Online Supplemental Materials: Ideological Donors, Contribution Limits, and the Polarization of American Legislatures

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Summary Statistics

Variable	Minimum	Maximum	Mean	Median
Polarization Score	-2.67	5.74	0.72	0.74
Unlimited Individual Contributions	0	1	0.26	0
Individual Limit Amount	$223	$22,501	$4,532	$2,371
Unlimited PAC Contributions	0	1	0.36	0
PAC Limit Amount	$223	$96,940	$5,379	$2,463
District Presidential Vote Share	0.10	0.91	0.48	0.48
Contested	0	1	0.71	1
District Median Income (in $1,000)	17.92	137.63	40.89	39.25
Republican	0	1	0.48	0
District Competitiveness	0.58	1	0.90	0.92
Majority Party	0	1	0.61	1
Term Limit	0	1	0.28	0
Chamber Percent Democrat	0.13	0.92	0.52	0.52
Squire Professionalism Score	0.03	0.63	0.18	0.15
Election Cycle	1993	2013	2004	2004

Table A1: **Summary Statistics of Variables Used in Model**

Additional Empirical Results

Contribution Limits and Donation Behavior

In this section I show that changes in contribution limits affect the fundraising patterns of candidates. Specifically, I show that when states decrease limits, the average contribution given to candidates decreases, the number of donors hitting the maximum contribution amount increases, the average amount of money raised by candidates from the limited source decreases, and the total amount of money raised in the state decreases. While it may seem obvious that limits should reduce the supply of money into politics, it is important to show that these various limits do indeed impact donors' and legislators' behavior. These results suggest that contribution limits at the state level are more than words on paper. They actually constrain and alter the fundraising of legislators and change the relationship between candidates and contributors.

Figures A1, A2, A3, and A4 show the bivariate correlations between contribution limits and various measures of donation behavior. In each plot, every point is the average value for states with contribution limits at that level. The horizontal axes show the contribution limits on a logged scale. Figure A1 shows the relationship between limits on individuals (PACs) and the average contribution size from individuals (PACs) to candidates. The y-axis shows the average contribution amount for each candidate on a logged scale. Lower limits lead to lower average contributions from donors. The lines displayed over the plots show a nonparametric loess fit of the data.

Figure A2 shows the relationship between limits and the percent of donors who contribute

the maximum amount. The results in the plot align with the coefficients in the model and show that lower limits lead to more contributors becoming constrained in their giving by the limit. Figure A3 shows the relationship between individual (PAC) limits and the total amount of money raised by candidates from individuals (PACs). Here we also see higher limits leading to more money raised in total. Finally, Figure A4 shows that when limits increase there is more money raised in the state overall.
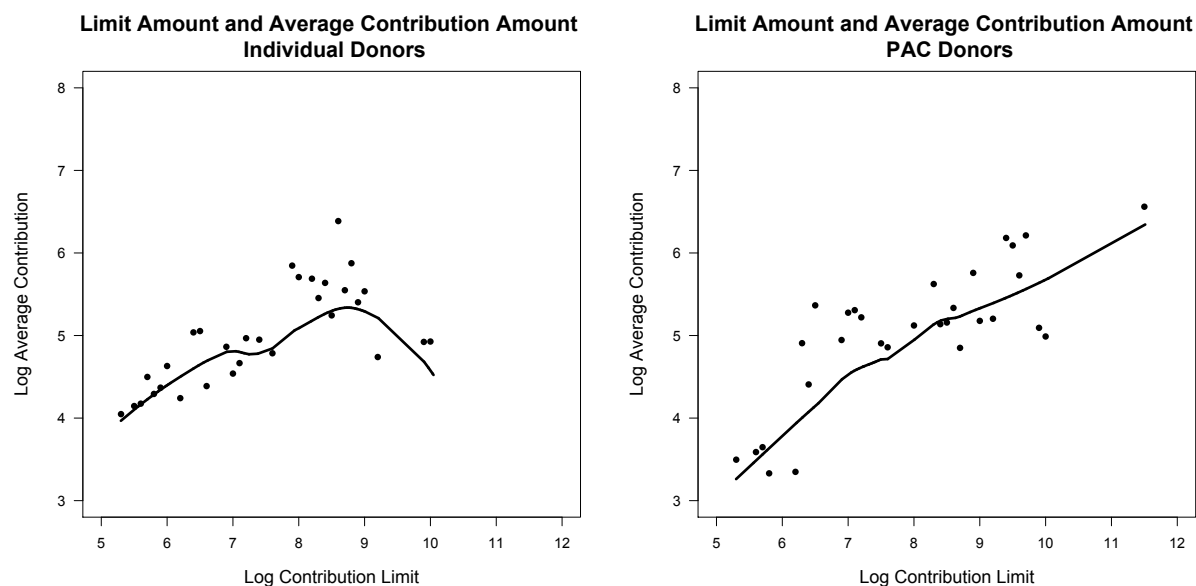

