

# Donor Motivations in the California State Legislature: A Social Network Analysis of Campaign Contributions

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## Abstract

This paper investigates campaign donor motivations by examining the ways in which donations to political campaigns tie candidates for the legislature together. Using social network analysis, we examine campaign donations to the California state legislature in 2004. We demonstrate that donor motivations vary by donor type where individual donors and candidate committees are more ideologically motivated while business donors tend to be investment-driven when contributing. We also examine the extent to which different donor types reflect local interests along with how agendas regarding candidate demographic characteristics influence patterns of donation (i.e. who donors prefer to connect). We find that donors generally tend to promote polarization by connecting candidates of the same political party, but that experienced candidates are very well connected and tend to bridge the party divide.

*Keywords: Campaign contributions, social networks, candidates, donors, motivations*

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## 1. Introduction

Recently, work has begun to examine social embeddedness in legislative and electoral settings (Peoples 2010; Peoples and Gortari 2008). Some of this work has demonstrated the influence of extra-legislative actors in relation to candidates and political parties. The term ‘extra-legislative actors’ refers to actors who are neither voters, nor legislators, but nevertheless play an important role in electoral and even legislative politics (Koger, Masket, & Noel, 2009; Masket, 2007; Masket, 2009). In this paper we argue that the motives of key extra-legislative actors, specifically donors, can be indirectly observed via the network patterns of campaign contributions from donors to multiple candidates. Using social network analysis (SNA) we examine the extensive networks that tie candidates together via donations in the California state legislature in 2004. This approach treats donor behavior as linked across candidates rather than separated by candidate. Donors who support multiple candidates are a minority of donors, but supply most of the money in political campaigns. In supporting multiple candidates, such donors are often systematically pursuing an ideological, pragmatic, or expressive agenda.

We examine donation patterns by donor type (individuals, businesses, PACs, etc.) to explore donor motivations and how they influence polarization at the state level. We also explore the extent to which donor interests are local in scope along with how candidate demographics influence donation patterns.

### 1.1 *Extra-legislative Actors*

It has become clear in the literature that extra-legislative actors are an important influence in politics. “Given how crucial events outside the chamber are to behavior within it, it is remarkable that more attention is not devoted to such extra-legislative forces” (Masket, 2007, 483). These external actors “wield power over party nominations and the resources needed to win them” (Masket, 2007, p. 484) and hence can shape legislative behavior (Coffey, 2007; Cohen et al., 2008; Koger et al 2009; Gordon, 2001; Peoples, 2008; Snyder, 1990; Stratmann, 2002). In identifying how actors outside the legislature may seek to influence legislators, this literature implicitly provides an argument that legislators may be connected to each other via these extra-legislative actors. Legislators are likely embedded within a network in which they have

extra-legislative actors in common. Knowing that voting patterns among legislators are tied to relations between them (Peoples, 2008), this fact is important due to the implications for policy decision making (Peoples & Gortari, 2008).

Levendusky notes that the argument identifying the importance of extra-legislative actors is both novel and appealing (Levendusky, 2009, p. 833). Part of the argument of Masket and others, for example, is that these extra-legislative actors help support and even promote polarization, but there is a need for greater specificity. Different actors may have diverse motivations that push legislators in different ways: some may push towards greater polarization while others may push away from it. Nor is it always clear how extra-legislative actors may be identified a priori. In other words, despite the appeal of the argument, it can sometimes be hard to see specific, concrete, and measurable examples of behavior exhibited by identifiable extra-legislative actors.

One way in which we can develop greater specificity to this argument is by reference to a concrete and measurable resource controlled by extra-legislative actors – that of money. Money is a valuable resource for any campaign (e.g. Brown, Powell, & Wilcox, 1995; Herrnson, 2008; Jacobson, 1980).<sup>1</sup> Campaign donations offer a good example of the broader argument of extra-legislative actors because they provide a concrete metric by which we can measure the behavior of those actors and examine relations between them. For our purposes, donations provide the metric by which we can identify ties within networks (for representative examples of work in this area that also include comprehensive reviews of the literature see Brown et al., 1995; Francia et al., 2003; Gimpel, Lee, & Kiminski, 2006, 2008; Herrnson, 2008; Jacobson, 1980; Malbin, 2003; Panagopolous & Bergan, 2006; Peoples & Gortari, 2008; see also websites such as the National Institute on Money in State Politics and the Campaign Finance Institute: [www.cfinst.org](http://www.cfinst.org)).

Discussions of donations typically take an individual level approach to analyzing the decisions of donors without taking the behavior of other actors into consideration (Otte & Rousseau, 2002, p. 441). That is, a donation between a given donor and candidate X is often (albeit implicitly) seen to be independent from the relationship between the donor and candidate Y.<sup>2</sup> The argument concerning extra-legislative actors suggests that they act in concert and/or push different candidates in similar ways (Burriss, 2001; Clawson, Neustadt, &

<sup>1</sup> Assembly Speaker Jess Unruh’s comment that “money is the mother’s milk of politics” is one of the more familiar quotations in California politics.

<sup>2</sup> Similarly, donations to candidate X may be assumed, again often implicitly, to come from a different set of donors to those attracted by candidate Y.

<sup>3</sup> E.g. “candidates must wage a campaign to raise money that is just as complicated as the campaigns they wage to win votes” (Francia et al., 2003, p. 69; see also Brown et al., 1995, p. 19-20).

Bearden, 1986). Therefore it makes sense to examine 2-mode candidate-donor networks where candidates are indirectly tied via shared donors.

The connections producing these candidate-donor networks are in part due to the practicalities of raising money for campaigns. The techniques candidates use to overcome difficulties in raising money<sup>3</sup> challenge the assumption that a given donation is likely to be independent from other donations. Campaigns use mailing lists and Rolodexes and not simply a telephone directory. Those who have given money in the past or have donated to another candidate in the current election would be more promising leads than a random name on a voter list. Donor names may show up in several different sources and their identity becomes known to (and hence become targets for) several candidates. Attendees of fundraising events are likely to run into donors they have seen at other similar events. Contributors, too, may consciously coordinate their actions across different legislators: As one PAC office admits “We talk to each other all the time. Are you giving to Henry or to Steve? Or you ought to be giving to Henry or Steve” (quoted in Peoples, 2010, p. 654).

