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Application of Social Networks to Fundraising in the Presidential Nomination Process of 2008

Scott Limbocker
University of Arkansas, Fayetteville

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APPLICATION OF SOCIAL NETWORKS TO FUNDRAISING IN THE
PRESIDENTIAL NOMINATION PROCESS OF 2008

APPLICATION OF SOCIAL NETWORKS TO FUNDRAISING IN THE
PRESIDENTIAL NOMINATION PROCESS OF 2008

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Political Science

By

Scott Limbocker
University of Arkansas
Bachelor of Arts in Political Science, 2010

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University of Arkansas

Abstract

Campaign donations are something that scholars have examined for some time, generally treating these donations as an aggregated explanatory variable. Through technological advances in computing, size is no longer a limitation that inhibits scholars from using this information in a robust manner. First, data aggregated at the state level, shows that donations made to the presidential nomination process in 2008 distributes across the many states in a way that is highly correlated to the population of the United States. From there, additional sorting methods select the donors that appear on multiple candidates' records. A network is then created to show to relationship of the shared donors of the 17 candidates that participated in the invisible primary of 2007. The results of the network shed light on the idea of the cohesiveness of each party as well as the potential for a new forecasting measure.

This thesis is approved for recommendation
to the Graduate Council.

Thesis Director:

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Dr. Andrew Dowdle

Thesis Committee:

_____

Dr. Song Yang

_____

Dr. Patrick Stewart

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I would like to say a special thank you to my committee for their guidance through the construction of this thesis. May this be the first step in many future works and publications.

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Literature Review

Scholars have been attempting to describe political parties and their functions for well over a century (Ostrogorski 1902; Michels 1915; Duverger 1959; Aldrich 1995). The initial literature to the strong party model and then the subsequent scholarly inquires serve as a testament to the importance that scholars have placed on parties. The depth of this literature certainly suggests many potential avenues of examination. Yet extensive study has not produced a consensus for what broadly constitutes a political party.

One general definition of a political party would be a group of individuals that form around policy interest(s) and seek to win office in order to change that policy (Schlesinger 1994). There are two points to consider from that definition: (1) the vagueness of policy interest(s) and (2) the attempt to seek office to affect policy outcomes. Examining the first consideration, it is rather clear from American politics that the party apparatuses have aggregated over a wide variety of policy goals. One needs to look no further than the platforms of two major parties to see the gamut of policies crossing seemingly all issues.

With this widespread diversity, it would make sense that there are different levels (within the elites, grassroots efforts, get out the vote movements, etc.) that parties can operate on. The discussion concerning parties in the political science literature dates back to Ostrogorski (1902) and his basic classification of party functions and structures. One of the first attempts to further define the levels of parties would be Michels (1915). He ultimately suggested that there were elected officials for one level of the party and citizens comprising another level within his model.

The notion that there are layers associated with a political party has been further developed by scholars. Key (1964) advocated an approach that examined parties as a diverse coalition. This coalition will have members of the parties functioning at the different levels that

a party could exist. There is certainly the component of elected officials who won office and now are serving terms in the government. Additionally there are going to be elite members that comprise the formal structure of the parties that help establish the definition that constitutes each party. Finally, there are citizens that are mobilized in order elect members to office. The theory takes a top down approach of defining a party. The scholars that embrace this notion of parties advocate that the elites drive the party and primarily study that point of concern.

That is not to say the average citizen has little or no input into a party. Ultimately the interest of these citizens aggregate to form the party platform (Eldersveld 1964). Citizens' interests are considered with the elites and the aggregation of these ideas establish the prominent issues within the party. The first past the post, winner take all system that is present within the United States should dictate that two political parties compete with one another. Page (1978) suggests that in the American system these interests will aggregate into the two distinct stances for citizens to choose between. In referring to the American system, Page makes example of the Republicans and Democrats and the traditional leanings of each party. Even with the progression of issues, two choices exist for the American public with regards to partisan cleavages. There have been realignments such as the Civil War and World War II shifts (Aldrich 1995) as well as geographic and partisan changes in support (Levendusky 2009). Rigidity is not a prerequisite of a political party in this definition, but rather that a distinction between parties exists at the elite level (elected officials and their respective stances on issues) for citizens to make a selection between.

A more recent approach to define these levels is the "Three Faces" model (Katz and Mair 1993). These faces describe the various groupings of actors that coexist within the party. Working from the Katz and Mair definition, the first face would be the *party in public office*.

This face is comprised of the people in a political party that have actually been elected to serve in public office. Obviously, this comprises a very small portion of the population because there are only a finite number of representative positions that can be won by a party. These elected members, arguably, play the most important role of a functioning party as they are the actors fulfilling the policy objective. That is, if the goal of a party is to win office to implement policy, this face of the party comprises exactly those people that are accomplishing the ends the party is seeking. This also makes these actors very definable and easy for scholars to examine. However, these individuals do not represent the entirety of a party. Getting into office is the goal of more than the individual representative, so the expansion of who is in the party is something that is accounted for in the other two faces.

The next face to discuss would be the *party in central office*. This is the formal party that is made up of people other than the public officials and is where the policy goals and organization of individuals takes place. These individuals serve in positions that allow for the party to promote their own ideas as well as properly campaign. In order to achieve effective electoral ends, there must be in place, especially at the national level, a structure for membership to operate within. The party must then assemble; aggregating their ideas into a platform that allows for the members of that party to achieve their goals. This, again, is a very distinct that can be examined with ease. While these actors provide the human capital as well as the raw components of the structure, there ultimately is a need for a mobilization effort to bring in support from the electorate that will allow for the party to maximize success at the ballot box.

This leads to the third face of parties: *the party on the ground*. This is where the "Three Faces" model takes rather large expansion in scope. Katz and Mair state, in the initial description of this face, that the party on the ground constitutes "members, activists and so on"

(Katz and Mair 1993, 593). The "so on" is where this expansion begins to become less clear. Members and activists are somewhat easy to define. People that are campaigning or advocating for a candidate easily fit within this category. However, what a citizen must do to become an activist needs to be better defined and quantified. Actively working a campaign is simple enough and people that place a sign in their yard certainly could be considered advocating for a candidate's campaign. Also the silent, yet vital, role of campaign donations could conceivably fall in the activist category. At this point the third face seems to be fitting in more with the Noel and Robbins (2011) suggestion of parties as amorphous and robust. This could eventually be taken to include anyone that voted for a party could be considered a member of that party. While this might be a slight over exaggeration, the lasting impression should be that parties are certainly more expansive than the first two faces but makes third face massively indefinable and inherently amorphous. So, there must be a way to better identify this third face. Using the "Three Faces" model, it is clear that quantifying the third face lies somewhere between the formal actors and the voting public. And, while this model displays an accurate image of the two elite levels of parties, there is still room for progress with regards to defining the third face of parties.

The definition of parties is not limited to the coalition definition. Other models have been advocated by scholars and warrant further examination. One such model is the responsible party model that was advocated by Schattschinder (1942). This model sets the framework for analyzing parties to be placed upon the party functions in government and the expectations that citizens should have of political parties. Ranney's *Curing mischiefs of factions: Party reform in America* (1975) presents a progression of actions that should be expected of parties. The first point requires that political parties make policy commitments on the issues of the day. Once

these commitments are made, the parties must be willing to carry out these promises. The next point Ranney makes is while the party in office is carrying out these promises, the party that is out of office must then develop alternatives to the policies. These new policies must then be presented to the public, in the form of stances from a new candidate, to provide an electoral alternative to the party in power. This approach involves citizens to an extent but all of the measurements of the party are still done at the elite level.

There certainly are advantages to examining political parties at the elite level. The points of inquiry with regards to subject matter can be rather easily defined in terms of the prominent actors. Additionally, the elite level is the most visible and prominent existence of the party and is included in this definition. However, the electoral component in both cases is rather simplistic and does not question the nature of the campaign. So long as the policies of the opposition are advocated by another candidate, the electoral component of Ranney's suggestions is satisfied.

The coalitional approach pays little attention to elections as well. Besides neglecting functions within elections, Aldrich (1995) points out that alternatives, even if they are distinct, might still fail to resolve the issues of the day. In other words, the difference that is presented by the other side of the aisle might be no better equipped to resolve an issue of the day. There must be a model that considers these concerns.

A third approach to political parties presents an electoral context. Members of parties at all levels (actual representatives, elite actors and the citizens at large) behave rationally in their goal seeking behavior. The most common goal of these actors is to seek to win office (or promote their candidate to office). While the motives of the different actors are going to vary based upon position within the party, all of these actors are going to seek the party winning office. Also, the institutions that are in place will shape the path to this goal. How to win an

election is going to be dictated by the rules of the election. The rule do not change the goal parties have with regards to continually winning election and holding office to enact policy.

A prominent advocate of the position that parties exist with the first goal of winning office was Downs (1957). Parties that are not in office have little leverage to enact policies to further that party's platform. As such, parties are going to be focused on winning election and reelection. This will then put the focus of the party on the elections. A party will not want to make a decision on policy that will adversely affect the majority of the membership of that party. This position has merit even though there has been a change of late that has seen party loyalty trump the concerns of the majority of a member's constituents (Masket 2011). Scholars have framed such thought processes of members of Congress and other elected office to suggest that elected officials are going to make decisions regarding policy that will benefit (or at a minimum not affect) reelection (Mayhew 1974).

Within this framework of parties, there is an issue of what causes citizens to support one candidate over another. There are many approaches that one could take to this question, but the interest to this study considers that successful politicians are the ones that seemingly have citizens gravitate towards them. Schelsinger (1991) compares this to Adam Smith's unseen hand in economics. In other words, there is a force (charisma, attractiveness, policy ideas, etc.) that is difficult to account for, but exists and is consequential. These factors undoubtedly exist, but can be rather difficult to define in terms of what matters and how to measure these intangibles of elections. The electoral component is something that scholars have struggled with not only in regards to outcomes of elections but also quantifying and describing the nature of a given election. That does not take away from the merits of this approach, but rather describes the complexities of this definition. All three of the theoretical frameworks mentioned before have

elements that are worthy of consideration and should be applied in constructing any definition of political parties.

In beginning this search, it is important to work with the definition of parties. The major factor that distinguishes parties from interest groups would be the use of electoral success to reach their goals. Therefore, it is wise to evaluate parties on the electoral component. Looking at national elections would be a useful place for evaluating parties as it satisfies the distinguishing characteristic and utilizes one of the models. Moving to the elections as a location to focus on parties, there are some unique problems that present themselves. Working around the idea people are rallying around some policy interest(s), the question now shifts to: who are the "people" referred to in the definition?

In attempting to define who the "people" are, it is wise to begin with as narrow a definition as possible and become more inclusive from that point. The party should be defined as the people working together to get someone elected to a given office. This definition limits membership to the party to people that worked on the party's campaigns by donating time and providing work to the campaign. These active workers are the boots on the ground and clearly fit the definition of assisting someone to obtain office.

The major issue that takes multiple forms is the definition is, intentionally, far too narrow. A political party does not require an individual to provide service to a campaign in order for them to be considered a member of that party. One would be hard pressed to find a political party that would reject membership of an average citizen because said citizen fails to actively campaign. It would be bad electoral politics. The more support that a party can have, the better the chance that party has of achieving their ultimate goal: electoral success.

Another difficulty is including a measure on what describes participation in a campaign. Tangible efforts certainly have a great value and are easy to define, but that is not to say an individual donating money to a candidate is not providing assistance to that campaign. Politicians would be remiss in not including a "thank you" to all of citizens that donated to their campaign, and it would be end of that candidate to think that an election could be won without monetary resources. This is especially true of the presidency (Brown et al. 1995; Shaw and Roberts 2000; Adkins and Dowdle 2002). It then makes sense that there should be some inclusion of all actors participating in more than physical campaigning.

