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Donations and dependence: Individual contributor strategies in house elections

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ABSTRACT

Despite the importance of individual contributors to financing federal candidates, past work has largely neglected this crucial financial constituency in favor of research on corporate and trade political action committees (PACs). By contrast, in this study I offer the first analysis of *aggregate contributions* from the population of individual contributors to House candidates. Using an original big dataset constructed from over fifteen million Federal Election Commission (FEC) disclosure records, I identify *individual contributors* (rather than contributions) and trace the variation in their strategies across types of House candidates. I distinguish between frequent donors, who are theorized to have more contact with members of Congress, versus infrequent donors in these elections. I find evidence that the character of aggregate donations from repeat donors is more access-oriented even while controlling for other salient candidate characteristics. Funds from infrequent donors, in contrast, appear more ideologically motivated. By also examining the *percentage* of funds that House candidates receive from repeat donors, I show that the fundraising coalitions of candidates may reproduce reliance on more access-oriented, repeat donors despite the influx of dollars from infrequent donors. I suggest that my findings provide a persuasive case for re-evaluating the diversity of roles individual contributors play in the campaign finance system, and for systematically analyzing *variation* in contributor strategies.

The cost of Congressional elections has grown rapidly over the past thirty years. In 1980, total expenditures in House races stood at 100 million in 2010 dollars; by 2008, the comparable figure had reached nearly 1 billion. In the face of these accelerating campaign costs, candidates for office have been compelled to spend ever-greater amounts of time fundraising to finance their next campaign. This acceleration in campaign costs has led some to observe that American democracy has become a system of "money-driven politics" with the preferences of wealthy elites over-represented in the political system (Hacker and Pierson, 2011). The long history of campaign finance regulations in the United States have, in turn, have been structured to limit the dependence of candidates on 'fat cat' donors and organized interest groups. But despite these efforts, preliminary evidence—as well as the exigencies of accumulating a sizable campaign war chest—suggest that candidates may still receive a disproportionate share of their campaign funds in large amounts, and potentially from the same stable of wealthy donors over time (Brown et al., 1995; Schlozman et al., 2012). Campaign cash may thus serve as a crucial mechanism by which wealthy elites transmit their policy preferences to candidates and members of Congress.

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Although scholars have long examined the role of organized interests in funding American elections, individual donors are actually the largest single private source of funds to House and Senate candidates (see Fig. 1). And recently, the Supreme Court case *McCutcheon v. FEC* lifted restrictions on how much individual contributors can donate across candidates and political committees, clearing the way for individual contributors to become an even more crucial donor constituency. In this context, it is exceedingly important to understand the *strategies* that animate donations from individual contributors and how these strategies may differ from the far better-researched strategies of corporate and trade association political action committees (PACs).

Compared to the extensive literature on corporate and trade association PACs, relatively little work has examined individual contributors. And, given data limitations, research on individual contributors has often treated this important constituency *as a whole*, rather than examining the potential diversity in strategies that characterize the millions of unique individuals that donate money in federal races (Johnson 2010, 2013; for an important exception, see Francia et al. (2003)). But, as I detail below, there is good reason to anticipate significant heterogeneity within the pool of donors. For instance, game theoretic evidence as well as past theorizing (Snyder, 1992) suggests that repeat donors—those who donate in multiple cycles over time—may have more contact with and *influence over* candidates and members of Congress given the social relationships that characterize these ties and the implicit promise of future monetary contributions. If this is the case, it is exceedingly important to investigate if, and how, repeat donors allocate their donations in federal elections, rather than treating individual contributors as an undifferentiated player in the campaign finance system.

The patterns of donations from this population may be especially important given that several recent studies have suggested that members of Congress are responsive to the policy preferences of the affluent to the virtual exclusion of the less well-off, with campaign contributions acting as a key mechanism to transmit the preferences of the affluent (Bartels, 2010; Gilens, 2012). Again, although the 'affluent' who are the donors of congressional elections may be less wealthy and perhaps less institutionally powerful than the "elites" that animate other sociological theories (Mills, 1956; Domhoff, 1967), these donors are nonetheless quite distinct from less well-off Americans on salient policy concerns including attitudes toward income redistribution (Gilens, 2012; Schlozman et al., 2012).

In this study, I follow in the tradition of past work on corporate and trade PACs by testing for differences in aggregate donations accruing to House incumbents, challengers, and open seat candidates, as well as differences in the *types* of incumbents that receive donations. As I detail below, the allocation of funds in House elections has frequently been used by scholars as a key measure of contributor strategies (Gopoian et al., 1984; Grier and Munger, 1991; Hall and Wayman, 1990; Endersby and Munger, 1992; Grier and Munger, 1993; Romer and Snyder, 1994). While these studies show that a small minority of corporate and trade association PACs seem to donate for *ideological* reasons, a significant majority donates to establish and maintain *access* to future and current decision-makers in Congress (Burris, 1987, 2001, 2010; Clawson et al., 1986; Clawson et al., 1998). Scholars have not, however, analyzed these patterns for individual contributors in general, or for a crucial constituency within the donor pool—repeat donors to House candidates. By comparing the magnitude of donations that House candidates receive from infrequent versus repeat donors, I also reveal the *dependence* of House candidates on these constituencies. Taken together, the analyses provide the first systematic portrait of how these donors allocate their funds in House elections, and the strategies that may animate these funding streams.

To this end, the current study uses on original 'big' dataset to trace the allocation patterns of aggregate contributions from repeat versus infrequent donors in House elections. To do so, I created a dataset called the Longitudinal Elite Contributor Database (LECD) from over fifteen million raw Federal Election Commission (FEC) contribution records of donations over $200 made by individuals. Using a probabilistic record-matching algorithm, I matched individual contribution records to reflect unique contributors within and across elections cycles. This novel "big" dataset of individual donors allows me to investigate aggregate donations from an even more rarefied group—repeat donors who have given in multiple election cycles over

Fig. 1. Individual and political action committee contributions to House and Senate candidates as a percentage of total candidate receipts, 1984–2008. Source: Campaign Finance Institute, 2012. Retrieved from (http://www.cfinst.org/pdf/vital/VitalStats_t8.pdf).

time—versus the more numerous infrequent donors in federal elections. In so doing, I uncover how these funding streams function in the campaign finance system; conversely, I shed light on the types of individual donors that House candidates rely on to finance their campaigns.

Once structured to reflect *individuals* rather than *contributions*, the LECD reveals that only a tiny slice of the American adult population makes contributions of this size—just 0.26% in 2008. In addition to being numerically rare, other evidence suggests that these campaign donors are also relatively affluent. In their survey of 1996 congressional donors who had contributed at least $200, for instance, Francia et al. (2003) found that a majority of donors had incomes over $100,000 (i.e., about the 80 th percentile for household income in that year) and over a third earned incomes over $250,000 (i.e., the top 5% in 1996) (Census Bureau, 2013). This tiny, unrepresentative minority of the population constitutes about a third of the total money received by House candidates, and the vast majority of funds from individual contributors (Campaign Finance Institute, 2015).

Although the data preclude direct inferences about the motivations that underlie donations from these individuals, the aggregate patterns I describe below are useful in understanding how money from different types of individual contributors *function* in the campaign system, and, in particular, what types of candidates individual donors favor. Thus, even if survey research suggests that donors seldom report *material* or access motivations for donating to campaigns, the actual patterns of donations may imply that the function of these funding streams—taken together—is different from the self-described reasons of individual actors.

In the next section, I review the literature on individuals and then corporate and trade association PAC donations to House candidates to motivate my research hypotheses vis-à-vis individual contributors. I then describe how I constructed the LECD from original Federal Election Commission (FEC) disclosure records. Next, I introduce the statistical models—which take House candidates as the unit of analysis—and then test for differences in the character of donations from repeat, and infrequent donors, as well as the dependencies of House candidates on these constituencies. I conclude with a discussion of how past research may have overlooked they variety of ways funds from individual contributors function in House elections, and may have even underestimated the dependence of House candidates on more strategic, access-oriented funds.

1. Individual contributors in the campaign finance system

1.1. Contributions as consumption

In contrast to the access and investment-driven strategies of corporate and trade association PACs, past work has suggested that *ideological* or *purposive* motivations take precedence for individual donors, especially in recent elections (Francia et al., 2003; Barber and McCarty, 2013). In their well-known work on the campaign finance system, "Why is There so Little Money in U.S. Politics," Ansolabehere et al. (2003) speculate that individual contributors donate "because they are ideologically motivated, because they are excited by the politics of particular elections, because they are asked by their friends or colleagues and because they have the resources necessary to engage in this particular form of participation" (Ansolabehere et al., 2003: 117–8). Ansolabehere et al. discern the overall character of individual contributions (and, by extension, *contributors*) by investigating patterns in *aggregate* contributions from individuals in gubernatorial races. They show that, overall, campaign spending is most strongly associated with income—a pattern that characterizes consumption goods (although an alternate interpretation is that individuals become more invested in the political process as their income increases).[1]

Indeed, this characterization of individual giving as consumption or "participation" encapsulates the most common explanation for individual giving (Saunders and Abramowitz, 2004; LaRaja and Wiltse, 2012; Johnson, 2010, 2013). For instance, in their 1996 survey of congressional donors, Francia et al. (2003: 43) found that "purposive goals are a major factor in the decision to contribute", while "business-related reasons were acknowledged much less often". Given data limitations, scholars have, however, been unable to simultaneously observe 1) the *actual patterns* of donations flowing from *contributors* to candidates in federal elections and 2) variation in contributor strategies across different donor constituencies.