Closer examination of these complex candidate-donor networks is needed. Some scholars have taken note of this kind of embeddedness but these have been largely informal characterizations. In their study of campaign finance, for instance, Brown et al. (1995) refer several times to networks (e.g. “personal acquaintance networks,” p. 57) but that observation is not pursued more extensively.<sup>4</sup>

One way of describing the embeddedness of candidates in their relationships with campaign donors is to use the tools of social network analysis (SNA). SNA has attracted a great deal of attention of late in part because it can reveal the ways in which social actions – including those of legislators - may be embedded in broader contexts (e.g. Bowler & Hanneman, 2006; Fowler, 2006; Koger et al. 2009; Peoples, 2010; Peoples & Gortari, 2008; Siegel, 2009). SNA is particularly relevant in these situations where multiple actors may have relationships between them.<sup>5</sup> A SNA approach is useful for understanding the relationships between extra-legislative actors and candidates by providing a way for

us to describe and characterize relationships using both statistical and graphical techniques.

Also, the network patterns identified speak to the relationship between extra-legislative actors and candidates allowing us to see, for example, how the networks of contributions may vary by candidate attributes and donor types. There is obviously variation in how much a donor may give, but the value of social network analysis is that it allows us to examine how different donor types give their money in different ways, therefore connecting candidates with certain attributes and not others. Most donors give small amounts of money to a single candidate, which is an individual expressive act. But many donors support multiple candidates, and are expressing a broader agenda and a deeper level of involvement. These multi-donors give more money, and are more influential. Who multi-donors support and who they do not, tells us something about their agendas and reasons for participation. By analyzing the dyads of candidates who are supported by specific types of donors, we can indirectly observe donor motivations.

### *1.2 Donor Types*

We have identified six different types of donors who comprise extra-legislative actors in our study: individuals, candidate committees, social organizations, PACs, and two types of businesses (small and large). Individuals are individual citizens donating to a candidate. Candidate committees are voluntary organizations, usually managed by a candidate’s agents or partisans (e.g. “Friends of X for Assembly”). Social organizations such as labor unions, Native American tribes, and occupational and industry associations generally aggregate the resources and interests of rather narrow classes of persons. Political Action Committees (PACs) have some similarities to social organizations in that they may represent fairly narrow classes (e.g. San Diego Dentist’s Association PAC) but membership in these associations have a stronger voluntary component than for organizations such as unions.<sup>6</sup> Small businesses are generally controlled by individuals, partners, or a socially embedded group of owners organized as a small company.<sup>7</sup> Big businesses, however, are generally corporate in form, and often

4 More recent work (Gimpel et al., 2006; Gimpel et al., 2008; Cho & Gimpel, 2007) has begun to examine the political geography of campaign contributions and shows, among other patterns, that candidates from both parties raise money from similar geographic areas (e.g. Gimpel et al., 2006, p. 628). But this work has not examined the network attributes of links between candidates, nor the way in which these networks tie legislative and extra-legislative actors together.

5 In SNA it is the relationships between actors that become the main object of study: “Relational data are the focus of the investigations” (Otte & Rousseau, 2002, p. 442; see also Knoke & Kuklinski, 1982; Hanneman & Riddle, 2005).

6 It should be noted that the distinction between many social organization donors and political action committee donors is far from clean and clear. PACs vary widely in the scope of interests represented, and may not really be very voluntary for members of represented classes. Occupational and professional associations, particularly, may appear in donor lists as either social organizations, or as PACs that are run by, and closely held by, social organizations. If a donor reported itself as a PAC, it was coded as such.

have publicly traded ownership rights.<sup>8</sup> Our overarching expectation is that networks are likely to vary by donor type.

### 1.3 Donor Motivations

We know from existing literature that motivations for donation will vary. Following the literature on campaign donations we may distinguish between ideology-driven motivation and investment-driven<sup>9</sup> motivation (Clawson et al., 1986). The distinction is between those donors that contribute as a means to achieve some broader goal based on values that they prescribe to and those that contribute with the goal of directly benefitting individually. We view these motivations as poles on a semantic differential scale. In reality, donor motivations are likely to be a mixture of these ideal types that manifest in different ways among different donor types.

Donors motivated by ideology are likely to support candidates whose parties share their values. Therefore we would expect that ideology-driven donors would be highly connected to candidates of a single party in the candidate-donor network. Rather than pursuing an ideological or partisan agenda, investment-driven donors would likely make contributions across party lines, as they are likely to engage in hedging behavior. Therefore, we would expect investment driven-donors to tie together candidates of different parties, and possibly even direct opponents.

Donor motivations also determine whether donors connect incumbents or challengers. In their research of campaign contributions from the business sector, Clawson et al. (1986) find that certain businesses are driven by individual interest (vs. the interest of the industry as a whole) and attempt to buy access via campaign contributions to “powerful incumbents” (p. 798). They demonstrate that other businesses are ideologically driven and support business friendly challengers. Based on this prior research, we would expect ideology-driven donors to be biased in favor of connecting challengers whereas investor-driven donors should connect experienced incumbents.

Certain ideology-driven donors are likely to be motivated to contribute in accordance with the demographic traits of candidates. Women and non-white candidates are certainly minorities in U.S. politics (Conti, 2002). In fact, it is in part an assumption that non-male and non-white candidates face fundraising difficulties that underlies explicit attempts by groups such as Emily’s List<sup>10</sup> or the Wish List<sup>11</sup> to try and help raise money for these disadvantaged candidates. Therefore, we might expect certain donor types to center some of their support for multiple candidates on demographic characteristics like ethnicity or gender. Bratton and Haynie (1999) demonstrate that women and racial minorities “pursue distinctive legislative policies” (p. 672). Therefore donors that share similar political values and concerns might be more likely to be tied to multiple women or minority candidates. For example, research demonstrates that female politicians are more likely to promote legislation dealing with issues of gender equity as it relates to health care, poverty, and education, than their male counterparts (Bratton & Haynie, 1999; Lawless, 2004). Donors interested in advancing these types of policies would be expected to support multiple female candidates. Network analysis of contribution patterns can show whether or not fund-raising for women and minority candidates is distinctive from male and white candidates not simply with respect to amounts raised but the ways in which money may be raised.

There are other motivations for contributing that don’t necessarily fit neatly onto either pole of ideology or investment. The scope of campaign contributions likely varies by donor type which reflects different donor agendas. Certain donors are more concerned with local conditions than others and are therefore likely to contribute to and thereby connect multiple candidates in the same geographic region for both ideological and instrumental reasons. We would expect donors with localized interests to connect candidates with overlapping constituencies, and have bias against connecting multiple assembly persons and senators from different districts.