In continuing to grow the pool of citizens that are now members of the party, the next and largest jump would be to define the party as anyone that voted for that candidate. The reason this can be done is, logically, the ultimate way someone can assist a party is to get their candidate into office through a vote on Election Day. Because of this fact, a political party could be interpreted to be everyone that voted in favor of a party's candidate. That being said, an expansion done in that manner is too broad (and essentially impossible to measure and define). Someone who votes can do so and not have the interests of a party in mind, but rather are fulfilling their civic duty. There also are issue voters that may go back and forth between parties who would vehemently protest the idea that they are a member of any party. Split ticket voting makes for a very real conflict of interest as well. If someone voted for a Republican candidate for the House and a Democrat for a Senate seat, which party does that individual belong to? Finally, taken to the extreme, someone that casts a ballot incorrectly becomes a member of the party despite all the potential campaigning against that candidate that individual voter might have completed. To say that a vote to help someone into office is the measure to best describe

who comprises a party has obvious drawbacks. Clearly there must be some trimming done to this definition of what constitutes a party.

Thankfully, the potential to achieve this goal of shrinking down the definition of a party could present itself in a quantifiable way with regards to campaign donations. Monetary contributions to a given campaign are a necessary resource of all campaigns and can also contribute to the winnowing of the field of candidates (Adkins and Dowdle 2005). A campaign without any money is in real danger of ceasing to be a campaign (Busch and Mayer 2003). Therefore, this contribution of money is vital for a campaign's survival. This all relates back to defining political parties because it better defines who exactly is being represented in the party on the ground. Campaign donations are expansive and plentiful. Also, these donations are very easy to obtain at the federal level thanks to reporting required and disclosures from the Federal Elections Commission (FEC). This allows for the potential for a database of party activists that can be useful towards better discussing what a party looks like[1].

Donations can serve the purpose of describing a citizen's support of a candidate. If someone is willing to give money to a candidate's campaign it is logical that is a demonstrable display of support for that candidate. While a survey can have difficulty measuring the conviction an individual has towards a candidate, the opening of one's wallet leaves little doubt there is significant support from the individual to that candidate. It is rather difficult to find another reason as to why someone would take the effort to give money to a campaign other than clear support. Unlike the rather low burden of voting, donations allow for a far greater degree of

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[1] Previous studies (Francia, et al. 2003; Bramlett et al. 2011) have indicated that campaign donations are not representative of the United States population. The intent of this measure was to show that there are no regional biases to the process and the campaign donations distribute evenly across the states. No inference is to be made about the demographics of these donors.

commitment to be identified and in turn allows for the assumption of a far greater attachment to the candidate and potentially the party.[2]

Another useful function of these donations would be that it incorporates citizens who may not identify with a party into this party model. Keith et al. (1992) were able to show that many indentified independents are, in actuality, functioning as partisans. Donations allows for independents to give to a campaign, maintain their self-described label as an independent, yet still function in a very partisan manner. Also, Hillygus and Shields (2008) displayed citizens that have weak party ties often constitute a more mobile section of the electorate than independents. Inclusion of these partisan independents and weak partisans into a party model is something that would be useful and allows for a more robust analysis of a party.

While contributions have the potential to be very useful, deciding which donations to include in the examination of this new party definition does require some consideration. The simplest way to state this argument would be any donation to a candidate is implicit support for that party. This begins to sound very similar to saying anyone that if one votes for a candidate, that voter is now a member of the candidate's party. This was already identified as a problem. Down the ticket elections, especially at the municipal level, can have a great reliance on party ties and other ballot cues when it is time to vote (Matson and Fine 2006) and can have a reliance on heuristics (Lau and Redlawsk 2011). In more plain terms: someone that donates to help to a mayoral campaign could be donating for a reason that is outside of endorsing the political party of that mayoral candidate.

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[2] Certainly there is the potential for the argument that the money could be going to the candidate and not to support of the party. However, because the candidate is running as (in our cases) for the party's presidential nomination, the money is implicit support of the campaign. Furthermore, analyzing just candidates that are seeking to be the nomination for president for the two major parties ties candidate to party in the most concrete way possible.

It is then necessary to then choose donations to campaigns that will tie the donor to the national party as much as possible. This takes place in the form of donations to candidates that are seeking that party's nomination for the office of the presidency. Because the office being sought is national, the entire country is included in this race. Also, the nomination process allows for the campaign to have the greatest tie to the party as possible. A candidate that is seeking the nomination is asking for the party to unite and select that candidate to represent the party in the upcoming general election. Anyone that is contributing to one of these campaigns is choosing who will represent the party in the upcoming general election. These contributions clearly are a partisan activity. These donations constitute a more defined face of the party on the ground as well as allowing for the party to constitute a very large swath of active participants in the party.[3] Therefore, the expectation is that campaign donations to the presidential nominations of each party will distribute evenly across the fifty states.

The fundraising patterns of each party have been tracked in previous studies. Previous studies have found that donations from each party are centered in a similar place in the country (Gimpel et al. 2006). They found the point of centrality for each party in terms of donations is located very close to one another. This suggests there should be similar correlations between the parties and the population of the United States. Also, we expect to find a similar result of home states and large states (California, New York and Texas) having a greater impact on fundraising than the other states.

Also, there is a discussion concerning whether one party raises money in a more homogenous manner than the other. The conventional wisdom is that the Republicans are the

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[3] For the 2008 nomination process there were 17 candidates across the two major parties from January 1, 2007 to March 31, 2008. This time window and number of candidates will cover $462,746,240.82 over 1,457,822 contributions to the various candidates

party that is accomplishing this feat while the Democrats remain fractured (Mayer 1996).

Reasons for the Democrats being divided date back as far as the formation of the Democratic

coalition as well as the post-McGovern-Fraser rules the Democrats enacted (Kamarck 2009).

Therefore, the expectation is that geographic patterns of campaign donations to the presidential

nominations will present a homogenous Republican Party and a fractured Democratic Party.

Within this newly defined group, there is a subsection of donors that are of particular

interest: multiple donors. There are citizens that inevitably donate to more than one campaign in

the nomination process. The field of candidates will eventually winnow to a point where only

the winner remains. In the interim, there is time for supporters of one candidate to move to

another campaign and assist that candidate in winning the party's nomination. Again, the

nomination is for the *party*, so it makes sense then some donors still want to affect the outcome

of the nomination and might be willing to give money again to another campaign. That could

manifest into either movement of support to another candidate in the nomination process for that

party or potentially the crossing over to the other major party. This network of multiple donors

is something that will be useful to evaluate.

Methods

Collecting this data, while time intensive, is thankfully a process that can be repeated

with ease and the access to different candidate's finances is consistent. This is due to the fact

that the Federal Elections Commission has made the electronic filings of the various campaigns

available to download from their website. These filings will serve as the data for this

investigation.[4] The search engine that the FEC provides for electronic filings is sufficient in

selecting the finances of each candidate. The names of each candidate were placed in a search

and all of the F3P files the campaign had submitted with the FEC were displayed. All files were

downloaded on the same day[5] and the most recently amended files for each period were selected.

Our time period in question for the multiple donors was all filings from January 1, 2007 to

December 31, 2008. The FEC requires campaigns to file in the year leading up to the general

election by quarter and once in the election year, the candidates must file monthly reports. This

would mean for the invisible primary, four files were collected for each of the 17 candidates.

These filings are not simply the individual donations, but rather all of the campaigns

finances that were submitted to the FEC. For the purpose of this study, all individual SA17A

lines were selected using Microsoft Excel's sorting capabilities. These donations were then

sorted into an orderly format that created a consistent database.[6] Moving then to mySQLyog, the

cleaned files were merged into one file for each campaign in Excel so that all donations of each

campaign could then be uploaded. Once this process was completed, simple queries were

constructed that would sort each of the donations by state and provide the number of dollars each

state gave to each candidate in the nomination process. These donations will constitute the party

in the electorate in an expansive manner while maintaining a uniform demonstration of support.

The next stage would be to investigate donor movement within this campaign cycle.

Social network theory is the best resource in evaluating this question because of the tools it

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[4] For the 2008 president nomination process Fred Thompson filed in a paper format rather than electronically. Because of this, he is omitted from this study.
[5] January 11th 2010
[6] Before getting to that step, it should be noted that there is a great deal of wealth that could potentially be available for study that is not being examined. All expenditures of the campaign are present including hotel bills, airfares and cell phone bills. This information could be useful for scholars to pursue in the future.

possesses. Scholars are beginning to recognize this potential as networks panels are included in the major conferences of the discipline and there has been a great increase in the number of social network papers in journal articles (Knoke and Yang 2007). Also, the set up of the nomination process is ripe for evaluation through networks. Candidates represent nodes in a network of well over a million donations. Each donation can be viewed as a potential interaction between the candidates. Because the FEC requires a great deal of personal information to be reported with every donation over $200, this data can be sorted in many different ways. For this study the question would be which names appear on more than one candidate's finances. These multiple donors have the potential of describing party movement within each party.

Someone who donates to a given candidate is tied to the other donors of that candidate. There is no requirement of donors to have any interaction with one another, much like how parties do not require knowledge of membership of other members. However, anyone that is donating to nomination campaigns (especially to more than one campaign) is aware of the various actors and the restrictions, as well as the implications of the donation being made. Because the candidates and donors are aware of all the actors, this is a valid use of a social network theory. Aggregating shared donors between campaigns can be useful in describing movement of support for the actors within the nomination process. This new approach could measure the political gravitation that some candidates possess. Potentially, this measure could find the unseen hand of the presidential nomination process because multiple donors within the presidential nomination process could functionally display party movement and cohesion.

Using social network theory, the potential exists for central actors to be revealed within a group. There has been considerable effort to discuss the prevailing factors that lead to a candidate winning the nomination of a party. Early states have been shown to play a sizable role

in the process (Steger et al. 2004; Taylor 2010) and that early support is critical in this process (Adkins and Dowdle 2004; Cohen, et al. 2008).[7] The invisible primary (Cohen, et al. 2008) time period is something that is of particularly intriguing interest. The idea is there are elites that are positioning candidates in the year prior to any election, primary or caucus with any sort of success has implications on the worth of primaries and caucuses as well as campaign strategies. A network analysis of the multiple donor network in the invisible primary may shed more light on this invisible primary and reveal the prominent candidates in each party while simultaneously describing party cohesion.

Campaign donations harbor a trait that makes them useful for study with this question because they are easy to weight and essentially equal between one another. While there are differing dollar amounts, caps that the FEC placed on donations in 2008 were $2,300. In a process that came just short of half a billion dollars, the weight of these donations can be said to be more or less equal from one citizen to another. While there might be some psychological differences between how citizens view the size of each donation, any donation that is made in this process is going to amount to a value that is indistinguishable from zero for the candidate. These restrictions make money, unlike endorsements, something that can be seen as having consistent and equal weighting. Also, the vast number of donations allow for a larger N value which is an ideal property. Therefore, this network that will be constructed certainly has potential of adequately describing the invisible primary period.

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[7] Discussion of how the donor lists were compiled can be found in the appendix.

Geography Results

The first question that needs to be answered would be whether or not the suggestion of using individual donations to presidential nomination was a valid measure of a political party. To do this, census data[8] was collected and compared with the two major parties. In order to have some sort of equal comparison, each state's population was calculated as a percentage of the United States population. Also, the campaigns were taken into similar percentages, taking the candidate's funds collected from individuals in a state and then dividing by the total funds that candidate had collected. Each campaign's total dollar figures for each state were added together to create dollar amounts for each party during the nomination process. These party figures were then computed into percentages the same way candidates and the US population percentages were constructed. Having these figures adjusted, correlations were run to see how close each party's fundraising was to one another and the population[9].

