Redistricting and Individual Contributions to Congressional Candidates

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Abstract

In this paper, we use redistricting to examine the relationship between representatives and a unique group of the public: individual campaign contributors. Our primary objective is to determine what happens to the contribution behavior of representatives *and* donors after district boundaries shift and the geographic ties between members and donors are undone. At the member level, we use a continuous measure of district change and examine twenty years of congressional elections. We find that as the geographic constituency changes, members receive larger shares of contributions from outside their districts. At the individual donor level, we match donors and contributions to districts before and after the 2012 round of redistricting. Here, we find donors who are drawn out of districts are less likely to support their "old" representative while contributors drawn into districts are more likely to give. At both levels, we find different results for Democrats and Republicans. Our findings suggest that representation can extend beyond Fenno's geographic constituency and speak to issues related to democratic accountability in a geographic based system of government.

Keywords
redistricting, campaign finance, political geography, elections

> That is agony. I thought: All these relationships! All these friendships! All this service! You know, what is it all about?
>
> —U.S. Rep. Timothy Johnson (R-IL; quote appears in Fahrenthold 2011)

The relationship between a legislator and her constituents is the base upon which much politics rests and is foundational to the geographic based system of republican government found in the United States. In this regard, Richard Fenno's *Home Style* masterfully conveyed the connections that members of Congress have with their districts and constituents when he noted that representatives often describe their districts in terms of geographical space-and-place (Fenno 1978, 2). This foundation, however, is prone to move over time. The decennial process of reappointment and redistricting, much like the movement of tectonic plates, may cause slight tremors in some districts and wreak havoc on the political landscape elsewhere. Although most of a district remains intact after redistricting, some parts of the district may be removed while other areas are added. New district boundaries present both challenges and opportunities to members of Congress. For some, like Rep. Johnson, redistricting severs bonds they have carefully cultivated through years of service and personal contact. For others, redistricting

offers the opportunity to grow new relationships and establish electoral security, but developing relationships with new constituents takes time and effort. As Rep. Susan Davis told her new constituents, "We'll need your help introducing us—telling us who we should know and when to get together with folks and what meetings are going on" (quote appears in Stone 2012).

In this paper, we use redistricting to examine the relationship between representatives and a unique but influential group: individual campaign contributors. First, by way of a continuous measure of district change, we use twenty years of congressional elections data to test how fundraising patterns deviate after districts are altered. In short, we find as district change increases, members receive larger shares of contributions from outside their districts. Moreover, even ten years after redistricting, members do not turn back to their pre-change behavior. Second, we examine this relationship at the individual

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donor level using a dataset that matches contributions to districts before and after the 2012 redistricting. We show that being drawn into, or out of, a district changes contribution behavior. At both levels, we find important differences between the two major parties.

Outside Donors and Democratic Accountability

Studying campaign contributions that come from outside of a representative's district is important for several reasons. Broadly speaking, contribution patterns are important to the quality of representation and the practice of democracy. Republican government in the United States is geographic in nature and is based on the notion that members of the lower chamber will represent constituents residing in their districts. Our democracy is premised on the formula that "equal numbers of people ought to have an equal number of representatives" (Robertson 2013, 85), and the Founders explicitly rejected the notion that representation should be based on wealth (Robertson 2013, 179). When outside donors make contributions, they may be taking "extra" representation in the legislature.

James Madison's ([1788] 1981) statement in Federalist 52 titled, *The House of Representatives*, indirectly speaks to the broader point of representation:

> As it is essential to liberty that the government in general should have a common interest with the people, so it is particularly essential that the branch of it under consideration should have an immediate dependence on, and an intimate sympathy with, the people.

Although Madison goes on to reference frequent elections as the cure, we think his writings are applicable here as well. The phrases "immediate dependence" and "intimate sympathy" seem to capture what Fenno (1978) was referring to when he discussed the concentric circles of representation that start with the geographic constituency. To us, donors residing outside the district are neither immediate nor intimate, especially if they might differ from regular constituents or donors who reside inside the district.

Our data show that outside donors are unique—even when compared with other donors. Contributors from outside the district write larger checks and live in zip codes that are significantly wealthier compared with in-district donors.[1] Research shows that elite contributors have outsized influence because the political opinions and values of the financial elite systematically vary from those of the mass public (Page, Bartels, and Seawright 2013), and the perception that members of Congress are dependent on elite contributors also diminishes public trust in government (Lessig 2011). Of course, it is true that not *all* outside contributions will come from elite

donors. Some may come from citizens who live in areas that are quite similar to the district with similar policy views. However, it seems to us the negative possibilities outweigh the positives.

In addition to affecting the quality of representation, the willingness of individuals to participate in congressional elections through contributions has implications for the practice of democracy. "Political procedures do more than generate outcomes" (Griffin 2003, 117). Contributing to candidates is an increasingly important and common way that people participate in democracy between elections. Democratic participation is thought to serve important purposes apart from electing responsible legislators, such as providing citizens opportunities to exercise self-determination and develop moral values (Dahl 1989, 1998) and affirming their standing in society (Christiano 2008; Griffin 2003). Democratic theorists identify these as non-instrumental values of democracy (Anderson 2009). From this perspective, redistricting challenges a contributor's status within a particular political community and the benefits that democratic engagement offers the individual. For these reasons, we think it is worthwhile to examine any potential factors that may push members to pursue outside donations.