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7 Reliably identifying small businesses is quite difficult. Many individual proprietors or partners may list themselves as individuals. Determining the scope of a business and its ownership form is not always obvious. Generally, donors who explicitly list a business name, LLP, law offices of, or a business type that is almost always local in scope are coded as small businesses. It is possible that some of the entities identified are actually very large companies with wider geographical scope.

8 Identifying big businesses is less difficult than some of the other donor types, but still not perfectly reliable. Most in this category have widely recognized names (e.g. Pacific Gas and Electric Corp.). If anything, our coding may under-represent the big business category by placing some large scale and open ownership enterprises in the small business category. It is not likely that smaller closed-ownership forms have been mistakenly coded as big business.

9 We use the term ‘investment-driven’ rather than Clawson et al.’s ‘pragmatic’ because we believe it more accurately describes groups with instrumental motivations for contributing.

10 <http://www.emilyslist.org/>

11 <http://www.thewishlist.org/>

### 1.4 Hypotheses

Based on our above assumptions about donor motivations we can make the following hypotheses about the characteristics of candidates tied to the six donor types we've identified.

Individual citizens who donate are likely to make small donations that are driven by expressive motivations (Ansolahehere, de Figueiredo, & Snyder, 2003; Francia et al., 2003). Donations by individuals are likely to be strongly colored by ideological factors and therefore we hypothesize that individual donors in the candidate-donor network will make contributions that connect candidates from the same party. Similarly, we expect bias against individual donors connecting direct opponents. Because we categorize individual donors as relatively ideology-driven, we expect that a portion of individual donors will be biased towards connecting multiple minority and female candidates, whose shared interests they hope to promote. Individual donors should mostly tie together candidates that share similar geographic districts due to the localized interests of individuals. Therefore we might expect strong constituent overlap between candidates tied to individual donors. We also would only expect individual donors to be supportive of their own district's assembly person and senator. Therefore, we would not expect to find strong ties between multiple senators or assembly persons and individual donors.

Other than scale of donation, the pattern of donation of candidate committees should resemble those of individual donors with a strong ideological component. Therefore, we hypothesize that candidate committees will be strongly tied to multiple candidates of the same party, and disproportionately not connected to direct opponents. Candidate committees often contribute to multiple candidates in the same election cycle. Because they likely contribute to candidates with similar agendas, we might expect some candidate committees to center some of their support for candidates on demographic characteristics like ethnicity or gender. Though relatively local, candidate committees should be more likely to go beyond a specific region to build networks of candidates than will individuals but should have a small local bias (Gimpel et al. 2006, 2008).

Social organizations generally seek to provide representation of the membership class on a wide range of interests and seek institutional access. They probably display both ideology-driven and investment-driven campaign spending. We would anticipate that their behavior would favor established politicians, and yet that they would have a rather strong partisan bias in their investments. Similar to candidate committees, we expect

social organizations to center some of their support for candidates on demographic characteristics like ethnicity or gender. We do not expect social organizations to be locally motivated in their campaign contributions.

Due to their similarity to social organizations, we might expect similar patterns of behavior regarding donation motivation for PACs. They will likely invest in established politicians, yet will have a strong partisan bias in their investments. Recent research has demonstrated that only a small percentage of PACs are "nonideological" in their campaign contributions (Bonica, 2013). It has been established that certain PACs such as Emily's List and the Wish List support multiple female candidates while others like Businesses Supporting Minority Candidates contribute to multiple minority candidates. Therefore, we expect PACs to be strongly connected to multiple female and minority candidates in the candidate-donor network. We do not expect PACs to be locally motivated in their campaign contributions.

Finally, based on findings from Clawson et al. (1986), we would expect that businesses would display both ideological and investment tendencies, with smaller businesses more likely to contribute ideologically by connecting candidates of similar parties while more interest-driven large businesses connect candidates of different parties. We would expect both large and small businesses to invest in incumbents and hedge by connecting political opponents. We do not expect either large or small businesses to be motivated by candidate demographics in their campaign contributions. We also hypothesize that small businesses will reflect local interests in their campaign donating, focusing on legislators that will directly influence business in their district.

## 2. Data and Methods

In order to test our hypotheses, we collapsed the two-mode candidate-donor network into a one-mode candidate-candidate network where the candidate nodes were said to be tied to one another via shared campaign donors. We built separate candidate-candidate networks for each type of donor. Below, we examine the candidate-to-candidate networks by donor type. We collected candidate attribute data in order to see how candidate attributes influence donation patterns by donor type in an effort to understand donor motivations. California provides the main empirical example for work on the importance of extra-legislative actors (Masket 2007, 2009; Koger et al 2009) and so we are addressing a key case in that literature. Also, we generally know less about state legislatures than the US Congress and so it seems reasonable and defensible to seek to extend our understanding into less explored

political arenas.

The choice of primary elections as a focus for analysis is relevant because pronounced district safety in many, if not most, US state elections means that the general election is often a foregone conclusion. This is especially true in California where the majority of general elections are considered “safe” (McCarthy, 2013). General elections tend to offer donors a take it or leave it choice of supporting an incumbent. Primary elections allow donors much more scope to “vote with their pocketbook”. Focusing upon primary elections provides insight into donation patterns at a critical stage of the electoral process and is identified as a key stage in the literature on extra-legislative actors.

California’s public records allowed us to gather appropriate data. We were able to construct a data matrix that links over 45,000 donors who made over 63,000 donations to 139 candidates who reported donations in the primary elections of 2004. Data on donors and donations were available from the web site of the Secretary of State of California after the end of the mandated reporting period for the 2004 primary election cycle. The raw data are posted exactly as reported by individual donors, and required substantial editing. As a first step, the lists of individual donations to individual candidates were combined into a master file. Next, extensive editing of the names of donors was conducted to assign a single standard name to all of the donations made by each contributor. Careful checking and cross-checking by multiple coders helped to ensure that the donations by multi-campaign donors were correctly identified.