Table 1

Correlation Table Between the Parties Donations and the US Population				
	Percent Republican	Percent Democrat	Percent Total	Percent US Population
Percent Republican	1	.884*	.943*	.931*
Percent Democrat	.884*	1	.989*	.836*
Percent Total	.943*	.989*	1	.887*
Percent US Population	.931*	.836*	.887*	1
*sig at .01 level N=51	*sig at .01 level			

The results of this test show that there is a strong correlation that is statistically significant between the parties and population. The Republicans were slightly more strongly

[8] Census data was collected for the 2010 census
[9] The table of state by state figures was omitted due to size but is available upon request

correlated than the Democrats to the US population, but only by a small amount. This would suggest that our assumption of the fundraising of the two major parties in the presidential nomination process is a national one and that all of the states have influence that is strongly correlated to the population of that state.

This also supports with the findings of Gimpel et al. (2006) of there being little geographical difference in fundraising patterns between the two major parties in the United States. This again suggests that using individual donations in the nomination process will be a useful measure for describing the party at large and that this new face will be rather representative in terms of a geographical distribution.

One question that is not answered by this comparison would be if different states have consistent, yet differing levels, involvement in the process. The party fundraising can be strongly correlated across many of the states, but there is still the chance that there would be one or two states that consistently played a greater role in the nomination process. Hinkley and Green (1996) found that campaigns will rely on previously established networks for funding to start a campaign. In addition to that Gimpel et al. (2006) find that the large states play a major role in the resources of a campaign. To examine these hypotheses, a value of how much each citizen of a state gave to each party needs to be constructed. This will neutralize the population bias of examining just the raw dollar amounts. To accomplish this goal, the raw dollar total of each candidate, in each state, was divided by the population of that state. Then, the figures created were multiplied by 100 in order to show the number of cents donated per citizen for each campaign.[10] This new figure will show the differing participation that the states have on a per

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[10] Many of the states had values that even after the multiplication were less that one. The goal of the multiplication was to make the data more diverse and easy to examine.

citizen basis. Table 2 displays the results of the top 5 states, on a per capita basis, for each

candidate.

Table 2

Top 5 States Per Capita for the Democrats

Biden		Clinton		Dodd		Edwards	
State	PC	State	PC	State	PC	State	PC
DE	100.78	DC	992.73	AK	92.3	NC	93.04
DC	34.28	NY	160.23	DC	67.5	DC	64.59
MA	8.17	MD	95.27	CT	60.97	NY	16.85
NY	7.64	CT	77.97	RI	13.55	CA	15.58
PA	6.35	NJ	77.72	NY	11.75	CT	13.08

Gravel		Kucinich		Obama		Richardson	
State	PC	State	PC	State	PC	State	PC
DC	0.34	HI	2.31	DC	972.47	NM	281.61
ME	0.25	NH	2.01	IL	131.62	DC	60.11
AK	0.24	OR	1.73	MA	121.68	NV	10.32
WY	0.18	CA	1.56	VT	120.79	CO	8.51
VT	0.16	WA	1.42	CT	106.67	NY	8.27

Table 3

Top 5 States Per Capita for the Republicans

Brownback		Giuliani		Huckabee		Hunter	
State	PC	State	PC	State	PC	State	PC
KS	14.54	DC	69.96	AR	35.86	AR	15.07
DC	7.68	NY	52.58	SC	7.58	NH	3.1
NJ	3.55	CT	45.22	GA	6.53	TX	2.02
NY	3.13	NJ	43.66	NH	6.18	DC	1.77
FL	2.97	FL	25.36	TX	5.04	SC	1.63

McCain		Paul		Romney		Tancredo	
State	PC	State	PC	State	PC	State	PC
DC	164.96	NH	17.61	UT	214.83	CO	4.18
AZ	60.37	WY	13.28	DC	77.83	MT	1.15
CT	44.49	AK	12.91	MA	65.76	AK	.91
CA	39.19	NV	12.46	ID	45.45	SD	.91
NY	29.54	MT	11.30	CT	44.61	CA	.77

Thompson	
State	PC
WI	5.13
DC	1.83
IA	.43
VA	.41
CO	.33

The findings after this calculation display a rather clear pattern. Of the 17 candidates, the consistent pattern that emerged was the involvement that Washington, DC has within this process as well as the role that home states play in various campaigns. Washington, DC appears in the top five of 13 of the 17 campaigns in the 2008 presidential nomination process. Also, on a per capita basis, it plays a substantially larger role than any other states with donations totally

over $20 per citizen.   In addition to that, all of the major money candidates[11] (Clinton, Obama, McCain, Giuliani) see DC as their state that contributed the most money on a per capita basis.

This is an interesting contrast with the remaining candidates which had home states, per capita, providing the greatest support. In 2008, home states of the candidates play a significant role in supporting the campaigns of the lesser known candidates. Like DC, 13 of the 17 candidates had their home state in the top five with Biden, Edwards, Richardson, Brownback, Huckabee, Tancredo and Thompson having their home state as their greatest contributing state per capita.

When this is considered with the Gimpel idea of home state being a major resource along with the larger state, these findings somewhat support this idea. Certainly, home state is very important to the campaigns of 2008 to many of the candidates. The vast majority of candidates saw that on a per capita basis, home states played a disproportionate role in their fundraising. However, reliance on larger states might need to be adjusted to a reliance on Washington, DC. Having the backing of the donors in DC in 2008 was indicative of a great deal of money from the other states as well. It will be useful to examine this idea in other nominations to see if this measure repeats or if 2008 was an aberration.

Another idea to examine would be if candidates are acting like their peers with regards to campaigning or is the party defined by the aggregation of regional campaigns. In other words, 2008 saw a strong correlation of each party and the US population. Do the candidates aggregate to accomplish this feat or is each campaign in and of itself a true sample of the population. In order to test this question the per capita donations from each campaign will be compared to the

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[11] Utah was Romney's top state per capita with DC being second. This is probably a greater statement about the support that Romney had from the Mormon population in the state than of Romney's fundraising pattern.

per capita of that party. That being said, comparing a campaign to their party is not that simple

because the candidate is a part of that party. Therefore, for each correlation, what constituted the

party was adjusted so that it was the candidate compared to all the other candidates within the

party. This will be referred to a comparison to the candidate's peers. Results are in Table 4.

Table 4

Per Capita Correlation to Peers Democrats		Per Capita Correlation to Peers Republicans	
Candidate	Correlation	Candidate	Correlation
Biden	.284*	Brownback	.294**
	0.044		0.037
Clinton	.950**	Giuliani	.536**
	0.000		0.000
Dodd	.516**	Huckabee	-0.106
	0.000		0.457
Edwards	0.526*	Hunter	0.017
	0.000		0.908
Gravel	.611**	McCain	.547**
	0.000		0.000
Kucinich	0.265	Paul	0.220
	0.060		0.121
Obama	.951**	Romney	0.268
	0.000		0.057
Richardson	0.180	Tancredo	0.008
	0.207		0.958
*sig at the .05 level		Thompson	0.126
**sig at the .01 level			0.377
N=51			

From Table 4, some interesting patterns emerge. The Democrats in 2008 have higher

levels of correlation between a candidate and their peers as well as more candidates that

statistically significant correlation. Clinton and Obama are approaching near perfect correlation

(.981, and significant at the .01 level) between their campaigns and the rest of their party. This

contrasts with the Republicans where a smaller number of candidates achieved a much more modest level of significant correlation. The implication from this would be that the Republicans are operating in a far more regional way with money coming from different areas for the different campaigns while the Democrats are raising money in a way that is similar to one another. This would begin to indicate that in 2008 the Democrats were a more homogenous group than the Republicans. Whether this is a result of regional bias of the varying candidates or donor patterns of the party as a whole is something that should be pursued with studies of additional elections.

Another angle to look at these claims would be if the candidates from each party are getting the same percentage of their money out of each state as their peers. Per capita is a wonderful display of support per citizen, but not all campaigns are able to raise money at the same level. The Gravel campaign is in no way going to raise money in the amounts of the Clinton and Obama campaigns. That being said, if each candidate's campaign is considered in terms of how much from each state a candidate is receiving, the two campaigns can be examined in such a way that they are on equal footing with one another.[12] A numerical value can then be assigned to each state that would represent the percentage of money that state gave to a given candidate. This can then be aggregated to make a figure that would represent the total money to a party from a state as well as the percentage of funds that a party had from each state. Correlations can then be run that allow for the comparison between a candidate and party. Again, care was taken to make sure that a candidate's funds were not included in the calculating of how much money the party has taken in that state by subtracting the dollar total of each

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[12] For example, if candidate A has a million dollar campaign and candidate B has a one hundred million dollar campaign, if candidate A has one hundred thousand dollars fundraising money come from New York and candidate B has ten million dollars come from New York, they will have the same percent of their campaign funded from New York.

candidate in a state from the dollar total that each party had for the state prior to calculating the

percentages.

Table 5

Correlation of Percent Campaign to Peers Democrats		Correlation of Percent Campaign to Peers Republicans	
Candidate	Correlation	Candidate	Correlation
Biden	.699**	Brownback	0.842**
	0		0.000
Clinton	.912**	Giuliani	.797**
	0.000		0.000
Dodd	.614**	Huckabee	.545**
	0.000		0.000
Edwards	.557**	Hunter	.681**
	0.000		0.000
Gravel	.840**	McCain	.937**
	0.000		0.000
Kucinich	.789**	Paul	.889**
	0.000		0.000
Obama	.897**	Romney	.724**
	0.000		0.000
Richardson	.400*	Tancredo	.711**
	0.004		0.000
*sig at the .05 level		Thompson	-0.010
**sig at the .01 level			0.946
N=51			

The findings suggest that there are stronger correlations to donations between candidates and their parties when equity of the campaign is taken out of the question. All but Tommy Thompson correlated with their party in a statistically significant way. This can be taken to mean that each candidate takes in similar proportions of money from each state when compared to their partisan peers. Before this can be asserted as a more concrete rule, additional elections should be examined to see if these similar patterns emerge.

Network Results

Within this nomination process, there is another question that is interesting with regards to party composition and movement within a given cycle. Over the course of an election, polls clearly indicate that there is movement in support between the candidates. However, within this movement there is little the polls can reveal with regards support leaving one candidate and moving on to another. Just because there is a decrease for one candidate and an increase in another in the polls, the inference cannot be made that this is support leaving one campaign and moving on to another. Donations to a campaign allow for the gap to be filled in with regards to this question. When someone donates money to a campaign their donation becomes a matter of public record.[13] The FEC electronic filings make it so that each donation is a record of who, where and how much that donation represents. If the same name and location were to repeat from one candidate's reports to another, it would be an indication of that donor giving to (and supporting) each campaign. This relationship is important because sharing donors across campaigns could be indicative of support moving as the field evolves.

The invisible primary puts forth the idea that the parties are making their decision on who will win the nomination prior to a single primary or caucus (Cohen, et al. 2008). Primaries and caucuses are going to be low information where influence amongst elite participants is going to be highest (Masket 2011). The fluctuation of resources is something that is going to be worth measuring. Treating the number of donors that are shared between candidates as a proximity measure between campaigns would serve as a useful measure with regards to this occurring. This would mean that if a network were to be constructed with the number of donors as a

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[13]Unitemized donations that were under $200 are not required to be reported. Some candidates chose not to report these donors while others elected to disclose all donations.

linkage, the nodes of that network would be the candidates. This is where the hybridization of the coalition and electoral frameworks takes place. Treating the candidates as high level actors and nodes in the networks and combining electoral and common support of the multiple donor should prove to be an interesting measure of both models.

