

Social Network Influences on Political Campaign Volunteerism

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Abstract

Social network ties influence a number of political behaviors, such as political discussion, participation, and vote choice, even when controlling for individual-level factors. However, no study to date has used social network analysis to examine political volunteerism, an integral part of many political campaigns. Using a survey of volunteers targeted by a Virginia congressional campaign in 2008 and 2010, we map the campaign's networks and find that recruitment to a political campaign by a social tie increases an individual's likelihood of volunteering, while recruitment by the campaign itself appears to *decrease* likelihood of volunteerism. The effect of social recruitment is mediated by an individual's network centrality, with more central individuals completing the most volunteer activities. We also conduct a small field experiment to show that recruitment format (social vs. campaign contact) influences political volunteerism, regardless of a subject's past participation. These findings suggest that traditional campaign recruitment methods are not only less effective than recruitment through social ties, but they could also be detrimental to the campaign, with repeated campaign contact driving down volunteerism.

Keywords: Social networks, volunteering, campaigns

Political participation has a large social component. Individuals are embedded within social networks, complex collections of relationships all people have with those around them (Sinclair 2012). These relationships have been shown to influence a number of political behaviors, including voter turnout, vote choice, and political discussion, even when controlling for other factors such as socioeconomic status and individual-level attitudes (Fowler 2005; Levine 2005; Huckfeldt 1979; Klostad, Sokhey, and McClurg 2012). These behaviors can also spread through social networks, as changes in any individual's behavior have the potential to "cascade" through the person's social ties in complex ways (Nickerson 2008, Bond et al. 2012, Christakis and Fowler 2013). Sociologists studying participation in social movements at the individual-level have also noted the importance of social recruitment for movement participation and activism. The presence of agreement and the absence of cross-cutting ties in an individual's network increase his or her likelihood of joining a political movement, such as the 1964 Mississippi Freedom Summer (McAdam and Paulsen 1993). Furthermore, the degree to which the recruitment attempt is personalized has also been shown to influence successful participation (Snow, Zurcher, and Eklund-Olson 1980).

Yet this research has not come to bear on a staple of modern political campaigns: volunteer recruitment. Political campaigns traditionally devote significant time and effort recruiting volunteers to perform a number of important campaign activities, including canvassing door-to-door, calling voters on the phone, entering campaign data, and helping with visibility at events. Recruitment is often conducted over the phone by campaign staffers, interns, and other volunteers who generally do not know the individuals they are trying to recruit. Rates of successful recruitment using this method are often low: campaign workers making calls frequently contact only 10% of their target individuals in a given session and approximately 50%

of volunteers who sign up fail to arrive for their scheduled volunteer sessions (Cushman 2012). A review of extant social network literature, however, suggests that recruitment through social ties would plausibly have a greater effect on boosting rates of political volunteerism than would explicit campaign recruitment. Sinclair, for example, shows that political campaign donations are heavily influenced by social ties, with donation amounts increasing as donors become more connected within supporter networks and as the act of giving becomes more public (Sinclair 2012).

To our knowledge, social network analysis has never been used to assess political campaign recruitment methods. Are socially recruited individuals more likely to volunteer for a political campaign than those recruited by the campaign itself? Using a survey of campaign volunteers from a Virginia congressional candidate's 2008 and 2010 campaigns, we map the campaign network in each year and find that social recruitment increases an individual's likelihood of volunteering, while campaign recruitment appears to *decrease* volunteer likelihood. The effect of social recruitment on volunteerism is mediated by an individual's total degree centrality,¹ with more central individuals the most likely to volunteer. Because individuals who are recruited by social ties may also have characteristics that make them more likely to befriend others or be more socially connected in general (and thus have higher centrality), we also employ a small field experiment using college students to show that recruitment format (social vs. campaign) influences political volunteerism regardless of a subject's past participation or general propensity toward being socially connected. These findings indicate that traditional campaign

¹ By degree centrality, we mean the number of social relationships, or ties, an individual has connecting them to others on the campaign (Abraham, Hassanien, and Snasel 2009).

² We acknowledge that the treatment varied on two separate dimensions. This was done to best

recruitment methods are not only less effective than recruitment through social ties, but they may also be detrimental to the campaign, with repeated campaign contact driving down volunteerism.

The Role of Social Pressure

Since the late 1990s, there has been a growing body of literature using field experiments to study the social aspects of political participation. Studies exploring the effectiveness of various mobilization efforts—phone calls, door-to-door canvassing, leafleting, and direct mail—have found that the most effective methods of mobilization are those that require authentic social interaction between the campaign worker and volunteer (Green, Gerber, and Nickerson 2003; Nickerson 2006; Arceneaux 2007; Nickerson 2007). The hypothesized mechanism behind the effectiveness of personal interactions is the fact that interpersonal exchanges involve what Green and Gerber (2008) refer to as “social inducements” to comply with the message. Further experiments involving social pressure—communications that rely on an innate human desire to be a member of a group and avoid criticism (Green and Gerber 2010)—have found that publicizing individuals’ voting histories or inducing feelings of pride or shame can dramatically increase turnout, regardless of message content (Gerber, Green, and Larimer 2008; Gerber, Green, and Larimer 2010; Panagopoulos 2013). This research indicates that much political participation can be attributed to social factors, rather than issue or policy-based motivations.

Although these studies focus on the role of social pressure to mobilize voters, we suggest that volunteer recruitment is an analogous social interaction because it also involves varying levels of interpersonal encouragement to participate in politics. In fact, because the costs of volunteering are higher than those of going to the polls, social pressure may be even more important for changing behavior. Social pressure varies directly with the format of the

recruitment ask: individuals may be called by a campaign staffer they do not know, they may receive an email from an acquaintance they met working on a campaign the previous year, or they may be casually encouraged to volunteer while socializing with a good friend, for example.

Thus, we hypothesize that:

H1: Individuals recruited socially will be more likely to volunteer for a political campaign than those recruited by the campaign itself. Those asked or encouraged to volunteer by friends or family will feel socially obligated to both agree to volunteer and then actually participate in the volunteer activity.

Individuals recruited by the campaign, on the other hand, do not experience social pressure or risk social sanctions for noncompliance. An individual who has committed to volunteer over the phone to a campaign staffer does not face the prospect of future interaction with the staffer, while an individual recruited by his or her neighbor is likely to see that person frequently. Campaign-recruited individuals are therefore only motivated by political considerations, which may be substantially weaker than social pressure (Snow, Zurcher, and Ekland-Olson 1980).