Figure A1: **Legislator Ideology and Average Contribution Size** - These plots show the relationship between legislator ideology and the average contribution size. As contribution limits increase, the average contribution size increases as well. This shows that limits are having a binding effect on donors' behavior.
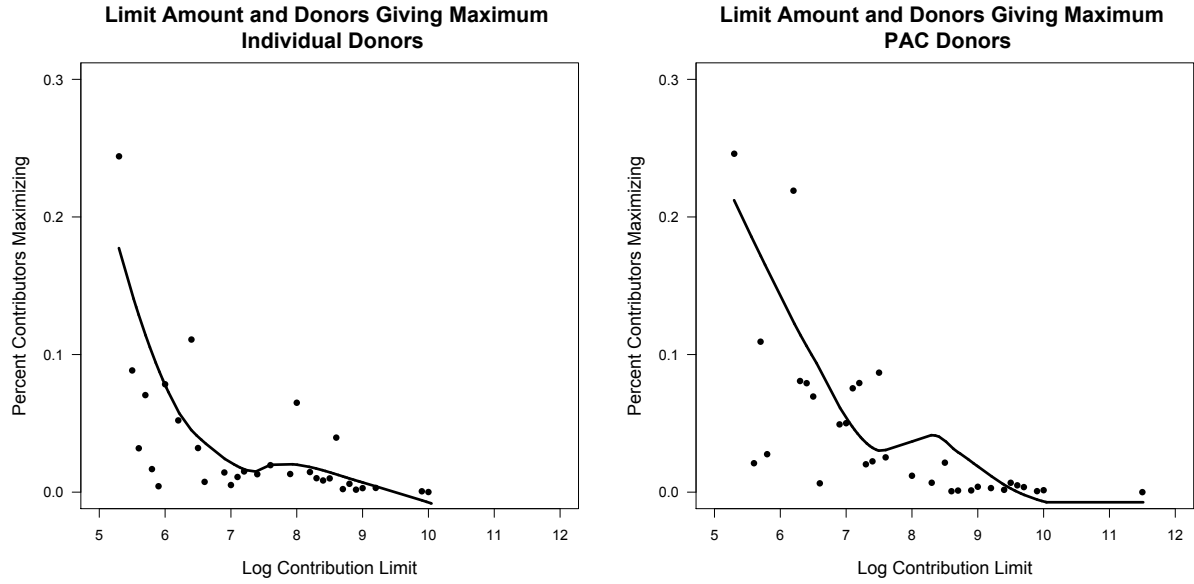
Figure A2: **Legislator Ideology and Maximum Contributions** - These plots show the relationship between legislator ideology and the percentage of donors who contribute the maximum allowable donation. As contribution limits increase, the percentage of maximizing donors decreases. This shows that limits are having a binding effect on donors' behavior.
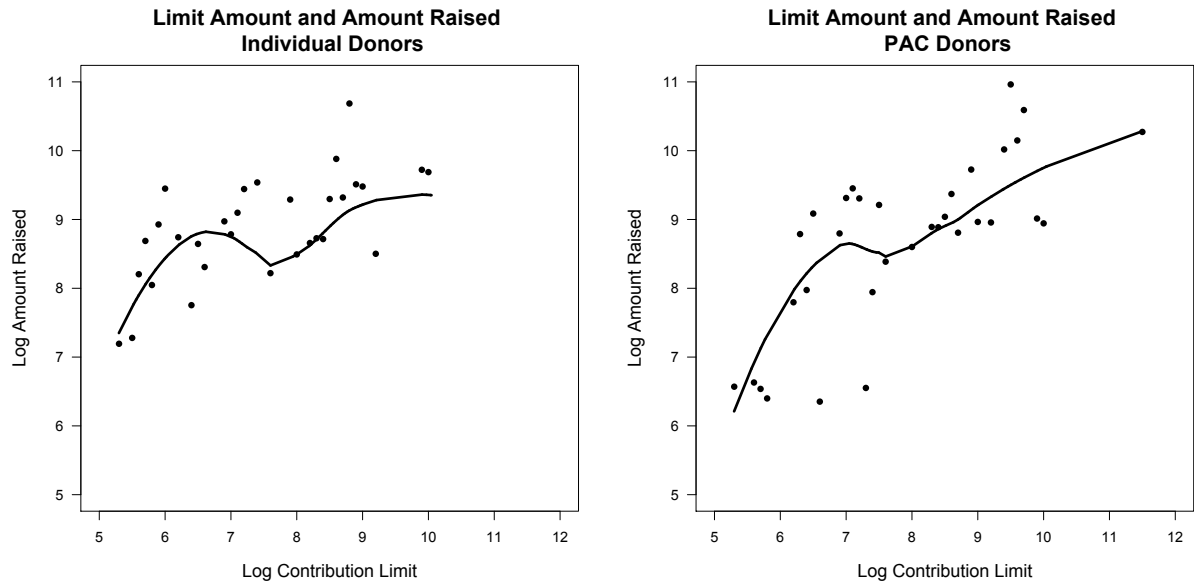

Figure A3: **Legislator Ideology and Total Money Raised** - These plots show the relationship between legislator ideology and the total amount of money raised by candidates from these sources. As contribution limits increase, the total amount raised increases as well.
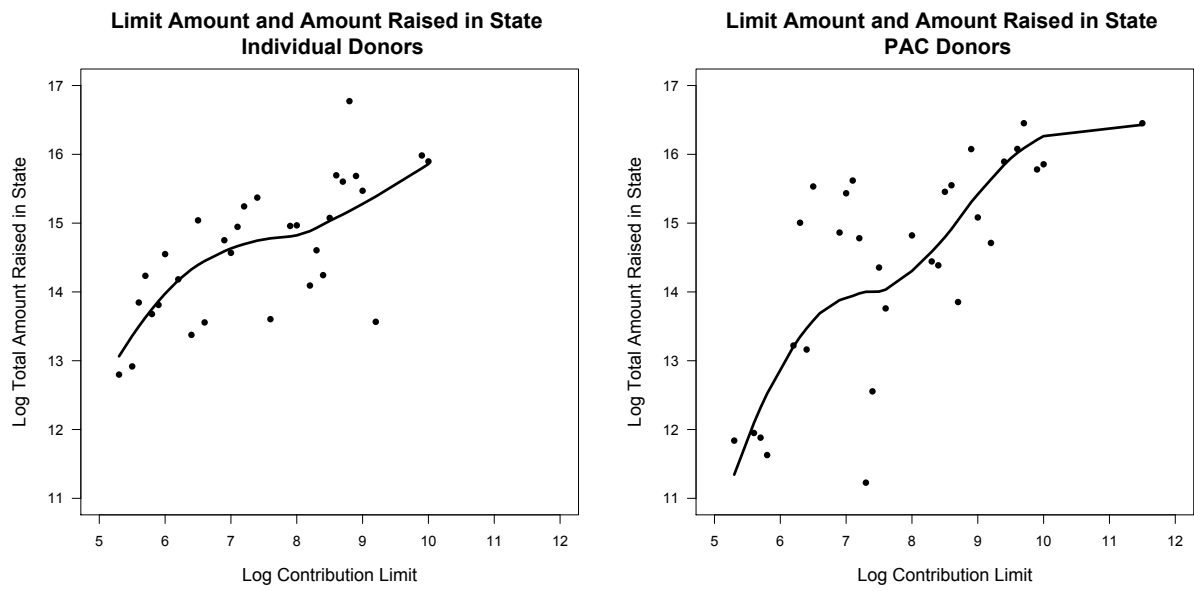
Figure A4: **Legislator Ideology and Total Money Raised in the State** - These plots show the relationship between legislator ideology and the total amount of money raised by candidates from these sources in the state. As contribution limits increase, the total supply of money in the state increases as well.