Using this idea, it might then be useful to see if the sharing of donors during the invisible primary period has and descriptive or predictive value for the 2008 nomination process. A network analysis was conducted to see what if any patterns emerged. The matrix that was constructed was a 17 by 17 symmetrical matrix of the candidates with the joint entry representing the number of shared donors between the two candidates. Also, the diagonal of the matrix was set to all zeros. The dendrogram and non-metric multi-dimensional scaling below were constructed from that matrix using the software program UCINET. The graphics that follow have arbitrary points of the dynamic clustering process pulled from the dendrogram. The MDS is only displayed and the dendrogram can be found in the appendix.
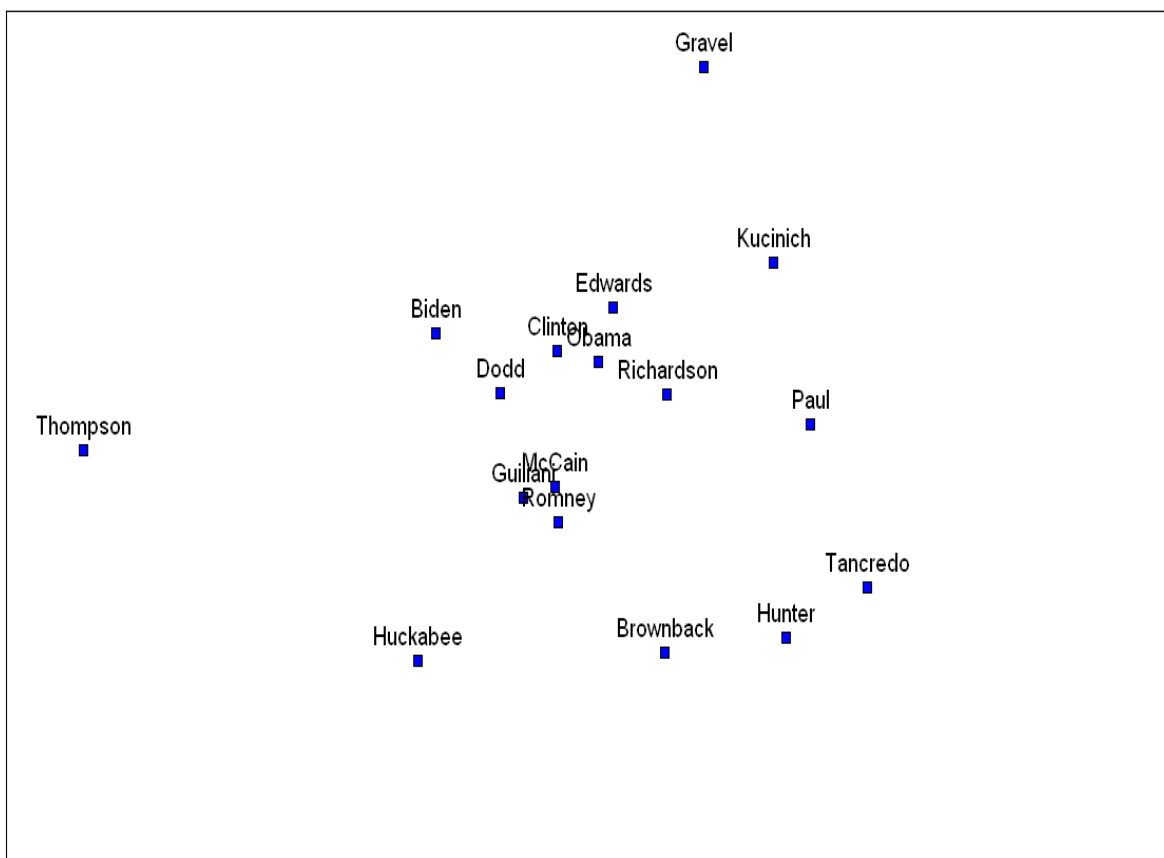
Fig 1

The results of the MDS being to display the clustering of candidates within this multiple

donor network. In order to display this dynamic clustering there is the need for multiple cuts to

be made into the dendrogram. It is displaying in a static representation of a dynamic clustering

process. By selecting different points within this clustering process, the strength of different

clusters can be evaluated and it is possible to begin to describe some of the party activity.[14] For

the sake of brevity, only the critical clustering moments will be displayed graphically. This will

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[14] A question could be posed as to direction of these donations. While an interesting question, for the purpose of this analysis unimportant. In considering the proximity of the candidates and their support networks, directionality is not important because proximity is the only consideration. The ideological flexibility to move is the measure that we are using to describe what is occurring within the party.

be done by a line being drawn through the dendrogram at the point of consideration. Next, there

will be corresponding circles on the MDS that will show the clusters in two dimensional space.

The compact nature of the graphics is going to lead some questions with regards to the exact

coordinates of the nodes. Those can be found the appendix.

The first clustering can be found in Fig 2 below. The central relationship in this network

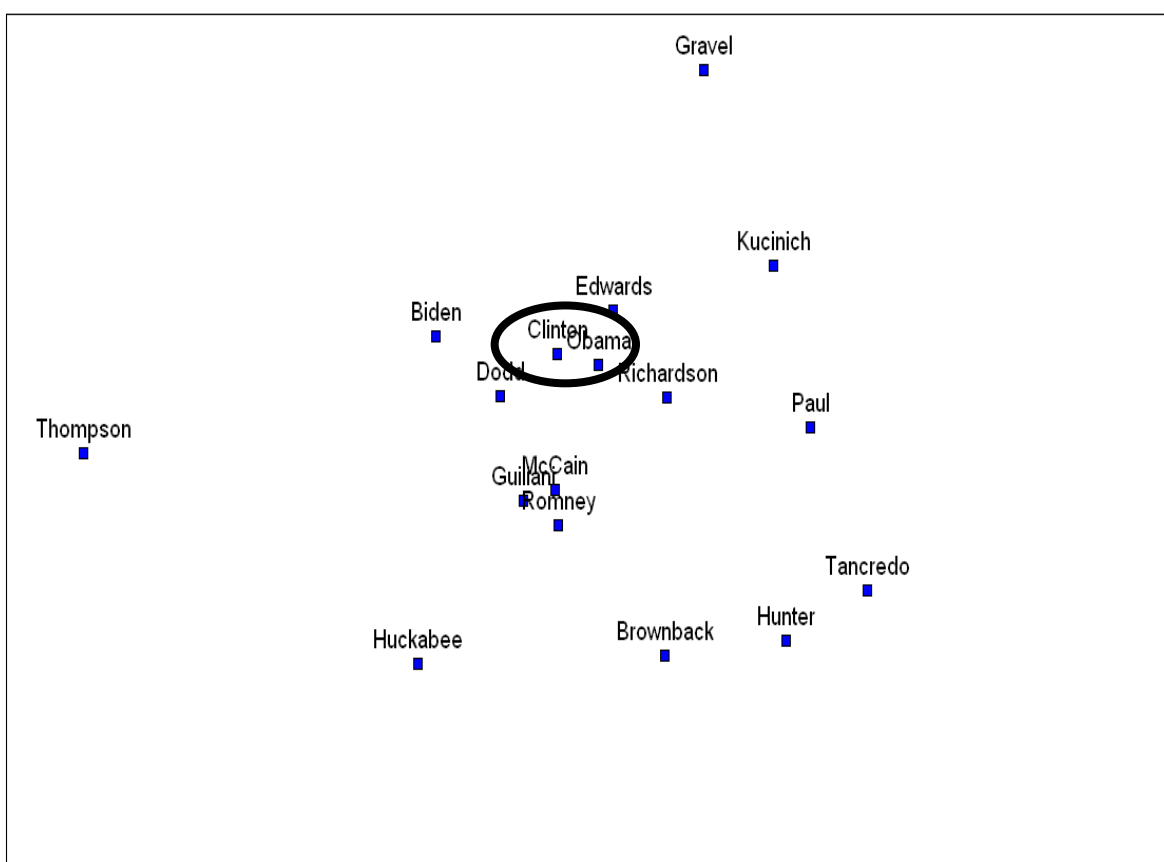would be between Hilary Clinton and Barack Obama.

Fig. 2

This is an interesting clustering considering that this all occurred prior to any electoral

happenings. The momentum that Barack Obama was able to gain with his success in Iowa was

not present in driving these donations. Even though the primary would prove to be long and

seemingly trying for the Democrats, the findings within the invisible primary suggest that the

party, at the elite multiple donor level, was far more unified than the public's perception. This is additionally interesting considering the past scholarship that has suggested that the Democrats are more divided than the Republicans because of rules and the nature of having a diverse party coalition (Mayer 1996). Further calculations will be constructed to further test this new, sixth, hypothesis.

Continuing with the discussion of the dynamic clustering, the next major cluster to develop would be what is labeled as the Republican cluster. Before that develops though, another Democrat, John Edwards will join into the Obama-Clinton cluster forming what will from now be described as the Democratic cluster. Interestingly, the top three candidates in prowess within the multiple donor network were the three major contenders that the Democratic Party had vying for their nomination. This signals both the prominence of the candidates within the network but also an indication of who the major players within the Democratic Party were in 2008.

The next cluster that begins to form starts around Rudy Giuliani and Mitt Romney. These two candidates have many similarities in terms of background that can go towards explaining why they would be such a strong cluster within the Republican nomination process. Both come from holding office in affluent states in the Northeast and both are seen as moderates within the Republican Party (Norrander 2010). At this point in time two clusters have developed where what would prove to be the three major contenders in the Democratic nomination and two of the more prominent figures within the Republican race.
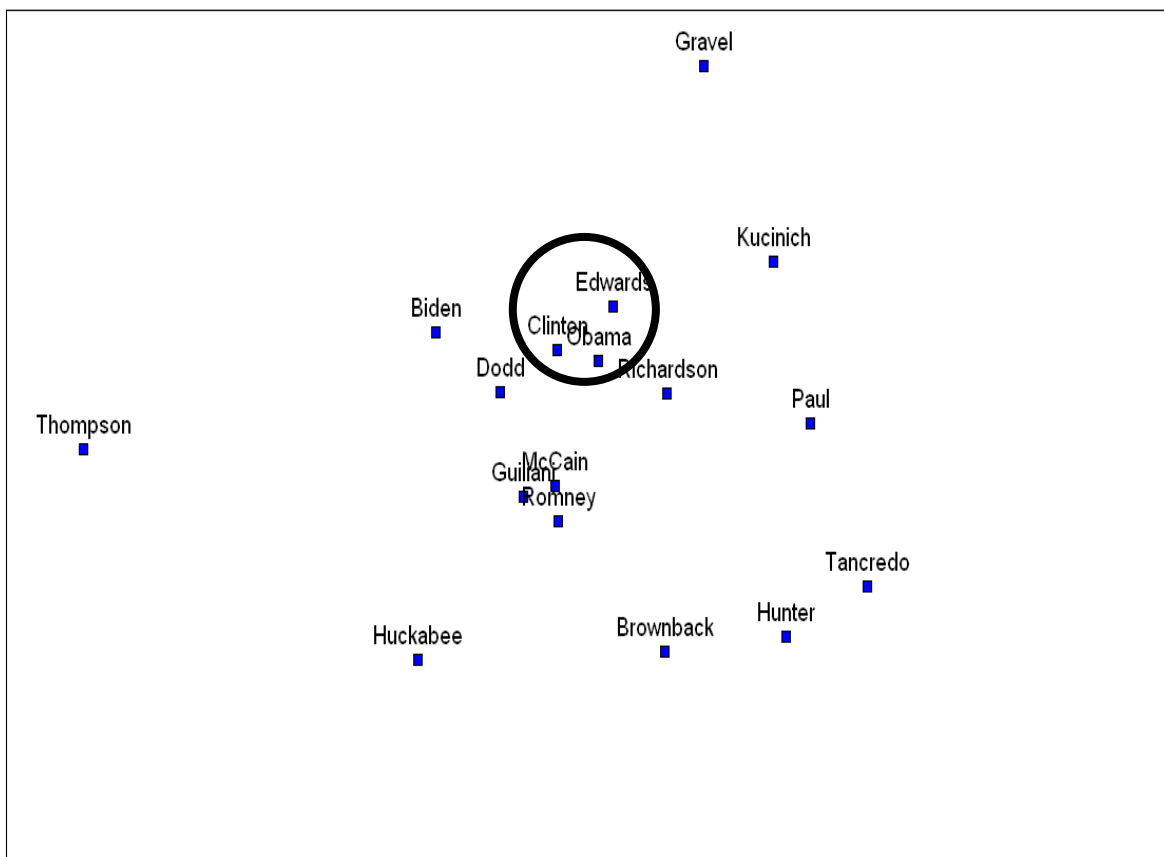
Fig. 3