Redistricting and Campaign Finance

Responses to Redistricting

Redistricting can influence the relationship between a member of Congress and her constituents in many ways, and it usually involves disrupting representation in some fashion. The simple act of drawing new citizens into a district can cause electoral difficulties for an incumbent (Crespin 2005; Murphy and Yoshinaka 2009; Yoshinaka and Murphy 2009) that, in turn, can weaken representational ties (Yoshinaka and Murphy 2011). Altering an incumbent's district can initially lower the "personal vote" or incumbency advantage a member has accrued (Ansolabehere, Snyder, and Stewart 2000; Desposato and Petrocik 2003; Hood and McKee 2008), partially due to voters not knowing their representatives (Hayes and McKee 2009; Hood and McKee 2010; McKee 2008a). While "new" constituents are less likely to turn out to vote (Hayes and McKee 2009), members can bring those voters back into the fold (Rush 2000).[2] Clearly, redistricting disrupts representation, and other important behaviors, such as making contributions, could be affected by redistricting.

Individual Campaign Contributors

Although individual campaign donations make up more than half of all contributions to congressional campaigns

(Herrnson 2007; Jacobson 2012), most scholarship focuses on political action committees. An early study of individual donors found that voters, people who were interested in politics, and respondents who felt a high degree of civic duty were most likely to make contributions (Jones and Miller 1985).

In the most comprehensive study of individual donors to date, Francia et al. (2003, 105) observed that, "Geography is the most important factor influencing contribution decisions." While they found that contributors were largely rich, highly educated, white males, reasons for contributing were quite varied. They stylize three types of contributors: "investors" who gave for financial gain, "ideologues" who gave for more broad societal reasons, and "intimates" who gave for reasons of solidarity, such as a personal relationship with the candidate or her fundraising surrogates.

Additional work has contributed to our knowledge of how individual donors can influence representation. Several scholars (Bafumi and Herron 2010; Barber 2016; Bonica 2014) find individual donors are ideologically polarized and support like-minded extreme candidates. Meanwhile, Barber (n.d.) shows representatives' preferences are aligned with donors but not necessarily reflective of their own constituents.

Descriptive accounts of individual fundraising (Grenzke 1988; Herrnson 2007) point out that a significant portion of funds come from outside a member's district with a non-trivial fraction originating outside of the state. Other research shows that money is clustered geographically (Bramlett, Gimpel, and Lee 2011; Gimpel, Lee, and Kaminski 2006) and flows to competitive races for partisan advantage (Gimpel, Lee, and Pearson-Merkowitz 2008).

Until recently, redistricting scholars have not paid much attention to how altering district boundaries can influence campaign fundraising. Exceptions include Boatright (2004), which demonstrated that candidates increase their fundraising in response to partisan and racial changes in their districts, and Kirkland (2013), which showed that map makers take wealth concentration into account during the redistricting process.

District Change and Fundraising Behavior

While donors may give for different reasons, Francia et al. (2003) and Cho and Gimpel (2007) both find a strong link between geography and contributions. Still, individuals do not give simply because they reside in the same district as the member. Many give because they expect something in exchange for their contributions (Snyder 1990). Nearly all research on individual campaign donations ignores the question of what happens to contribution patterns after

redistricting changes a member's geographic constituency and bonds are severed. This event provides a unique opportunity to test the strength of the links between representatives and contributors and the development of donor networks (Crespin and Deitz 2010). After redistricting, incumbents may suddenly find a large percentage of donors no longer live in their district and are replaced by new, unfamiliar constituents. Key to testing this relationship is a measure of the *amount* of change in the district. We can use the fact that districts change by different amounts to gain leverage over the question at hand.

After a decennial redistricting, many individuals will find they are no longer represented by the same member. Depending on the political landscape, some changes to district boundaries are quite small and only a few people are "moved," while in other instances, lines change a great deal and a substantial portion of the population shifts to new districts. Because everyone must reside in a district, whenever old representational ties are cut, new ones are formed. It may take some time for donors and "new" members to get to know each other. Members need to learn who might give, and donors need to figure out if it is worth writing a check.

Our theory rests on the idea that fundraising is based on mutually beneficial relationships between candidates and contributors. Candidates want money to spend on campaigns, and donors want a return on their contributions. For this reason, it is important to reflect on both sides of the relationship. Although both actors are engaged in the same process, we can observe behavior and test hypotheses at two levels—aggregate levels of candidate receipts, and donors making individual contributions.

Candidates generally seek to maximize contributions to deter challengers or defeat them if they emerge. They also wish to minimize the amount of time, effort, and opportunity costs they put into fundraising. A great deal of the work that goes into fundraising is developing donor lists of potential contributors. At the top of the lists are prior donors as they are more likely to make contributions compared with non-donors. Current members recognize this, and knowing reliable donors is part of the incumbency advantage. This means fundraisers will likely target former donors, no matter where they reside, before going after new donors. Potential donors who have not yet contributed are probably less likely to give and are harder to bring into the fold. Taking this into account, immediately after a redistricting, members are going to continue to ask for contributions from old donors, even those who no longer reside in the district. Donors who never lived in the district should also continue to give at relatively constant rates, all else equal. It will take some time for representatives to add new constituents to the "ask" lists as they may be more difficult to reach. As

more time passes after redistricting, potential new donors are more likely to be added to mailing lists and receive invitations to fundraisers while old donors may fall off the list.

Donors, in contrast to candidates, are seeking something in return for their contribution, and existing scholarship can help us build our theory of how district change interacts with fundraising. Donors who are looking for a tangible return on a contribution are deemed "investors" by Francia et al. (2003). These contributors are in search of *narrow* benefits for their particular industry, company, or even their personal financial situation.