Table A2 shows the results of a fixed-effects model showing the effects of contribution limits on fundraising behavior. I control for district partisanship, district median income, and an indicator variable for the partisanship of the legislator. Additionally, the models include state and year fixed effects to account for unobserved, time invariant factors that may affect donations in the district. To account for states that have no limit on contributions, I include an indicator variable that is equal to 1 when the state does not impose contribution limits. When limits are present, I follow previous models in this paper by including an interaction variable that is equal to the logged limit amount times an indicator that is equal to 1 when limits are imposed. I test separate models for individual and PAC limits with three different dependent variables for a total of six models. The first dependent variable is the log of the average contribution for each legislator from either individuals or PACs. The second dependent variable is the percent of the candidate's donors who gave the maximum allowable amount. In this model I do not include cases with no contribution limit since it is impossible for a person to give the maximum allowable amount. The final dependent variable is the log of the total amount of money raised by the candidate from either individuals or PACs. In each model one observation represents one candidate in one election cycle. Formally, the model for legislators i in state s at time t are as follows:

$$Log(Average\ Contribution)_{ist} = \alpha_{state} + \gamma_{year} + Contribution\ Limits_{st} \cdot \beta$$

$$+ District\ Factors_{ist} \cdot \gamma + Controls_{ist} \cdot \zeta + \varepsilon_{ist}$$

$$\%\ Donors\ Maximizing_{ist} = \alpha_{state} + \gamma_{year} + Contribution\ Limits_{st} \cdot \beta$$

$$+ District\ Factors_{ist} \cdot \gamma + Controls_{ist} \cdot \zeta + \varepsilon_{ist}$$

$$Log(Total\ Contributions)_{ist} = \alpha_{state} + \gamma_{year} + Contribution\ Limits_{st} \cdot \beta$$

$$+ District\ Factors_{ist} \cdot \gamma + Controls_{ist} \cdot \zeta + \varepsilon_{ist}$$

In every model the effects demonstrate a substantial effect of contribution limits on candidates' fundraising behavior. In each model the effects are significant, and I consider each result in turn. When looking at the effect of limits on the average contribution amount, for both individuals and PACs, increasing the limit leads to larger average contributions. On average, a 100% increase in the contribution limit leads to a 22% increase in the average contribution amount for individuals (Column 1, Row 1) and a 30% increase in the average contribution amount for PACs (Column 2, Row 4). The effects of removing limits entirely are much larger, as we would expect. When looking at the percent of donors who contribute the maximum amount (Columns 3 and 4), the effect of limits is similar. Lower limits constrain more donors by capping their contribution at the new, smaller, maximum allowable amount.

The final models (Columns 5 and 6) consider the effect of contribution limits on the total amount raised by candidates from either individuals or PACs. When changing individual limits, a 100 percent increase in the contribution limit leads to a 7% percent increase in the total amount raised from individuals. When increasing PAC contribution limits, a similar doubling of the limit leads to an 29% increase in the total amount raised from PACs. Again,

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Dependent Variable:	Log Average Contribution		Percent Donors Maximizing		Log Total Contributions	
	Individuals	PACs	Individuals	PACs	Individuals	PACs
Individual Unlimited	1.32***				0.78***	
	(0.16)				(0.25)	
Limited * ln(Ind Limit)	0.22***	0.05**	−0.08***	−0.03***	0.07†	0.15***
	(0.02)	(0.02)	(0.003)	(0.001)	(0.04)	(0.03)
Pac Unlimited		2.74***				3.31***
		(0.18)				(0.27)
Limited * ln(PAC Limit)	−0.01	0.30***	−0.03***	−0.06***	0.14***	0.29***
	(0.01)	(0.02)	(0.002)	(0.001)	(0.02)	(0.03)
Pres Dem Vote Share	−0.003	−0.66***	−0.001	−0.02*	−0.11	−0.81***
	(0.08)	(0.11)	(0.006)	(0.01)	(0.12)	(0.16)
District Median Income	0.002**	0.001	0.0001	0.0001**	0.01***	0.0001
	(0.001)	(0.001)	(0.0001)	(0.0001)	(0.001)	(0.002)
Republican	0.17***	−0.05***	0.01***	−0.01***	0.29***	−0.01
	(0.01)	(0.02)	(0.001)	(0.001)	(0.02)	(0.03)
Majority Party	0.17***	0.41***	−0.001	−0.003*	0.38***	0.90***
	(0.01)	(0.02)	(0.001)	(0.001)	(0.02)	(0.03)
Chamber Pct. Dem	0.09	−1.14***	0.05***	−0.01	0.78***	−2.12***
	(0.13)	(0.19)	(0.01)	(0.01)	(0.21)	(0.28)
Fixed Effects	State and Year	State and Year	State and Year	State and Year	State and Year	State and Year
Observations	65,488	65,501	45,188	37,396	65,488	65,501

†p<0.10   *p<0.05   **p<0.01   ***p<0.001

Table A2: **Effect of Contribution Limits on Fundraising Behavior** - The first model (Columns 1 & 2) shows that no limits or increasing individual (PAC) limits leads to larger average contributions from individuals (PACs). The second model (Columns 3 & 4) shows that decreasing individual (PAC) limits leads to a larger percentage of individual (PAC) donors being constrained by the maximum contribution amount. The final model (Columns 5 & 6) shows that no limits or higher individual (PAC) limits lead to candidates collecting more total contributions from individuals (PACs). Each model includes controls for district partisanship, district median income, a dummy variable for the partisanship of the legislator, and state and year fixed-effects.

completely removing the limit has a much larger effect on contribution behavior.

Legislator Ideology and Total Receipts

To further make the connection between contributors, legislator ideology, and polarization, I show that legislators who are more extreme do not pay a significant penalty in overall money raised. For individual contributions to plausibly play a role in polarization, it should also be the case that more extreme candidates are at least as well-funded (and possibly better funded) than moderate candidates. Otherwise the pull from ideological money would be outweighed by the prospect of money from groups favoring moderate candidates. Figure A5 shows this relationship for all incumbent state legislators. We see that extremists do not appear to pay a penalty for their ideological positions. The horizontal axis of the figure represents the ideological score of each legislator while the vertical axis plots the log of the total money raised by candidates. Candidates with centrist ideological scores do not raise significantly more than candidates on the ideological fringes.

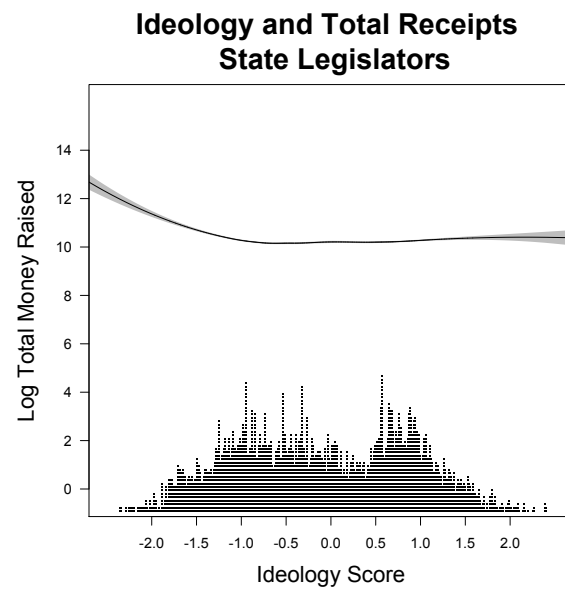**Ideology and Total Receipts**
State Legislators

Figure A5: **Legislator Ideology and Total Money Raised** - This plot shows the relationship between legislator ideology and the total amount of money raised by the candidate. The points along the x-axis show the distribution of the data. More ideological legislators do not pay a significant penalty in total contributions.

