever be shared with political organizations or the public.

To ensure that only voters who have been invited can participate in the survey, we have provided a unique access code. To begin the survey:

1. Enter the following URL into any web browser: **http://[redacted].com**
2. Click on **"Take The [redacted] Voter Survey"**
3. Enter the following "Access Code" in the space provided: **ACCESS_CODE**

If you have trouble accessing the survey, please email us at [redacted] or call the survey helpline at [redacted]. Your responses are voluntary and will be kept confidential. If you have any questions about your rights as a study participant, you may contact the [redacted] Institutional Review Board by telephone at [redacted].

Enclosed is a small token of appreciation to thank you in advance for participating in the study. We hope that you enjoy sharing your thoughts and opinions within the questionnaire and we look forward to receiving your response.

Sincerely,

D Survey Questions

Using responses from the survey, I include a variety of questions. Many questions are directly related to a voter's opinion on policies that are currently debated between the parties and have previously been shown to have clear differences between liberal and conservative respondents. Bolded questions indicate questions that are used to bridge between surveys. Furthermore, I include additional questions that may not be overtly political yet have been shown to be predictive of both voters' and legislators' ideological positions.

D.1 Donor Survey Questions

- **For whom did you vote for President?**
- **EPA Amendment: Vote to repeal the EPA's finding that greenhouse gases endanger human health and the environment as well as block the EPA from regulating greenhouse gases and weaken fuel economy standards.**
- **Extension of the payroll tax holiday and unemployment insurance benefits: Vote to extend through the end of 2012 the payroll tax holiday and unemployment insurance benefits.**
- **US - Colombia Free Trade Agreement: Vote to approve a free trade agreement between the United States and Colombia.**
- **Patriot Act Renewal: Vote to renew the government's Patriot Act powers to search records and conduct roving wiretaps in pursuit of terrorists.**
- **Birth Control Coverage: Vote to prevent employers from opting out of birth control coverage in health policies unless the employer is a religious organization with moral objections.**

- **Affordable Care Act: Vote to require all Americans to purchase health insurance, set up health insurance exchanges, and increase taxes on those making more than $280,000 a year.**
- **American Tax Payer Relief Act: Vote to permanently extend the Bush Era Tax Cuts for individuals making less than $400,000 per year.**
- **Dodd-Frank Financial Reform Bill: Vote to increase oversight of financial institutions and establish a Bureau of Consumer Financial Protection.**
- **End Don't Ask Don't Tell: Vote to allow gays to openly serve in the armed services.**
- Allow illegal immigrants, who were brought to the United States as minors, to pursue citizenship without returning to their country of origin.
- An amendment to the U.S. Constitution requiring a balanced budget.
- Reduce restrictions on offshore energy production.
- Allow individuals to divert a portion of their Social Security taxes into personal retirement accounts.
- Implement requirements to lower the amount of greenhouse gases produced by American businesses.
- An amendment to the U.S. Constitution banning gay marriage.
- Allow capital punishment for certain crimes.
- Allow the U.S. military to use force in order to prevent Iran from possessing a nuclear weapon.
- Regulate campaign contributions from corporations and unions.

- Allow the government to target suspected terrorists outside of official areas of conflict.
- **In general, do you feel that the laws covering the sale of firearms should be made more strict, less strict, or kept as they are?**
- **In general, do you agree or disagree that it was a mistake to invade Iraq?**
- **Which one of the following options best describes your view on abortion?**
- **Do you have a favorable or unfavorable impression of the political movement known as the Tea Party?**
- **Would you say that OVER THE PAST YEAR the nation's economy has gotten better or gotten worse?**
- **Do you approve of disapprove of the job Barack Obama is doing as President?**
- **During the past 2 years, did you do any of the following? You may mark more than one option.**
  - Attend a local political meeting (such as a school board or city council meeting)
  - Put up a political sign (such as a lawn sign or bumper sticker)
  - Work for a candidate or campaign
  - Attend an event sponsored by a political candidate (such as a fundraiser, rally, or dinner)
  - Talk to a family member, friend, or coworker about the 2012 election
- How important are the following factors in your decision to make a contribution to a U.S. House or U.S. Senate candidate?