However, not all donors seek tangible benefits. Francia et al. (2003) also found that other donors, deemed "intimates," give for solidary or social motives. They donate for the psychological rewards that come from the social aspect of giving. Consistent with solidary motivations, this type of contributor gives when invited to a fundraiser or directly asked by the candidate or a close friend. Some intimates stated "that friendship with a candidate or a solicitor was always important in helping them to decide to contribute" (Francia et al. 2003, 47). Other intimate contributors acknowledged that local community ties played a major role. In other words, there needs to be a strong social or local connection between the contributor and the campaign for an intimate to donate.[3] This is probably still true even in an age when technology makes communication easier. When the local connection is broken, they might be more likely to stop making contributions.

Given how we think redistricting influences the relationships between members and donors, we can begin to make some specific hypotheses. Our initial set of hypotheses is simple and intuitive. Since our theory indicates that contributions are based on relationships tied to geography in some fashion, in elections after redistricting, we expect donation patterns to change. At the member level, we expect to find fewer in-district receipts and more contributions coming from the rest of the state after redistricting. The out of district donors will include some of the donors drawn out of the district, as well as donors who never lived inside the geographic circle of representation. This result should increase the more the district changes. Put together, we hypothesize an inverse relationship between the percentage of new constituents and the member's reliance on in-district contributions relative to the rest of the state. New constituents have not had time to get to know the member and may not wish to make a contribution. In addition, many members will likely still ask "old" constituents who no longer reside in the district to cut them a check.[4] We expect the effect to be strongest in elections immediately following a redistricting. In subsequent elections, the effect will lessen because members have had time to build relationships with new constituents and potential donors inside their

districts. Meanwhile, old donors may begin to give to new candidates.

We can also make hypotheses about behavior at the individual donor level. In elections following a redistricting, donors will be more likely to keep supporting an incumbent if they are drawn into their district. In contrast, they will be less likely to make contributions to "old" members if they are drawn out of the district.

While our initial hypotheses are straightforward and intuitive, we can use what we know about different donor types—investors and intimates—to examine additional questions. For intimates, who give based on existing social ties, we expect the influence of redistricting to initially be smaller compared with investor-type donors. This is because intimates still have the same social network after redistricting—a prime driver to their donations according to the Francia study. These types of donors should be slow to change their behavior when districts change. In contrast, it is consistent with the investor motivations to quickly sever old ties and make new ones to maximize returns on their contributions.

While we cannot directly determine if contributors are intimates or investors, donor behavior provides clues to their party affiliations. According to the Francia et al. (2003, 105) study, intimates and investors were not evenly distributed between the two major parties. Democrats gave largely for solidary reasons while Republicans focused on material gains. Because most contributors did not cross party lines, it is reasonable to assume that Democratic members get most of their individual contributions from intimates while Republicans receive donations from investors. As Democratic donors are more likely to be intimates and Republican contributors investors, we expect to find differences in contribution patterns between the two parties following redistricting. We expect the effect of redistricting to be greater for Republicans compared with Democrats. At the aggregate member level, we predict the drop-off of in-district contributions to be larger for Republicans relative to Democrats. At the individual level, Republican donors who "leave" a district should be less likely to continue contributing compared with Democrats. In contrast, Republican donors who are moved to the district of their prior recipient should be more likely to make a contribution compared with Democrats as the expected return on the investment is higher.

Data and Research Design

Member-Level Donations

To measure fundraising at the incumbent level, we start by examining the nearly 4.5 million individual contributions reported to the Federal Election Commission (FEC) made

Table 1. Number of Contributors, Average Contribution Amounts by Area, 1992–2010.

Cycle	In-district		Rest-of-state		Out-of-state	
	n	Mean contribution	*n*	Mean contribution	*n*	Mean contribution
1992	**33,047**	**$575**	**36,242**	**$674**	**17,724**	**$924**
1994	44,677	$605	43,520	$714	19,458	$926
1996	61,693	$639	58,008	$744	25,898	$885
1998	60,898	$689	53,946	$792	25,739	$966
2000	72,375	$722	61,378	$863	30,679	$1,060
2002	**68,301**	**$746**	**66,109**	**$884**	**34,969**	**$1,120**
2004	71,672	$695	64,901	$818	36,326	$1,033
2006	72,205	$699	65,181	$816	32,823	$1,143
2008	71,366	$680	67,737	$801	52,406	$985
2010	73,451	$688	73,047	$832	43,414	$1,148

Bold indicates election following redistricting.

to incumbent members of Congress for reelection campaigns from 1992 to 2010.[5] During this time period, the FEC identified the contributor, zip code, and candidate who received the contribution. By manipulating these data with geographic information systems and using zip codes as the link between different geographic areas, we can analyze the geography of campaign contributions.

We used the Missouri Census Data Center MABLE/ Geocorr Geographic Correspondence Engines for the 1990 and 2000 census data to match zip codes with districts.[6] If a zip code fell into multiple congressional districts, the output indicated the proportion of population in separate congressional districts.[7] We then used those proportions to weight total contributions from split-district zip codes. Because we know where each contribution came from and where it went, we can use this information to create sum totals for each member of in-district, rest-of-state, and out-of-state contributions. In this analysis, we largely focus on the ratio of in-district contributions relative to total in-state contributions but report the out-of-state contributions as a "control" group as these areas did not receive the "treatment" of redistricting and, therefore, should not be influenced by district changes. Our main dependent variable is a ratio ranging from zero to 100 of a member's total in-district contributions to the member's total in-state contributions (which include in-district contributions).[8]

Before moving on to the rest of our analysis, we think it is important to show how in-district, rest-of-state, and out-of-state donors differ from each other. If donors and donation patterns are similar across groups, then any changes as a result of redistricting, while interesting, are less relevant. To compare these groups, we determined how many individuals contributed to incumbents in their district, in other parts of their state, and incumbents in other states and calculated their mean contribution amount during each election cycle. This allows us to compare groups of donors, presented in Table 1.