Fundraising Portfolios In Professionalized and Citizen Legislatures

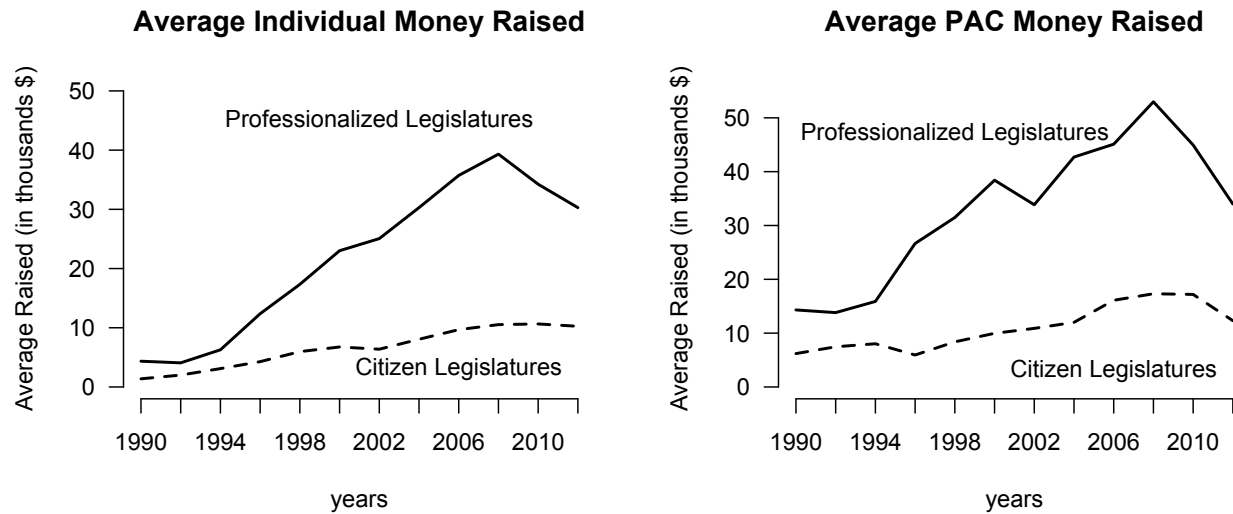Figure A6: **Fundraising Portfolios In Professionalized and Citizen Legislatures** - Candidates raise much more money from both individuals and PACs in professionalized legislatures compared to "citizen legislatures". This evidence supports the findings that limits have a stronger effect on the ideology of legislators in professionalized states where money plays a larger role in the electoral process.

Average Candidate Fundraising Portfolios Over Time

Average Fundraising Porfolios of State Legislative Candidates
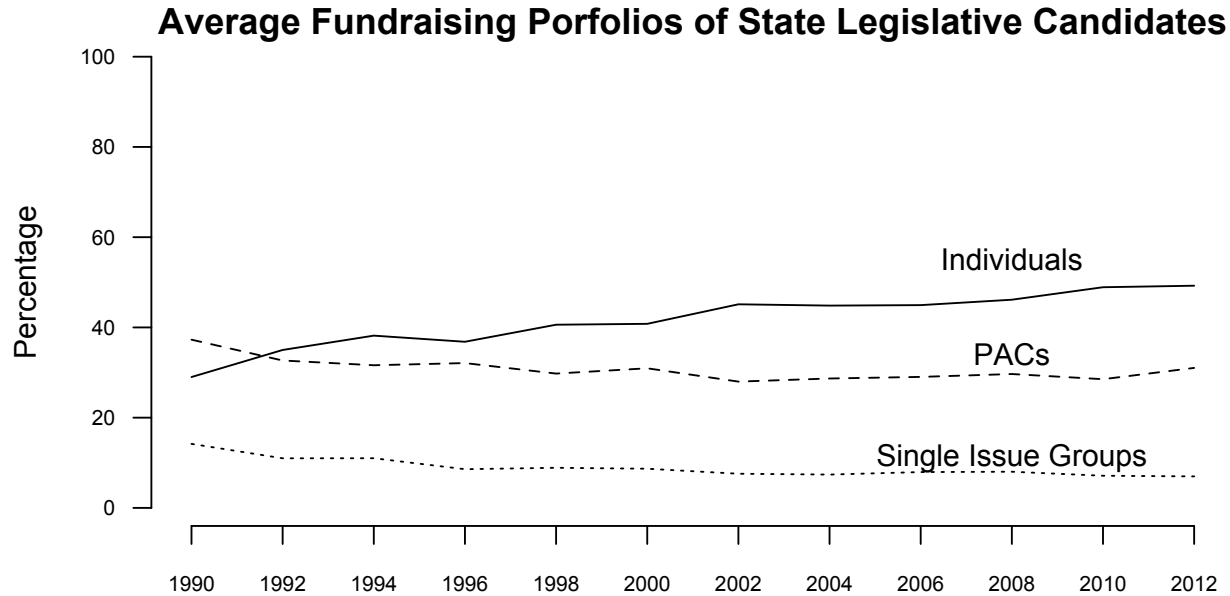
Figure A7: **Percent of Legislators' Fundraising from Individuals, access-seeking PACs, and ideological PACs.** - This plot show patterns in how state legislative candidates fund their campaigns. Over time, there has been an increase in the amount of money legislators raise from individuals. Among interest group money, the majority comes from access-seeking PACs rather than ideological interest groups.

Percent of PAC Money Coming From Access-Seeking PACs

Figure A8: **Percent of PAC Fundraising from access-seeking PACs** - The overwheliming majority of PAC money comes from access-seeking PACs as opposed to ideologically motivated PACs. This supports the theory that PACs are primarily motivated by access rather than ideology. Ideologically-motivated PACs are identified using codings in the original datasets.