  - The candidate is from my state or district
  - I know the candidate personally
  - The candidate is in a close race
  - The candidate's position on the issues is similar to mine
  - I was asked by a friend, coworker or family member
  - I think the candidate will help people and businesses in my state or district
  - The candidate could affect my industry or work
  - The candidate's opponent is unacceptable
  - I think the candidate and their staff will listen to my concerns once elected
  - To make a difference in the outcome of the election
  - I was asked by a political organization or group

- In the last 2 years, have you personally contacted any of the following people or members of their staff, either by phone, letter, in person, or through email?

- Have you ever personally met any of the following people or members of their staff?

- **Using the sliding scales, please place the following individuals according to how liberal or conservative you think they are.**

  - Barack Obama
  - Mitt Romney
  - Yourself

- **In politics, as of today, do you consider yourself to be a Republican, a Democrat, an Independent, or something else?**
- **What racial or ethnic group best describes you?**
- **Are you female or male?**
- **Thinking about politics these days, how would you describe your own political viewpoint?**
- **Thinking back over the last year, what was your household's annual income?**
- What do you think is the current net worth of your household?

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- Over past FOUR YEARS - Lost A Job
- Over past FOUR YEARS - household's annual income
- OVER THE NEXT YEAR - Economy
- Responsibility for US Economy
- Afghanistan - mistake
- Institution Approval - Congress
- Institution Approval - Supreme Court
- Vote - 2008
- Climate Change Government Action Support

- Immigration - Grant legal status
- Immigration - Increase border patrol
- Immigration - Allow police to question
- Immigration - Fine US businesses
- Immigration - Prohibit services
- Immigration - Deny automatic citizenship
- Jobs at the Expense of Environment
- Gay Marriage Support
- Affirmative Action Support
- Balanced Budget Preference
- Roll Call Votes - Ryan Budget Bill
- Roll Call Votes - Simpson-Bowles Budget Plan
- Roll Call Votes - Middle Class Tax Cut Act
- Roll Call Votes - Tax Hike Prevention Act
- Roll Call Votes - U.S.-Korea Free Trade Agreement
- Roll Call Votes - Repeal Affordable Care Act
- Roll Call Votes - Keystone Pipeline

- Roll Call Votes - Affordable Care Act of 2010
- Roll Call Votes - End DonÕt Ask, DonÕt Tell
- Born Again Christian
- Importance of religion
- Church attendance
- Frequency of Prayer
- Religious Preference
- Interest in news and public affairs
- Home ownership
- Military service
- Union membership
- Approve troops to - Ensure the supply of oil
- Approve troops to - Destroy a terrorist camp
- Approve troops to - Genocide or a civil war
- Approve troops to - Assist democracy
- Approve troops to - Protect allies
- Approve troops to - Help UN

- Approve troops to - None
- Raise Taxes versus Spending Decreases
- Income Tax versus Sales Tax Increases
- Using the sliding scales, please place the following individuals according to how liberal or conservative you think they are.
  - Republican Party
  - Democratic Party
  - Tea Party Movement
  - Supreme Court

E Ideal Point Model

In the Bayesian framework, the model requires several identifying assumptions. First, as is common in Bayesian ideal point models and for local identification, I assume that the distribution of ideal points has mean zero and a standard deviation of one. Secondly, to fix the directionality of the estimates, I arbitrarily assign liberal ideal points to have smaller values. Thus, negative values indicate more liberal voters (senators) and positive values indicate more conservative voters (senators). As starting values for the Gibbs sampler I assign each voter and donor a value of {-.8, -.5, -.2, 0, .2, .5, .8} based on their response to a seven point question of their self-identified political ideology with those identifying as "Very Liberal" being assigned -.8. Democratic legislators are assigned a starting value of -.5 with Republican senators begin assigned a starting value of .5. Each voter, donor, and senator's ideal point parameter is assigned a prior value equal to the starting value with a prior precision of 1. The Gibbs sample ran for a total of 300,000 draws with a 250,000 burn in period. One concern with Bayesian models is determining whether or not the estimates have converged to, and are sampled from, the true posterior distribution.