With two clear groupings developing by party the thought might be that the Republicans would be accepting John McCain into the next grouping, making each party balanced in number. As Fig. 4 demonstrates, this does occur. John McCain the eventual winner of the nomination joins the Republican cluster at this stage creating a balance, at least in terms of number of candidates in each cluster, between the two parties. It should absolutely be noted though that the Democratic cluster is stronger than that of the Republicans as the Democratic clustering occurs first. The sequence displayed by the dendrogrpah is demonstrating that rather clearly. What can be made of that is the cohesive nature of this clustering and that the Democrats are more united in the invisible primary periods than the Republicans in terms of sharing multiple donors.
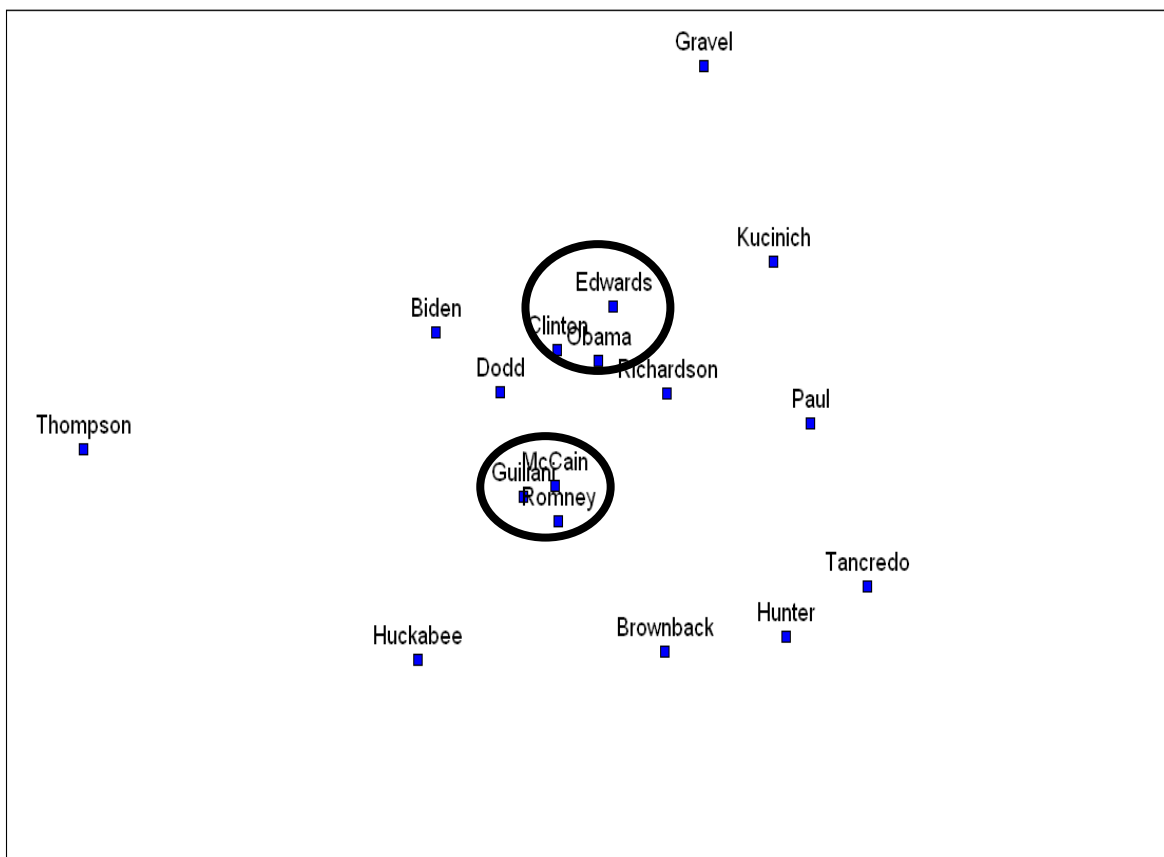
Fig. 4

In describing the progressive clustering, the next candidate to enter a cluster is Joe Biden

entering the Democratic cluster followed by Chris Dodd entering into the Republican cluster (see

Fig. 5). Biden entering the Democratic cluster is not too much of a shock. He was one of the

senior members of the Democratic Party within the Senate and his run for the nomination was

going to get him some support from the party. The surprising finding is Chris Dodd entering into

the Republican cluster. This is the first instance of cross party merging within the 2007 network.

The most logical explanation for this would be the regional bias that is present for the

Republican cluster. Rudi Giuliani and Mitt Romney being the center of the Republican cluster,

and Chris Dodd being from that region could conceivably go to explaining these findings. And

that is the case as roughly a quarter of multiple donors in this first Republican cluster come from New York, New Jersey, Connecticut and Massachusetts.
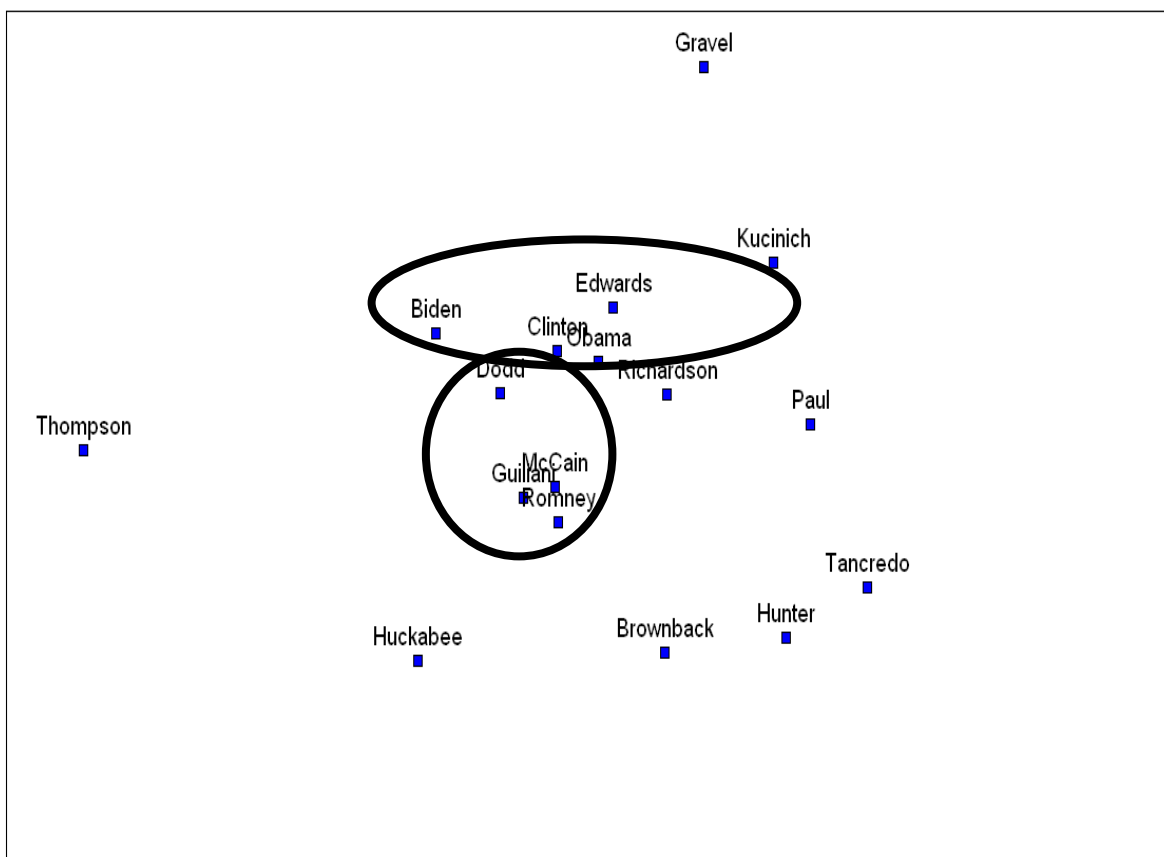

Fig. 5

Moving along with the dynamic clustering, Bill Richardson joins the Democratic cluster of candidates. This would mean that currently there is a cluster of five Democrats and another cluster with three Republicans and one Democrat. More information will be needed to make any statements regarding this stage of the clustering process. That being said, the next group that beings to cluster within this network would be the candidates Deacon Hunter and Tom Tancredo. Both hail from western states and were seen from the onset as long shot candidates. Creating this new third group within the network is an interesting finding. One would think that the

traditional two party cleavage that was developing would play out to be the case between this multiple donor network. In addition to the Dodd to the Republicans surprise, now there is a new cleave developing with regards to the Republican Party.
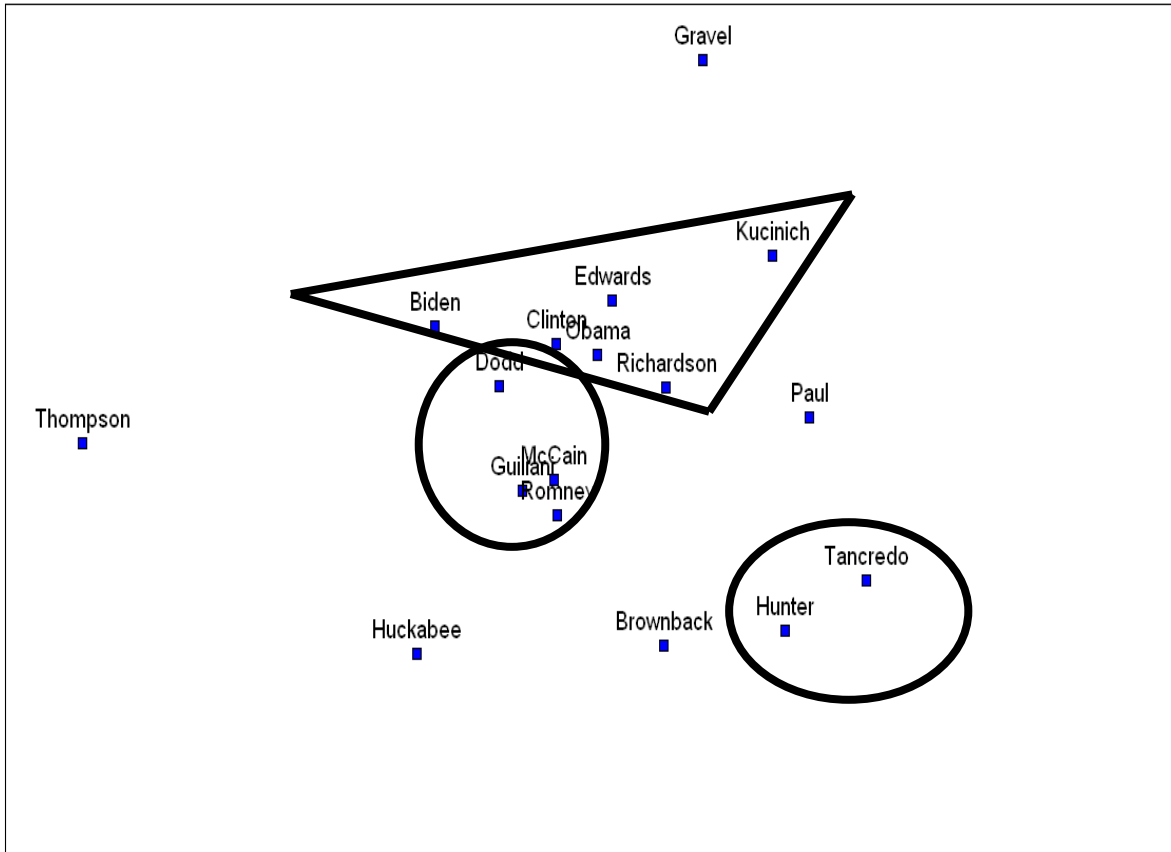

Fig. 6

This again is an interesting finding if one considers the propencity to return home for the general election could be dictated by this support moving within this pre-primary process. For theoretical reasons stated before, ideological flexibility is something that can be inferred from giving across two campaigns. If there is a divide within the party there could be issues on the horizon in terms of party cohesion. This thought will be further investigated following the discussion of the clustering process within the network.