Once involved in the campaign, individuals are exposed to other volunteers and have the opportunity to create new social ties. Friendships may form easily, as individuals who are geographically and politically similar are also likely to be similar on other measures, such as personality or socioeconomic status, and this homophily increases their likelihood of interacting with each other (Fu et al. 2012). The idea that “similarity breeds connection” (McPherson, Smith-Lovin, and Cook 2001) predicts that individuals who are successfully recruited to the campaign and end up volunteering will likely have much in common with other volunteers and will therefore be likely to integrate themselves into the volunteer social network. Socially

recruited volunteers have a further advantage because they come into the campaign network with an initial social tie—the individual who recruited them. Based on this, our second hypothesis is that:

H2: Individuals recruited to the campaign by someone with whom they have a social tie will have higher network centrality than individuals recruited by someone working for the campaign that they do not know, even when excluding the socially-recruited individuals' initial tie (the recruiter).

Individuals recruited by a friend will already have one social tie (the recruiter), as well as easy access to all of the recruiter's established ties within the campaign. Individuals recruited by the campaign itself will be less likely to know other volunteers and therefore will need to expend more effort to meet people and form friendships.

The Importance of Peripheral Benefits

Centrality is the mediating variable in our theory and links the benefits of social recruitment to increased volunteerism. Individuals who are socially recruited will be socially obligated, and therefore more likely, to show up to their first campaign activity, where they are able to meet others on the campaign and create new social ties. Once these social ties are created, the more of them an individual has with the campaign, the more reasons he or she has for continuing to volunteer. Previous research has noted the importance of peripheral, or non-political, benefits that individuals derive from political participation. Individuals may see participation in campaign activities such as voting, caucus going, or volunteering as having *central benefits* (i.e. helping their preferred candidate), along with *peripheral benefits* (the

opportunity to socialize, gain social status by complying with social norms of participation, or avoid social sanctions caused by non-participation) (Hersh 2011, Anderson 2009, Clark and Wilson 1961). The concept of peripheral benefits has, to our knowledge, never been applied to campaign volunteerism. As a social interaction, it is plausible that individuals may derive social benefits from campaign volunteerism. Three common volunteer activities—phone calling, door-to-door canvassing, and office work such as envelope stuffing—provide ample opportunity for individuals to meet other volunteers and make conversation. While political campaign materials and volunteer recruitment scripts often emphasize the closeness of the election or the issues at stake, this research indicates that social motivations may be stronger incentives for participation than normative political incentives. Our third hypothesis, then, is that:

H3: individuals with higher centrality (more social connections within the campaign network) will perform more campaign activities than those with lower centrality.

Individuals who are more embedded in the social network of the campaign will derive more social benefits from their participation than individuals who do not have many connections on the campaign and face few social sanctions if they do not show up to volunteer.

In this way, centrality mediates the effect of social recruitment on campaign volunteerism.

Data and Methods

To test these hypotheses, we surveyed individuals who were listed as potential volunteers for a Virginia congressional campaign in 2008 and 2010. We obtained a list of 3,000 individuals from five counties in the district who had been listed as potential volunteers in one or both years.

This region was selected because the counties are contiguous and volunteers from these areas shared a central campaign office for the majority of both campaigns. These individuals were not all necessarily contacted by the campaign, but their contact information existed in the Democrats' volunteer database based on past volunteerism, donation history, or event attendance, among other factors. In June 2011, each individual received an email invitation to take a short survey, followed by two reminder emails two and four weeks later, resulting in a total of 586 completed surveys. Of these respondents, 451 had volunteered for the campaign in at least one cycle, while 135 respondents reported not ever volunteering for the campaign. In most respects, the non-volunteer and volunteer groups look fairly similar (Table 1). On gender, income, and religious preference, Pearson's chi-square tests show no statistically significant differences in distributions between volunteers and non-volunteers. Volunteers were slightly older and more likely to be retired than non-volunteers. Perhaps predictably, volunteers were also more interested in politics compared to non-volunteers.

The dependent variables in this study are volunteerism (dichotomous variable), volunteer activities completed (canvassing door to door, phone calling, and office work, among other activities), hours volunteered, and network centrality in 2008 and 2010. These variables capture whether or not a respondent volunteered at all, the breadth and depth of volunteerism, and the mediating variable in the theory—network centrality. These measures were collected for two campaigns, allowing for control over past centrality and volunteer activity. Independent variables include recruitment contact (social and campaign) and 2008 and 2010 network centrality. Summary statistics for these variables can be found in Table 2.

To measure recruitment contact, respondents were asked to indicate any contact with individuals “encouraging” them to volunteer for the campaign. Respondents could indicate that they were contacted by someone with whom they have a social tie or a stranger, either in person, by phone, by mail, by email, or via social media, capturing avenues of contact, rather than repeated contacts through one method. These measures capture the dimensions of *contact format* (personal vs. impersonal) and *contact relationship* (social tie vs. stranger) (Snow, Zurcher, and Eckland-Olson 1980). This question also asks about encouragement rather than explicit recruitment because social network influences are thought to operate partially outside of conscious awareness (Christakis and Fowler 2009), so an encouragement variable is likely to be more predictive of centrality than an explicit recruitment measure. Normative social influence (the process by which behavior changes after simply witnessing the actions of other people or receiving subtle encouragement) has been found to be more influential for behavior change than explicit instruction, but is also often reported as the least motivating factor for such change (Nolan et al. 2008). Respondents are likely to view their decision to volunteer as their own, and any measure explicitly asking respondents who caused them to join the campaign may underestimate the extent to which respondents were encouraged to participate by their social contacts and simply did not register the impact of this normative influence.

To measure network centrality, respondents were asked to name up to five friends who volunteered for the campaign prior to when they volunteered, while they were volunteering, and after they volunteered for each campaign cycle. The “name five friends” technique is widely used in the social network literature to assess social ties. These reports were then used to construct social networks for the campaign for 2008 and 2010 (Figure 1). There is a significant amount of missing data for the individuals named as friends, as only 586 out of 3,000 individuals

completed the survey to name five friends and many of those named did not complete a survey. These networks were used to calculate centrality measures, a count variable of the total number of social contacts an individual had in each network (degree centrality). Indegree centrality and outdegree centrality, the number of incoming and outgoing ties, respectively, were also calculated but are not used in this study because model results run with indegree and outdegree centrality were largely similar to those with total degree centrality. In order to test hypothesis 2—that individuals recruited by those with whom they have social ties will have higher network centrality—each measure of centrality was reduced by one social tie in order to take the initial recruiter into account. This ensures that individuals recruited socially do not have higher network centrality simply because they all have at least one social tie in the campaign network (their recruiters).