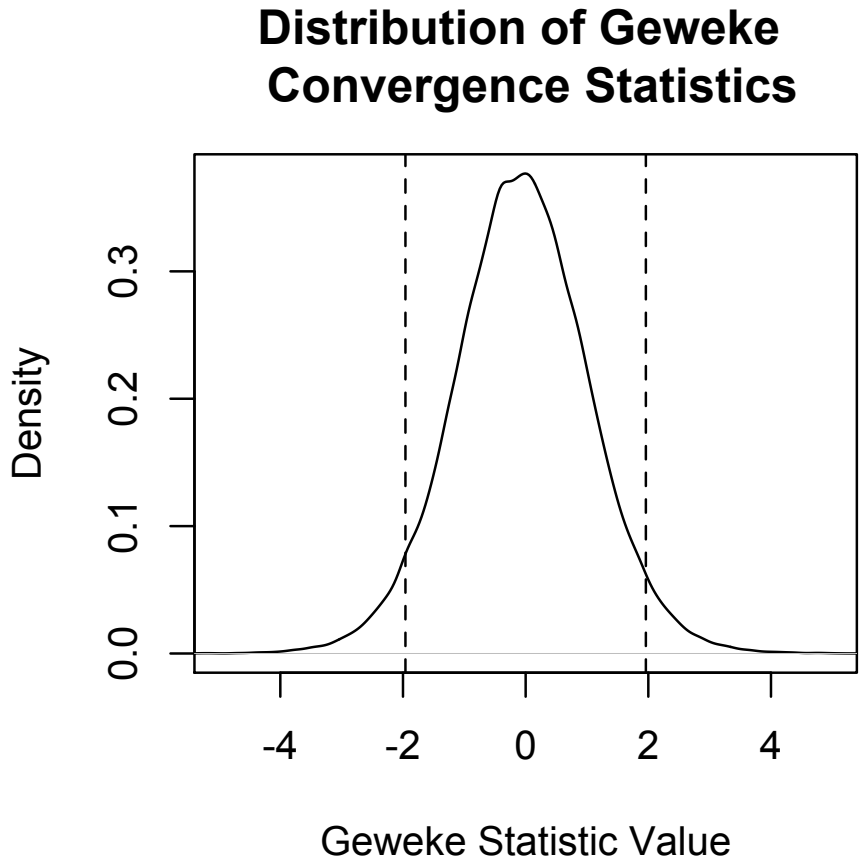

Figure A15: **Distribution of Geweke MCMC Convergence Statistics** - The statistic follows a standard normal distribution. Thus, values closer to zero indicate convergent chains. Values larger than 1.96 or smaller than -1.96 indicate chains that did not converge. A Geweke statistic is calculated for each of the more than 55,000 ideal points. The distribution of these statistics shows that the preponderance of ideal points appear to have converged. 7 percent of the ideal points have Geweke statistics greater than 1.96 or less than -1.96, only slightly larger than the 5 percent we would expect from random chance. The vertical dashed lines show the values -1.96 and 1.96 respectively.

These figures show convergence statistics for a sample of the ideal point parameters.