We find that, on average, the number of individuals who contributed to a member of Congress from their state other than their representative is less than the number who contributed to their own representative during all but one election cycle. However, rest-of-state donors contribute more on average than in-district donors. In 2010, for example, individuals who contributed to another representative in their state gave an average of $832 while in-district contributors gave an average of $688 to their members. This difference averages out to donations that are about 18 percent larger from rest-of-state donors compared with in-district offerings. Out-of-state contributors are a still smaller group, but make even larger average contributions.

District Change

To measure the influence of redistricting on incumbents' fundraising, we use a technique similar to others (Bertelli and Carson 2011; Crespin 2005, 2010; McKee 2008b; Yoshinaka and Murphy 2009) and once again turn to the Missouri Census Data Center. This time, we intersect the congressional district boundaries in the pre- and post-redistricting years. The output here provides us with a measure of the population that is continuous to each congressional district after changes are made. We then divide the continuous population number by the total district population to create a percent "continuous" measure. Finally, we subtract the percent continuous from 100 to create our main independent variable, *% New*. Thus, we have one measure for percent new following the 1990–1992 redistricting and another one for 2000–2002.

In the elections immediately following redistricting, we created a variable *% New*$_{t+1}$ that encodes percent new for elections in 1992 and 2002 and zero otherwise. We then generate a series of variables for each of the subsequent elections (i.e., *% New*$_{t+2}$ for 1994 and 2004, *% New*$_{t+3}$ for 1996 and 2006, and so on) where the variable

records the percent new figure (based on the 1990–1992 and 2000–2002 changes) for the relevant elections years and zero in the other years. Our expectation is as *% New* increases, the ratio of in-district contributions to total in-state contributions should decrease. As elections get farther away from the redistricting year, the effect should diminish.

Controls

In addition to the main variables of interest, we include several control variables. Factors that are specific to the incumbent include seniority, committee assignments, and party affiliation. A member's *Seniority* is measured as the number of terms served. We expect that the more senior the member, the larger her contribution network will be and, hence, more contributions should come from outside her district.

Another member factor that may influence an incumbent's fundraising ability is her committee assignments. Members on "constituent committees" should be well placed to provide particularized benefits to their constituents who should be more likely to give to their own representative. Representatives serving on "prestige committees" deliver goods that are not as geographically concentrated. Therefore, they should earn more money from beyond their districts' borders. If a member served on a constituency committee in the term of Congress preceding reelection, then the dichotomous variable *Constituency Committee* is coded 1, 0 otherwise. Similarly, *Prestige Committee* is coded 1 if the member served on a prestige committee.[9] Because prior research suggests different styles of contributing predominate among Democrats and Republicans, we also include a variable *Democrat* that is equal to 1 if the member is a Democrat, 0 otherwise.

Factors particular to the election include the natural log of *Challenger Spending* and whether the incumbent faced an experienced, or *Quality Challenger*.[10] If a member faced a well-funded and/or quality challenger, a cue that the incumbent is vulnerable (Jacobson 2012), then she will have greater demand for contributions and may devote more time and effort to raising funds.

There are also factors related to the member's district that may influence where a candidate raises funds. If a member represents a relatively wealthy district, then she should be less likely to look outside the district for money. To control for this, we included *District Median Income*, which is the median household income for the member's district.[11] We also expect members from relatively small districts to look elsewhere for contributions so we also include a control for *District Population*.[12] Members from districts that lean one way or the other politically may also need to look somewhere else for funds. This

possibility is tested with a variable that measures the two-party share of the district's *Incumbent Presidential Vote* for the incumbent's party from the prior presidential election.[13] We also include a variable that measures *State Population* as members from larger states have more opportunities to ask for contributions from in-state residents.

Finally, because contribution limits have changed over the time period of this study, we include the legal limit of individual contributions as a variable in the model. After the 2002 midterm elections, the Bipartisan Campaign Reform Act (BCRA) increased individual contribution limits from $1,000 to $2,000 per election cycle, with incremental increases to follow in the 2006, 2008, and 2010 election.

Our research design to test member-related hypotheses is an unbalanced panel with dropout restricted to incumbent members of Congress who experienced a redistricting and ran for reelection. Once a member loses, they are dropped, and newly elected members are only included if they ran for reelection after redistricting.[14] We then estimate our models using fixed effect regressions for panel data where the panel variable is set for each incumbent.[15]

Individual-Level Donations

While the first analysis will focus on incumbents and aggregate contributions, we also examine the decisions of individual donors. This second analysis is consistent with our theoretical account of contributing and allows us to observe behavior of the individuals who reside in changing districts. Now the level of analysis is a donation-member pairing. In this case, we only examine the cycles before and after the 2012 round of redistricting. Ideally, we would investigate a longer time frame but data limitations restrict our study to this shorter period.[16] Using contribution data coded with latitude and longitude (Bonica 2013, 2014), we start with the universe of individual donations from the 2010 election cycle and identify whether the recipient was an in-district or out-of-district incumbent.[17] We then determined if the *2010* donors lived in or out of the recipient's district according to the *new 2012* district boundaries. Depending on how the donors' addresses matched up, we coded them in-in, in-out, out-in, and out-out. Table 2 should make our typology clear. These categories make up our main independent variables.

Our dependent variable is simply a dichotomous measure coded 1 if the individual who gave to an incumbent in 2010 also gave to them in 2012. In our logistical regressions, we use in-in as the baseline category. We expect in-out and out-out donors to be less likely to make contributions while out-in donors should have a higher probability of contributing.

Table 2. Individual Donation Typology.