Volunteerism was measured as a binary dependent variable (coded 0 for non-volunteers and 1 for volunteers), a count variable for number of categories of volunteer activities completed, and a count variable for number of hours volunteered per month during each campaign. For the volunteer activity variable, respondents could indicate whether they performed a range of activities during the 2008 and 2010 campaigns, including donating money, making phone calls, canvassing door-to-door, writing a letter to the editor, driving voters to the polls, and performing office work such as data entry. This variable ranged from zero to seven activities. Volunteerism was also separated into two variables—social volunteer activities (those that require a significant degree of social interaction during completion) and non-social activities (those that are generally performed alone and do not involve significant amounts of social interaction). If the hypothesis is correct that individuals volunteer in part because they derive peripheral social benefits from volunteerism, social recruitment and centrality should only have a significant impact on the

number of social volunteer activities completed. The non-social activity variable included donating money and writing letters to the editor (ranging from zero to two), while the social activity count variable included all others, ranging from zero to five. To measure the depth of individuals' volunteerism, rather than the breadth of campaign activities completed, we also ran models with number of hours volunteered per month. This variable ranged from zero hours to more than 40 hours per month, with seven intervals.

Standard demographic variables such as age, political interest, race, and income are also used to ensure that any relationships are not the result of demographic characteristics or access to resources, another common explanation for political participation (Brady, Verba, and Schlozman 1995). To control for the fact that past centrality is likely to be predictive of future centrality, 2008 centrality is used as a control in some models as well.

Results

To test the first hypothesis, we used a logistic regression to predict likelihood of volunteerism in either the 2008 or 2010 campaigns based on the number of social and campaign avenues through which an individual reported receiving contact (Table 3). Unsurprisingly, political interest has a significant effect on volunteer likelihood. Even controlling for this, however, social and campaign contact have a statistically significant influence on individuals' likelihood of volunteering. Interestingly, campaign contact encouraging individuals to volunteer has negative coefficient and thus appears to reduce individuals' likelihood of volunteering. To more easily interpret the coefficients from this model, we generated a plot of the probability of volunteering as social and campaign contact vary from no contact up to contact via five different formats (i.e. social contact by phone, in person, and social media, etc.), holding all other

variables in the logit model constant at their means (Figure 2). As encouraging social contact (blue) increases, the probability of volunteering rises from .74 to .98. As campaign contact (red) increases, on the other hand, an individual's probability of volunteering decreases from .88 to .46. These estimates likely underrepresent the true effects of social recruitment because the sample in this study had a very high rate of volunteerism to begin with, regardless of recruitment method. Average volunteerism in the sample was 70%, much higher than the population as a whole.

To test the second hypothesis, that socially recruited individuals will have higher network centrality, we ran several Poisson regressions using social and campaign contact to predict 2010 centrality. The second model in Table 4 shows that social contact is a strong predictor of network centrality, controlling for other potentially influential variables (political interest, age, and income). A possible alternative explanation for the influence of social contact on centrality is that individuals who have volunteered in the past are simply more likely to have established social ties on the 2010 campaign as well as more likely to report becoming involved in the 2010 campaign via a social tie. We included 2008 network centrality in the third model in Table 4 to control for past participation and opportunities to meet individuals. While past centrality is a significant predictor of 2010 centrality, social contact continues to be significant. Running a first differences test holding all variables except for social recruitment at their means, the third model predicts a centrality of 1.465 for individuals with social recruitment one standard deviation below the mean, while individuals with social recruitment attempts one standard deviation above the mean would be expected to have 2.371 social ties on the campaign. The mean and standard deviation for social contact attempts are 0.987 and 1.156 respectively, indicating that an increase

from approximately zero to two social contact attempts results in substantive increases in network centrality.

Because the dependent variable is a count variable, Tables 5 and 6 use Poisson regressions to show how centrality in 2008 and 2010 predict the number of different types of campaign activities completed. As expected, centrality is a statistically significant predictor of both total activity counts and social activity counts in both 2008 and 2010, but it does not predict non-social activities in 2010 and predicts non-social activities to a lesser degree than social activities in 2008. This supports the hypothesis that social recruitment and centrality should matter only for campaign activities for which individuals can experience social pressure to participate and derive peripheral benefits from their activities. Tables 7 and 8 show the same Poisson models using volunteer hours as the dependent variable, rather than the number of volunteer activities completed. Centrality is a statistically significant predictor of volunteer hours as well, indicating that centrality predicts depth of volunteerism, as well as breadth.

As shown in Figure 3, those who are socially recruited have higher degree centrality on average, but variation exists within social recruitment groups, allowing a test for whether centrality mediates the effect of social recruitment on volunteer activities. Table 9 supports this hypothesis by showing that centrality does in fact act as a mediating variable. In the first model, social contact is again a significant predictor of campaign activity, while controlling for other explanatory variables. Once 2010 centrality is added in model 2, however, social contact ceases to be a significant predictor of campaign activity. Centrality in 2010 continues to be a significant predictor of volunteerism even after 2008 centrality is added in model 3. Even holding social contact constant, degree centrality matters. An individual with few friends on the campaign—say

one standard deviation below mean centrality—completes one category less activities than an individual who has a centrality score one standard deviation above the mean. While this effect is small, it is statistically significant and could add up on a campaign with hundreds of volunteer shifts and activities to complete. This relationship holds for volunteer hours as well: a volunteer with centrality one standard deviation below the mean is predicted to complete five or fewer hours, while a volunteer with centrality one standard deviation above the mean is predicted to complete five to ten hours of activities, on average.

Addressing Endogeneity: An Experimental Confirmation of the Survey Results

An alternative explanation for these results could be that individuals recruited socially are fundamentally different from those recruited by the campaign and that socially recruited individuals are simply more likely to volunteer for the very same reasons that they have friends volunteering for the campaign—perhaps they are more outgoing or involved in their communities than those who were recruited only by the campaign, or they were previously involved in campaign activities and continue to be socially recruited year after year. To explore this endogeneity problem, we conducted a small field experiment with the Young Democrats organization at a selective public institution in the Mid-Atlantic region. Current members of the Young Democrats were asked to name five friends they had on campus who were Democrats and physically able to volunteer, but who had not yet been to a meeting or Young Democrats event that semester. Named individuals ($N = 75$) were then randomly assigned to be recruited by the Young Democrat who had named the individual or to be called by an individual working with the campaign that they did not know. The study was conducted during the two weeks leading up to Virginia's 2013 gubernatorial election on November 5, 2013. Subjects had the opportunity to

attend up to 12 campaign events, ranging from canvasses and phone banks to a political rally and parade. Socially recruited individuals were recruited by the naming friends in whatever format felt most comfortable for that individual, while the campaign recruitment group was called using a standard volunteer recruitment script (Appendix: Figure 1)². Random assignment to the two treatment groups ensured that any results from this field experiment could not be caused by past volunteerism, personality, or any factors other than recruitment method.