Robustness of Ideology and Contribution Limits Model

I present here results using a variety of different model specifications. Overall, the results paint a similar picture to those presented in the main paper. Individual limit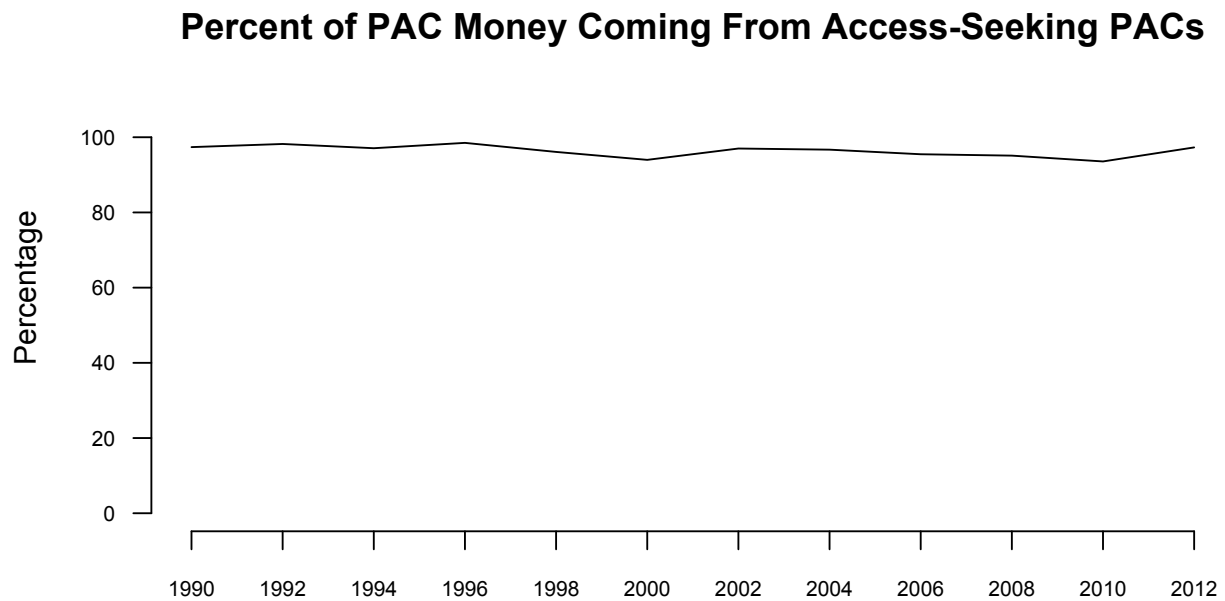s lead to more ideologically moderate legislators being elected while PAC limits lead to more ideologically extreme legislators holding office.

Table A3 shows the same models as the main text be recodes the limit variables to be the ratio of individual limits to pac limits. Rather than treating each limit separately with two different variables, this considers the limits together in one variable of interest. Because ratios with unlimited contribution limits are problematic, Table A3 shows the results for states that have both an individual and pac limit in place. We see a similar result as in the main paper. As the ratio of individual limits to pac limits rises, more polarized legislators are elected to office. This is similar to the main result in the paper that finds that increases in the individual contribution limit after controlling for the pac limit leads to more ideologically extreme legislators being elected.

Table A4 shows the same models, but is restricted to the years 2000 to 2012. This restriction ensures a complete panel of data for each state. As mentioned in the paper, contribution data is not available for all states through the 1990s. In 2000 the contribution data is complete for all 49 states included in the analysis. We see that excluding the 1990s does not substantially alter the results.

Table A5 shows the same models but includes a number of additional variables that model the agenda setting process in each state. Since the analysis include measures of ideology from 49 different states, it may be possible that the composition of the legislative agenda

could affect the degree of polarization in the state. When including these agenda related variables the results remain consistent with those of the main paper. I now explain the coding of each variable. These data come from the National Council of State Legislatures which measures a number of legislative and administrative features that scholars have suggested affect the agenda setting process and composition of the agenda in the various state legislatures. *Power of Speaker* is an index of 19 items that various speakers of state lower chambers are granted. These include such powers as appointing committee chairs, ruling on parliamentary questions, referring bills to committee and presiding over floor sessions.[1] *Germaneness Rules* is an index of 12 items that discuss the content and limits of members to introduce amendments to pending legislation.[2] *Speaker Appoints Rules Cmte.* is a dummy variable that indicates whether the speaker has the power to appoint the members of the chamber's Rules Committee. *Power of Rules Cmte.* is a 22 item index that measures the powers granted to the chamber's Rules Committee. These powers include the ability to write the chamber's rules, appoint committee members, refer bills to specific committees, and to determine the legislative calendar.[3] *Majority Caucus Meetings Closed* is a 3 item index measuring the degree to which majority caucus meetings are closed to the public,

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[1]The full list of items included in the "speaker" index can be found at: `http://www.ncsl.org/documents/legismgt/ILP/99Tab2Pt4.pdf`

[2]`http://www.ncsl.org/documents/legismgt/ilp/00tab5pt5.pdf`

[3]`http://www.ncsl.org/documents/legismgt/ILP/97Tab4Pt4.pdf`

committee staff, and the media.[4] Finally, *Budget Supermajority* and *Tax Bill Supermajority* are dummy variables that indicate if supermajorities are needed to pass budget bills and bills raising taxes respectively.[5]

Table A6 shows the same models as in the main paper but separated by the party of the legislator. Table A7 shows the same models as the main text but includes one observation for each legislator-year. In the main paper each legislator appears once in the data. Here the more time a legislator serves in office, the more he or she appears in the data. The results are consistent with the results in Table 2.

Table A8 shows the same models but uses alternative measures of the contribution limit. The first two columns show the results using the unlogged contribution limit for the full data and professionalized state legislatures respectively. The last two columns show the results using a quadratic term rather than a log transformation. While consistent with the logged model, I choose to present the logged model in the main paper for two reasons. As contribution limits grow, we have reason to believe that the effect of marginal changes to the limit decreases. This diminishing returns hypothesis arises from previous work in campaign finance that finds that campaign spending exhibits diminishing marginal returns (Bonneau and Cann, 2011). Additionally, I present the logged models in the main paper because of the significant right skew of the contribution data. A few states have extremely high limits (see Table 1 in the paper). To avoid the possibility of these states biasing the result due to their extremely large limit values, I take the natural log of the contribution limit in the main

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[4]`http://www.ncsl.org/documents/legismgt/ilp/99tab2pt3.pdf`

[5]`http://www.ncsl.org/documents/legismgt/ILP/96Tab5Pt2.pdf`

results of the paper.

Finally, Table A9 presents results using a different measure of polarization at the state level. Rather than considering the ideology of each individual legislator, I estimate a model in which the dependent variable is the ideological distance between the average Republican and Democrat in a state in a given year. This is a common measure of polarization at the level of the legislature, rather than the individual legislator. The results in Table A9 are similar to the individual level results presented in the main body of the paper. Higher individual limits lead to greater distances between the average Republican and Democrat in the legislature. On the other hand, higher limits on PAC contributions leads to a smaller difference between the typical Republican and Democrat in the legislature. Column 4 of Table A9 is reported as the last column of Table 2 of the main paper.