2010 cycle	2012 cycle	Type
In district	Still in district	In-In
In district	Drawn out of district	In-Out
Outside district	Drawn into district	Out-In
Outside district	Still outside district	Out-Out

In addition to these variables, we offer a few controls. The first is the absolute difference between the contributor's and the recipient's ideology using scores developed by Bonica (2014). This variable ranges from 0 to 6, with larger values indicating bigger differences. Consistent with our main model, we control for recipient characteristics by coding the number of terms the member served, whether the member serves on a prestige or constituency committee, and the member's party. We control for election characteristics by including the natural log of challenger spending and a dichotomous variable coded 1 if the incumbent faced a quality challenger in 2012. Other control variables from our main model (contribution limits and aggregate district characteristics) are omitted from our individual-level analysis because they do not explain individual-level variation.

Results

Member-Level Donations

The results from our initial member-level estimations are presented in Table 3 and Figures 1 and 2. We provide Model 1 as a baseline and Model 5 as a "control" because out-of-state contributions should not be driven by redistricting. The negative and significant coefficients on each of the % *New* variables in Model 2 indicate that the more districts change, the ratio of in-district contributions to the state total decreases. This is clear evidence in support of our primary hypothesis that redistricting lowers in-district contributions. As these coefficients represent marginal changes, we can multiply them by the mean % *New* for each period to get an idea of how this influences the average member.[18] In the election just after redistricting, the average member sees the ratio decline by nearly 7 percent. This drops to 2.8 percent in the middle election, and 2.1 percent in the election just before the new round of redistricting. The decreasing size of the coefficients supports our hypothesis that the effect should be strongest in elections immediately following a redistricting. In the last period, ten years after redistricting, the effect of district change, while small, is still significant. This means contribution patterns never revert back to their pre-redistricting norms.

The coefficients on the control variables are also instructive. As we can see from Figure 1, as seniority increases, members get larger shares of their contributions from parts of their states outside of their districts. This is consistent with Fenno's (1978) idea that members have an expansionist phase of their career but adds the additional aspect that members do more than just reach out to new voters who reside in their geographic constituencies. The results also indicate that members receive contributions from outside their districts when they face well-financed challengers. When the incumbent share of the presidential vote is not in their favor, representatives get more of their contributions from outside their districts. Finally, members from larger districts and states get larger ratios of in-district contributions. It also appears that a member's committee memberships do not significantly influence fundraising from individual donors.

When we separate the sample by party in Models 3 and 4, we can examine our secondary hypotheses related to investors (Republicans) and intimates (Democrats). To make comparisons easier for our main independent variable, we created Figure 2. The figure provides 95 percent confidence intervals for the coefficients so we can determine if there are meaningful differences between the two parties. In the period immediately following redistricting, the effect for Republicans is nearly twice as large and significantly different than the effect of district change on Democratic incumbents. As districts represented by Republican incumbents change, members are receiving a smaller ratio of in-district contributions.[19] For Republicans, the first period effect is large, decreases in the second period, and by the last period, the coefficient is not different from zero. Democrats' relationships with in-district contributors suffer less initially but recover more slowly. These results are consistent with our hypotheses and suggest investor donor behavior is more fluid, and intimates are slower to change.

Some of the control variables also highlight interesting partisan differences. Returning to Table 3, we see the coefficient on the seniority variable is more than twice as large for Republicans. This means they get better faster at attracting contributions from outside their districts. When BCRA went into effect and the maximum contribution increased, Democrats benefited with more money coming from donors inside their districts while the effect ran in the other direction for Republicans. Finally, in Model 5, we find that district changes had no influence on contributions from outside the state. This makes sense because these contributors did not receive the redistricting treatment.

Individual-Level Donations

We present the results from the individual donor model in Table 4 and Figures 3 and 4. Recall "in-in" is our reference category so the coefficients on the group variables are in relation to donors who did not change districts. Model 1 in

Table 3. Panel Regression of Redistricting on Individual Campaign Contributions.

Variables	Dependent Variable % in district/% state total				Dependent Variable % out-of-state
	Baseline	All	Democrat	Republican	All
	[1]	[2]	[3]	[4]	[5]
% New+1		−0.26*	−0.18*	−0.35*	0.031
		(0.023)	(0.034)	(0.032)	(0.025)
% New+2		−0.16*	−0.11*	−0.20*	0.043
		(0.025)	(0.037)	(0.035)	(0.027)
% New+3		−0.15*	−0.12*	−0.17*	0.013
		(0.026)	(0.037)	(0.036)	(0.028)
% New+4		−0.12*	−0.12*	−0.10*	0.020
		(0.028)	(0.039)	(0.040)	(0.030)
% New+5		−0.11*	−0.12*	−0.057	0.023
		(0.030)	(0.041)	(0.044)	(0.033)
Seniority (terms)	−2.05*	−2.21*	−1.68*	−3.56*	3.41*
	(0.26)	(0.27)	(0.35)	(0.43)	(0.29)
Prestige committee	−0.021	0.15	−1.10	2.80	0.20
	(0.89)	(0.87)	(1.08)	(1.44)	(0.95)
Constituency committee	−0.27	−0.41	0.74	−1.30	−0.74
	(0.83)	(0.81)	(1.10)	(1.21)	(0.89)
Democrat	−10.9	−3.84			12.9
	(15.0)	(14.6)			(16.0)
Challenger spending (ln)	−0.29*	−0.33*	−0.45*	−0.18	0.50*
	(0.13)	(0.13)	(0.19)	(0.18)	(0.14)
Quality challenger	0.042	0.14	−0.039	0.013	−1.04
	(0.71)	(0.69)	(1.00)	(0.95)	(0.76)
Contribution limit (in $1,000)	1.52*	0.19	2.42*	−2.98*	−3.31*
	(0.74)	(0.77)	(1.06)	(1.11)	(0.84)
Family income (in $10,000)	1.26*	0.79	−0.38	4.03*	−0.54
	(0.46)	(0.48)	(0.60)	(0.82)	(0.52)
Inc. pres. vote	−0.18*	−0.17*	−0.057	−0.12	0.13*
	(0.059)	(0.057)	(0.079)	(0.096)	(0.063)
District pop. (in 10,000)	0.21	0.52*	0.47*	0.58*	−0.018
	(0.11)	(0.12)	(0.16)	(0.16)	(0.13)
State pop. (in 10,000)	0.014*	0.011*	0.0081	0.011*	−0.0081*
	(0.0031)	(0.0030)	(0.0042)	(0.0044)	(0.0033)
Constant	41.0*	29.0*	21.5*	20.1	5.01
	(11.0)	(10.8)	(10.3)	(10.8)	(11.8)
Observations/groups	3,138/794	3,138/794	1,663/427	1,475/368	3,138/794
R^2 within	.04	.09	.06	.18	.21
F stat	9.42*	15.04*	5.10*	15.58*	39.03*