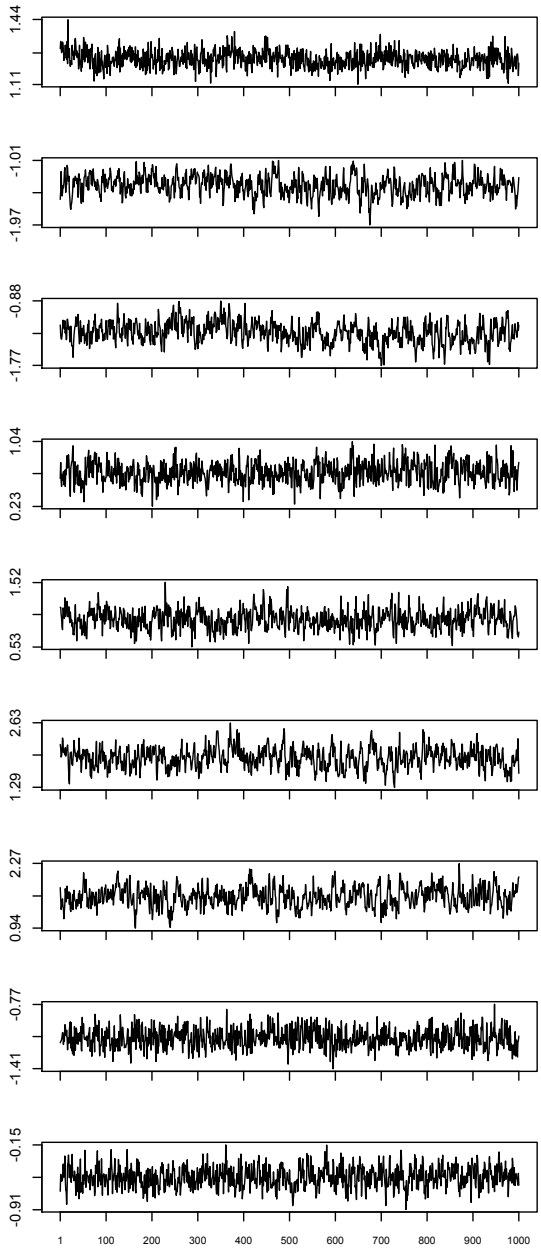

Figure A16: **Trace Plots of MCMC Chains** - The first three plots are of legislators, plots four through six are of voters, and plots seven through nine of donors. Each group appears to have converged equally well.

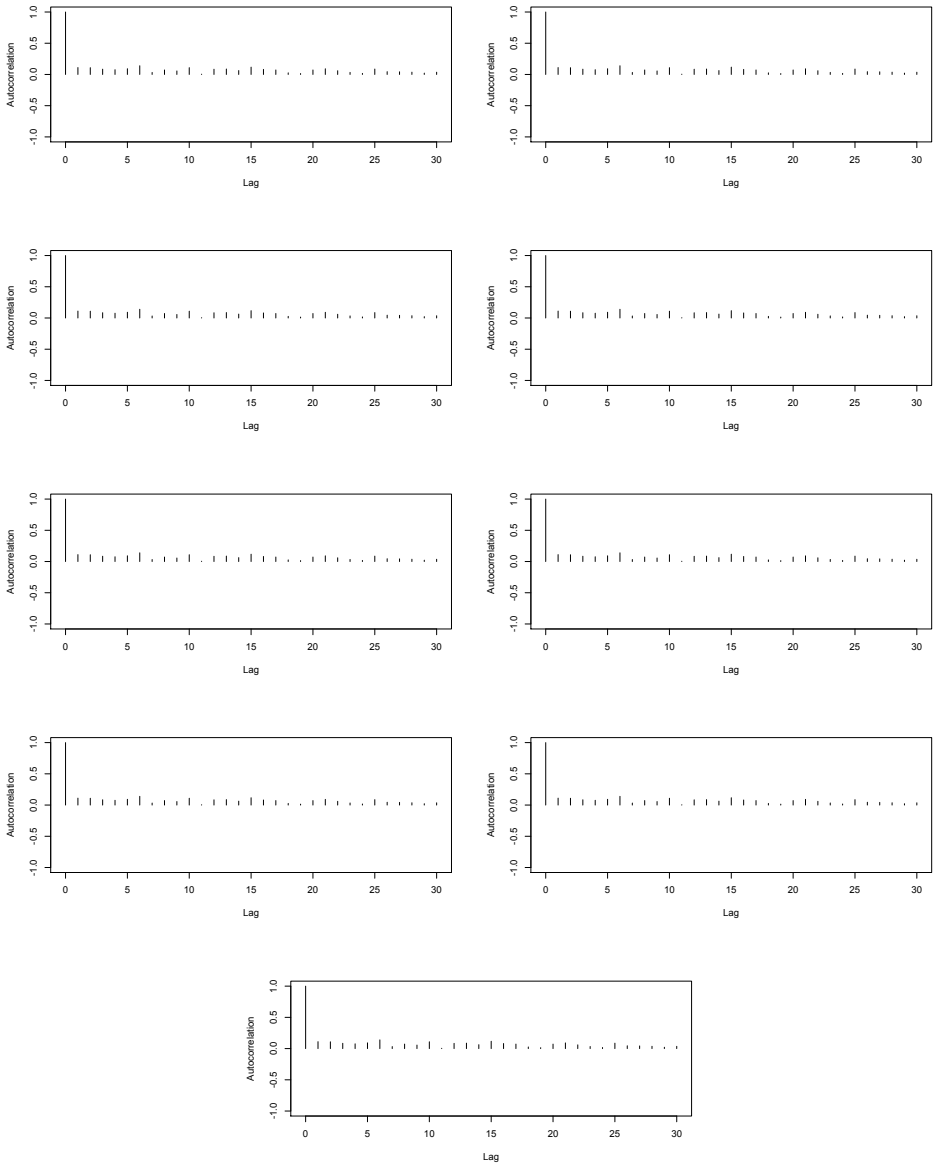

Figure A17: **Autocorrelataion Plots of MCMC Chains** - The first three plots are of legislators, plots four through six are of voters, and plots seven through nine of donors. There is a sharp drop off in autocorrelation in each chain, which suggests the chain was taking independent draws from the posterior distribution, i.e. proper convergence.