Dependent Variable:	Legislator Polarization Score		
	All Data	Low Limit	Professionalized
Individual Limit / Pac Limit	0.04†	0.20***	0.19***
	(0.025)	(0.06)	(0.05)
Pres Dem Vote Share	0.43***	0.23*	0.10
	(0.07)	(0.12)	(0.10)
Contested	0.02†	−0.02	−0.02
	(0.01)	(0.02)	(0.02)
District Median Income	0.005***	0.002***	0.004***
	(0.001)	(0.001)	(0.001)
Republican	0.02*	−0.18***	−0.28***
	(0.01)	(0.02)	(0.02)
District Competitiveness	−1.71***	−0.71***	−1.86***
	(0.08)	(0.14)	(0.12)
Majority Party	0.02*	0.09***	0.11***
	(0.01)	(0.01)	(0.01)
Term Limits	0.02	0.11†	0.12*
	(0.05)	(0.07)	(0.07)
Chamber Pct. Democrat	−0.25***	−0.23*	−0.47***
	(0.08)	(0.14)	(0.15)
Professionalism Score	0.22	0.27	0.21
	(0.20)	(0.54)	(0.28)
State Fixed Effects	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes
Observations	10,443	4,034	4,010

***p<0.01   **p<0.05   *p<0.1   †p<0.15

Table A3: **Legislator Ideology and Contribution Limits Ratio** - In each model the dependent variable is the legislator's estimated polarization score. These models recast the contribution limits as a ratio between the individual contribution limit and the PAC contribution limit in the state. The models show that a higher individual to PAC limit ratio leads to more polarized legislators holding office. All results are shown with standard errors clustered at the district level.

Dependent Variable:	Legislator Polarization Score			
	All Data	Low Limit	High Limit	Professionalized
Individual Unlimited	0.38*		1.38**	0.79
	(0.22)		(0.63)	(0.48)
Limited * ln(Ind Limit)	0.06*	0.31**	0.16**	0.13**
	(0.03)	(0.16)	(0.07)	(0.06)
Pac Unlimited	−0.62***		−0.74	−1.24***
	(0.16)		(0.53)	(0.35)
Limited * ln(PAC Limit)	−0.07***	−0.11***	−0.07	−0.12***
	(0.02)	(0.04)	(0.06)	(0.04)
Pres Dem Vote Share	0.21***	0.10	0.32***	−0.15
	(0.07)	(0.15)	(0.08)	(0.11)
Contested	−0.02***	−0.05*	−0.02	−0.06***
	(0.01)	(0.01)	(0.02)	(0.02)
District Median Income	0.006***	0.001	0.01***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)
Republican	−0.001	−0.19***	0.06***	−0.25***
	(0.01)	(0.02)	(0.02)	(0.02)
District Competitiveness	−1.55***	−0.82***	−1.78***	−1.74***
	(0.08)	(0.16)	(0.10)	(0.13)
Majority Party	0.005	0.13***	−0.03**	0.17***
	(0.01)	(0.02)	(0.01)	(0.02)
Term Limits	0.04		0.03	
	(0.05)		(0.05)	
Chamber Pct. Democrat	0.02	−0.45**	0.16*	−0.35
	(0.08)	(0.19)	(0.09)	(0.27)
State Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	9,408	2,517	6,418	3,129

***p<0.01   **p<0.05   *p<0.1

Table A4: **Legislator Ideology and Contribution Limits - Post 2000** This model includes all observations in years 2000 and later. In these years there are data for legislator ideology and contribution limits in all 49 states. Using this complete panel, the results are similar to those shown in the main paper. All results are shown with standard errors clustered at the district level.

Dependent Variable:	Legislator Polarization Score			
	All Data	Low Limit	High Limit	Professionalized
Individual Unlimited	0.21		1.00***	0.43
	(0.13)		(0.27)	(0.28)
Limited * ln(Ind Limit)	0.05***	0.31***	0.12***	0.07**
	(0.02)	(0.09)	(0.03)	(0.03)
Pac Unlimited	−0.12		−0.40*	−0.38**
	(0.09)		(0.24)	(0.19)
Limited * ln(PAC Limit)	−0.02*	−0.09***	−0.04	−0.04**
	(0.01)	(0.03)	(0.03)	(0.02)
Professionalism	0.16	0.35	0.05	0.14
	(0.15)	(0.66)	(0.25)	(0.21)
Power of Speaker	0.01***	0.07	0.01	−0.02
	(0.01)	(0.05)	(0.01)	(0.02)
Germaneness Rules	0.02***	0.005	0.01	0.01
	(0.02)	(0.04)	(0.02)	(0.03)
Speaker Appoints Rules Cmte.	0.11	−0.24	0.09	−0.09
	(0.08)	(0.28)	(0.09)	(0.19)
Power of Rules Cmte.	−0.02**	0.02	−0.02**	0.01
	(0.01)	(0.04)	(0.01)	(0.03)
Majority Caucus Meetings Closed	0.01	−0.10	0.04	−0.05
	(0.03)	(0.09)	(0.03)	(0.08)
Budget Supermajority	0.03	−0.43	0.22	0.35
	(0.12)	(0.33)	(0.14)	(0.25)
Tax Bill Supermajority	−0.21**	−0.01	−0.22	0.16
	(0.10)	(0.22)	(0.11)	(0.22)
Other Controls Included	Yes	Yes	Yes	Yes
Varying State Intercepts	Yes	Yes	Yes	Yes
Varying Year Intercepts	Yes	Yes	Yes	Yes
Observations	16,662	3,724	11,895	5,589

***p<0.01   **p<0.05   *p<0.1

Table A5: **Legislator Ideology and Contribution Limits - Agenda Setting Variables**
This model includes a series of additional variables that measure aspects of the agenda setting process in state legislatures. The model is a random effects model with varying state and year intercepts. I estimate a random effects model in place of a fixed effects model because the agenda setting variables do not vary across time within states. In a fixed effects model, this would cause these variables to be omitted from the model.

Dependent Variable: Legislator Polarization Score		
	Democrats	Republicans
Individual Unlimited	0.25	0.41**
	(0.19)	(0.20)
Limited * ln(Ind Limit)	0.04**	0.04*
	(0.02)	(0.02)
Pac Unlimited	−0.24**	−0.32**
	(0.12)	(0.12)
Limited * ln(PAC Limit)	−0.03**	−0.02*
	(0.01)	(0.01)
Pres Dem Vote Share	1.58***	−0.87***
	(0.10)	(0.08)
Contested	−0.02*	0.004
	(0.01)	(0.008)
District Median Income	0.006***	0.0001
	(0.001)	(0.006)
District Competitiveness	0.14	0.20*
	(0.12)	(0.10)
Majority Party	−0.04**	−0.004
	(0.02)	(0.02)
Term Limits	0.15**	0.04
	(0.07)	(0.04)
Chamber Percent Democrat	−0.59***	0.004
	(0.12)	(0.11)
Professionalism	0.07	−0.05
	(0.21)	(0.15)
State Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Observations	16,928	14,175

*** p<0.01, ** p<0.05, * p<0.1

Table A6: **Legislator Ideology and Contribution Limits Model in Professionalized State Legislatures, Split By Party** - In each model the dependent variable is the legislator's estimated polarization score. The models show that individual limits moderate legislators while PAC limits polarize legislators. These results dove tail with previous results that show more extreme legislators are more reliant on individual contributions while more moderate legislators are associated with PAC contributions. Thus limiting contributions from individuals leads to more moderate legislators being elected. Similarly, limiting PAC contribution leads to more ideological candidates being elected. All results are shown with standard errors clustered at the district level.