As Figure 4 shows, the group of students asked to volunteer by a friend had significantly higher rates of volunteerism (26.3% on average) compared to the campaign recruitment group (2.7% on average). A test of proportions confirms that the difference between the two groups is statistically significant ($p < .05$), in addition to being substantively significant. While the treatment in this study was not an exclusive manipulation of contact form (social vs. campaign) because contact format (in-person vs. phone) could also have varied for several participants, it provides strong evidence in conjunction with the network study that it is the social aspects of volunteer recruitment that matter for individuals' decision to volunteer for political activities. This experiment is unlikely to have been contaminated because all recruiting individuals were instructed to target their assigned subjects and refrain from discussing the project with others. If contamination of the treatment groups did occur, however, it is likely to have worked against our results. Individuals assigned to the campaign recruitment group may have accidentally been socially recruited simply because they have friends involved with the Young Democrats, but members of the social recruitment group are unlikely to have erroneously received a call from a campaign staffer. The effects of social recruitment in this study would therefore be

² We acknowledge that the treatment varied on two separate dimensions. This was done to best simulate the differences between contact format in the real world.

underestimated because individuals in the campaign contact treatment group were socially recruited as well.

Discussion

Social recruitment matters for political campaign volunteerism. Not only does being socially recruited make an individual more likely to volunteer for a campaign, but campaign contact may actually *decrease* an individual's likelihood of volunteering. Social recruitment increases an individual's centrality within the campaign network, with highly central individuals likely to complete more campaign activities than less central volunteers. In this way, the number of social ties an individual has in the campaign network mediates the effect of social recruitment on volunteerism. Initial social contact may get volunteers in the door, but it is the social connections they subsequently make that deepen their involvement with the campaign. Including demographic and socioeconomic status variables does not diminish these findings. While variables like political interest and age continue to predict volunteerism, they are not as important in these analyses simply because of our sampling approach. Individuals in this study tended to volunteer at higher rates overall, were highly politically interested, and were older than Americans on average. Including measures of social recruitment and centrality is an important step toward explaining variation in volunteerism within populations—why some individuals volunteer while others similar on measures of general involvement and socioeconomic status do not.

The mediating effect of centrality is likely due to both social pressure to volunteer and the peripheral benefits of volunteering. An individual who is recruited by a social tie will likely experience social pressure from that friend that induces her to volunteer in order to avoid social

sanction. While volunteering, the individual has the opportunity to make friends with other volunteers and, crucially, she already has a social contact who can introduce her to other members of the network more easily. An individual recruited by the campaign might show up alone and have a more difficult experience trying to integrate into the network, resulting in lower network centrality. Once an individual is a member of the campaign network, the number of friends he or she has within the network translates to the amount of peripheral benefit that could potentially be derived from campaign activities. A highly central individual would have many connections and thus many social reasons to participate in campaign activities. A less central individual, on the other hand, might derive fewer social benefits from participation and face little social sanction for failing to participate. Individuals who are recruited socially are more likely to volunteer, but they must make connections with others on the campaign in order to become highly active volunteers. This critical role for centrality demonstrates that campaign participation has an important social component. In fact, 72% of survey respondents agreed with the statement that “Volunteering for a political campaign is a good way to meet interesting people,” indicating that respondents were aware of the social opportunities afforded by their volunteerism.

An alternative explanation for the finding that campaign contact has a negative effect on volunteerism could also be that individuals who volunteered were unlikely to receive further encouragement from the campaign, while individuals who declined to volunteer were likely to experience repeated recruitment attempts from the campaign. This scenario would indicate that individuals with repeated campaign contacts were simply the *least* likely to volunteer in the first place, therefore causing the effect of campaign contact to appear negative. This is unlikely, however, because the campaign contact measure in this study measures *avenues* of contact, rather than number of attempts. Because some of the contact methods (i.e. email lists and the

Internet) are difficult to target only toward those who have not yet volunteered and the fact that current volunteers were repeatedly called by the campaign to schedule further volunteer activities, it is unlikely that non-volunteers received more instances of campaign contact than volunteers. The campaign in this study continued to contact individuals who had volunteered in order to schedule them for repeat shifts. Individuals who volunteered could plausibly have received just as much, if not more, campaign recruitment contact after they volunteered, because the campaign saw one-time volunteerism as indicative of future activity and continued to encourage these individuals to volunteer.

As a further test of the finding that campaign contact may have decreased volunteerism, we use a matching procedure (Ho et al. 2011) to match individuals who were recruited socially with individuals who were recruited by the campaign. Using an exact matching procedure, we were able to match 464 individuals exactly on age, retirement status, income bracket, race (white or non-white), and political interest. The weights generated from this matching procedure allow us to consider social contact and campaign contact as ‘treatments’, and to consider campaign-contacted and socially-contacted groups as even on all other dimensions (similar to an actual experiment)³. As can be seen in Table 1 of the appendix, logit regressions predicting volunteerism as a function of social and campaign contact ‘treatment’ display similar relationships to those in Table 3: social contact is positively associated with campaign volunteerism, while campaign contact appears to be negatively associated with volunteerism.

³ Since there is no random assignment to recruitment method, the two ‘treatment’ groups in the matching procedure can be considered balanced only on observed variables. Similarity on any unobserved variable cannot be guaranteed.

Conclusion

Social recruitment appears to make individuals more likely to volunteer in the first place, facilitating their integration into the campaign network and increasing the number of volunteer activities completed. Campaign recruitment, on the other hand, appears to decrease volunteerism among contacted individuals.

The idea that increased campaign contact may actually decrease volunteer likelihood is unique and unexpected. The sample in this study had high overall rates of participation and volunteers and non-volunteers have been shown to be reasonably similar on multiple dimensions, which indicates that it is some difference between social and campaign recruitment that drives participation down. Campaign contact could reduce participation because individuals often do not appreciate campaign intrusion and may react to repeated and overt campaign contact by becoming less likely to volunteer. This “backlash effect” has been observed in psychology literature and occurs when individuals feel that an outside party is infringing on their free will to make a decision (Brehm 1966). Individuals contacted repeatedly by staff working with the campaign, who likely referenced direct benefits of participation (persuading voters) rather than peripheral benefits (fun with friends), could have felt as if they were being coerced and reacted accordingly by refusing to volunteer despite other characteristics that might make them likely to participate.

These findings have important implications because they run contrary to the way most political campaigns currently operate. From the local to the national level, political campaigns spend enormous amounts of time and energy calling individuals and asking them to volunteer. Not only is this method of recruitment less effective than recruitment through social ties, but

findings from this study indicate that repeated campaign contact could actually be detrimental. In the future, campaigns may want to spend more time encouraging current volunteers to get their friends involved, or using volunteer recruitment calls to emphasize the peripheral benefits of volunteering for the campaign, in addition to the direct political benefits. It seems clear that, for most people, the real benefit to volunteering is social. There have been some recent indications that campaigns are moving in this direction, as large campaigns like Obama for America have implemented “Neighborhood Team Leader” programs to encourage volunteers to contact their neighbors to volunteer, marshaling existing social ties to organize localities.