Standard errors in parentheses. Panels are by member.
*$p < .05$.

Table 4 shows our expectations are largely confirmed as donors drawn out of districts are less likely to continue contributing to their "old" member. Donors who are drawn into a district contribute at higher rates when compared with donors who did not change districts.

While our controls do not tell us much about redistricting, they do show us what can influence individual donors in general. For example, an increase in challenger spending or an incumbent facing a quality challenger means individuals are more likely to continue making donations. Individuals are more likely to contribute to senior members. Contrary to our expectations, we find committee service has a negative effect on contributions.

Figure 3 shows the marginal effects with 95 percent confidence intervals for our groups of interest over the range of the ideological distance variable. Starting from
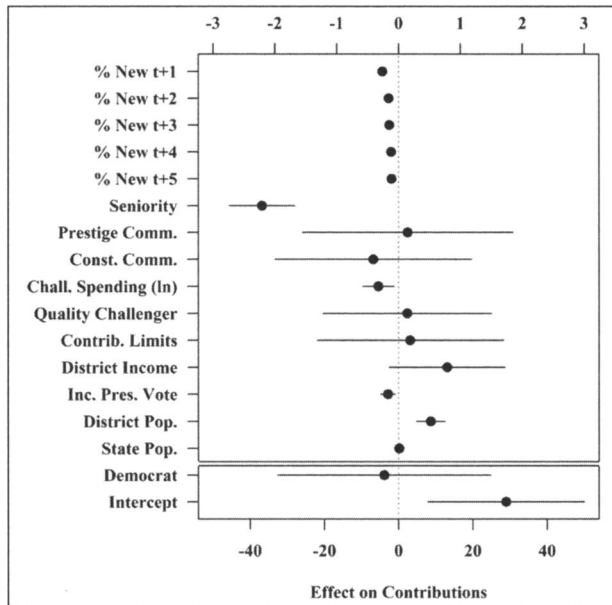
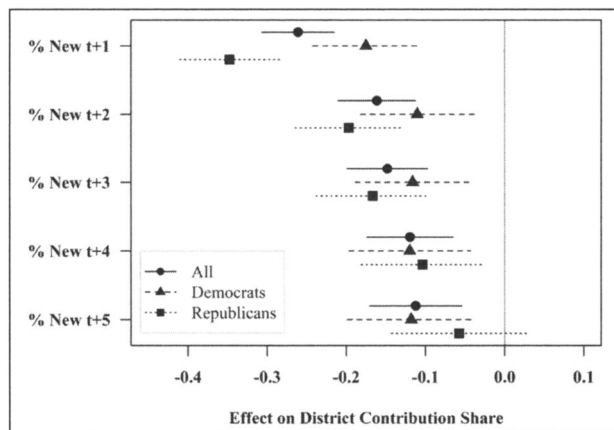**Figure 1.** Marginal effects with 95 percent confidence intervals.

Figure 2. Comparison of marginal effects for % *New* by party (with 95 percent confidence intervals).

the top with the out-in group, the effect is always positive with relatively little difference in the marginal effect over the range of the ideological distance category. Substantively, the results mean a donor is between 10 percent and 15 percent more likely to continue making contributions when they are drawn into a district compared with donors who remained within the incumbent's geographic constituency. In-out donors are about 10 percent *less* likely to make a contribution. The effect for out-out donors, while negative, is smaller when compared with in-out donors. This makes sense as these donors never had the geographic bond the in-out donors experienced. Once again, the results tell us that the changing

nature of geographic boundaries has a substantive influence on donor behavior.

Finally, Figure 4 allows us to compare the average marginal effects from the separate Democrat and Republican incumbent models. While the effect for in-out donors is smaller in Democratic incumbent races, the confidence intervals overlap with the Republican coefficient so there is no statistical difference. This tells us that in 2012, intimates and investors drawn out of a district behaved in similar fashions—they were both less likely to continue contributing. In contrast, out-in donors in Republican races were more likely to make contributions compared with the same type of donors in Democratic contests. This is expected as the investor is now also a constituent. While supportive, our results here are not entirely consistent with our expectations regarding investors and intimates.

In summary, we see strong support for our primary hypothesis that a geographic disruption in the member-donor relationship leads to a change in behavior. From the member side, they experience a decrease in in-district contributions as their districts change. The effect weakens over time but never quite goes away. Individual donors are less likely to make a contribution when they are drawn out of a district but donate at higher rates if they reside inside the boundaries after redistricting. For the most part, investors are quicker to change their behavior compared with intimates, although the result is not as robust when we examine individual contributors. What is interesting, and perhaps counterintuitive, is while individual donors are less likely to continue giving when drawn out of the district, incumbents are actually seeing more rest-of-state contributions after redistricting. The likely reason is members are holding on to the old set of rest-of-state donors while losing some of the in-district contributors.