Dependent Variable:	Legislator Polarization Score				
	All Data	Low Limit	High Limit	Professionalized	Non-Professional
Individual Unlimited	0.13*		0.69***	0.66***	0.01
	(0.07)		(0.19)	(0.16)	(0.07)
Limited * ln(Ind Limit)	0.02**	0.26***	0.08***	0.08***	−0.008
	(0.01)	(0.07)	(0.02)	(0.02)	(0.01)
Pac Unlimited	−0.08*		−0.29*	−0.37***	−0.02
	(0.05)		(0.16)	(0.10)	(0.06)
Limited * ln(PAC Limit)	−0.01	−0.02†	−0.03†	−0.04***	0.01
	(0.006)	(0.02)	(0.017)	(0.01)	(0.007)
Pres Dem Vote Share	0.53***	0.12	0.68***	0.14*	0.37***
	(0.05)	(0.09)	(0.05)	(0.07)	(0.06)
Contested	−0.01**	0.004	−0.02***	−0.02**	−0.01†
	(0.006)	(0.01)	(0.007)	(0.01)	(0.007)
District Median Income	0.006***	0.002***	0.01***	0.005***	0.006***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Republican	0.001	−0.25***	0.08***	−0.24***	0.14***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
District Competitiveness	−1.48***	−0.85***	−1.58***	−1.70***	−0.90***
	(0.06)	(0.11)	(0.06)	(0.09)	(0.07)
Majority Party	0.02**	0.12***	0.002	0.12***	−0.07***
	(0.007)	(0.01)	(0.01)	(0.01)	(0.009)
Term Limits	0.02	0.08*	−0.02	0.10**	−0.02
	(0.02)	(0.04)	(0.03)	(0.05)	(0.03)
Chamber Pct. Democrat	−0.19***	−0.42***	−0.13**	−0.42***	−0.02
	(0.05)	(0.09)	(0.06)	(0.12)	(0.06)
Professionalism Score	−0.25*	0.21	−0.91***	−0.20	−0.75**
	(0.15)	(0.37)	(0.27)	(0.16)	(0.34)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	82,061	19,884	58,379	31,130	50,931

***p<0.01   **p<0.05   *p<0.1 †p<0.15

Table A7: **Legislator Ideology and Contribution Limits - Legislator-Year Observations** - In each model the dependent variable is the legislator's estimated polarization score. The models show that higher individual limits lead to more polarized legislators while higher PAC limits lead to more moderate legislators holding office. All results are shown with standard errors clustered at the district level.

Dependent Variable:	State Legislator Polarization Score			
	All Data	Professionalized	All Data	Professionalized
Individual Unlimited	−0.14***	−0.13**	−0.07	0.11
	(0.04)	(0.06)	(0.05)	(0.11)
Limited * Ind Limit (in $1,000)	0.002	0.0003	0.02***	0.05**
	(0.002)	(0.003)	(0.009)	(0.02)
Ind Limit^2 (in $1,000)			−0.0008***	−0.002*
			(0.0003)	(0.0006)
Pac Unlimited	0.04	0.01	0.03	−0.03
	(0.03)	(0.05)	(0.03)	(0.06)
Limited * PAC Limit (in $1,000)	0.0004	0.001	−0.002	−0.006
	(0.001)	(0.001)	(0.003)	(0.006)
Limited * PAC Limit^2 (in $1,000)			$1.6e-07$	$5.1e-07$
			$(2.9e-07)$	$(5.9e-07)$
Pres Dem Vote Share	0.38***	0.12	0.38***	0.12
	(0.05)	(0.08)	(0.05)	(0.08)
Contested	−0.001	−0.01	−0.0006	−0.02
	(0.01)	(0.02)	(0.01)	(0.02)
District Median Income	0.006***	0.005***	0.006***	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)
Republican	−0.001	−0.22***	0.0004	−0.22***
	(0.009)	(0.02)	(0.001)	(0.02)
District Competitiveness	−1.64***	−1.93***	−1.63***	−1.93***
	(0.07)	(0.10)	(0.07)	(0.10)
Majority Party	−0.04***	0.06***	0.04***	0.06***
	(0.01)	(0.01)	(0.01)	(0.01)
Term Limits	0.06**	0.18*	0.06**	0.19***
	(0.03)	(0.06)	(0.03)	(0.06)
Chamber Pct. Democrat	−0.13**	−0.34***	−0.12**	−0.38***
	(0.06)	(0.13)	(0.06)	(0.13)
Professionalism Score	−0.04	−0.15	0.04*	0.20
	(0.17)	(0.21)	(0.18)	(0.21)
State Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	16,873	5,564	16,873	5,564

***p<0.01   **p<0.05   *p<0.1

Table A8: **Legislator Ideology and Contribution Limits - Different Model Specifications:** In each model the dependent variable is the legislator's estimated polarization score. The models show that higher individual limits polarize legislators while higher PAC limits moderate legislators. All results are shown with standard errors clustered at the district level.

	Dependent Variable: Difference in Party Means				
	All States	Low Limit	High Limit	Professionalized	Non-Professional
Individual Unlimited	0.15		1.18**	0.86	0.13
	(0.28)		(0.48)	(0.59)	(0.26)
Limited * ln(Ind Limit)	0.03	0.49***	0.14**	0.11†	0.02
	(0.04)	(0.17)	(0.06)	(0.07)	(0.04)
Pac Unlimited	−0.25		−1.02†	−0.80***	−0.19
	(0.22)		(0.62)	(0.29)	(0.19)
Limited * ln(PAC Limit)	−0.02	−0.12***	−0.09	−0.08**	−0.01
	(0.03)	(0.03)	(0.06)	(0.03)	(0.03)
Term Limits	−0.03	0.20***	−0.12	0.09*	−0.11
	(0.08)	(0.05)	(0.09)	(0.05)	(0.10)
Chamber Percent Democrat	−0.15	−0.28	−0.24	−0.70***	−0.06
	(0.18)	(0.37)	(0.20)	(0.22)	(0.21)
Democratic Majority	−0.03	−0.05	−0.03	−0.04	−0.01
	(0.03)	(0.05)	(0.03)	(0.03)	(0.03)
State Median Income	−0.002	0.0006	−0.003	0.002	−0.003
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Professionalism Score	0.35	−0.31	0.43	0.18	−0.22
	(0.34)	(0.96)	(0.43)	(0.26)	(0.77)
State Fixed Effects	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes
Number of States	49	15	38	20	34
Observations	757	188	522	290	467

*** $p<0.01$, ** $p<0.05$, * $p<0.1$, † $p<0.15$

Table A9: **Party Polarization and Contribution Limits** - In each model the dependent variable is the ideological difference between the average Democratic and Republican legislator in the state. The models show that higher individual limits lead to more polarization in the legislature while higher PAC limits have the opposite effect. All results are shown with standard errors clustered at the state level.