This study is an important first step in exploring the social network dynamics of political campaigns and volunteerism, but further research is needed. While the results of this study produce significant new information regarding social networks and volunteer recruitment, more complete networks could yield better information—particularly longitudinal networks mapped at intervals during a campaign, allowing researchers to see campaign recruitment spread in real time. Looking at social network recruitment dynamics during a larger campaign, such as a presidential race, could allow for a larger sample size with greater variation in volunteer demographics as presidential campaigns attract less politically active individuals than off-year campaigns. Collecting network data during the course of a campaign would also allow for more accurate responses, as the data in this study were collected nearly a year after the end of the second campaign and nearly three years after the 2008 campaign.

Both the research on social pressure and the peripheral benefits of movement participation suggest that there should be observable differences in the effect of social recruitment between high and low politically interested individuals. The effect of social ties and

network centrality should be stronger for individuals who are less interested in politics or less ideological because peripheral benefits derived from volunteerism are crucial determinants of whether these individuals continue to be involved with a campaign. Individuals who are more ideologically extreme or more interested in politics, on the other hand, are more likely to volunteer and stay involved with a political campaign simply because they derive significant benefits directly from the main purpose of their campaign activities—furthering their political agenda, helping a candidate, and having the opportunity to discuss politics. This hypothesis was not supported using these data, but might find support in a larger network study with more variation in political interest.

A more complete network could also allow for more comprehensive centrality measures, such as eigenvector centrality, which takes an individual's ties into account, as well as those of their friends. Calculating eigenvector centrality requires more complete network data, but would more accurately represent the centrality of an individual by taking network position into account as well as the simple social tie count and could therefore provide a better estimation of an individual's true embeddedness within the network. While the field experiment with college Democrats provides strong evidence to counter the endogeneity problems inherent to network research, future studies could confirm these findings by controlling for more past participation than the cycle before, or even working with a campaign to randomize volunteer recruitment calls on a large scale to observe differences in volunteerism.

Given the importance of volunteer recruitment to campaigns' success and the largely unexplored area of campaign volunteer recruitment, campaigns may be interested in these findings and willing to work with researchers to test their recruitment methods more rigorously

and on a larger scale. Successful volunteer recruitment enables campaigns to contact voters for persuasion and to turn out supporters on Election Day. If repeated contact does, in fact, decrease volunteerism, campaigns may want to change their volunteer recruitment strategies to reduce reliance on staffers to recruit volunteers and instead recruit volunteers socially, perhaps by encouraging current volunteers to recruit their friends. Another strategy might be working to create an environment that facilitates connections among volunteers and emphasizing the peripheral benefits of volunteerism, rather than the traditional political benefits. While the effects presented in this study are small, they add up over time and, particularly for large campaigns, may represent hundreds of volunteer hours that could be gained or lost depending on the recruitment strategies used. An individual's involvement with a political campaign may depend on classic explanatory variables for political participation, such as socioeconomic status, but within-group variation in volunteerism depends on the degree to which an individual's social network broadly attempts to pull her into the campaign network. An inundation of requests from the campaign does not seem to be an effective strategy.

Works Cited

- Abraham, Ajith, Aboul E. Hassanien, and Vaclav Snasel. *Computational Social Network Analysis: Trends, Tools and Research Advances*. New York: Springer, 2010.
- Anderson, Mary R. 2009. "Beyond Membership: A Sense of Community and Political Behavior." *Political Behavior* 31: 603-627.
- Arceneaux, Kevin. 2007. "I'm Asking for Your Support: The Effects of Personally Delivered Campaign Messages on Voting Decisions and Opinion Formation." *Quarterly Journal of Political Science* 2(1): 43-65.
- Bond, Robert M, Christopher J. Fariss, Jason J. Jones, Adam D. I. Kramer, Cameron Marlow, Jaime E. Settle, and James H. Fowler. 2012. "A 61-million-person experiment in social influence and political mobilization." *Nature* 489: 295-298.
- Brady, Henry E., Sidney Verba and Kay Lehman Schlozman. 1995. "Beyond SES: A Resource Model of Political Participation." *The American Political Science Review* 89(2): 271-294.
- Brehm, Jack Williams. *A Theory of Psychological Reactance*. New York: Academic Press, 1966.
- Christakis, Nicholas A. and James H. Fowler. *Connected*. New York: Back Bay Books, 2009.
- Christakis, Nicholas A. and James H. Fowler. 2013. "Social Contagion Theory: Examining Dynamic Social Networks and Human Behavior." *Statistics in Medicine* 32(4): 554-577.
- Clark, Peter B. and James Q. Wilson. 1961. "Incentive Systems: A Theory of Organizations." *Administrative Science Quarterly* 6(2): 129-166.
- Cushman, Joy. 2012. "Introduction to Voter Contact." *New Organizing Institute*, http://www.neworganizing.com%2Fmedia%2Fattachments%2FIntro_to_Voter_Contact_final.pptx.

- Fowler, James H. "Turnout in a Small World." In *The Social Logic of Politics*, edited by Alan Zuckerman. Philadelphia: Temple University, 2005.
- Fu, Feng, Martin A. Nowal, Nicholas A. Christakis, and James H. Fowler. 2012. "The Evolution of Homophily." *Scientific Reports* 2: 845.
- Gerber, Alan S. and Donald P. Green. 2010. "Introduction to Social Pressure and Voting: New Experimental Evidence." *Political Behavior* 32(3): 331-336.
- Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. 2008. "Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment." *American Political Science Review* 102(1): 33-48.
- Gerber, Alan S., Donald P. Green, and Christopher W. Larimer. 2010 "An Experiment Testing the Relative Effectiveness of Encouraging Voter Participation by Inducing Feelings of Pride or Shame." *Political Behavior* 32: 409-422.
- Green, Donald P., Alan S. Gerber, and David Nickerson. 2003. "Getting out the Vote in Local Elections: Results from Six Canvassing Experiments." *Journal of Politics* 65(4): 1083-1096.
- Hersh, Eitan. 2011. "Primary Voters Versus Caucus Goers and the Peripheral Motivations of Political Participation." *Political Behavior* 34: 689-718.
- Hlvac, Marek. 2014. "Stargazer: LaTeX/HTML code and ASCII text for well-formatted regression and summary statistics tables." R package version 5.1
- Ho, Daniel E., Kosuke Imai, Gary King, and Elizabeth A. Stuart. 2011. "MatchIt: Nonparametric Preprocessing for Parametric Causal Inference." *Journal of Statistical Software* 42(8): 1-28.