Conclusion

In this paper, we demonstrated that the more districts change, the more members of Congress bring in individual campaign contributions from outside of the districts they were elected to represent. As time passes, the effect grows smaller, but it never returns to pre-redistricting levels for the average member. We also found the effect was larger for Republicans in the election immediately following redistricting but not significant by the time of the next redistricting. The effect was smaller, but consistently significant for Democrats in each of the five elections following a change in district boundaries. At the individual level, donors are less likely to give if they find themselves residing in new districts, but give at higher rates when drawn into a previous recipient's area. These results, too, differ somewhat by party.

Table 4. Logistical Regression of Individual Donations, 2010–2012.

	Model		
	Base model	Democrats	Republicans
Variables	[1]	[2]	[3]
In-Out	−0.39*	−0.34*	−0.41*
	(0.013)	(0.021)	(0.016)
Out-In	0.53*	0.44*	0.62*
	(0.017)	(0.026)	(0.024)
Out-Out	−0.25*	−0.29*	−0.19*
	(0.007)	(0.011)	(0.009)
Abs. dist. between donor and incumbent	−0.22*	−0.37*	−0.15*
	(0.010)	(0.014)	(0.013)
Seniority (terms)	0.073*	0.041*	0.10*
	(0.001)	(0.001)	(0.001)
Prestige committee	−0.061*	0.19*	−0.11*
	(0.007)	(0.010)	(0.009)
Constituency committee	−0.37*	−0.36*	−0.28*
	(0.008)	(0.011)	(0.010)
Democrat	0.14*		
	(0.007)		
Challenger spending (ln)	0.019*	0.050*	−0.003*
	(0.001)	(0.001)	(0.001)
Quality challenger	0.23*	−0.083*	0.454*
	(0.007)	(0.010)	(0.009)
Constant	0.052*	0.082*	0.056*
	(0.011)	(0.019)	(0.015)
Observations	640,212	291,096	349,116
Clusters	460,344	215,601	257,578
χ^2	20,592.05	13,621.97	14,508.22

Standard errors clustered by donor in parentheses. Baseline category is donors who gave in 2010 and remained in the district (in-in).
*$p < .05$.

Our results suggest that redistricting affects the fundamental relationship between a representative and her supporters in a manner that has not been previously reported. These findings are also informative because they show that the expansionist phase of a member's career involves cultivating support from non-constituents who reside beyond the geographic constituency. District change tends to reduce a member's reliance on her own geographic constituents and increase the member's financial ties to outsiders who may have distinct political interests. We believe these findings have important implications for representation in the House of Representatives. There is a cost to redistricting that has not been fully appreciated as shifting district boundaries may permanently change the relationship between members of Congress and their constituents.

There may also be partisan implications insofar as the effect of district change is greater for Republicans, but longer lasting for Democrats. For example, Republicans may have to reach farther for contributions in redistricting years, but there is a constant struggle for Democrats. By repeatedly severing the fundamental basis of representation, redistricting has the unintended consequence of bolstering the ability of a relatively small group of campaign contributors to influence multiple congressional elections.

As representatives enlarge the geographic scope of their contribution networks to compensate for losing in-district supporters, the House member's relevant constituency begins to resemble the Senator's. Rather than focus attention on their own districts, members cultivate relationships throughout their states. The erosion of the relationship between representatives and well-defined geographic districts creates the functional equivalent of multimember districts with some donors potentially having sway over several representatives. Going further, our results underscore the importance of continuity as a traditional redistricting principle. Although continuity is seen as a way to honor the results of prior elections and build political support for new maps among incumbents, our results indicate that continuity has practical benefits for democratic representation.
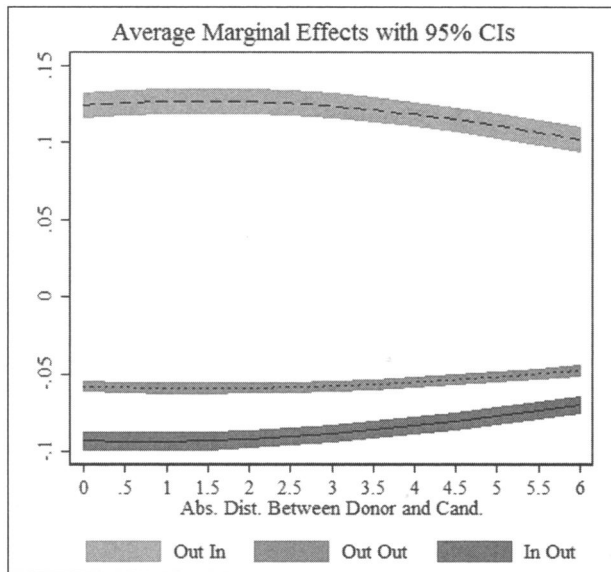
Figure 3. Marginal effect by group and ideological distance.
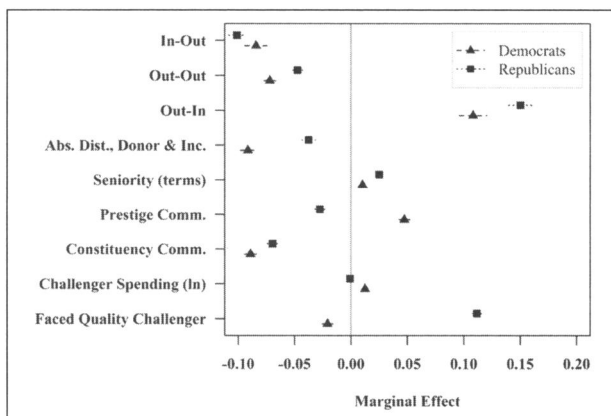

Figure 4. Comparison of average marginal effects for Republican and Democratic donations by group.