Indeed, significant heterogeneity in donation strategies may exist within the donor pool. One potentially crucial constituency that has been virtually overlooked by past work is *repeat contributors* to federal elections. Survey research indicates that these repeat players in the campaign finance are more likely to have direct and regular contact with their elected representatives (Francia et al., 2003). At the same time, recent experimental evidence raises the possibility that *repeated interactions* between "players" in the campaign finance system may have substantively different consequences for the policy-making process than mere one-time encounters. In a novel game theoretical laboratory experiment, Groβer et al. (2013) show that tacit *quid pro quo* agreements may arise between campaign donors and candidates when their interactions are finitely repeated, rather than limited to one round. Although one-time transfers from donors to candidates failed to influence policy outcomes, finitely repeated interactions between these actors yielded significantly lower levels of income redistribution in

[1] Two further criticisms are relevant here. For one, Ansolabehere et al. (2003) document an association between campaign spending and per capita income at the *state-level*, rather than showing an association at the individual level. Second, the authors assume that investment-oriented contributions must be positively associated with government spending since "investors", in their model, are interested in buying favors. However, it is possible that "investment" contributions are not positively associated with government spending if, in fact, investors donate to protect what others have called the wealth defense industry, i.e. to influence taxation policies.

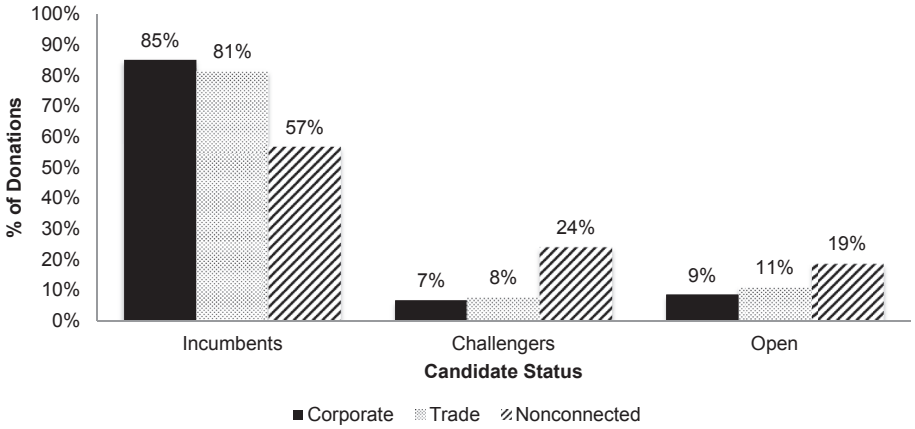

Fig. 2. Mean percentage of donations given to House incumbents, challengers, and open seat candidates by PAC type, 1978–2012.
Source: Author's Analysis of Campaign Finance Institute Data (2014). Retrieved from: (http://www.cfinst.org/pdf/vital/VitalStats_t11.pdf).

40% of laboratory "societies", suggesting that some rational choice models of campaign giving (e.g., Ansolabehere et al. (2003)) have overlooked the importance of time as a sociological phenomenon.

Although journalistic and scholarly attention has often focused on 'big' donors, in a regime of contribution limits such as the one in effect in the time period under study here, donors may form relationships to, and potentially influence over, members of Congress *not* by making one-time 'big' donations, but by making *consistent donations over time* (Snyder, 1992).[2] In this way, campaign contributions may act to establish and fortify an ongoing social relationship between donors and candidates. Indeed, the persistence and social nature of donor-candidate relationships suggests one possible answer to "Tullock's puzzle": the campaign finance system is *not* like a market in which donors "buy" outcomes, but a system of social gift relationships. In contrast to the economistic logic of "Tullock's puzzle", sociological evidence suggests that donations function as "gifts"—they "establish a personal connection, open an avenue for access, and create a generalized sense of obligation" (Clawson et al., 1998: 61) that unfolds within an enduring social relationship. Again, if this is the case, then it is exceedingly important to understand how the donations of repeat players in the campaign finance system are allocated and how these patterns may differ from the patterns of other actors including less frequent individual donors.

1.2. Institutional power and contributors strategies

To discern the strategies that animate donations from repeat and infrequent donors, I examine how these donors allocate their donations to House candidates. House candidates offer a key test of contributor strategies and, as I detail below, have been used frequently to discern the strategies of corporate and trade association PACs. House candidates vary widely in their ability to win election or re-election, distribute favors, and shape important legislation. For instance, incumbents formulate the legislative agenda and vote on policy decisions, making them attractive targets for access-oriented contributors. By contrast, challengers suffer from "a lack of name recognition, limited campaign experience, a relatively untested organization, and a high probability of defeat" (Herrnson, 2011: 188). For contributors seeking access, dim electoral prospects and the potential consequences of alienating an ally in Congress deter contributions to challengers (Clawson et al., 1998). As a first measure of individual contributor strategies, I test for differences in repeat versus infrequent individual contributors' donations to incumbents, challengers, and open seat candidates with more access-oriented funds favoring incumbents, and ideological donations favoring challengers and open seat candidates. I further suggest that these differences may be more pronounced in tight races, given the strong incumbency bias in House fundraising (Krasno et al., 1994). This large incumbency bias likely reflects, among other things, differences in candidate quality.

By way of comparison, corporate PACs are key and loyal financial constituents of incumbents. Since the 1980s, they have sent a large majority (approximately 85%) of their donations to incumbents with just a slim minority flowing to challengers and open seat candidates (Campaign Finance Institute, 2013). Given the institutional standing of incumbents and their favorable reelection prospects, corporate PAC donors 'invest' in these candidates to ensure continuous access to the most important players in the policy-making process. Fig. 2 summarizes the variation in the allocation of PAC funds across types of House candidates. The Figure shows that corporate and trade association PACs—largely access-oriented contributors by other measures and in other contexts (Clawson et al., 1998; Burris 2010)—send an overwhelming majority of their donations to incumbents (85% and 81% respectively) with very slim shares flowing to challengers and open seat candidates. Meanwhile,

[2] This remains true even post-*McCutcheon* as the *McCutcheon* case struck down the aggregate, rather than base, limits on campaign contributions from individuals.

nonconnected PACs, which typically represent ideological or single-issues groups like EMILY's List or the National Rifle Association (NRA), send substantial shares of their donations to challengers and open seat candidates—far more than either corporate or trade PACs.

In competitive races, however, I expect that both types of contributors will increase their contributions overall, but will diverge in the types of candidates they favor. In particular, funds from access-oriented donors should accrue disproportionately to vulnerable incumbents since "the expected payoffs from the election of a marginal incumbent might be greater for any single group than the expected payoffs from the election of a safe incumbent" (Gopoian et al., 1984:263). Such donors may gain access, but also "exercise claims upon the candidate" (Gopoian et al., 1984:263). In contrast, funds from ideological donors should flow to promising challengers and open seat candidates as these elections represent key opportunities to alter the partisan and ideological composition of Congress (Burris, 2001; Clawson et al., 1986; Clawson et al., 1998). Candidate quality may also be more similarly matched in tight races.

Variation in funds across types of incumbents offers another test of aggregate contributor strategies. Key incumbents sit on powerful legislative committees that exercise wide latitude in the formation of policy. These institutionally powerful incumbents are particularly attractive targets for the donations of access-oriented contributors (Ansolabehere and Snyder, 1998; Endersby and Munger, 1992; Gopoian et al., 1984; Grier and Munger, 1991; Romer and Snyder, 1994). Unlike in the Senate, most legislation in the House first wends its way through committee before being introduced to the full chamber for consideration (Tarr, 2007). Committee members also mediate inter-chamber disputes about legislation (Grier and Munger, 1991:25). Thus, members of House committees—and particularly powerful committees like the Energy and Commerce committee, with broad jurisdiction over policy in domains as diverse as telecommunications, interstate commerce, and food and drug safety—play a crucial role in shaping the final form of a bill (Endersby and Munger, 1992).