Most of these donors are formal organizations, corporations, or small businesses, and most variations in the reported names of these entities could be reliably located. Our coding of donations by individual persons is believed to be rather less reliable. Individuals are more likely than formal organizations to use different names for reporting different donations (e.g. J. Smith versus J. M. Smith). When we could not be confident that a name variation was the same person, we assumed that it was separate persons. It is also more likely that there are multiple different individual donors with the same reported names. In many of these cases, other information (occupation, employer, address) could be used to resolve ambiguities. For individual donors, however, the coding is less than perfect. Fortunately, there is a strong tendency for individual donors to contribute to only one, or small numbers, of campaigns, and hence not affect our results on the patterns of donor network overlap very much. Failure to identify multiple donations by the same donor correctly may contribute to a downward bias in the intercept in the models in Table 3, mostly for individual

donors. Errors of this type are probably not correlated with the attributes of candidates (e.g. the candidate’s gender, ethnicity, location, district size, etc.). So, it is unlikely that there is related bias in model coefficients. After names of donors were standardized, all donations by the same donor to the same candidate were combined.

A matrix of donors who contributed to more than one candidate (4,746) by candidates (139) was constructed, with the dollar amounts of total contributions as cell entries, forming a two-mode or “affiliation” matrix (hanneman & Riddle, 2005). This matrix was then made binary (i.e. a donor did, or did not contribute to a given campaign). We decided to treat donations to candidates as present or absent, rather than retaining the amount of donations, since the focus of our analysis is on the numbers of donors in common between candidate pairs. The two-mode matrix was then used to induce a one-mode matrix of candidates by candidates (i.e. 139 by 139) showing the number of donors in common between each pair of candidates. This matrix serves as the dependent variable in the regression analyses reported in Table 3. Independent variables were similarly prepared as matrices describing the joint attributes of each pair of candidates. For example, the data for the independent variable *Republican* consists of a 139 by 139 matrix with each element coded “1” if both candidates are Republicans and “0” otherwise. Binary matrices of this type are prepared for all of the independent variables except the variable *Common Constituency*, which is an integer valued array and will be described in detail below.

To examine the effects of various factors on the amount of donor overlap in the networks of pairs of candidates, we regressed the matrix of numbers of donors in common for pairs of candidates on the matrices containing the variables describing attributes of the pair (e.g. were both candidates Republicans? How many constituents did the two candidates have in common?). The data are configured in a “round robin” design of dyads of candidates with multiple (but balanced) observations of each candidate (Kenny, et al. 2006). That is, the 19,182 pairs observed are composed from 139 individual candidates.

There are a variety of possible approaches to obtaining coefficient estimates for predictive models with dyadic data. We utilized the quadratic assignment procedure (QAP) algorithm in UCINET 6 (Borgatti, Everett, & Freeman, 1992). Significance tests for effects are calculated using the Y-permutation method. That is, many (in our case 2,000) runs of each model are made, randomly assigning scores on the dependent variable (numbers of donations to each candidate pair) to the vector of scores of each case on the independent variables.

The standard deviations of the distributions of parameter estimates from these random trials are used as estimates of the standard errors of coefficients. The hypothesis tests should be interpreted as tests of the null hypothesis that parameters are the result of random processes, given the observed distribution of data. Y-permutation significance tests do not test generalizability of the results to some larger population.

In the primary elections of 2004 in California we were able to identify 139 candidates who received one or more campaign contributions reported to the Secretary of State (several other candidates were on ballots, but did not report any contributions, and are not included in our analyses). Of these candidates, 117 were contenders in races for 64 seats in the Assembly (lower house), and 22 were running for 16 seats in the California state Senate. A substantial number of campaigns were not competitive. Of the 64 races for Assembly seats, 31 had only a single candidate (28 Democrats, three Republicans). Thirteen more of these contests had multiple candidates, but from a single party (seven Democratic, six Republican). Fourteen of the Assembly district primaries had a single candidate from each party; six had multiple candidates from one party but a single candidate from the other. No district had competition between multiple candidates of both parties. The level of competition was even lower in the Senate. Of the 16 races, 10 had single candidates (one Democrat, nine Republicans). Three districts offered competition within a single party (two Republican, one Democrat), and two districts had a single candidate from each party. In the Senate, as in the Assembly, there were no contests that featured multiple candidates from both parties.

We generated 14 variables to examine donor motivations. The variables *Democrat* and *Republican* indicate whether or not both candidates in a given pair are from the same major party. Ninety of the 139 candidates were Democrats, and 49 were Republicans. These variables are used to measure whether or not certain donor types tend toward ideology-driven contributions by connecting only candidates of a single party, or investment-driven contributions connecting candidates across parties. We include the variable *Opponent* to indicate whether each pair of candidates were running for the same office (whether their opponents were of the same party or not). Ideology-driven donors should be biased against contributing to opponents, while investment-driven donors should be biased toward this behavior.

The variable *Experienced* indicates whether or not a given pair of candidates consists of incumbents or candidates that have both previously held a state-level position. In contrast, the variable *Inexperienced*

indicates whether both candidates are not incumbents or did not previously hold a state-level position. Of the 139 candidates, 56 were incumbents or prior state-level office holders (California has term limits in each house, and it is not uncommon for office holders to move from one chamber of the legislature to the other). Eighty-three of the candidates had not previously held state office. We assume that investment-driven donors are more likely to connect experienced candidates while ideologues should connect inexperienced candidates or challengers.

We argued that certain donor types are ideologically motivated to connect candidates of specific demographic characteristics such as gender and ethnicity. Among the 139 candidates analyzed here, 50 are female and 89 male. Four of the candidates are Black, eight Asian, 35 Hispanic, and 92 White. The following demographic variables, *Female*, *Male*, *Black*, *Asian*, *Hispanic*, and *White*, indicate whether or not gender or ethnicity is the same for both candidates in a given pair.

We employed three variables to measure local interest by donors: *Common Constituency*, *Senate*, and *Assembly*. The variable *Common Constituency* is the number of constituents that two candidates had in common which was available from California Senate re-districting web sources (California State Senate, 2007). It counts the number of registered voters in the overlapping districts of any two candidates. For two candidates competing for the same office, this number is the total registered voters in the district. In California, Assembly and Senate districts display highly variable degrees of overlapping constituencies. The variables *Senate* and *Assembly* indicate whether or not both candidates in a given pair are running for the same type of office. Of the total of 139 candidates, 117 are running for the Assembly and 22 for the Senate. These variables indicate local motivation in campaign donation patterns. Those donors that are more likely to generate strong ties between candidates sharing common constituencies and less likely to support multiple senators or assembly persons are considered more local in their scope of donating.