- Huckfeldt, Robert. 1979. "Political Participation and the Neighborhood Social Context." *American Journal of Political Science* 23(3): 579 – 592.
- Klofstad, Casey A., Annand E. Sokhey, and Scott D. McClurg. 2012. "Disagreeing about DisagreementL How Conflict in Social Networks Affects Political Behavior." *American Journal of Political Science* 57(1): 120-134.
- Levine, Jeffrey. "Choosing Alone? The Social Network Basis of Modern Political Choice." In *The Social Logic of Politics*, edited by Alan Zuckerman. Philadelphia: Temple University, 2005.
- McAdam, Doug and Ronelle Paulsen. 1993. "Specifying the Relationship Between Social Ties and Activism." *American Journal of Sociology* 99(3): 640-667.
- McPherson, Miller, Lynn Smith-Lovin, and James M. Cook. 2001. "Birds of a Feather: Homophily in Social Networks." *Annual Review of Sociology* 27: 415-444.
- Nickerson, David W. 2006. "Volunteer Phone Calls Can Increase Turnout." *American Politics Research* 34(3):271-292.
- Nickerson, David W. 2007. "Quality is Job One: Volunteer and Professional Phone Calls," *American Journal of Political Science* 51(2):269-282.
- Nickerson, David W. 2007. "The Ineffectiveness of E-vites to Democracy: Field Experiments Testing the Role of E-mail on Voter Turnout," *Social Science Computer Review* 25(4)494-503.
- Nickerson, David W. 2008. "Is Voting Contagious? Evidence from Two Field Experiments." *American Political Science Review* 102(1): 49-57.

- Nolan, Jessica M., P. Wesley Schultz, Robert B. Cialdini, Noah J. Goldstein, and Vidas Griskevicius. 2008. "Normative Social Influence is Underdetected." *Personality and Social Psychology Bulletin* 34(7): 913-923.
- Panagopoulos, Costas. 2013. "Positive Social Pressure and Prosocial Motivation: Evidence from a Large Scale Field Experiment on Voter Mobilization." *Political Psychology* 34(2): 265-275.
- Putnam, Robert. *Bowling Alone*. Simon & Schuster: New York, 2000.
- Sinclair, Betsy. *The Social Citizen*. Chicago: University of Chicago Press, 2012.
- Snow, David A., Louise A. Zurcher and Sheldon Ekland-Olson. 1980. "Social Networks and Social Movements: A Microstructural Approach to Differential Recruitment." *American Sociological Review* 45(5): 787-801.

Figure 1: The 2010 campaign network (N = 409). Triangle nodes indicate individuals who were socially recruited to the campaign, while circles received campaign contact (or there is no data). Node size indicates degree centrality (ranging from 1-35), with larger nodes indicating more social ties. Finally, node color indicates number of volunteer activities completed (ranging from 0-5) with darker blue representing more activities completed. The presence of many large, dark blue triangles supports the theory that socially recruited individuals (triangles) are more likely to be central in the network (larger size) and therefore more likely to complete campaign activities (darker blue).

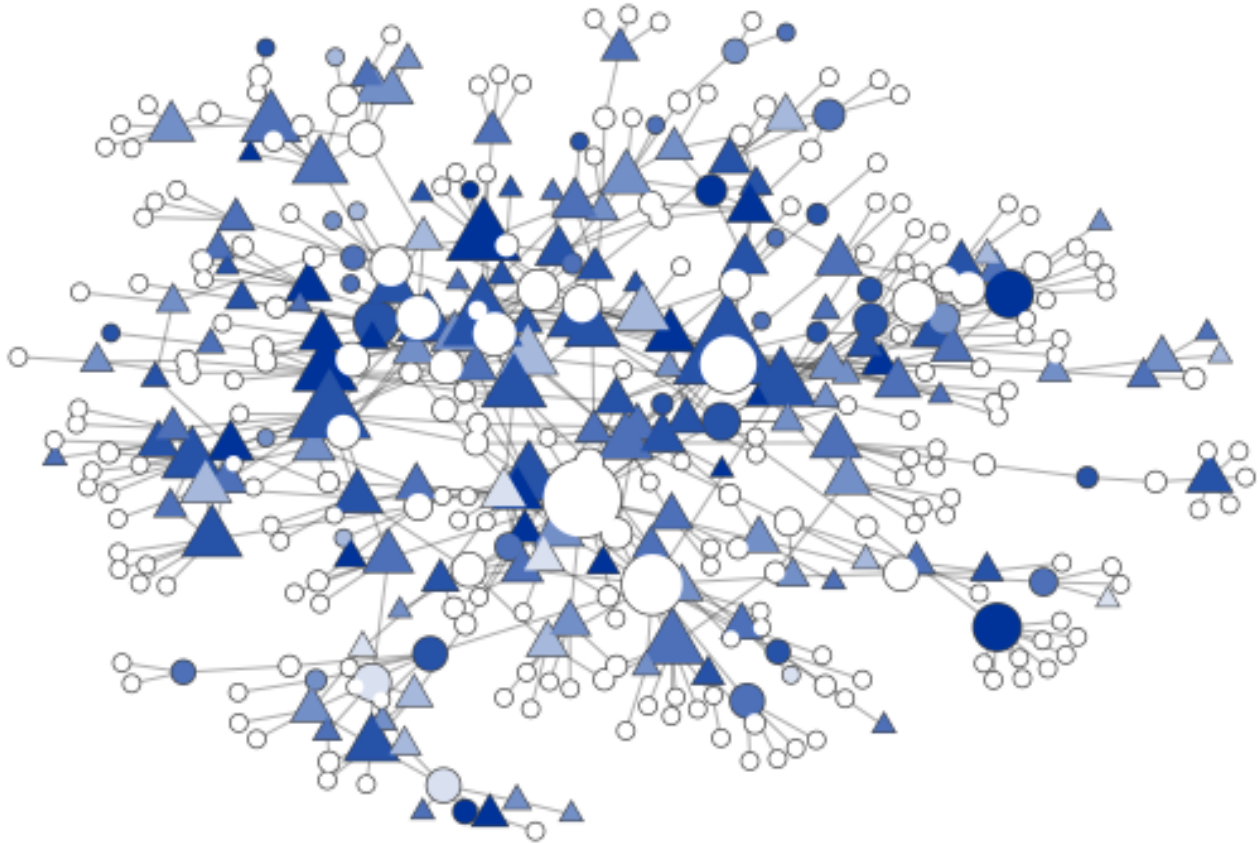


Figure 2: The predicted probability of volunteering increases as social contact increases, but decreases as the number of campaign contacts increases (holding all other variables at their means for each prediction).