Indeed, although studies have turned up conflicting evidence vis-à-vis the direct effect of campaign contributions on roll call votes (Ansolabehere et al., 2003; Stratmann, 2005), it could be the case that access-oriented contributors target their donations *not* to change vote outcomes, but to set the agenda of the policy-making process before a bill ever reaches a floor vote. Targeted campaign contributions, then, do "not necessarily buy votes or change minds", but they "can buy members' time" and, in so doing, may "mobilize bias in congressional committee decision making" (Hall and Wayman, 1990: 798–9). Hall and Wayman (1990) find evidence to this effect. Campaign contributions from interested corporate PACs propel members' participation in Congressional committee deliberations. In this way, contributions to committee members are particularly attractive "investments" for access-oriented contributors (Hall and Wayman, 1990: 802).

While Grier and Munger (1993) show that corporate and trade association PACs concentrate their donations on members of "policy-relevant" committees in the House, past research on individual contributors has suggested that funds from individuals do not target institutionally powerful members of Congress (Gimpel et al., 2008: 390), at least when examining donations from out-of-state contributors. Similarly, Johnson (2013) models the proportion of funds House incumbents receive from *all* individual contributions and from contributions below $200, relative to political action committee donations. He finds that incumbents sitting on the Ways and Means and Commerce committees receive a significantly *smaller* portion of their funds from individual donors.

Taking these patterns as a whole, I hypothesize that, in the aggregate, access or investment-oriented contributors will favor incumbents (versus challengers and open seat candidates) overall, and especially more senior incumbents and those on powerful House committees. By contrast, I suggest that purposive or ideological participants will favor challengers and open seat candidates, but exhibit no aggregate "preference" for institutionally powerful members of the House. In the next section, I turn to describing how I constructed the LECD before describing the statistical models that test for patterns in, and differences between, the strategies of infrequent and repeat donors to House candidates. I then describe how House candidates vary in their dependence on these donor constituencies by modeling the percentage of funds that House candidates receive from repeat versus infrequent donors. The final section concludes with a discussion of the implications of these patterns for future work on the campaign finance system.

2. Data and methods

2.1. Constructing the Longitudinal Elite Contributor Database (LECD)

The raw data used in this study come from the official Federal Election Commission (FEC) disclosure filings of *all* itemized, *large* (that is, over two hundred dollars) individual contributions made to federal candidates. In accordance with the Federal Election Campaign Act (FECA) revisions of 1974, all such contributions must be reported to the FEC for each two-year election cycle. Each contribution entry includes the full name of the contributor, his or her state, city, zip code, and occupation. The entries also contain the month, day, and year of the contribution, as well as the amount of the contribution, and a code corresponding to its candidate (or committee) recipient. These recipient codes were then used to link the individual files with variables contained in the FEC's candidate files. At the end of this merging process, I had one large file for each election cycle containing information on the contributor as well as the candidate variables including political party affiliation, incumbency status, year of election, and congressional district for all election cycles between 1980 and 2008.

To identify individual donors over time, I linked all of the over fifteen million contribution records to represent unique contributors using a probabilistic record matching procedure—the best method to link the records given the uneven quality of the identifiers available in the FEC disclosure records. This procedure quantifies the likelihood that any pair of observations

represents a true match by calculating a match score based on comparisons of multiple match variables. In this case, I used the contributor's last name, first name, zip code, and occupation as match variables.[3] Each of these match variables was assigned a weight according to the discriminating power of the variable, relative to the degree of error in that variable. At the end of the matching process, each contributor was assigned a unique contributor identification number that groups all of the contributions made by that contributor over the 1980 through 2008 period. The LECD is thus organized by *contributor* rather than by *contribution*, making possible analyses of *contributor* patterns over time. The appendix describes the details of the matching procedure and provides a series of robustness checks for the models presented below.

Unlike for individual donors, the FEC assigns candidates in federal races a unique candidate identification number that is stable across election cycles.[4] This identification number—contained in each contribution entry of the LECD—allows me to track the donations that candidates received from repeat and infrequent donors. For the analyses that follow, I aggregate the contributions received for each House candidate from individual contributors in a particular election cycle. As I explain in the next section, the dependent variable in each of the regression models represents the *total amount or percentage a candidate received from repeat (or infrequent) donors in an election*.

The basic House candidate characteristics available in the LECD were supplemented with data from two additional sources. First, each House candidate-election year was coded with a race competitiveness variable. These data come from the Congressional Quarterly database, which lists all House races within an election cycle that were decided within a specified winning vote margin. For the following analyses, I code all House races that were decided within a margin of ten percentage points or less as competitive. In addition, I use data from Congressional Quarterly Congress Collection to code each House candidate's race and gender. And finally, I linked each candidate with his or her committee assignments during a particular session of Congress. These data come from Nelson (1992) and Stewart and Woon (2011), and contain all committee assignments for members of the 96 th (1979–80) through 112 th (2011–12) Congresses.[5]

I first examine the total amount of funds in constant 2000 dollars that repeat versus infrequent donors sent to House candidates. For each election cycle, I model the total amount of contributions the candidate received from repeat donors where repeat donors are coded "1" if they have contributed in 50% or more of all possible election cycles since entering the pool, and all others as infrequent donors.[6] Note, then, that since frequency of giving is a static variable, differences in the constituencies of House candidates are *not* due to infrequent donors "becoming" repeat donors after a candidate wins re-election.

To produce reliable estimates of repeat giving, I observe each donor cohort for *at least* 4 election cycles.[7] Since 2008 is the last election year for which I have data, the last entry year "cohort" of donors in my analysis is 2002 (representing the 2002, 2004, 2006, and 2008 cycles). Using this classification, I examine the allocation patterns of 2,177,804 (84.09%) infrequent donors and 412,042 (15.91%) repeat donors in House elections. Since I observe donors for a minimum of four election cycles, 2002 is also the last year for which I have complete information on the funding sources of House candidates and the analyses thus take 2002 as the final candidate-year. All of the analyses are further restricted to major party general election candidates.

2.2. Describing repeat and infrequent donors

Before turning to the model specifications, in Table 1, I show the industry, region, and gender distributions for repeat and infrequent donors.[8] The table indicates that repeat donors are far more likely than infrequent donors to be lawyers, lobbyists, and work in F.I.R.E. (finance, insurance, and real estate). This finding squares well with past work that suggests lobbying and campaign contributions may be coordinated (Ansolabehere, Snyder & Tripathi, 2000). However, previous work has completely overlooked *individual donors* as a potential player in this access process. Repeat donors are overrepresented in the South and Midwest, and slightly underrepresented in the Northeast and West. A large majority of donors are male, but the distortion is particularly pronounced among repeat donors.[9] About 29% of infrequent donors, but only 26% of repeat donors, are women. This pattern is similar to survey evidence on Congressional donors in the 1996 elections (Francia et al., 2003: 30), although the LECD suggests a higher proportion of women donors, possibly due to the addition of more recent election cycles under consideration here.

[3] Zip code was parsed into two variables—first three digits and last two digits—in accordance with the discriminating power of the digits.

[4] This identification number is stable across years for races of the same office. If, however, a candidate runs for another office (e.g. a House representative runs for the Senate), he or she is assigned a new candidate identification number for that office.

[5] I used candidate names, states, and districts to link these indicators to the LECD.

[6] For simplicity, I use a dichotomous measure of repeat donor status in this study.

[7] Each donor cohort is observed for at least four election cycles, but by design, earlier cohorts will have had longer to donate (and thus be disproportionately classified as infrequent donors). For this reason, I have also run all of the models restricting each donor cohort to only four election cycles (results available upon request). Since these models were substantively the same, I report the unrestricted coefficients.

[8] The FEC does not require donors to disclose other relevant sociodemographic information.

[9] Gender was derived from donor's first name.

Table 1
Industry, region, and gender distributions of infrequent and repeat donors.

	Infrequent	Repeat	Total
Industry			
Agribusiness	57,639	15,166	72,805
	2.65	3.68	2.81
Com. & electronics	53,919	12,756	66,675
	2.48	3.1	2.57
Construction	66,616	17,163	83,779
	3.06	4.17	3.23
Defense	7441	1717	9158
	0.34	0.42	0.35
Energy & nat. resources	29,693	7881	37,574
	1.36	1.91	1.45
F.I.R.E.	211,223	60,470	271,693
	9.7	14.68	10.49
Health	142,092	36,566	178,658
	6.52	8.87	6.90
Lawyers & lobbyists	126,974	48,860	175,834
	5.83	11.86	6.79
Transportation	38,527	11,272	49,799
	1.77	2.74	1.92
Misc. business	185,455	37,914	223,369
	8.52	9.2	8.62
Labor	7008	1900	8908
	0.32	0.46	0.34
Education	35,636	8803	44,439
	1.64	2.14	1.72
Non-profits	3437	1375	4812
	0.16	0.33	0.19
Retired	170,026	34,892	204,918
	7.81	8.47	7.91
Other/unknown	854,217	87,577	941,794
	39.23	21.25	36.36
Civil servants	36,162	6296	42,458
	1.66	1.53	1.64
Unemployed/homemaker	151,739	21,434	173,173
	6.97	5.2	6.69
Region			
Northeast	520,747	89,177	609,924
	23.91	21.64	23.55
South	710,828	147,379	858,207
	32.64	35.77	33.14
Midwest	403,047	84,419	487,466
	18.51	20.49	18.82
West	475,710	82,414	558,124
	21.84	20	21.55
DC	26,810	6859	33,669
	1.23	1.66	1.30
Unknown	40,662	1794	42,456
	1.87	0.44	1.64
Gender			
Female	637,926	106,866	744,792
	29.29	25.94	28.76
Male	1,347,575	280,308	1,627,883
	61.88	68.03	61.48
Unknown	192,303	24,868	217,171
	8.83	6.04	6.90
Total	2,177,804	412,042	2,589,846

Note: Cells show frequencies and column percentages for each variable.