### 3. Results

#### 3.1 Candidate-Donor Networks

First, we should examine the extent to which the relationships between candidates and donors are a network rather than a set of individual relationships. The second column of Table 1 displays the number of donations given by donors broken down by the number of campaigns the donor gives to. For instance, there are 41,043 donations given by donors that contributed to one

and only one campaign. There are 5,908 donations given by donors that contribute to two and only two campaigns, and so on. As seen in Table 1 the majority of donations are “one-offs,” or donations that came from donors who have given to a single campaign only. This supports the view that donations are independent acts. But a large share of donations – and the majority of money donated – goes to multiple campaigns. Also, it is clear that there exists a significant number of “super donors” who give large amounts of money to multiple campaigns.

These figures show that for a significant proportion of all campaign donations and a majority of campaign finance, campaign donations are not independent acts between a single donor and a single candidate. The image of individual donors supporting a single candidate, or perhaps one candidate for each house of the legislature does characterize the majority of donors in primary elections. There are, however, a surprisingly large number of donations (12,553) that came from donors who supported more than five candidates in the election cycle. These campaign donors (about 10% of the total of all donors) strongly contribute to the web of overlapping constituencies; and they contribute almost half of all of the money.

Because of laws limiting the sizes of donor’s donations to each candidate, the median sizes of contributions of donors to individual candidates do not display a great deal of variance (see final column of Table 1). Donors who contribute to multiple campaigns (and hence form overlaps between donor networks) do make markedly higher contributions to each campaign than “one-off” donors. Because “super-donors” contribute in very large numbers of campaigns, there is considerable variation in the total expenditures of individual donors in the election cycle as a whole.

Table 2 provides descriptive information by

type of donor for those donors who contributed to more than a single campaign (4,746 of 45,802 donors). The largest numbers of donors who link the campaign contribution networks of candidates are individual persons and small businesses. They are most likely to make small contributions and participate in only two campaigns. Because of their large numbers, they do provide a significant amount of the money linkage among campaign networks. Institutional and PAC donors link more campaigns, make larger contributions, and contribute the largest share of all of the money linkages among candidates. Big business donors contribute to the largest number of campaigns, and individually spend more money than other types. Since there are relatively few such donors, however, their contribution to the overall financial linkages among candidates is modest. Contributions among politicians occurred in relatively small networks, and were relatively few in number. The amounts of money flowing in these channels, however, were significant. Though there are many single campaign donations, we can conclude from these tables that conceiving of donations as independent from one other is a simplification that diminishes descriptive accuracy.

### 3.2 Donor Motivations

Beyond establishing that SNA provides a new description of donation activity our major expectations concerned the patterns of linkages that speak to donor motivations. The patterns in the candidate-candidate networks allow us to identify the ways in which different types of extra-legislative actors donate money and so allows us to speak to broader arguments about the role of extra-legislative actors. Table 3 reports regression models for the number of donors that each pair of candidates (i.e. 9,591 unique pairs formed between 139 candidates) have in common.

Table 1: Donations to Assembly and Senate candidates by the number of campaigns to which contributions were made.

Number of Campaigns	Donations	Donations (%)	Total amount donated (\$1,000)	Median donation per candidate
1	41,043	64.8	35,118	\$250
2	5,908	9.3	6,091	\$400
3	1,974	3.1	3,484	\$500
4	1,052	1.7	1,564	\$1,000
5	765	1.2	1,297	\$1,000
6-10	2,473	3.9	7,310	\$1,000
11-20	3,017	4.8	10,990	\$1,250
21-40	3,656	5.8	8,260	\$1,500
41-60	2,417	3.8	8,194	\$2,000
61-82	990	1.6	3,349	\$3,000
Total	63,295	100.0	85,658	\$500



Table 2: Multiple-campaign donors to Assembly and Senate candidates by donor type.

Donor type	Donors	Median donation	Median campaigns	Median donation per candidate	Total amount donates (\$1000)
Individuals	2,358	\$789	2	\$250	\$5,662
Candidate committees	220	\$9,600	4	\$3,200	\$3,601
Social organizations	186	\$10,225	6	\$2,000	\$8,093
PACs	520	\$6,950	4	\$1,425	\$19,306
Small business	1,346	\$2,600	2	\$1,000	\$9,492
Big business	116	\$18,550	12	\$1,500	\$4,386

Separate models are reported for each donor type.

The intercept is the predicted number of co-donors of a hypothetical pair of candidates who are not competing against one another and who have no constituents in common. One of the hypothetical pair has prior office experience and the other does not; one is running for a senate seat, the other for the assembly; one is a Democrat, and the other a Republican; one is male, the other female; the two candidates are of different ethnicities.

From Table 3, we can see that the predicted number of shared donors between any two randomly chosen campaigns, net of other factors, is very small among individual donors and candidate committees. That is, these two types of contributors are relatively less likely to link the donation networks of multiple candidates. Social organizations, PACs, and business donors are much more likely to play linking roles.

When interpreting the meaning of the other coefficients, it is useful to keep the differences in the overall mean numbers of donor overlap in mind (means are shown near the bottom of Table 3, and display patterns very similar to the intercept values). For example, an effect of the same absolute size for the individual donors network and PACs network is much more substantively “important” for the individual donors network, because it represents a much larger effect relative to the typical number of shared donors in that network.

The findings related to donor motivations for individuals and candidate committees were very similar so we start by discussing them together. We argued above that donor motivations might fall on a spectrum between ideology-driven and investment-driven agendas. Donors that contribute for ideological purposes are likely to support one political party or the other rather than to spread their contributions across parties. Consistent with our hypotheses, individuals and candidate committees are the strongest supporters of partisanship by favoring

to support candidates of the same party (see Table 3). For example, in individual donor networks, two Republican candidates have almost four times as many ties  $((0.199 + 0.573) / 0.199 = 3.88)$  and Democrats almost four and half times as many ties  $((0.199 + 0.695) / 0.199 = 4.49)$  as a mixed party pair.

Another indicator of donor motivation which demonstrates the investment motive of donors is whether or not they support opposing candidates. We argued that donors supporting candidates that are running against one another in the same race are likely hedging their investments in the race and ensuring that they have contributed to the winning campaign. As expected, we find that a bias against contributing to both of two competing candidates exists for individuals and candidate committees.