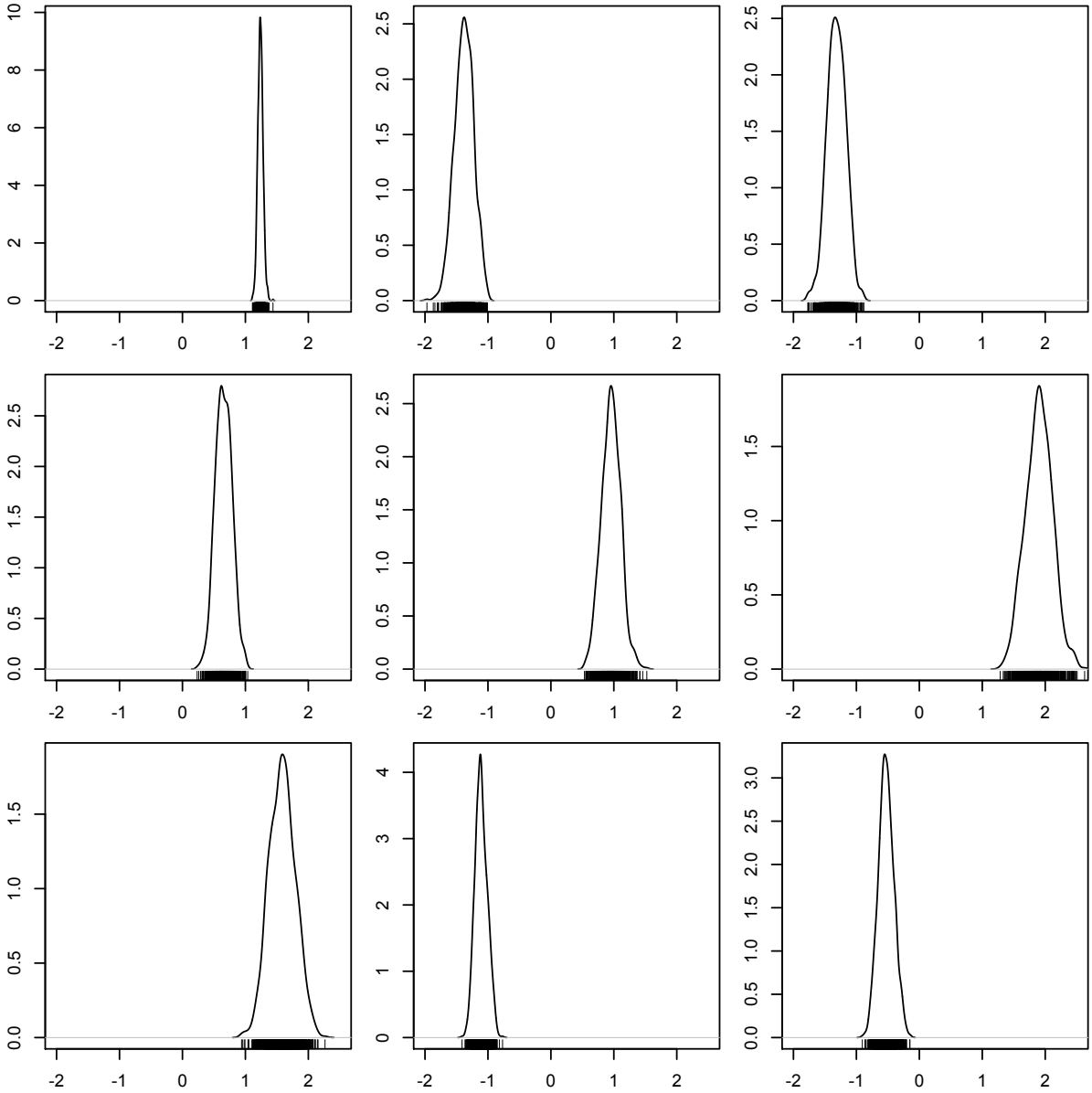

Figure A18: **Posterior Distributions** - This figure shows the distribution of posterior values for each of the nine people sampled on the unified ideological scale. Normally distributed posterior distributions indicate proper convergence.

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