2.3. Candidate coalitions: statistical models

As I explain in the next section, the dependent variable in each of the regression models represents the *total amount or percentage a candidate received from repeat (or infrequent) donors in an election*. I first examine the total amount of funds in constant 2000 dollars for the *ith* candidate in election year *t* received from repeat or infrequent donors.[10] I employ tobit regression since some candidates receive no contributions in an election year (i.e. the dependent variable is left-censored at

[10] I used the Stata package CPI to normalize each contribution total to 2000 dollars based on the year and month the contribution was made.

Table 2
Tobit Estimates of the Predictors of Aggregate Receipts from Infrequent and Repeat Individual Donors to All Major Party General Election House candidates, 1980–2002.

Variable	1: Repeat donors			2: Infrequent donors	
	B_r	S.E.	$B_r - B_i$	B_i	S.E.
Republican	Base				
Democrat	−18,844.40**	2377.27	**	−11,364.06**	1794.87
Incumbent	Base				
Challenger	−93,281.87**	2879.14	**	−35,335.86**	2150.76
Open seat	−25,525.22**	4449.16	**	29,551.09**	3389.60
Competitive election	50,460.07**	4893.33		44,488.13**	3742.14
Challenger × Competitive	26,683.64**	6836.98	**	15,669.93**	5203.64
Open × Competitive	−37,986.81**	7882.99		−41,388.23**	6016.89
1980	Base				
1982	10,487.61	6106.41	**	−1132.26	4519.10
1984	15,609.32*	6087.21	**	5192.35	4513.74
1986	26,120.43**	6072.78	**	9559.64*	4509.34
1988	33,936.12**	6115.54	**	14,636.19**	4535.73
1990	43,185.23**	6020.93	**	18,170.28**	4481.12
1992	58,503.47**	5693.52	**	20,589.91**	4235.95
1994	75,521.31**	5811.80	**	27,591.25**	4331.98
1996	100,138.20**	5749.64	**	37,728.53**	4283.76
1998	128,471.60**	5930.92	**	43,717.04**	4427.37
2000	155,190.90**	5850.69	**	53,807.37**	4366.86
2002	170,358.20**	5852.66	**	40,514.60**	4373.49
Constant	51,487.83**	9954.27	**	56,522.65**	7501.72
N	9040			9040	

*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.
Note: The middle column gives the p-value for a Wald test of the difference between the respective coefficients for repeat versus infrequent donors.

0). These full candidate models contain indicator variables *CHALL* and *OPEN* to distinguish between incumbent, challenger, and open seat candidates. In keeping with past work on the strategies of individual donors, I also include a competitive race dummy, *COMP*, that equals "1" if the candidate won or lost the election by less than 10 percentage points, and is set to "0" otherwise.[11] I also include an interaction term for candidates in competitive races. The term reflects the additional fundraising advantage—or disadvantage—accruing to challengers and open seat candidates in competitive races.

The indicator variable *DEMOCRAT* gives the difference in aggregate donations to Democrats, relative to Republican candidates.[12] I also include a set of candidate state dummy variables for the full candidate models or, for the incumbent models, indicators for candidate region.[13] The state and region dummy variables are imperfect proxies for characteristics of states that may influence donor coalitions, such as differences in the cost of local media markets and, more importantly, characteristics of regional political economies (e.g. dependence on particular industries) that may directly influence patterns of individual contributions.[14] And lastly, the full candidate models contain indicators for the election year that capture year-specific factors that affect overall fundraising.

For incumbent members of Congress, I estimate a further, separate set of models.[15] These models include a dummy variable that indicates membership on powerful House committees. In particular, I measure the impact of membership on five committees that have been identified to have broad policy-making authority over issues of concern to corporate and trade association political action committees—the Appropriations (with control over federal expenditures), Financial Services (which oversees the financial services industry), Budget (which drafts the federal budget), Energy and Commerce (with jurisdiction over areas such as telecommunications and consumer health), Rules (which controls how a bill will be debated on the floor), and Ways and Means (which writes the nation's tax policy) committees (Johnson, 2013). A positive and significant coefficient for the *POWER* variable thus indicates an aggregate fundraising advantage for members of these committees.

The incumbent models include a control variable *SENIORITY* that measures the number of terms a member has served in Congress. Past work has suggested that more senior members of Congress may be attractive targets for access-oriented donors (Grier and Munger, 1991, 1993). Finally, dummy variables for *FEMALE*, *HISPANIC*, *AFRICANAM*, and *ASIAN* represent the differential aggregate fundraising ability of women and minority incumbents compared with white, male members of the House.

[11] The data on competitive elections comes from the Congressional Quarterly database of American elections. The database contains the final vote margin for each House race. For the incumbent-only models, this indicator refers to the last election cycle in which the incumbent ran (i.e. the indicator is lagged by one period).
[12] For the analyses that follow, candidates for third parties are omitted.
[13] The incumbent-only models contain regional dummy variables instead of the full vector of state dummy variables given the smaller number of incumbents used to estimate these models. The results are, however, substantively the same with the state dummy variables.
[14] These results are available upon request, but are omitted from the tables to save space.
[15] The models are estimated with standard errors robust to clustering by candidate since I observe incumbents over multiple Congresses.

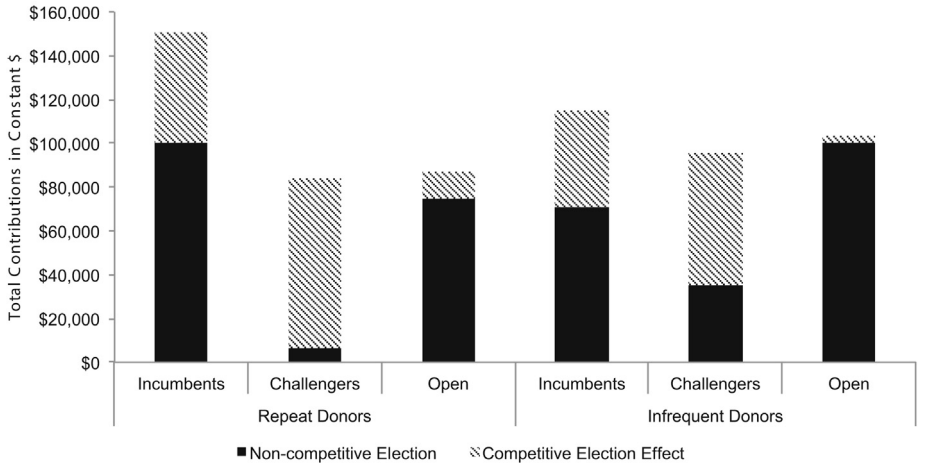

Fig. 3. Predicted total House candidate fundraising from repeat and individual donors in non-competitive and tight races, 1980–2002.

2.4. Aggregate contributions from repeat and infrequent donors to house candidates

Table 2 presents results for the amount of funds that House candidates receive from repeat donors in Column 1 and from infrequent donors in Column 2. In the middle column, I also present the p-values for a Wald test of the difference between the coefficients for repeat and infrequent donors. Beginning in Column 1, repeat donors, all else constant, send significantly more money to Republican House candidates than Democratic candidates. Similarly, the challenger and open seat indicators suggest a strong incumbency-bias in aggregate contributions from repeat donors in non-competitive races. In tight races, however, challengers receive a comparatively larger boost than endangered incumbents from repeat donors, although challengers still receive far less money from repeat donors overall. This greater competitive election 'bonus' is contrary to my expectations, and indicates that repeat donors may be pursuing a strategically ideological or 'mixed' strategy when high-quality challengers are on the ballot. This finding may also be partly explained by the role of party organizations' support in tight races (Herrnson, 1992, 2011; Francia et al., 2003; Koger et al., 2009).