We also examined whether or not donors invest in pairs of experienced candidates (or avoid donating to multiple inexperienced candidates) as a means of buying access to incumbents or experienced politicians who are typically favored in state legislative elections (Carey, Niemi, & Powell, 2000). Here, we see the motives of individual donors and candidate committees diverge. Contrary to our hypothesis, we find that individuals strongly support connecting experienced candidates. However, this is less surprising when we consider that a popular explanation for the advantage of incumbency is that individuals tend to approve of the local activities of their own elected representatives, even while disapproving of the larger bodies of legislature (Cillizza, 2013; Cook, 1979). While the findings for candidate committees are not significant, it should be noted that they are the only donor type that tend to tie together inexperienced candidates at a higher rate than experienced candidates.

Due to similarity among certain minority groups in terms of the political issues that concern them, we should expect donor support for multiple women and ethnic minority candidates by individuals and

Table 3: QAP regression models predicting number of donors in common among candidate pairs by types of donors to Assembly and Senate candidates.

Variables	Individuals	Candidate Committees	Social Organizations	PACs	Small Businesses	Big Businesses
<i>Motivation</i>						
Republican	0.573**	0.904**	0.269	1.751**	1.225**	0.804*
Democrat	0.695**	0.968**	3.125**	2.078**	0.164	-0.744*
Opponents	-3.082**	-1.081**	-1.973**	-1.226	1.764**	0.532
Experienced	0.100*	0.039	8.373**	13.870**	8.661**	8.348**
Inexperienced	0.018	0.060	-2.125**	-3.455**	-1.779**	-1.711**
<i>Localism</i>						
Common Const. <sup>a</sup>	0.028**	0.002*	0.003*	0.001	0.007**	-0.002
Senate	0.005	0.296*	-1.084**	-0.476	0.259	-0.060
Assembly	-0.318**	-0.016	0.445	-0.294	-0.377	-0.397
<i>Demographic</i>						
Female	0.473**	0.940**	0.022	0.209	-0.379	-0.445
Male	0.025	-0.337**	0.043	0.062	0.493*	0.376
Asian	1.880**	-0.402	0.401	1.640	1.011	0.005
Black	0.046	-0.460	4.247**	-0.423	4.082**	-0.980
Hispanic	0.025	0.565**	1.358**	3.748**	2.926**	3.551**
White	-0.027	-0.173*	-0.714*	-1.742**	-1.192**	-1.247**
<i>Intercept</i>	0.199	0.134	2.163	5.510	3.119	3.086
<i>Mean</i>	0.057	0.612	4.178	6.901	3.691	3.092
<i>S.D.</i>	2.438	2.180	6.134	9.338	5.753	5.730
<i>R</i> <sup>2</sup>	0.103	0.093	0.472	0.471	0.435	0.400
N=19,182 pairs						

<sup>a</sup> units of 1,000 constituents

\* p < 0.10, \*\* p < 0.05, one-tail

candidate committees who hope to advance similar political agendas. We find support for our hypotheses in the candidate-candidate networks. In Table 3, we note a significant tendency for individual and candidate committee donors to make contributions to candidate pairs who are both female. Candidate committees provide eight times the amount of ties per pair to female-female pairs of candidates than to mixed gender candidate pairs. They are also less likely to connect pairs of male candidates than to connect mixed gender pairs. This demonstrates that candidate committees are a strong form of political support for female candidates running for the state legislature. There is very strong donor overlap for Asian-American candidates among individual donors. This is consistent with findings by Cho (2002) that Asian American contributions are strongly tied to ethnicity. Individual donors provide over ten times the amount of ties per pair for pairs of Asian candidates than for mixed ethnicity candidates. Also, strong donor overlap from candidate committees exists for Hispanic candidates.

To test for effects of locally motivated donors, we examine the coefficients for the *Common Constituency*, *Senate*, and *Assembly* variables. If donor motivations are relatively local in scope, we should see bias towards ties between candidates that have a lot of constituents in common with each other (net of other important covariates like whether or not the two are opposing each other in the same race). The regression coefficients for *Common Constituency* display the number of increased shared donors for each additional increase of 1000 shared constituents. However, the magnitude of the coefficients are relatively small (compared to the mean ties for each donor type) for all of the donor types except individual donors where it is fairly large. This suggests that there is a strong geographical component to donation motives of individual donors, where as expected, they tend to be more local in scope tying candidates from similar geographic regions together. The effect of tying together candidates with overlapping constituency is significant for candidate committees as well, but as expected, their

interests are not nearly as local in scope as they are for individuals. We hypothesized that individual donors, with their strong local orientation, would not support multiple Senator or multiple Assembly candidates instead supporting one of each from their district. We find that there is a relatively strong bias against supporting pairs of Assembly candidates by individual donors, but no such bias for or against supporting a pair of Senate candidates. Surprisingly, we find that candidate committees are over three times as likely to connect Senators as they are to connect mixed legislator pairs.

The motives of social organizations are a little more complex. As we expected, they do display some partisanship indicating ideological motives. However, they are only significantly biased in favor of connecting Democrats with twice as many ties to Democratic candidate pairs than to Republican or mixed party pairs of candidates. This actually isn't surprising given the presence of unions among this donor type. These types of donors are resistant to connecting direct opponents, but are heavily invested in tying together experienced candidates with a bias against inexperienced candidates. Due to mobilization surrounding the disproportionate representation of women and ethnic minorities in politics, we argued that we expect patterns of support among social organizations for these underrepresented candidates. Though we do not find social organizations to be motivated by the gender of the candidates they support, we do find that social organizations are the strongest supporter of multiple Black candidates connecting Black candidates via campaign contributions nearly three times as often as pairs of candidates of differing races. There is also significant support in favor of connecting Hispanic candidates by social organizations as well. There is small significant support for connecting candidates with overlapping constituency by social organizations, along with significant bias against supporting multiple Senators indicating more local oriented interests by social organizations than we hypothesized.

The motives of PAC donors are mostly consistent with our hypotheses. They are ideologically driven and are significantly more likely to connect pairs of single party candidates of both major parties. However, as expected they tend to strongly invest in connecting experienced candidates while simultaneously avoid connecting inexperienced candidates. We expected PACs to strongly support underrepresented candidates and even cited examples of specific PACs whose mission it is to do just that. We were surprised to find weak non-significant support for connecting female candidates by PAC donors. However, we did find significant support for connecting Hispanic candidates. There were no significant effects for

the local interest variables as expected.