Continuing with the process of describing the clustering, the next candidate be join a cluster would be Dennis Kucinich into the Democratic cluster. There is little surprise with this as Kucinich was seen as liberal ideological candidate in this race. It would make sense that he would be joining the cluster with the Democrats, just later in the process. The next clustering to occur is a critical point and is displayed in Fig. 7.
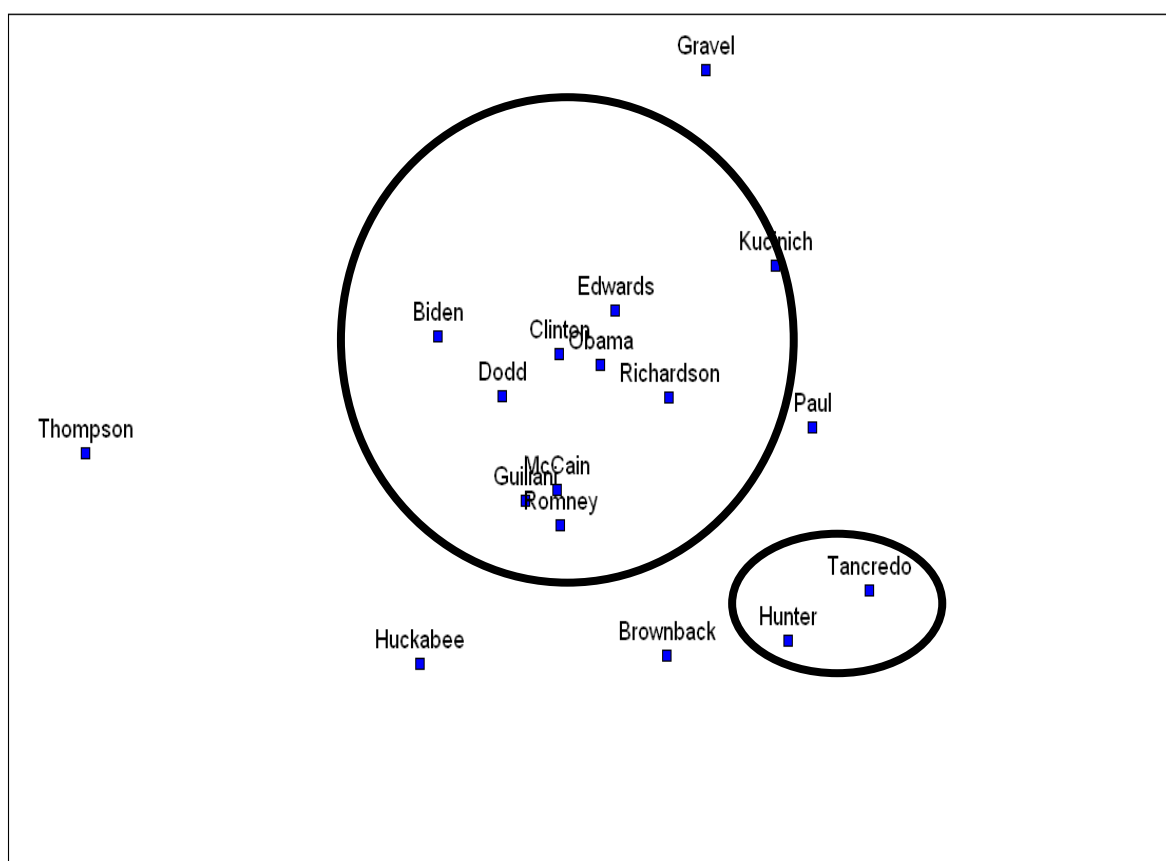

Fig. 7

As Fig. 7 clearly shows, the Republic and Democratic clusters are no more. The two party cleavages have merged and now a fringe Republican cluster now is left in comparison to the rather large, Democratic-Republican cluster. This is implying that the multiple donor network within the invisible primary process in 2007 saw a blurring of the two major party before the lesser candidates were included into the network. At this stage in the clustering

process, there is no longer a purely Democratic/Republican cleavage. Additionally, Mike Gravel is the only Democrat remaining in this process that has yet to been absorbed into a cluster. That being said, he is such a minor candidate that he only has 451 donors and 20 shared in the network. By comparison, Barack Obama and Hillary Clinton alone share 2269 donors between themselves. His candidacy is so small in comparison to the other actors that his omission from clustering is not a byproduct of alienation from the party, but the obscurity of his candidacy.[15]

The argument could be presented that the candidates that are clustering are then clustering simply because they have a numerically superior number of donor and the probability that someone would cross to another party is just simply higher. This is not the case as Ron Paul has five times the number of donors of Joe Biden (26,746 to 5,575) yet Joe Biden shares five (654 to 187) times the number of donors within the network as Paul. Those candidates in the main cluster certainly have a numerical advantage in terms of funds, but that still does not account for the clustering to be non-uniform between parties. When this is compared to the Republicans there are still several prominent Republicans that have failed to come into either cluster. Mike Huckabee won states in the primary process and still has not joined into the now uni-party cluster. Ron Paul falls into the same territory as Huckabee at this stage of clustering despite remaining in the primary process for an extended period of time. So, for the Republicans, the second and third to last candidates to drop from the field have yet to join into the invisible primary network in 2007. In addition to Paul and Huckabee, Tommy Thompson and Sam Brownback are yet to join a cluster as well. This again goes to demonstrate that the Republican multiple donor network is not joining with either party and presents a question of cohesion.

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[15] More will be discussed later in terms of number of donors and shared donors.

The question that now remains with this clustering process is how the remaining candidates enter the network. The two possible outcomes could be that each candidate moves into the main cluster in a uniform manner including the small second Republican cluster. The alternative to this pattern would be that the lesser candidates add into the small Republican cluster. The case that presents (as seen in Fig. 8) would be the latter in 2007. Sam Brownback and Ron Paul join the lesser Republican cluster followed by Mike Huckabee joining the major cluster before the two remaining cluster merge into one large cluster. The implication is that the lesser Republican candidates have more in common with one another than the Republicans that are part of the major cluster.
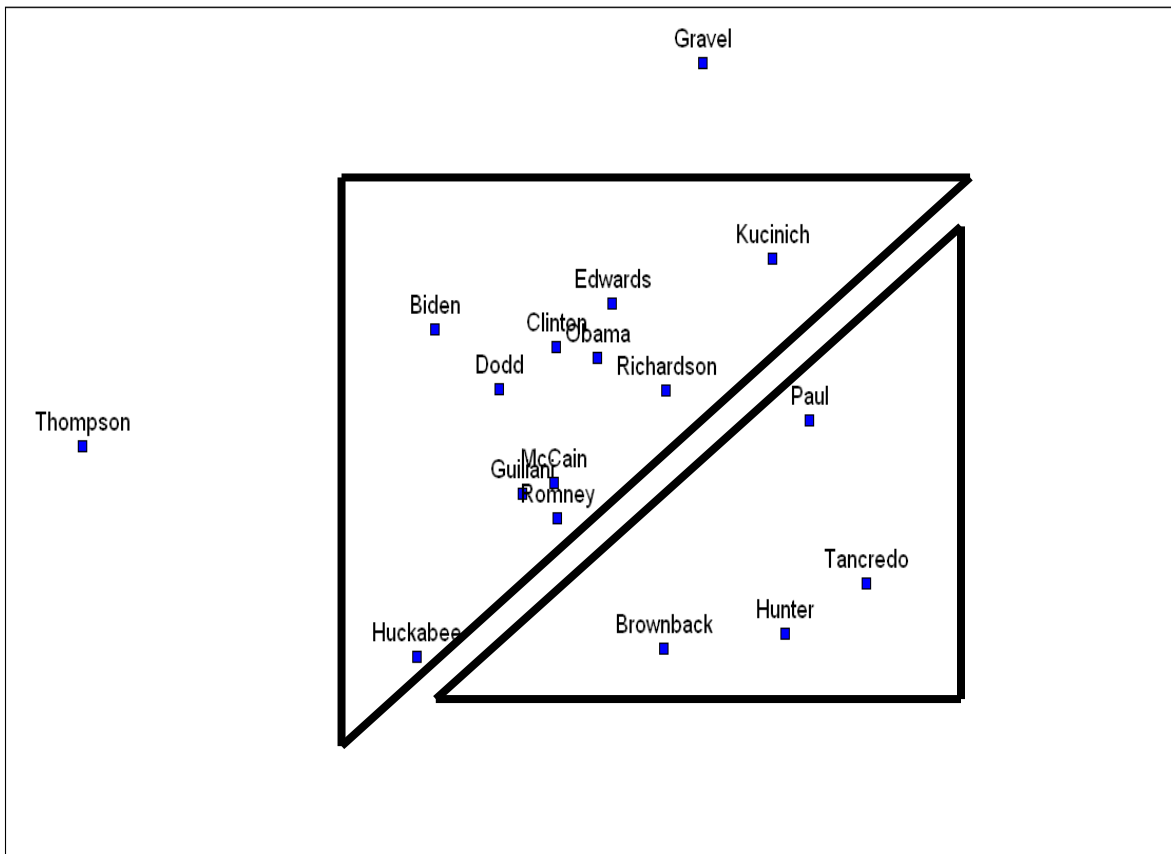

Fig. 8

A great deal has been made about the differing patterns of clustering between the two parties. Considering the two parties simultaneously can be somewhat confusing and the could be additional factors in computing proximity that need to be taken into consideration. Therefore, there is a need to consider each of the party networks as existing in a vacuum. That is, a matrix of shared donors will be compiled and that network will contain candidates only of one party as the nodes. If the full matrix is correct in describe how the two parties are cluster, the expectation would be that the Democrats cluster in a rather uniform manner and that the Republicans will come together in a more fractured and disjointed way.

The Democrats have the step by step cohesion that was expected. The Clinton/Obama cluster was the first to form with the candidates that followed to come in a similar pattern as to how they clustered into the complete donor network. The question now would be if the Republicans, once isolated, maintained a fractured pattern or if separating from the complete network would display a more unified party than the complete donor network implied. The Republicans to be fractured as predicted by the complete network. The Republicans are very fractured and the clustering pattern is indicative of that assessment.

Two prominent clusters of Republicans emerge. The first would be that the frontrunners that were first to form in the complete donor network. Giuliani and Romney begin to cluster followed by McCain entering into the same cluster. The next step in this clustering was the forming of the Hunter and Tancredo cluster. Now with two clusters developing, Huckabee enters the first Republican cluster joining the three frontrunners. After that occurs, the next and final clusterings that occur would be the merging of Brownback and Paul into the Hunter /Tancredo cluster. Thus, the two clusters that are now present within this Republican only network could not be more clearly divided. On one end the moderates and contenders form into

a foursome. The other end comprises more of the ideological fringe and conservative candidates within the party. The formation of these clusters was not uniform like the Democrats and could then be indicative of a lack of party unity. These claims will be tested later in this study.