Column 2 presents the results for contributions from infrequent donors. As with repeat donors, Democratic candidates receive less money, all else constant, from infrequent donors. But significant differences emerge vis-à-vis the challenger and open seat candidate coefficients. While repeat donors clearly favor incumbents in non-competitive races, infrequent donors send significantly *more money* to open seat candidates than incumbents. The Wald test indicates that the coefficients for repeat and infrequent donors are significantly different. Important differences also emerge in tight races. Similar to repeat donors, infrequent donors favor challengers in tight races rather than incumbents, although the "bonus" challengers receive is larger for repeat donors. While incumbents in tight races receive an extra $44,500 from infrequent donors, challengers receive an extra $60,000 (versus $50,500 and $77,100 from repeat donors, respectively).

Fig. 3 summarizes these results by plotting the predicted total fundraising from repeat and infrequent donors for incumbents, challengers, and open seat candidates with all other variables set to their means. The Figure also shows the additional fundraising advantage each candidate type receives in competitive elections.

Next, Table 3 presents the incumbent-only models for repeat donors in Column 1 and for infrequent donors in Column 2. Again, past work has repeatedly demonstrated that corporate and trade association PACs send strategic donations to members of powerful House committees. Until now, however, scholars have largely assumed that funds from individual contributors did not act to "overstuff the war chests of powerful members of Congress" (Gimpel et al., 2008: 390). But Column 1 indicates that—at least vis-à-vis the repeat players in the campaign finance system—individual contributors *do* target incumbent members of Congress on committees that have often been identified with broad policy-making authority over areas of concern to organized interests. Each additional year a member spends in the House is associated with a significant $10,000 increase in donations from repeat donors. The results in Column 1 also show that female incumbents receive significantly more from repeat donors than their male counterparts. This result could partially be explained by fundraising groups like EMILY's List, which helps raise and distribute donations to pro-choice Democratic women candidates (Francia et al., 2003). African American incumbents receive significantly less from repeat donors, relative to their white counterparts.

Column 2 presents the estimates for donations to incumbents from infrequent donors. One significant difference stands out between the patterns described above for repeat donors and the flow of donations from infrequent donors—the coefficients for incumbents on powerful House committees. While donations from repeat donors favor powerful incumbents over their peers, donations from infrequent donors exhibit no such tendency. Similarly, unlike in the model for repeat donors, the *SENIORITY* variable fails to reach statistical significance.

Table 3
Tobit estimates of the predictors of aggregate receipts from repeat and infrequent individual donors to incumbent members of the House, 1980–2002.

Variable	1: Repeat donors			2: Infrequent donors:	
	B_r	S.E.	$B_r - B_i$	B_i	S.E.
Power	22,619.86**	6913.35	**	2576.51	3880.62
Republican	Base				
Democrat	−34,383.57**	7840.83	**	−19,258.80**	4633.18
Comp. election	73,130.90**	8389.47	**	42,773.72**	4436.65
Male	Base				
Female	58,773.73**	18,599.38	**	5333.66	6921.96
White	Base				
Hispanic	21,663.12	31,729.20		28,071.14	19,980.02
Af. Am.	−39,209.25**	8645.18	**	−9919.10	6138.14
Asian	−12,825.94	40,665.02		24,337.14	31,529.10
Seniority	9992.90**	1557.47	**	1057.67	883.16
Constant	86,212.20**	12,202.79		101,463.40**	8704.97
N	3874			3874	

*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.
Note: Standard errors are robust to clustering by candidate. The middle column gives the p-value for a Wald test of the difference between the respective coefficients for repeat versus infrequent donors.

Taken together, the models above provide considerable evidence that repeat donors, in the aggregate, function as sophisticated, pragmatic contributors whose strategies diverge considerably from the more numerous infrequent contributors that finance House candidates. In directing their funds to members of powerful House committees, repeat donors resemble the corporate and trade association PACs that donate strategically to ensure ongoing access, and potentially influence, over candidates and members of Congress. There is, however, some evidence to indicate that repeat donors, like some corporate PACs, exercise a mixed strategy by directing funds to challengers in competitive races, although even here repeat donors favor incumbents overall. The funds of infrequent donors, by contrast, appear less strategic and more purposive.

2.5. Financial dependency of House candidates

The previous section demonstrated that the patterns in aggregate donations of repeat and infrequent donors are animated by different strategies. In this section, I investigate the *dependencies* of House candidates by explicitly modeling the percentage of funds that these candidates receive from repeat versus infrequent donors. In other words, I directly compare the magnitude of donations originating from repeat versus infrequent donors by modeling the percentage of funds House candidates received from repeat donors (Cho, 2002; Gimpel et al., 2008; Johnson, 2010). These models better describe what

Table 4
Tobit Estimates of Predictors of Reliance on Donations from Repeat Individual Donors, All Major Party General Election House candidates, 1980–2002.

Variable	B	S.E.
Republican	Base	
Democrat	−1.42**	0.37
Incumbent	Base	
Challenger	−22.31**	0.46
Open	−17.11**	0.70
Competitive election	−2.78**	0.78
Challenger × Competitive	10.84**	1.07
Open × Competitive	5.52**	1.24
1980	Base	
1982	8.52**	0.95
1984	9.99**	0.94
1986	12.41**	0.94
1988	14.50**	0.95
1990	16.58**	0.94
1992	19.66**	0.89
1994	22.69**	0.91
1996	25.22**	0.90
1998	29.52**	0.94
2000	29.57**	0.93
2002	35.20**	0.93
Total Raised	0.00	0.00
Constant	30.02	1.56
N	9040	

*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.

Table 5
Tobit estimates of the predictors of reliance on repeat individual contributors, incumbent members of the house, 1980–2002.

Variable	B	S.E.
Power	2.99**	0.76
Republican	Base	
Democrat	−0.97	0.88
Competitive election	0.36	0.74
Male	Base	
Female	8.01**	1.52
White	Base	
Hispanic	−4.39	2.87
African American	−5.03**	1.93
Asian	−7.94	5.16
Seniority	2.54**	0.13
Total raised	0.00**	0.00
Constant	35.07**	1.39
N	3874	

Note: Standard errors are robust to clustering by candidate.
*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.

types of candidates are most dependent on repeat donors and, as such, what types of candidates might also be more receptive to their concerns. The results reveal that repeat donors compose a much larger share of funds to incumbent members of the House, a slim minority of the funds accruing to challengers and open seat candidates, and a significantly greater share of funds to members of powerful House committees and more senior members of the House.

To model these relationships, I transform the first dependent variable used in the models above—the total amount a candidate received from repeat donors—by dividing it by the total amount the candidate received from all infrequent and repeat donors in that election cycle (and multiplying by 100). The models contain the same set of covariates described previously with one addition—the total amount the candidate raised in an election. Otherwise, the models remain the same, but now indicate which types of candidates in the House are *more reliant* on repeat donors.

The first Column of Table 4 presents the results for the percentage of funds that all House candidates received from repeat donors. Democratic House candidates receive significantly less of their funding from repeat donors than do Republicans. Incumbents are far more reliant on repeat donors than challengers and open seat candidates with the percentage raised from repeat donors increasing with each election cycle.[16] By contrast, challengers and open seat candidates in non-competitive races receive the vast majority of their funds from infrequent donors. In tight contests, however, these candidates receive a significantly greater share of their funds from repeat donors, although they remain more dependent on infrequent donors overall. Incumbents, on the other hand, appear to broaden their fundraising base when they enter tight races—the share of their funds coming from repeat donors decreases by nearly 3 points in this model.

Finally, Table 5 presents results for the incumbent-only models with the powerful House committee indicator variable. Interestingly, these models show that—at least vis-à-vis incumbent members of Congress—there are no significant differences in the dependencies of the two parties on repeat donors even though repeat donors send more funds to Republican candidates in the aggregate. The coefficient for House power committee assignments is positive and statistically significant. Members of powerful House committees are more dependent on repeat contributors than their peers. Members of powerful House committees receive about 3 percentage points more of their donations from repeat donors, relative to similar incumbents. Each additional year in the House in associated with a 2.5 point increase in the percentage raised from repeat donors. And finally, African American members are significantly (and substantively) less dependent on repeat donors than their white colleagues. Female incumbents, however, receive significantly more from repeat donors than their male counterparts, a finding I return to in the discussion below.

3. Discussion

The analyses presented in this study add nuance to the narrative of individual contributors as "political participants" in the campaign finance system. By examining variation in the aggregate contribution strategies of repeat and infrequent donors in House elections over the course of thirty years, I show that past studies have overlooked important differences in how funds from individual contributors function in the campaign finance system.

[16] Since I do not restrict the number of election cycles that I observe donors to candidates, incumbents in later election cycles are observed to have raised significantly more money in later cycles as the percentage of repeat donors increases. To ensure the robustness of my findings, I have also run all of the models with each cohort of donors restricted to four election cycles. In these models, each contributor is observed for four election cycles (corresponding to two midterm and two presidential election years). The results are substantively the same and thus I present the unrestricted models. The full set of results from the restricted models are available upon request.