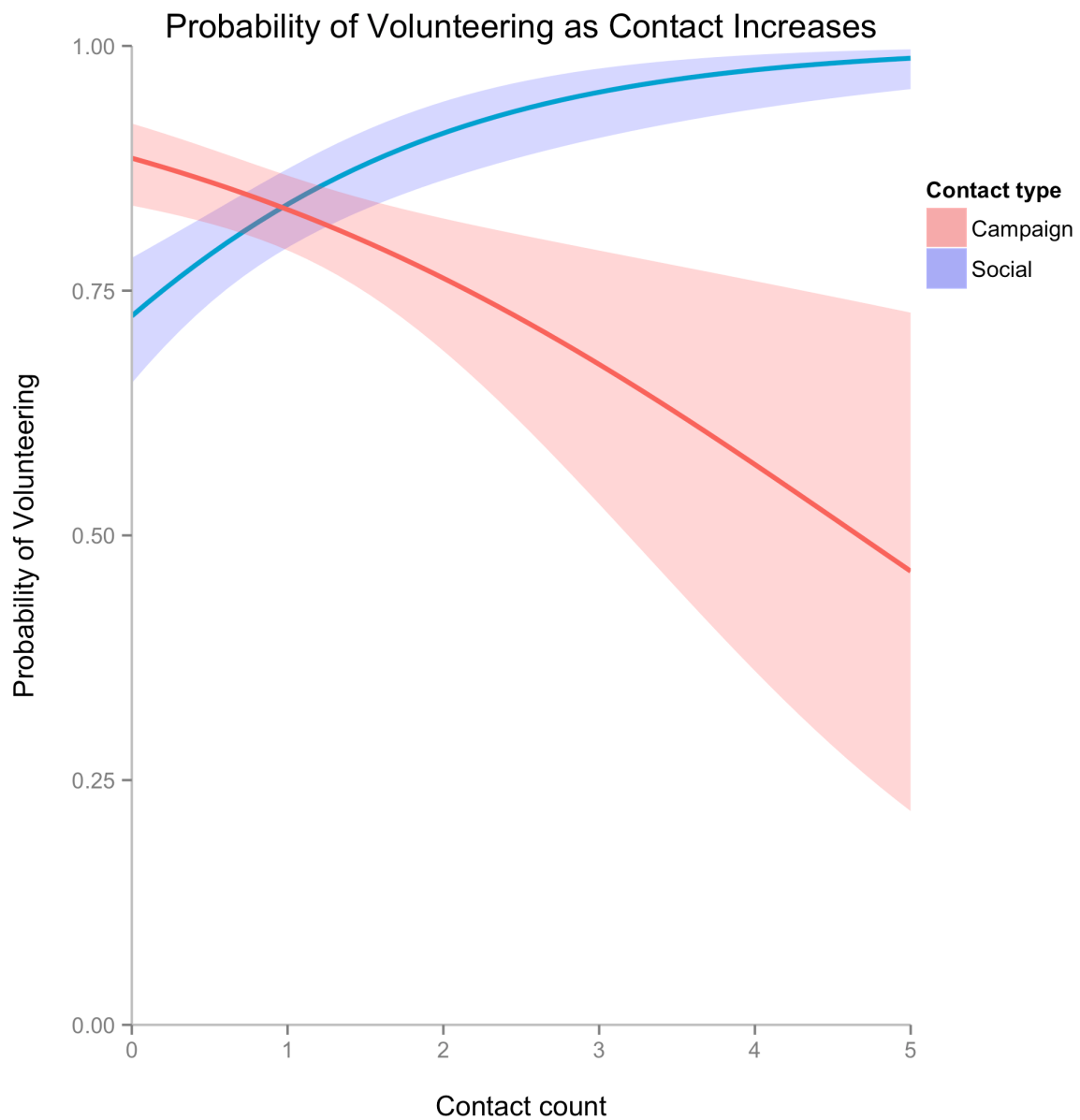


Figure 3: Degree centrality varies within social recruitment groups (ranging from zero to 3 or more social contacts encouraging campaign involvement). Individuals who received 3 or more social recruitment contacts do not automatically have much higher degree centrality than those who received fewer contacts, allowing us to test for a mediating role for centrality in the relationship between contact format and volunteerism.