Before moving to the final consideration of party unity, there needs to be some discussion with regards to magnitudes of the campaigns. There is a valid statistical concern that the number of donations that are coming into the frontrunners in the race should make them the most likely to have the greatest number of shared donors. A candidate cannot share donors that he or she does not have. In order to take this into account, Table three provides the number of donors that are shared within the network. While the number of donors is somewhat proportional, upon further examination it is just not sufficient in explaining the differences in the two parties. For example, Rudi Giuliani has almost 8,000 more donors than John Edwards. Yet, Edwards contributes around 800 more donors to the multiple donor network. The Biden and Paul comparison was previously made, but the same is true in almost all the comparions. Dennis Kucinich has a comparable number of donors to Sam Brownback but contributes almost three times the number of shared donors as Brownback. Chris Dodd shares almost seven times more donors within the 2007 multiple donor network than Mike Huckabee even though Huckabee has almost a 1,000 more donors. Finally, Hillary Clinton and Barack Obama share 500 more donors with one another than any Republican shares with the entire network (including both Obama and Clinton). All of these comparisons illustrate a pattern that is emerging. Irrespective of the number of contributors that a given candidate has, the sharing of donors is not explained by just probability and having a great many donors. There is also a clear party cleavage in examining the differences between parties. The Democrats are sharing their donors with the network and

one another a great deal more than their Republican counter parts.[16] The multiple donor network

has a great deal of descriptive power in accounting for the cohesion of the network. In the 2007

invisible primary race, there is a clear break.

Party Unity Analysis

The invisible network in 2007 serves as an interesting point of consideration for scholars.

Because social network theory is applicable, the element of cohesion can be analyzed and an

element of party unity could be examined. However, this unity that is being examined has

somewhat of a limited use in terms of conclusive party unity. There can be an inference from the

multiple donor network in 2007 as to how the party will come together in the general election.

The assumption would be that as a party shares more donors in the invisible primary, that party

will have an easier time unifying and there should be a greater number of donors that come home

in the primary period. The network would suggest that this is the case; it is not conclusive.

In order to examine this implication from the network, additional analysis is required.

There first must be some care taken in selecting the dates that each file was collected. The 2008

primary race for each party took different paths. The nomination of John McCain has some

resistance, with two other candidates winning states in the process. However, by March it was

clear that McCain was going to represent the Republicans in general election. The Democrats

had fewer competitive candidates, but they did not have their race reach a conclusion until much

later in the process. In fact, it was not until June 3rd of 2008 that the Democrats selected their

candidate for the general election.

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[16] The table that contains the sharing within each party can be found in the appendix.

So far in this data set we have analyzed the preprimary period. That means that all of 2007 donors have been accounted for and a uniform opportunity of time has been maintained. Having two different time periods of the primary season makes for a decision to be made with regards to how long the general election was as well as if to include the primary period of not. With regards to the latter, the primary season is going to be excluded from this analysis. There are too many competing variables to consider with regards to donating that could skew contributions. The question that this cross referencing is posing is how the party unifies in the general election. Therefore, the primary period has candidates within a party still fighting for the nomination and the party is still divided at this stage and there is little or no unification of party taking place. Therefore it makes little sense to evaluating the primary period with regards to the research question that is being posed.

An additional benefit to excluding the primary season is that it allows for the periods that are being cross reference to be as uniform in competition. The preprimary process has no winnowing occurring so all candidates have the same amount of time to raise money and compete for the nomination. Cross referencing the funds when one candidate remains makes it so that the periods in question have complete party infighting against what ideally is a unified party. Or at least a party that is unified as possible.

There is still one more consideration to make with regards to selecting the timeframe for which the general will be evaluated. As mentioned before, the length of each primary was different. Each party had competition into March and both races were over by June 3rd. So certainly the files from January 1st to April 1st will be excluded and June 1st through the election will be included. The questionable file then will be John McCain's April file. Including the file will allows for McCain to have an extra month to raise money within this process. Excluding the

file could exclude some of the donors that are unifying with the party. For the sake of this study, the uniform time is going to be more valuable and therefore the April file of McCain will be considered part of the primary process and will be excluded from the cross referencing. If a donor wants to give to John McCain to support him in the general election in that close proximity to the primary, the chances are that person already gave as his win became all but a sure thing in March. So, eliminating the element of time is going to be the most valuable for the sake of examining party unification. Additionally, the periods that are in question will allow for total party division (the preprimary with all candidates competing) to be compared to a time that the party should be the most unified.

In comparing the two periods against one another, the same database software will be used. This software will condense the records from June 1st of 2008 to what the candidates classified as their pre-general records. Both John McCain and Barack Obama collected more in terms of donors in this time period by a considerable margin. The general files of each candidate were cross referenced against each file of the preprimary for every candidate. The results are in Table 7 for McCain and Table 8 for Obama.

Table 7

	Biden	Brownback	Clinton	Dodd	Edwards	Guiliani	Gravel
McCain Cand's	15	31	27	53	5	2690	0
Donors McCain	5575	2831	60702	6275	28710	36332	451
Total	116356	116356	116356	116356	116356	116356	116356
%McCain's	0.01	0.03	0.02	0.05	0.00	2.31	0.00
%Cand's	0.27	1.10	0.04	0.84	0.02	7.40	0.00

	Huckabee	Hunter	Kucinich	McCain	Obama	Paul	Richardson
McCain Cand's	210	63	0	6034	13	25	45
Donors McCain	7262	1580	2863	36601	76829	26746	17689
Total	116356	116356	116356	116356	116356	116356	116356
%McCain's	0.18	0.05	0.00	5.19	0.01	0.02	0.04
%Cand's	2.89	3.99	0.00	16.49	0.02	0.09	0.25

	Romney	Tancredo	Thompson
McCain Cand's	2216	39	5
Donors McCain	37096	3384	431
Total	116356	116356	116356
%McCain's	1.90	0.03	0.00
%Cand's	5.97	1.15	1.16

Table 8

	Biden	Brownback	Clinton	Dodd	Edwards	Guiliani	Gravel
Obama Cand's	458	1	6184	120	5518	20	8
Donors	5575	2831	60702	6275	28710	36332	451
Obama Total	464011	464011	464011	464011	464011	464011	464011
%Obama's	0.10	0.00	1.33	0.03	1.19	0.00	0.00
%Candidates	8.22	0.04	10.19	1.91	19.22	0.06	1.77

	Huckabee	Hunter	Kucinich	McCain	Obama	Paul	Richardson
Obama Cand's	1	2	375	81	32011	118	441
Donors	7262	1580	2863	36601	76829	26746	17689
Obama Total	464011	464011	464011	464011	464011	464011	464011
%Obama's	0.00	0.00	0.08	0.02	6.90	0.03	0.10
%Candidates	0.01	0.13	13.10	0.22	41.67	0.44	2.49

	Romney	Tancredo	Thompson
Obama Cand's	13	7	2
Donors	37096	3384	431
Obama Total	464011	464011	464011
%Obama's	0.00	0.00	0.00
%Candidates	0.04	0.21	0.46

There are many levels at which the unifying of each party can be examined from these tables. The first would be to what extent donors that gave in 2007 that gave to the winning candidate, donated again in 2008. The law allows for even the max donors in the primary to give again in 2008 so all donors in 2007 could conceivably give again in 2008. When these numbers are considered, Barack Obama is more successful by a great deal in magnitude in having his donors give to his campaign. Obama has almost five times (32,011 to 6,034) donors that gave both the general and primary campaigns. That being said, Obama had a great deal more donors in both periods. Therefore, magnitude is not the best comparison because this discrepancy could

be explained by probability of having the two different size pools from which donors are coming from.[17] To take this consideration into account, the percentage of each candidate's pre-primary donors that gave in the general must be measured. Again, Obama is superior to McCain by a considerable measure (41.67% to 16.49%). More than double, in terms of percentage, of Obama's pre-primary donors gave again in the general. Remembering back to the invisible network, the central actor was Obama. It is not an unreasonable expectation that he would be able to generate support for his general election campaign from his supporters in the pre-primary. And, with his central actor status, it is not unexpected that he was able to raise more than his competitor in the general election.

The next topic to examine would be how the party came together in the general election. If the multiple donor network is correct, there should be more Democrats giving to the Obama campaign more than any other candidates in the pre-primary time period. In looking at the tables, this is exactly the case. The most shared donors between the pre-primary period and general would be between Clinton and Obama with 6184 donors shared. This is roughly three times more than the 2269 that were shared in the pre-primary period. So, despite the appearance of a divisive and long fought out primary on the Democratic side, the early Clinton supporters had no difficultly coming home and giving again to Obama in the general election. In fact, 10.19% of donors that gave to Clinton in the pre-primary gave to Obama in the general election. That is more than any Republican gave to John McCain both in terms of magnitude and percentage.

John Edwards donors moved to Obama in the general almost in the same number as Clinton. Obama received money from 5,518 of John Edwards pre-primary donors in the general

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[17] In other words, it would be expected that there would be more 1's rolled on a six sided dice if there were 10,000 rolls compared to number of heads on10,000 coin flips.

election (19.22%). That means that for every five donors to Edwards pre-primary campaign, one of them gave to Obama in the general. This is a remarkable display of cohesion within the party and would be indicative of Edwards support being willing to move over to Obama in the general election. By comparison to McCain in terms of percentage, more donors that gave to Edwards in 2007 gave to Obama in 2008 than McCain's pre-primary donors doubling down on McCain. Edwards did have fewer donors, so McCain had more donors give to him again, but that number is only 516 donors, or .4% of the McCain general donor pool.

In moving to the McCain campaign, the success that McCain has with getting the donors of his competitors in 2007 to give again to him in 2008 was much less than his Democratic rival. Giuliani had 2,690 donors(7.4%) move to McCain in 2008 and Romney had 2,216 (5.97%) of his donors do the same. This is much smaller both in terms of magnitude and percentage in comparison to Obama. If magnitude could account for extra excitement for Obama in the general, it certainly does not explain away the percentage differences that the campaigns saw with regards to getting other candidates donors to give again to him in the general election. It appears that on this front the multiple donor network was correct in the prediction that the Democrats would have an easier time in getting their donors to come home in the general election.

This pattern holds true as the lesser candidates of each party are consider. No remaining Republican had even 4% of his donors move over McCain in the general election. This compares with the Democrats who had 8.22% Biden donors move and 13.1% of Kucinich donors come home in the general election. Interestingly enough, Ron Paul actually five times (118 to 25) donors switch to Obama rather than come home to the Republican candidate.

In examining all of the candidates, the pattern once again emerges that the Democrats are more likely to bring their own into their general candidate's campaign than their Republican counterparts. While the major Republican candidates did have their donors move in a major way towards McCain (about 170 donors to McCain for every Obama Donor), they are not nearly what happened with the Democrats and Obama. For every Edwards donor that switched over to McCain, there are 1,103 donors to Obama. Clinton has almost 230 donors to Obama for every McCain donor. When the magnitude of the number of donors is considered, this gap widens even more. What the ratio of donors illustrates is again the strength of the Democrats with regards to retaining their donors and keeping them loyal to the party.

The Paul finding points to a need to address party defection rates in the general election. The number of party defectors is something that would worthwhile in conversations regarding party unity. Table 10 shows the results of the party defectors in the general election.