The analyses show that, like corporate and trade association PACs, aggregate contributions from repeat donors favor incumbents by large margins in non-competitive races. As a constituency, these donors also target powerful incumbents and more senior members of the House—again, a strategy common to corporate and trade PACs—but frequently discounted as a possibility among unorganized individual donors. That funds from repeat contributors appear largely access-oriented on these dimensions provides a persuasive case for re-evaluating the role of individual contributors in the campaign finance system. The results here show that, in the aggregate, repeat contributors can sometimes act as *sophisticated* investors in the campaign finance system. Repeat contributors target incumbents in Congress in general, but as a financial constituency they direct their donations more squarely to those members who are likely to have the most sway over significant policy decisions. They, like corporate PACs, appear to "possess a sophisticated understanding of legislative institutions" (Endersby and Munger, 1992:79).

Contrary to my expectations, aggregate donations from repeat donors also flow to challengers over incumbents in tight races, suggesting that the role of individual contributors is not univocal. One possible explanation for this pattern is the two-sided nature of campaign contributions—donors give money, but donations from individuals are often solicited by candidates. It could be that this discrepant pattern is partially explained by such candidate-driven solicitations, even though donors ultimately decide which requests to honor. Promising but unknown challengers and open seat candidates may receive help from party organizations and gain access to the party's loyal fundraising base (Herrnson, 1992, 2011; Francia et al., 2003; Koger et al., 2009). If this is the case, it could be that these patterns are also more indicative of what others have called solidary motivations, rather than purposive motivations per se.[17] This study is limited to analyzing the "revealed preferences" of the individual donor pool as evidenced by allocated contributions. To add depth to the patterns noted here, future work should triangulate actual donation records with survey and interview evidence of donor motivations.

By contrast to the patterns for repeat donors, contributions from infrequent donors favor open seat races where campaign dollars can potentially affect the partisan and ideological composition of Congress. In tight races, infrequent donors clearly favor challengers over more well connected incumbents. And within the House, infrequent donors exhibit no consistent preference for incumbents on powerful House committees. These patterns may be especially interesting in light of other findings about smaller donors (i.e., under $200) as ideologically motivated and extreme (McCarty et al., 2006; Magleby et al., 2014). The results reported here suggest that casual donors to House campaigns—even donors who contribute over $200, a relatively large sum—also appear as "ideological participants."

Patterns in the funding coalitions of House candidates also deepen our understanding of how donations from repeat contributors *function* in the campaign finance system. Donations from repeat donors clearly favor incumbents, and funds from these donors comprise a much more substantial share of the funds that incumbents receive from large individual contributors. Incumbents on powerful House committees receive a greater portion of their funds from repeat donors. On the other hand, challengers and open seat candidates receive a majority of their funds from infrequent donors. These quite distinct dependencies may shape the behavior of House candidates. House candidates appear to consistently rely on different types of donors depending on their degree of institutional power. Thus, the differential concerns of these financial constituencies may shape the policy goals of House candidates and members. For instance, if infrequent donors are primarily motivated by ideological concerns, then the overwhelming importance of these donors for challengers and open seat candidates may shape the kinds of issues that are debated on the campaign trail, and the way such issues are framed.

Although the results presented here suggest that aggregate funds from repeat donors have a more pragmatic character, future research might also explore if these contributions, like the funds from corporate PACs, increase in tandem with important votes being held on policy matters, or when specific issues are under consideration in House committees. These additional measures would help substantiate the case for repeat contributors as the hidden 'investors' in the campaign finance system. At the same time, it would underscore the *variation* in individual contributor strategies, and re-orient research on campaign finance to the diversity of roles played by individual donors.

4. Appendix

4.1. Description of the FEC files

The raw, detailed disclosure files are available on the Federal Election Commission (FEC) website.[18] In accordance with federal legislation, the files contain all donations over two hundred dollars made by individuals to candidates, political party committees, and political action committees (PACs) in each two-year election cycle. The records contain the full name of the contributor, his or her state, city, zip code, and occupation. The entries also contain the month, day, and year of the contribution, an indicator for primary or general election status, as well as the amount of the contribution. For my analyses, the raw file contains entries beginning in 1979 and ending with the 2007–2008 cycle.

The individual contribution files do not contain information about the recipient of the donation. For this reason, the individual files were linked to variables contained in the committee and candidate files. After merging, I had one large file for each election cycle containing information on the contributor as well as the committee and candidate variables available in

[17] According to Clark and Wilson (1961), however, solidary and access-oriented motivations may be closely entwined.
[18] The detailed FEC files are available for download at http://www.fec.gov/finance/disclosure/ftpdet.shtml.

the corresponding file. Full details of the data cleaning, standardization, linkage, and robustness checks may be found in Heerwig (2016).

4.2. Data cleaning and standardization

Before I implemented the matching process, I cleaned the individual contribution files to standardize all of the variables that I use to identify the records of unique contributors. These variables, called "match variables", included full name separated into last name, first name, and a middle initial field; occupation; and zip code parsed into two variables, one for the first three digits of the postal code and one for the last two digits.[19] Each of these fields underwent extensive pre-processing before being inputted into the matching software.

4.3. LinkageWiz software

The FEC disclosure records represent a number of unique difficulties for matching and analysis. Individual contributors are required to disclose their names, addresses, and occupations/employers with their donations. However, this self-reported information contains typographical errors, missing values, and other assorted idiosyncrasies (*see* Heerwig and Shaw (2014) for a full exposition).

Because of the variable quality of the data, I linked contributor records using a probabilistic record linkage algorithm. In a probabilistic linkage, potential matches are brought together by comparing all of the match variables in proportion to the discriminating power of each. The match weights used to link the disclosure records are presented in Table A1. Full details of the weights' derivation may be found in Heerwig (2016).

The probabilistic linkage was implemented in a proprietary software package called LinkageWiz. LinkageWiz combines the principles of probabilistic record linkage with a variety of fuzzy string matching techniques. LinkageWiz has been used extensively in medical and epidemiological studies (e.g., Cox et al., 2011; Jaques et al., 2010; Beckmann et al., 2015; Porter et al., 2014; Gold et al., 2010).

4.4. Post-linkage processing and manual review

After the files were linked, I ran a series of checks to detect potential false positives. To detect false positives, I constructed a set of indicator variables for any matched group that contained differing sex (unknowns were excluded); differing middle initials; first names where the first character of the first name disagreed; first names where the Soundex (a native Stata function that converts names to their phonetic equivalents) code disagreed; and first names where one or more first name was not a substring of the other first names and not a valid nickname. I also calculated the number of contributions within each group and flagged groups with a high number of contributions. For all of the analyses presented in the body of the paper, I constructed the estimates with all of the potential false positive contribution groups dropped. In all, I excluded 814,217 contribution records of 15,002,565 or about 5.7% of the raw contributions. The estimated percentages of false positives and false negatives for each election cycle appear in Table A2 and by first letter of the contributor's surname in Table A3.

I illustrate the results of the matching procedure in Table A4. In that table, I present the contribution records for two individual contributors—Sheldon Adelson and Thomas Steyer. The table shows several contribution entries from each year the donor contributed with both my assigned donor identification number derived from the probabilistic match procedure and the donor's identification number from an exact (or deterministic) match that I discuss below and use as a robustness check for the results contained in the body of the paper.

4.5. Additional robustness checks

To ensure the robustness of the main results presented in the body of the paper, I have also re-estimated each of the main models with only exact matches. Exact matches were identified using surname, first name, first three digits of the contributor's zip code, and occupation. The exact match produces a larger number of unique contributors (since it is more difficult to match exactly across all identifiers), but a relatively smaller share of contributors who have given in more than one cycle.

In Table A4, I present the identification number assigned using the exact match alongside the identification number from the probabilistic algorithm. In the Table, the first donor, Sheldon Adelson, appears as several unique individuals using the deterministic match. Using the probabilistic linkage, all of Adelson's 185 contributions are assigned one identification number. Thus, for the analyses presented in this paper I anticipate that the estimates for frequent donors will be in the same direction, but smaller in size given the reduced number of contributions that will match exactly across election cycles.

[19] United States postal codes consist of five digits, the first three of which identify the region of the country—most often a metropolitan area or city—and the last two digits the specific area within a region. For instance, the zip code "10,012" consists of the prefix "100", which refers to New York City, and the suffix "12", which refers to an area in Manhattan. Since the first three digits are less likely to vary than the last two, the field was separated to weight the first three digits of the postal code higher. In the file, the last two digits of a contributor's postal code often varied widely as contributors moved from home to work addresses or moved locally.

In Tables A5 and A6, I present the coefficients from the models using only exact matches. The tables demonstrate that the results using only exact matches are substantively the same as the models in the body of the paper. As a whole, the models using only exact matches corroborate my key findings.