Finally, our findings show that one necessary political process—equalizing district populations—can exacerbate another problem: encouraging members to solicit donations outside the constituency. Beyond a constitutional amendment banning outside contributions, we are not sure what can be done to alleviate any potential issues that can arise from this type of political speech. States could add a redistricting principle of limiting district change, but this would likely have other consequences. Of course, we are not suggesting doing away with redistricting; only pointing out an unintended consequence that reverberates over space and time. As with many aspects in a representative democracy, trying to find the balance over many competing principles is fraught with difficulties.

Notes

1. See the online appendix available at http://prq.sagepub. com/supplemental/
2. Scholars examining old and new voters have presented evidence of partisan implications (McKee 2008b; Petrocik and Desposato 1998).
3. We do not discuss issue-based donors because their contributions are not tied to geography in ways similar to intimates and investors.
4. Unfortunately, we cannot parse out the two reasons with our research design. It is likely they are reinforcing each other, as members do not know who to ask for donations from the new constituents and, absent an "ask," some potential donors will not give. We leave it to future work to deal with this issue.
5. Data and replication files are available here: https://www. dropbox.com/sh/212yx9nspsna4jo/AADxHhRiSOLlZma XTmiLAPoba?dl=0. We stop with the 2010 election here to have two complete redistricting cycles.
6. See http://mcdc2.missouri.edu/websas/test/geocorr2k. html for the 2000 census and http://mcdc2.missouri.edu/ websas/geocorr90.shtml for the 1990 census. We use district boundaries drawn following the 1990 Census to account for contributions for 1992–2000 campaigns and 2000 boundaries for 2002–2010 congressional elections. We exclude districts subject to mid-decade redistricting, therefore, we do not specifically address whether the contribution patterns reported here with respect to decennial redistricting following the Census are also observed following mid-decade redistricting.
7. We find that approximately 13 percent of contributions originate from zip codes divided between two or more congressional districts.
8. We use the ratio for several reasons. First, total dollars are likely to vary based on challenger behavior and include an upward trend over time due to the increase in the cost of campaigning above and beyond inflation. This trend changes from year to year based on race-specific factors that would then have to be controlled for in our analyses. We use a ratio of in-district to rest-of-state instead of the simple percentage from each of the three areas to avoid the compositional data problem discussed in Brehm, Gates, and Gomez (1998, 1) where the analysis of one category must take into account the balance in another. If we were to go down the path of using simple percentages, then the solution to this problem proposed by Katz and King (1999) and Aitchison (1986) is to convert those percentages to ratios anyway. As we do not use simple percentages, we

avoid the problem. We do note that if we were to incorrectly use a measure that simply captures the percentage of in-district contributions, the results are largely similar.

9. Following the guidance of Smith and Deering (1990) and Alvarez and Saving (1997), we coded Appropriations, Budget, Commerce, Financial Services, Rules, and Ways and Means as prestige committees and Agriculture, Armed Services, Interior (Natural Resources), Transportation and Infrastructure, Science and Technology, Small Business, and Veterans' Affairs as constituency committees. Committee and seniority data for 103rd to 111th Congresses are from Stewart and Woon (2011) and Clerk of the House of Representatives (1992) for the 102nd Congress.

10. Spending and quality challenger data were provided by Gary Jacobson.

11. Data are obtained from the U.S. Census: www.census.org. The Bureau's 1990 Census and 2000 Census data included estimates of median family income by congressional district for 1989 and 1999, respectively. The Bureau's American Community Surveys reported household median income data for many districts in 2004 and all districts in 2006, 2008, and 2009. We interpolated income values for electoral cycles occurring between Census Bureau reports by assuming a linear trend between known quantities and extrapolated income values for 2010 as a linear trend between 1999 and 2009 measures. Unfortunately, income data from the 2010 Census were not publicly available at the time of this study.

12. Although congressional districts within a state must have equal populations, district sizes vary considerably among states.

13. We obtained data on incumbent party's vote share in prior presidential election from Congressional Quarterly's (CQ) *Politics in America*, as well as Gary Jacobson.

14. This means, for example, a member elected in 1994 who loses in 2000 is never included in our analysis and a member elected after 1992 but prior to 2002 is only included starting in 2002. Our exclusion criteria allow us to focus only on members who have experienced a redistricting and should not bias our results. As our analysis is focused on member-donor relationships, it is not theoretically clear how a previously changed district would influence fundraising with a new member.

15. A Hausman test indicated fixed effects are preferred over random effects ($\chi^2_{14} = 84.14$, $p < .05$).

16. To be more specific, this analysis requires matching donors over different elections. The Federal Election Commission (FEC) has only recently provided enough information to make this feasible. While Bonica 2013 matches some donors over time, it appears he finds recent donors with appropriate identifiers and traces them backward in time. This implies donors from earlier years who stopped donating will not be appropriately identified. Because we are concerned with behavior over time, using the entire dataset would cause us to suffer from selection problems.

17. We used a STATA routine gpsmap developed by Timothy Brophy (2013) to help with this task. We drop corporate donations, donations to committees, as well as donations originating from Washington, D.C.

18. The mean *% New* ranges from 26.6 percent (*SD* 23.5) in the election immediately after redistricting and holds steady around 18 percent afterward. It is 18.5 percent in the year before a new redistricting (*SD* 19.2).

19. We examined the *% New* variables for differences between the parties and found they were not statistically significant.

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