It is worth directly comparing the motivations of small and large business donors. Both small and large businesses display partisan ideology in favor of Republican candidates, but the effect sizes are relatively small. Small businesses are only 39% more likely to connect pairs of Republican candidates than mixed party candidates, and large businesses are only 26% more likely to connect Republican pairs. Large businesses are also significantly less likely to connect Democratic candidates via campaign contributions. Both small and large businesses are more likely to connect direct opponents than two candidates that are not directly running against one another, however, the effect is only significant for small businesses. This supports the hypothesis that business donors are indeed investment-driven when it comes to hedging their campaign investments. Also, both types of business donors strongly support connecting experienced candidates and avoid connecting inexperienced candidates. In general it appears that both small and large business donors are relatively investment oriented, however, we also predicted that small businesses would be more driven to connect single party candidates than large businesses, which doesn't appear to be the case. We did not expect business donor behavior to be motivated by candidate demographics, but found that both types of business donor are biased toward connecting Hispanic candidates, and small businesses were also biased toward connecting Black candidates. We also find that both small and large businesses display relatively small tendencies to support male-male candidate pairs and discourage female-female pairs. As expected, small businesses also frequently connect candidates with overlapping constituents which reflects their local interests.

In general, we find that most donor types tend to prefer to participate in campaigns of multiple candidates of the same party. For some donor types there is a stronger Democratic partisan bias (among individual, social organizations, and PAC donors) with social organizations demonstrating the largest disparity in support favoring democratic pairs. Meanwhile, business donors tend to connect Republican candidates. From these results it appears that all donor types display some ideological motivations by supporting or not supporting shared party pairs as compared to mixed party pairs. However, individual and candidate committees are the strongest promoters of political partisanship via their campaign donations, while business donors appear to be the most investment-driven. These findings also indicate that all of the donor types except candidate committees tend to invest in incumbents by preferring to connect experienced candidates through campaign contributions

while avoiding spreading their money to multiple inexperienced candidates.

We also found, unexpectedly, that if both members of a pair of candidates are white, most donor types display a relatively small but significant preference against the pair (compared to a pair of candidates of different ethnicities). Therefore there doesn't appear to be a tendency to support multiple candidates due to their white ethnicity net of covariates. This is not surprising considering the overrepresentation of white politicians in the United States (Lublin, 1997; Malhotra & Raso, 2007).

#### 4. Discussion

On the basis of our findings we can draw several conclusions. First, simply at a descriptive level, we have shown that there are indeed networks of candidates linked by extra-legislative actors: donations are not individualistic but are embedded in a wider context. This not only provides a new way of representing the relationships between donors and candidates it also offers a way of understanding some of those relationships.

We also found that there is complexity in donor motivation that depends on the type of donor. No single donor type is found to be exclusively ideologically or investment driven. We generally conclude that individuals and candidate committees tend to be more ideologically driven, business donors tend to be more investment driven, and social organizations and PACs fall somewhere in between.

Masket (2007) claims that ideological extra-legislative actors are often the drivers of polarization in legislatures. The segment of extra-legislative actors that controls resources candidates depend on to get into office (i.e. donors) act as "gatekeepers to public office" (p. 484). If candidates and elected officials want continued support from donors, they must satisfy donor interests. These actors are known to influence the behavior of elected officials regardless of public opinion (ibid). Therefore, according to Masket, if donors reflect partisan behavior in their contributions to candidates, their ideology is likely to be reflected by the candidates. Further, since fundraising is core to the electoral process, with most state level legislators spending at least a quarter of their time in office fundraising (Hernnson, 2008), candidates and elected officials that are tied financially by donors are also more likely to connect with one another at fundraising events. When donors are biased in favor of linking single party candidates, it may well reduce the likelihood of bipartisanship among elected officials. Ultimately, patterns in our data help to support Masket's argument that extra-legislative actors have a relationship to campaigns that promotes an ideological division. To

varying degrees, all of the donor types tended to prefer donating to multiple candidates from the same party.

By mostly contributing to candidates from parties with similar ideology, candidate-donor networks should emerge wherein candidates of different parties are mostly isolated from one another. To the extent that extra-legislative actors both align with and help support party division, we would expect to see that party primarily determines networks. For example, in the U.S., we should see network patterns strongly shaped by party label and, in effect, see two distinct candidate-donor networks (one Democrat, one Republican) with very few connections between the two.

When we examine the core of the overall candidate-donor network by collapsing to a single mode candidate-candidate network (this network includes donors of all types acting as ties; see Figure 1), we find that while some of these relationships are distinctly partisan many are not. Figure 1 shows the network core, or most densely connected set of candidates. Here, we define "core" as the set of candidates that share at least 100 donors in common with at least one other candidate (this is represented with a tie or linkage in the graph). Graphical representations of polarized politics typically show a cluster of Republican candidates on one side of the figure and a cluster of Democratic candidates on the other side with very little or no connection between them. To some extent this is also the case here with the horizontal dimension being predictive of party (Republicans are found on the left side of Figure 1 while Democrats are on the right). However, we also see that a number of the Republicans and Democrats are connected in the sense that they have multiple donors in common; e.g. Garcia, a Republican, and several other Democrats including Horton and Machado. What this figure and our previous results suggest is that there are different kinds of donor motives at work. The strong tendency to tie candidates of the same party together by most donor types is moderated by the preference for connecting experienced candidates creating the network core found in Figure 1.

In the analysis in Table 3, we identified the "experience" of candidates as quite an important attribute in driving donations. Like partisan bias, we found that preference for connecting experienced candidates in candidate-donor networks is commonplace (every donor type except for candidate committees demonstrated significant bias in favor of connecting experienced candidates or against connecting inexperienced ones). If donors to multiple campaigns are investing by connecting experienced candidates, then we'd expect to find highly connected incumbent candidates in the dense core of candidate-donor networks while challengers would have