Table A1
Final match weights for full set of matching variables

Identifier	Weight
Last name	
Exact	7
Phonetic	4
Disagree	−4
First name	
Exact	4
Phonetic	3
Nick name	2
Phonetic alias	1
Disagree	−4
Middle initial	
Exact	4
Disagree	−6
Occupation	
Exact	6
Phonetic	3
Disagree	−5
First 3 zip	
Agree	3
Disagree	−4
Last 2 zip	
Agree	2
Disagree	−2
Sex	
Agree	1
Disagree	−4

Table A2
Estimated Error Rates by Election Cycle

Election cycle	False +	False -	Year N
1980	18,713	21,695	319,139
	5.86%	6.80%	
1982	13,550	13,040	160,554
	8.44%	8.12%	
1984	19,373	20,102	243,984
	7.94%	8.24%	
1986	21,397	22,425	255,453
	8.38%	8.78%	
1988	30,114	35,811	402,945
	7.47%	8.89%	
1990	34,285	44,471	510,234
	6.72%	8.72%	
1992	52,373	75,249	832,081
	6.29%	9.04%	
1994	51,185	76,519	785,698
	6.51%	9.74%	
1996	68,099	113,118	1,137,552
	5.99%	9.94%	
1998	57,372	102,256	929,764
	6.17%	11.00%	
2000	83,420	172,614	1,550,886
	5.38%	11.13%	
2002	67,164	159,830	1,283,106
	5.23%	12.46%	
2004	101,079	262,147	2,362,746
	4.28%	11.10%	
2006	82,715	197,518	1,692,673
	4.89%	11.67%	
2008	90,640	241,406	2,535,750
	3.57%	9.52%	
Total	791,479	1,558,201	15,002,565
	5.28%	10.39%	

Table A3
Estimated error rates by first letter of contributor surname

Letter	False +	False -	Surname N
A	23,492	51,690	502,084
	4.68%	10.30%	
B	66,000	140,750	1,389,653
	4.75%	10.13%	
C	56,682	108,799	1,075,250
	5.27%	10.12%	
D	41,029	64,890	711,135
	5.77%	9.12%	
E	11,833	30,009	288,194
	4.11%	10.41%	
F	30,216	62,853	609,705
	4.96%	10.31%	
G	33,467	83,402	811,617
	4.12%	13.68%	
H	52,516	108,394	1,075,586
	4.88%	10.08%	
I	2189	7236	66,407
	3.30%	46.00%	
J	39,247	44,261	345,878
	11.35%	12.80%	
K	31,420	68,149	689,298
	4.56%	9.89%	
L	33,044	79,452	749,057
	4.41%	10.61%	
M	81,111	154,618	1,398,052
	5.80%	11.06%	
N	9784	31,184	271,482
	3.60%	11.49%	
O	9996	21,377	220,507
	4.53%	9.69%	
P	29,328	67,608	696,858
	4.21%	9.70%	
Q	2180	3879	26,558
	8.21%	14.61%	
R	42,156	85,574	801,122
	5.26%	10.68%	
S	97,408	168,489	1,565,711
	6.22%	10.76%	
T	23,417	45,147	473,463
	4.95%	9.54%	
U	1389	4865	40,747
	3.41%	11.94%	
V	7254	16,485	178,481
	4.06%	9.24%	
W	61,183	91,029	837,141
	7.31%	10.87%	
X	12	51	1197
	1.00%	4.26%	
Y	1849	8980	81,336
	2.27%	11.04%	
Z	3277	9030	96,046
	3.41%	9.40%	
Total	791,479	1,558,201	15,002,565
	5.28%	10.39%	

Table A4
Examples of contribution records with probabilistic and exact match identification numbers

Probabilistic ID	Exact ID	Surname	Given	Mid	Occupation	Zip 3	State
A10057148	37275	ADELSON	SHELDON	G	THE INTERFACE GROUP	021	MA
A10057148	37272	ADELSON	SHELDON	G	INTERFACE GROUP	021	MA
A10057148	37273	ADELSON	SHELDON	G	SANDS HOTEL	021	MA
A10057148	37295	ADELSON	SHELDON	G	SAND HOTEL	891	NV
A10057148	37297	ADELSON	SHELDON	G	SANDS HOTEL CASINO	891	NV
A10057148	37279	ADELSON	SHELDON	G	HOTEL OPERATOR	891	NV
A10057148	37278	ADELSON	SHELDON	G	ENTREPRENEUR	891	NV
A10057148	37314	ADELSON	SHELDON	G	VENETIAN RESORT EXECUTIVE	891	NV
A10057148	37293	ADELSON	SHELDON	G	MULTI BUSINESS OWNER	891	NV

(*continued on next page*)

Table A4 (*continued*)

Probabilistic ID	Exact ID	Surname	Given	Mid	Occupation	Zip 3	State
A10057148	37299	ADELSON	SHELDON	G	SELF	891	NV
S90006041	6052485	STEYER	THOMAS	F	FARALLON CAPITALPARTNS	941	CA
S90006041	6052474	STEYER	THOMAS		FARALLON CAPITALMANAGEMENT	941	CA
S90006041	6052488	STEYER	THOMAS	F	FARALLON SENIORPARTNER	941	CA
S90006041	6052486	STEYER	THOMAS	F	FARALLON CAPITOLMANAGEMENT	941	CA
S90006041	6052495	STEYER	THOMAS	F	FAVALLON CAPITALINVESTOR	941	CA
S90006041	6052460	STEYER	THOMAS	F	FARALLEN CAPITALMANAGEMENT LLC EX	941	CA

Table A5
Tobit estimates of the predictors of aggregate receipts from infrequent and repeat individual donors to all major party general election House candidates, 1980–2002, Exact matches only

Variable	1: Repeat donors		2: Infrequent donors	
	B	S.E.	B	S.E.
Republican	Base			
Democrat	−9722.65**	1226.93	−18,711.08**	2788.23
Incumbent	Base			
Challenger	−51,694.90**	1521.51	−75,208.60**	3343.91
Open Seat	−19,576.24**	2271.64	16,115.63**	5266.73
Competitive election	18,866.01**	2459.77	69,044.66**	5806.83
Challenger × Competitive	17,438.10**	3487.38	23,180.39**	8081.00
Open × Competitive	−12,708.81**	3992.51	−59,865.54**	9342.76
1980	Base			
1982	9083.17**	3378.83	2984.17	7018.23
1984	10,219.03**	3360.52	7511.60	7025.06
1986	19,661.09**	3311.76	16,131.84*	7011.85
1988	25,651.86**	3318.48	26,466.01**	7060.50
1990	32,053.61**	3251.14	32,926.63**	6967.35
1992	40,690.01**	3083.18	43,506.45**	6577.17
1994	51,301.24**	3131.33	58,872.33**	6729.65
1996	61,715.65**	3103.90	82,432.50**	6652.78
1998	74,717.54**	3185.41	103,181.80**	6879.69
2000	83,069.17**	3147.86	127,512.20**	6783.17
2002	116,520.90**	3145.61	99,575.15**	6799.99
Constant	−9400.65	5337.27	96,285.00**	11,627.24
N	8998		8998	

*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.

Table A6
Tobit Estimates of the Predictors of Aggregate Receipts from Repeat and Infrequent Individual Donors to Incumbent Members of the House, 1980–2002, Exact Matches Only

Variable	1: Repeat donors		2: Infrequent donors:	
	B	S.E.	B	S.E.
Power	13,842.94**	3523.54	10,281.26	6829.72
Republican	Base			
Democrat	−17,868.34**	4029.99	−33,406.80**	8272.93
Competitive election	33,743.79**	4475.94	75,982.02**	7944.74
Male	Base			
Female	35,471.45	10,821.53	30,716.81*	14,005.05
White	Base			
Hispanic	11,985.13	16,046.87	32,443.08	32,765.95
African American	−18,213.77**	4898.08	−36,253.88**	9531.02
Asian	−3611.05	20,944.48	13,199.24	44,532.09
Seniority	6304.50**	772.64	6092.21**	1728.68
Constant	10,893.97	5911.05	153,109.30**	14,777.86
N	3874		3874	

Note: Standard errors are robust to clustering by candidate.
*p < 0.05, two-tailed test; **p < 0.01, two-tailed test.

References

Ansolabehere, Stephen, de Figueiredo, John M., Snyder, James M., 2003. Why is there so little money in U.S. politics?". J. Econ. Perspect. 17 (1), 105–130.

Ansolabehere, Stephen, Snyder Jr., James M., 1998. Money and institutional power. Tex. Law Rev. 77, 1673.

Ansolabehere, Stephen, Snyder, James M., Tripathi, Micky, 2000. Are PAC contributions and lobbying linked? new evidence from the 1995 lobby disclosure act. Bus. Polit. 4, 131–155.

Barber, Michael, McCarty, Nolan, 2013. Causes and Consequences of Polarization. Retrieved January 22, 2015. http://michaeljaybarber.com/s/causesconsequences7.docx.