Table 10

Republican Defectors	245	Republican Donors	152263	%Defecting	0.16
Democrat Defectors	158	Democrat Donors	199094	Defecting	0.08

The first point to make is how few of the donors that gave in the invisible primary gave to a different party in the general election. This is a strong indicator of party support as the Republicans, who gave the most away in terms of magnitude and percentage, gave away less than two tenths of a percent of their invisible primary network over to the Democrats. That being said, again the Democrats displayed a stronger party unity that the Republicans, retaining a greater number both in terms of percentage and magnitude.

New supporters are another point of consideration with describing the party. Certainly defection rates must be accounted for, but new additions to the candidate's donor network has explanatory value as well. A little extra care must be taken here, removing the candidate's donors from the pool of this new support group. The results are displayed in Table 11.

Table 11

Republican Supporters	5279	Republican Donors	115662	%Supporting	4.564161
Democratic Supporters	13222	Democratic Donors	122265	%Supporting	10.81422

Once again the data show that the Republicans are having a more difficult time gathering up support for the donors of the other campaigns (by a 3:1 margin in magnitude and a 2:1 percentage). As with all of the measures that have been discussed already, this indicates that the Democrats have a much stronger network of donors within this invisible primary process than their Republican counterparts. That strength early on seems to go a great deal towards explaining why the Democrats would enjoy more success in the general election as well.

The fractured Republican multiple donor network predicted that the Republicans would have some trouble getting the other candidate's supports to switch in the general, but this level of difficultly was not expected. Certainly, the donors that gave to Paul that did give again in the general represent less than 1% of Paul's pre-primary donors. That being said, while small in number, the fact that more went to the other party's candidate is a finding that is surprising and cannot go unnoticed.

When examining the results of each table, a clear pattern develops that confirms the utility of the multiple donor network. Not only do more Democrats come home in terms of

number in the general election, but as a percentage of donors in other campaigns in 2007, a greater percentage of donors of each campaign come home.

Discussion

In evaluating the multiple donor network, it is clear there are many potential uses that are applicable in the nomination process. First, the network, prior to any vote being cast, correctly predicted the eventual winner of the general election as the central actor. Also, clear party cleavages developed throughout the dynamic clustering process revealing the Democrats to be far more uniform than the Republicans. Using that as a point of inference, it would be expected then that the Democrats would come home in greater number than the Republicans in the general election. This was exactly the case. Because the Democrats donors were coming home in greater number than the Republicans, the success that the Democrats enjoyed in the general should not be too much of a surprise.

In how this tool can be used in the future, scholars would be wise in considering this network approach in evaluating parties. It provides a nice hybrid of hierarchical elite model and the amorphous elections model. Also, in evaluating the results of the general election against the network, the forecasting potential of this approach should not be ignored. Not only in terms of getting the winner correct but also for looking at how the party is going to coalesce in the general election. The divisive primary literature has had conflicting results in terms of accounting for different instances of success in the general as correlated to a divisive primary. This network should be useful in that regards because a party that is already divided at the multiple donor level before a vote is cast is one that is expected to remain divided in the general regardless of how the primary unfolds. The state of the party is something that is of such a massive scope that a quick

primary should not undo the party division. This network approach will both reveal division but also display cohesion as well.

There is also room for the discussion of a typology of clustering that manifests in the invisible primary. In 2008, there are two distinct patterns that emerge. That is not to say that these are the only two conceivable patterns that could present. A discussion of these two patterns in addition to the other patterns that could develop is a worthwhile discussion.

Of the two patterns in 2008, the Democrats have a rather clear and orderly clustering pattern. The Obama/Clinton clustering occurs and then the remaining candidates follow in a rather clear stepwise pattern. This is going to have minimal drain on the network as there is no competition for resources. This lack of competition is indicative of a network that is going be cooperative and ultimately, ideal, in the party aggregating for the general election. 2008 for the Democrats also had two very distinct candidates that were central to the network. Because there were two central candidates, with the others falling in line behind, the party is in what would be an ideal position for aggregating. This should present a party that is going to be rather united behind these two candidates should one go on to win the nomination. Also, there is no counter group that develops to challenge the central actors within the network. No group that is competing within the network is going to be helpful in the eventual aggregation of ideas within the party in the general election.

This contrasts nicely with the Republicans in 2008. While there was a central cluster that developed with some of the more prominent candidates, there later was a distinct clustering that competed with the first Republican cluster. That clustering pattern contrasts with the Democrats when the lesser candidates begin to clustering within the network. The Republicans have a second clustering of the lesser candidates begin to develop in their network. While these

candidates might have been lesser in stature than the main clustering, they still represent a

sizable segment of the party in terms of theoretical and ideological support, but also in terms of

donors. Ron Paul had 22,746 donors on his roster yet shared fewer than 1% within the network.

This is something that is not ideal because having a large segment of the network that is more

isolated than any other network is going to present problems when the general election. The

factions that will not join into the party are going to be in competition with one another for

support.

As the divisive primary literature has shown, competition within the party is not going to

be purely indicative of the eventual outcome of the general election. This would suggest that

there is a difference between a contested and a divisive nomination. Purely by optics one would

think that the Democrats process in 2008 would be more problematic than the Republicans. The

Democrats seemingly had two distinct camps and the race lasted much longer than the

Republicans. That being said, the invisible primary network is a challenge to that notion. The

results of this study clearly show that prior to a single vote in the primary, there was already

unity between the Clinton and Obama donor base.[18] This network measure then should be useful

for scholars in considering the state of the party prior to the general election because it will

bypass the sensationalism that can be found in the media when covering the nomination process.

That is something that is important because the state of the party going into the party is unlikely

to have any major shifts, especially towards unity, within the primary process.

In discussing these two network possibilities, there are other network types to consider.

One other hypothetical circumstance would be a party that has many closely tied frontrunners

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[18] The claim that could be made is that the Democrats were equally excited for each candidate as either would be a landmark first for an underrepresented demographics. Other elections will need to be evaluated to test this claim.

that are unable to distinguish one candidate from another. This network would show a tight clustering of multiple frontrunners that are taking up the majority of resources within the network, yet one distinct central actor does not manifest. Lacking this central actor, the network is serviceable, as the interparty competition is limited, yet there aggregating might be more difficult because there are more viable camps that must unite with the party. Also, the eventual winner would have to overcome a perceived enthusiasm gap. The reason for the assumption of this enthusiasm gap exists is the inability of that candidate to pull away from the pack and make their candidacy the clear choice early on in the primary process. On a whole, this network is not as ideal as the frontrunner, stepwise clustering because there is the potential for more camps; however, it is preferable to have divisions within the party.

One final alternative to consider with hypothetical networks would be if there is no discernible or weak clustering. A network could present itself with weak ties that ultimately appear as noise to whoever is evaluating this network. Having a party that has very limited connections on this multiple donor level would be the worst case scenario for a party. The lack of sharing is indicative of a party that has distinct camps and opinions on which candidate should be the eventual nominee. Displaying an inability to share donors prior to the primary process is going to be problematic for a party once it eventually selects a nominee to compete in the general election. The expectation is that the party will rally to the nominee, however, while votes matter, just having the base of a party show up will not give the party a win in the general election. Therefore, the noise model is the least desirable for the party, as a party that is unable to display any unity is one that is beginning to cease to be a party. The label group lacks serious value when that group ceases to be homogenous in action and opinion.

In summarizing the ideal patterns of clustering of multiple donors, the best case for a party would be candidate's donors moving to support a clear frontrunner in a normal, stepwise pattern. This allows for the greatest chance of party unity and also presents a signal for whom to rally to in the general election. Next in strength is the network that has many indistinguishable frontrunners. Unity is still present but there is the potential for a lack of signally and support in the general election as the electorate has a greater enthusiasm gap than the frontrunner model. Next, the case of factions within the party would present in strength. Having competing factions are not ideal for a party as there is a resource drain. However, competition of groups at least has the potential for some rally effect between candidates, whoever the eventual nominee is, which could provide some help in the general. The ideological chasm is still a greater issue than the lack of signaling in the general and therefore is less desirable for the party. Finally, the noise modeling is the worst case scenario for the party. Having no unity and clustering presents a party at odds with one another. The lack of sharing of resources is problematic for the party and even begins to call into question the viability of the party. A party that exists only as a label will struggle electorally and should have poor results in satisfying the electoral component of the definition of a political party. Additional study of other elections will be needed to evaluate these assumptions of these typologies of the multiple donor network.

Future Research

The 2008 presidential nomination process and election were historical on many fronts. Aside from the obvious characteristics that made this election cycle unique (Box-Steffensmeier and Schier 2009), there were also advances in technology that made for a greater availability of data for scholars to examine, especially with regards to campaign donations. There are some

limitations that looking at one election has with regards to drawing any conclusions that can be used, either as a descriptive or predictive in nature. Because of this fact, there are many avenues that scholars should examine to see if 2008 was indicative of a greater pattern through all elections or if these findings were unique to this given election.

The first question that should be examined would be the distribution of donations in 2008. The distribution of the donations being correlated to the United States population makes it so that this is indicative of a truly national process. It could then be said that these donations are a fair reflection of the party at large, thus redefining the third face of politics in a more definite and quantifiable manner. Conformation of this idea with other elections would be useful.

Additionally, the pattern of having a campaign's top state on a per capita basis be either the home state of that candidate or Washington, DC needs confirmation from other elections. In addition to other elections, it would be interesting to see if these patterns existed in early time periods as this could be indicative of who would be getting support from the most active party members. Both questions will be useful to examine.

The regional nature of the Republicans is something that is useful for scholars to examine as well. It would be interesting to see if this description of the Republican Party can be applied to other elections to the Republicans or to the party that failed to win the presidency. This could be another source of forecasting that scholars would find useful. However, for claim to be made, other presidential nominations must be examined.

Also, it would be interesting to examine if raising money like one's peers has any bearing on success for that candidate in seeking the nomination. Having a high correlation between donations to an individual's campaign and the remaining candidates in that party seemed to be indicative of party health as a whole as well as a precursor of success for that campaign. It

would be interesting to see if that manifested again in other elections or if 2008 was a unique set of circumstances.

Finally, it would also be useful to examine the predictive nature of the multiple donor network in the invisible primary. The fact that the invisible primary network in 2008 was very accurate in reflecting the results of the nomination process would serve as a useful measure for scholars to examine going forward. With one election being cross sectional in nature, it would then be useful to have other invisible primaries to examine to see if these patterns are present in the other elections.

The presidential nomination process is germane to elections, the presidency, parties and the political behavior. Because of the advances in information, and the availability of the new data, it is a worthwhile endeavor use this process in as many ways as possible. In the case of the 2008 election, the donations that take place within that cycle seem to provide useful information to the nature of the parties as well as the campaign strategies within each election. Finally, there might also be some predictive value that comes out of this nomination process not only to the nomination itself, but also to the general election. Because of the diversity of these findings, additional research will be useful to see if 2008 was truly a unique election or if it fits within a pattern of other elections.

Appendix

Research Notes

To accomplish this task the database software in Microsoft Office was employed. *Access* has several wizards by which data sets can be condensed and linked to one another. The first task was to condense files down to the donor. In other words, if someone were to give twice their name would be two entries on the candidate's donation roster. This can be resolved through a wizard that would condense the names of the lists of each candidate's donor list. Next, relationships were constructed between each candidate's files that would allow for names to be cross referenced, identifying which individuals appear on more than one list for each candidate. The three considerations that must be met in order to make this list would be shared first name, last name and address. This would then account for anyone that gave multiple times. Some error is to be accepted as someone that moved during this time period would be excluded from this study, however, this number is expected to be rather small. Once each candidate was cross referenced against one another then number of shared donors between each campaign could be accounted for. A symmetrical matrix was constructed using each of the 17 candidates with shared donors representing the shared value of two candidates.

Corresponding Dendrogram to Figures 1-9

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