As an additional test of the model shown in Table 2 of the main paper, I recompute the model a number of times but in each case omit one of the states. Figure A9 shows the distribution of effects for each of the four main variables. The vertical line shows the result when all states are included. We see that omitting any given state does not change the estimated effect significantly from the model that includes all of the states.
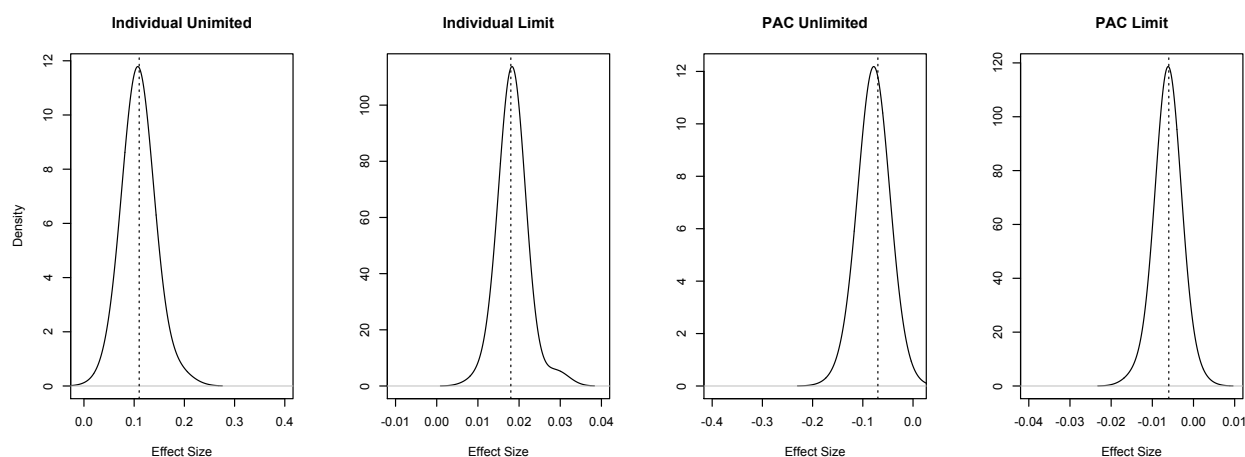

Figure A9: **Distribution of Effects when Omitting One State at a Time** -This figure shows the distribution of effects when the model shown in Table 2 is rerun a number of times with one state omitted in each model. The vertical lines show the estimated effect when all states are included. We see that omitting any particular state does not change the results significantly.

Further Testing Exogeneity of Contribution Limits

To further test for endogeneity in the contribution limit changes within states, I conduct a placebo test in which I regress the amount of polarization in a state on the *future* contribution limit amount several years later. In this case, I choose five years, but results using different years are nearly equivalent. We see that in this case, the future contribution limits are not strong predictors of state level polarization. In each case, the coefficients are statistically insignificant - this is case both for unlimited contribution limits as well as the amount of the contribution limit when a limit is present.

Dependent Variable: Difference in Party Means	
Future Individual Unlimited	0.45
	(0.44)
Future Limited * ln(Ind Limit)	0.05
	(0.06)
Future Pac Unlimited	−0.42
	(0.34)
Future Limited * ln(PAC Limit)	−0.04
	(0.04)
Term Limits	−0.02
	(0.08)
Chamber Percent Democrat	−0.25*
	(0.15)
Democratic Majority	−0.03
	(0.02)
State Median Income	−0.001
	(0.002)
Professionalism Score	0.42
	(0.31)
State Fixed Effects	Yes
Year Fixed Effects	Yes
Number of States	49
Observations	556
*** p<0.01, ** p<0.05, * p<0.1	

Table A10: **Party Polarization and Future Contribution Limits - Placebo Test:** In each model the dependent variable is the ideological difference between the average Democratic and Republican legislator in the state at time t. The contribution limits are measured five years in the future at time $t+5$. Standard errors are shown below and are clustered by state.

Why Do Contribution Limits Change?

A variety of research suggests that the three main ways in which campaign contributions change is thought legislative statute, citizen initiative, or through court orders (Connolly, 1996). The constitutionality of contribution limits was first tested in the Supreme Court case *Buckley v. Valeo* in which the court ruled that reasonable contribution limits did not violate the first amendment and could be used as part of an effort to curb the "actuality and appearance of corruption resulting from large individual campaign contributions." Through this ruling individual contribution limits at the federal level were set at $1,000. Many changes to limits at the state level have been challenged based on the argument that the limits were too low to be considered *reasonable* according to *Buckely*. For example, Missouri enacted a contribution limit of $100 on contribution limits in 1994. The limit was challenged by a former state legislator as a violation of his right to freedom of expression as a candidate. The court subsequently overturned the limit. Similar challenges to low limits have been brought to the court in Minnesota, Montana, and Oregon. Whether or not politicians and interest groups should support such limits on contributions has been the subject of academic study. Some authors find that decreasing limits helps to protect incumbents from strong challengers by limiting their spending (Stratmann and Aparicio-Castillo, 2006; La Raja, 2008). However, others find that contribution limits hurts incumbents who are usually much better than challengers at raising large amounts of money (Pastine and Pastine, 2010; Hamm and Hogan, 2008; Stratmann, 2009). In Minnesota, two candidates joined the suit to undo

contribution limits.[6] In Montana the Republican Party endorsed the challenge to the state's strict limits.[7] Oregon provides an excellent example of the uncertain effects of limits. While the Oregon Democratic party opposed the strict limits, many individual candidates came out in support of the limits and even volunteered to cap their spending after the court ruled against the limits.[8] Thus far, to my knowledge, there is not a rigorous investigation into the predictors of campaign contribution limits in the states. This interesting question is an excellent direction for future research in this area.

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[6]http://www.twincities.com/politics/ci_25531230/minnesotas-campaign-finance-limits-ch

[7]http://www.latimes.com/nation/nationnow/la-na-montana-campaign-contributrions-201505
html

[8]http://www.oregonlive.com/politics/index.ssf/2012/10/oregon_supreme_
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