Bartels, Larry M., 2010. Unequal Democracy: the Political Economy of the New Gilded Age. Princeton University Press.

Beckmann, Kerri R., Lynch, John W., Hiller, Janet E., et al., 2015. A novel case-control design to estimate the extent of over-diagnosis of breast Cancer due to organised population-based mammography screening. Int. J. Cancer 136, 1411–1421.

Brown, Clifford W., Powell, Lynda W., Wilcox, Clyde, 1995. Serious Money: Fundraising and Contributing in Presidential Nomination Campaigns. Cambridge University Press.

Burris, Val, 1987. The political partisanship of American business: a study of corporate political action committees. Am. Sociol. Rev. 52, 732–744.

Burris, V., 2001. The two faces of capital: corporations and individual capitalists as political actors. Am. Sociol. Rev. 66, 361–381.

Burris, Val, 2010. Corporations, Capitalists, and Campaign Finance. In: Handbook of Politics: State and Society in Global Perspective. Springer, New York.

Campaign Finance Institute, 2013. House Campaign Expenditures: Incumbents and Challengers, Major Party General Election Candidates by Election Outcome, 1974-2012. Retrieved June 12, 2013. http://www.cfinst.org/pdf/vital/VitalStats_t3.pdf.

Campaign Finance Institute, 2015. House Receipts from Individuals, PACs, and Other, All General Election Candidates, 1999-2012. Retrieved January 22, 2015. http://www.cfinst.org/pdf/historical/Donors_HouseCand_2000-2012.pdf.

Census Bureau, 2013. Selected Measures of Household Income Dispersion, 1967 to 2013. Retrieved January 22, 2015. https://www.census.gov/hhes/www/income/data/historical/inequality/table_IE-1A2.pdf.

Cho, Wendy K. Tam, 2002. Tapping motives and dynamics behind campaign contributions: insights from the Asian American case. Am. Polit. Res. 30, 347–383.

Clark, Peter B., Wilson, James Q., 1961. Incentive systems: a theory of organizations. Adm. Sci. Q. 6, 129–166.

Clawson, D., Neustadtl, A., Bearden, J., 1986. The logic of business unity: corporate contributions to the 1980 congressional elections. Am. Sociol. Rev. 51, 797–811.

Clawson, Dan, Neustadtl, Alan, Weller, Mark, 1998. Dollars and Votes: How Business Campaign Contributions Subvert Democracy. Temple University Press.

Cox, Shelley, Smith, Karen, Currell, Alex, Harriss, Linton, Barger, Bill, Cameron, Peter, 2011. Differentiation of confirmed major trauma patients and potential major trauma patients using pre-hospital trauma triage criteria. Injury 42, 889–895.

Domhoff, G. William, 1967. Who Rules America? Prentice-Hall, Englewood Cliffs, NJ.

Endersby, James W., Munger, Michael C., 1992. The impact of legislator attributes on union PAC campaign contributions. J. Labor Res. 13 (1), 79–97.

Francia, Peter L., Green, John C., Herrnson, Paul S., Powell, Lynda W., Wilcox, Clyde, 2003. The Financiers of Congressional Elections: Investors, Ideologues, and Intimates. Columbia University Press.

Gilens, Martin, 2012. Affluence and Influence: Economic Inequality and Political Power in America. Princeton University Press.

Gimpel, J.G., Lee, F.E., Pearson-Merkowitz, S., 2008. The check is in the mail: interdistrict funding flows in congressional elections. Am. J. Polit. Sci. 52 (2), 373–394.

Gold, Michael, Sarah, Dugdale, Woodman, Richard J., McCaul, Kieran A., 2010. Use of the Australian childhood immunisation register for vaccine safety data linkage. Vaccine 28, 4308–4311.

Gopoian, J. David, Smith, Hobart, Smith, William, 1984. What makes PACs tick? an analysis of the allocation patterns of economic interest groups. Am. J. Polit. Sci. 28 (2), 259–281.

Grier, Kevin B., Munger, Michael C., 1991. Committee assignments, constituent preferences, and campaign contributions. Econ. Inq. 29 (1), 24–43.

Grier, Kevin B., Munger, Michael C., 1993. Comparing interest group PAC contributions to House and Senate incumbents, 1980–1986. J. Polit. 55 (03), 615–643.

Großer, Jens, Reuben, Ernesto, Tymula, Agnieszka, 2013. Political quid pro quo agreements: an experimental study. Am. J. Polit. Sci. 57, 582–597.

Hacker, Jacob S., Pierson, Paul, 2011. Winner-Take-All-Politics: How Washington Made the Rich Richer and Turned its Back on the Middle Class. Simon & Schuster, New York.

Hall, Richard L., Wayman, Frank W., 1990. Buying time: moneyed interests and the mobilization of bias in congressional committees. Am. Polit. Sci. Rev. 84 (3), 797–820.

Heerwig, Jennifer A., 2016. Money in the Middle: Contribution Strategies among Affluent Donors to Federal Elections, 1980–2008. Unpublished manuscript. Department of Sociology, SUNY-Stony Brook, Stony Brook, New York.

Heerwig, Jennifer A., Shaw, Katherine, 2014. Through a glass, darkly: the rhetoric and reality of Campaign Finance Disclosure. Georgetown Law J 102, 1443–1500.

Herrnson, Paul S., 1992. Campaign professionalism and fundraising in congressional elections. J. Polit. 54, 859–870.

Herrnson, Paul S., 2011. Congressional Elections: Campaigning at Home and in Washington, sixth ed. CQ Press College.

Jaques, Alice M., Amor, David J., Gordon Baker, H.W., et al., 2010. Adverse obsteric and perinatal outcomes in subfertile women conceiving without assisted reproductive technologies. Fertil. Steril. 94, 2674–2679.

Johnson, Bertram, 2010. Individual contributions: a fundraising advantage for the ideologically extreme? Am. Polit. Res. 38, 890–908.

Johnson, Bertram N., 2013. Political Giving: Making Sense of Individual Campaign Contributions. First Forum Press, London.

Koger, Gregory, Masket, Seth, Noel, Hans, 2009. Partisan webs: information exchange and party networks. Br. J. Polit. Sci. 39, 633–653.

Krasno, Jonathan S., Philip Green, Donald, Cowden, Jonathan A., 1994. The dynamics of campaign fundraising in House elections. J. Polit. 56 (2), 459–474.

LaRaja, Raymond J., Wiltse, David L., 2012. Don't blame donors for ideological polarization of political parties: ideological change and stability among political contributors, 1972-2008. Am. Polit. Res. 40, 501–530.

Magleby, David B., Goodliffe, Jay, Olsen, Joseph, 2014. What motivates donors to contribute?. In: Paper Presented at the Center for the Study of Elections and Democracy Conference. Brigham Young University, Provo, UT. Available: https://csed.byu.edu/Documents/Magleby%20Goodliffe%20Olsen%20motivations%20CSED.pdf.

McCarty, Nolan M., Poole, Keith T., Rosenthal, Howard, 2006. Polarized America: the Dance of Ideology and Unequal Riches. MIT Press, Cambridge.

Mills, C. Wright, 1956. The Power Elite. Oxford University Press, New York.

Nelson, Garrison, 1992. Historical Congressional Standing Committees. Retrieved July 12, 2014. http://web.mit.edu/17.251/www/data_page.html.

Porter, Austin, Wyrick, Deidre, Bowman, Stephen, et al., 2014. The effectiveness of a statewide trauma call center in reducing time to definitive care for severely injured patients. J. Trauma Acute Care Surg. 76, 907–912.

Romer, Thomas, Snyder, James M., 1994. An empirical investigation of the dynamics of PAC contributions. Am. J. Polit. Sci. 38 (3), 745–769.

Saunders, Kyle L., Abramowitz, Alan I., 2004. Ideological realignment and active partisans in the American electorate. Am. Polit. Res. 32 (3), 285–309.

Schlozman, Lehman, Kay, Verba, Sidney, Brady, Henry E., 2012. The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy. Princeton University Press, Princeton.

Snyder Jr., James M., 1992. Long-term investing in politicians; or, give early, give often. J. Law Econ. 35, 15.
Stewart, Charles, Woon, Jonathan, 2011. Congressional committees, modern standing committees. In: 103rd-112th Congresses. Retrieved July 10, 2013 from. http://web.mit.edu/17.251/www/data_page.html#0.
Stratmann, Thomas, 2005. Some talk: money in politics. A (partial) review of the literature. In: Shughart II, William F., Tollison, Robert D. (Eds.), Policy Challenges and Political Responses. Springer, US, pp. 135–156. Retrieved January 7, 2014. http://link.springer.com/chapter/10.1007/0-387-28038-3_8.
Committee system. In: Tarr, D.R. (Ed.), 2007. Congress A to Z. Retrieved from. http://library.cqpress.com/eag/coaz4dr-897-29858-1411877.