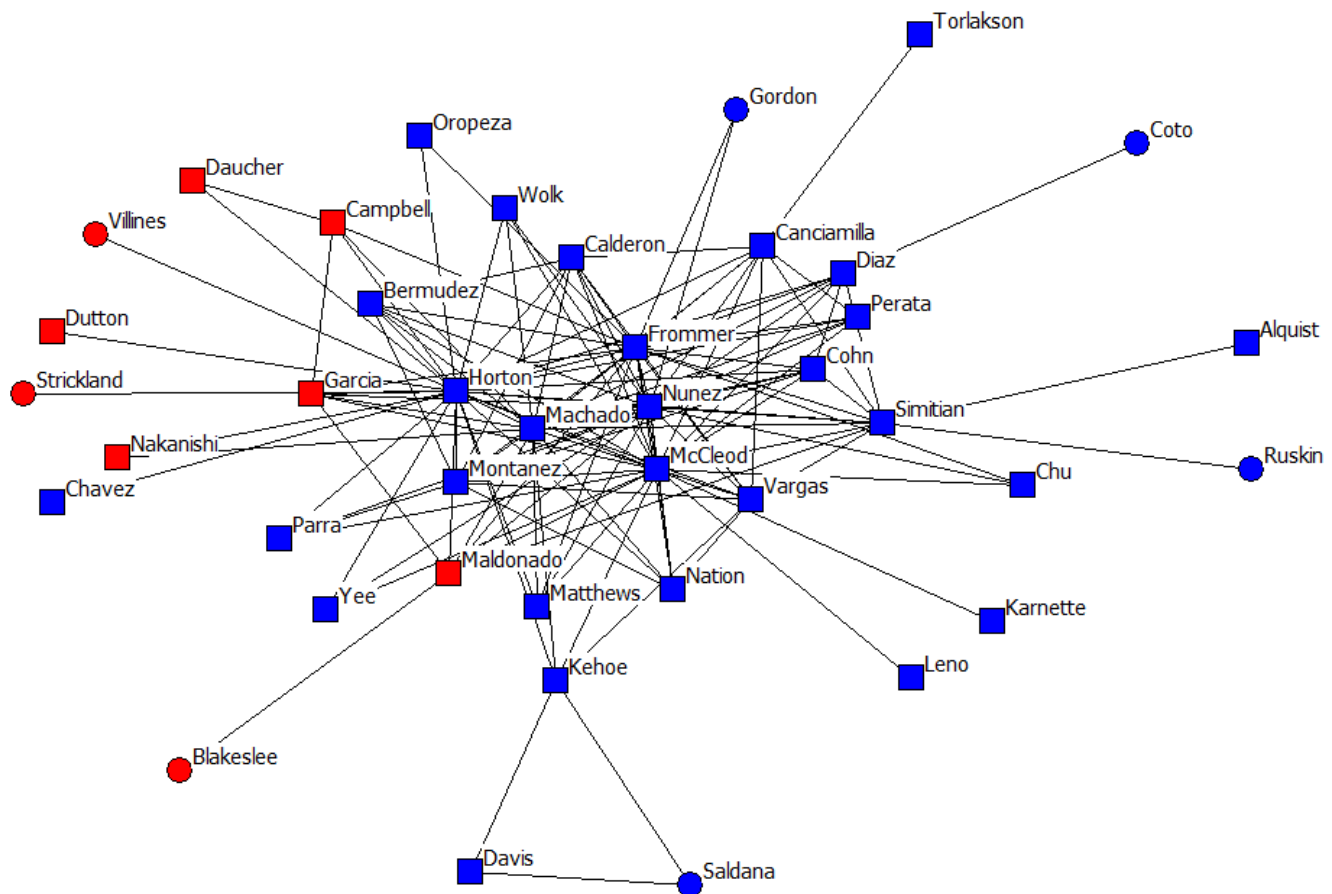


Figure 1: Network of highly connected candidates (each tie between candidates indicates at least 100 donors in common).

Note: The spatial arrangement is a spring embedding algorithm from UCINET's netdraw. It is a two-dimensional MDS, but with locations modified somewhat to minimize overlap of nodes, and minimize crossing of lines.

Key:

Democrat - blue, Republican - red

Experienced - square, Inexperienced - circle

fewer connections and be relegated to the fringe of the network. Ultimately, this is apparent in the core of the single mode candidate-candidate network. In Figure 1, experienced candidates are shown as squares. We note that the most highly interlinked candidates are likely to be experienced and that often these linkages cross partisan boundaries; i.e. incumbents share ties across the party divide and take money from at least 100 of the same extra-legislative actors.

Does centrality in the common-donor network matter? The ultimate test, of course, is winning elections. In our data, the association between centrality in the common-donor network and victory in the primary election is a strong one ( $r = 0.82$ ). While one cannot directly attribute victory to the success of candidates in embedding themselves in dense donor networks due to the high correlation with incumbency, the magnitude of the relationship is remarkable. This suggests that donor-network centrality may be part of the process by which

winners win, and losers lose. We believe this finding can contribute to existing theories of incumbency advantage (Cary et al., 2000).

By looking at the core of the overall donor network (Figure 1), it is apparent that sizeable networks of relationships work to encourage ties only among Democrats or only among Republicans. These patterns are consistent with the argument of Maskett to the effect that extra-legislative actors can, through their behavior, support polarization. However, it should be noted that in the core of the donor network, the party divide is bridged by well-connected experienced candidates.

The interpretation of donation motives driven by candidate demographics is less clear-cut. All donor types were found to significantly connect some demographic characteristics, with motivations to connect Hispanic candidates and bias against connecting white candidates being almost universal. This is likely a reflection of the demographics of California, where efforts are being

made to create a legislature that is more representative of the growing Hispanic population. Women and Asian-American candidates seem to rely on individual donations more fully than do Anglo, Latino, and Black men: this would imply that their candidacies face more difficulties in gaining access to deeper pockets than others and that the instincts of groups such as Emily's List are well-founded.

Finally, we found that many donor types are driven by local interests including those we expected to be: individuals, candidate committees, and small businesses. However, we found social organizations were also locally oriented though the effects were not nearly as large as they were for individual donors. There doesn't appear to be any general or consistent bias towards or against connecting a particular level of legislature as can be seen by the senate and assembly variables in Table 3. There also appears to be a complex relationship between having political experience, being embedded in candidate-donor networks, and winning campaigns. It is impossible to determine causality given our research design, but it is clear that incumbents and prior holders of state level offices are better connected to each other via donors and are ultimately more likely to win elections. This is likely due to multiple feedback processes between these various phenomena and should be investigated in further research.

By taking a network approach to understanding campaign contributions, we are able to identify behavioral patterns associated with motivations by donor type using the actual pattern of donation that ties candidates together. This approach treats donor behavior as linked across candidates rather than separated by candidate. The SNA approach focuses attention on the processes that create political structures – shared interests, similarities of stakeholders, and potential legislative cooperation among candidates. Seeing both candidates and donors as “embedded” in, and creating structures linking voters and candidates creates new insights into the role of money in politics.

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