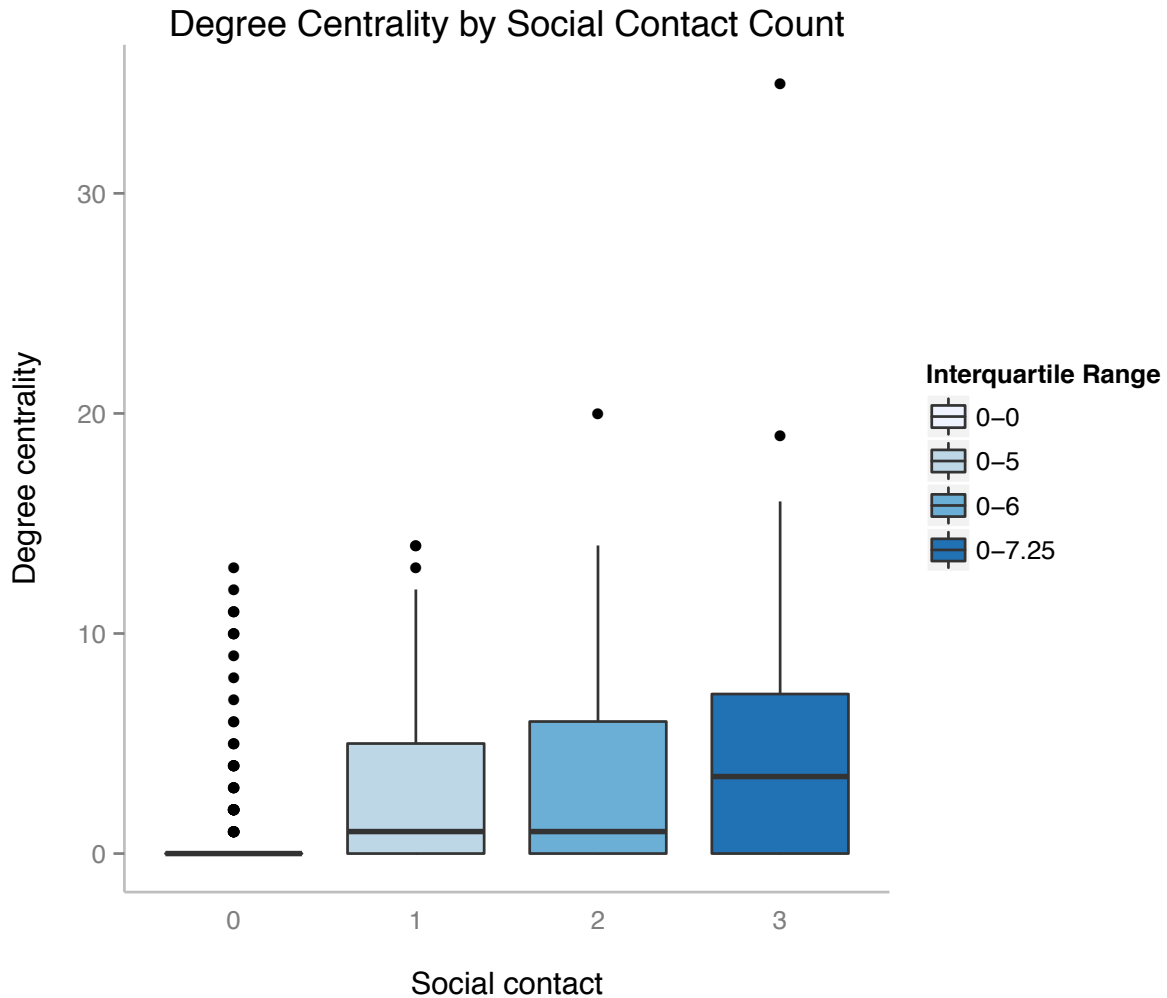


Figure 4: The Young Democrats field experiment demonstrates that social recruitment is more effective than campaign recruitment. Individuals were randomly assigned to be either socially recruited to volunteer for local political events, or were assigned to be called by an individual working with the “campaign” reading a call script. The campaign recruitment group had an average rate of volunteerism of just 3.2%, while the social recruitment group had an average volunteerism rate of 27.0%. Random assignment controls for other variables that could plausibly explain differences in political volunteerism.

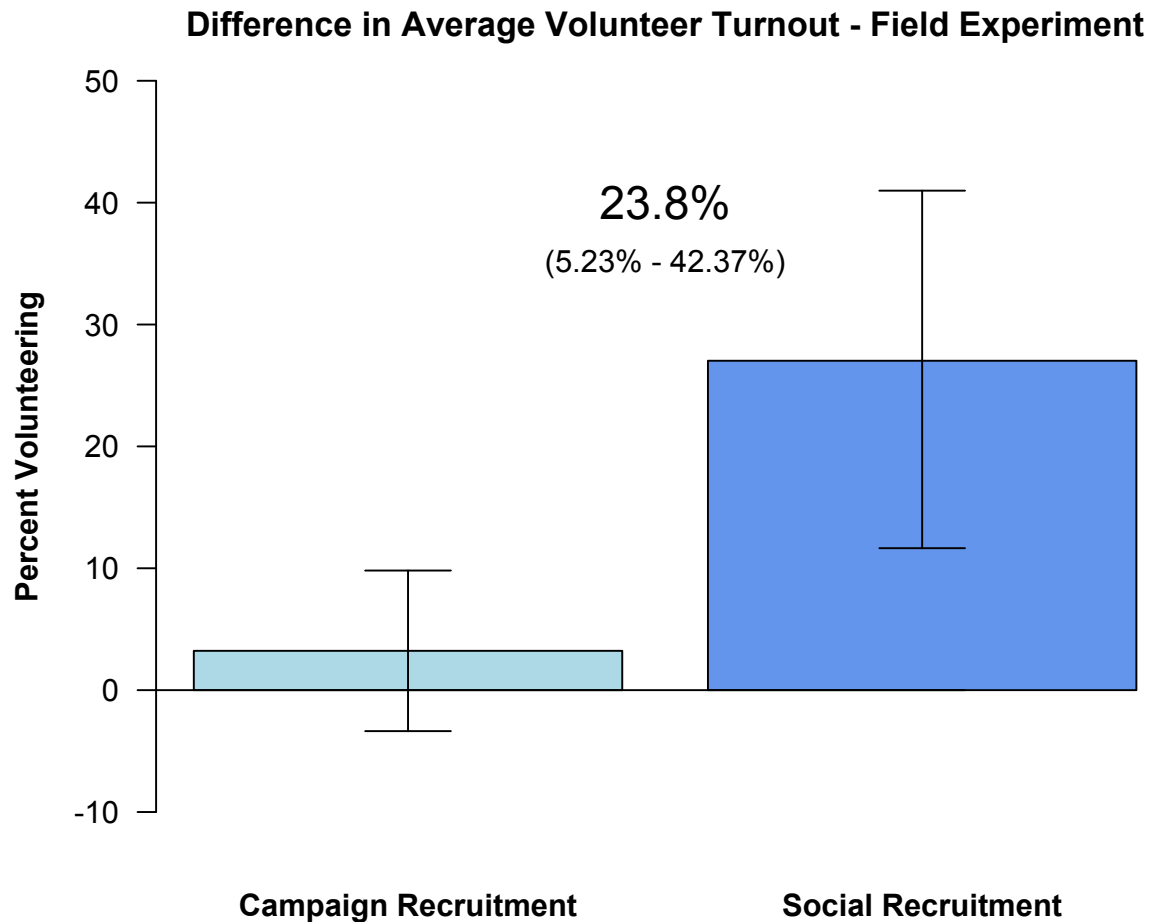


Table 1: Table showing balance of relevant control variables by volunteerism

	Non-volunteer	Volunteer	P-value
Male	0.62	0.63	0.91
Age	50-59	65 and over	—
Annual Income	\$120,000	\$120,000	—
Religion	Protestant	Protestant	—
Retired	0.17	0.32	0.00
White	0.66	0.90	0.00
Political Interest	2.67	2.07	0.00

Note: Male, Retired, and White values reflect proportions. Age, Income, and Religion reflect the modes of categorical variables. Political interest reflects the mean of a 1-3 point scale, with 3 being "very politically interested."

Table 2: Summary Statistics for Independent and Dependent Variables

Statistic	N	Mean	St. Dev.	Min	Max
Social contact	586	0.966	1.156	0	5
Campaign contact	586	0.845	0.866	0	3
Centrality 08	586	1.768	3.542	0	27
Centrality 10	586	2.135	3.776	0	35
Volunteerism	586	2.128	1.743	0	7
Vol. Act. Count 08	586	0.857	0.992	0	3
Vol. Act. Count 10	586	0.746	1.017	0	4
Vol. Hours 08	416	2.786	1.733	1	7
Vol. Hours 10	436	3.124	1.550	1	7

Table 3: Logit regression of volunteerism in 2008 and 2010 based on contact type

	<i>Dependent variable:</i>
	Volunteerism
Social contact	0.680*** (0.146)
Campaign contact	−0.433*** (0.145)
Political interest	0.666*** (0.253)
Age	0.094 (0.081)
Income	−0.038 (0.068)
Retired	0.628 (0.391)
White	1.116*** (0.427)
Constant	−1.876** (0.835)
Observations	464
Log Likelihood	−199.052
Akaike Inf. Crit.	414.103

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4: Poisson regression analysis for centrality 2010, using self-reported encouraging contact

	<i>Dependent variable:</i>		
	Centrality 2010		
	(1)	(2)	(3)
Social contact	0.372*** (0.024)	0.370*** (0.026)	0.208*** (0.028)
Campaign contact	-0.146*** (0.038)	-0.172*** (0.040)	-0.058 (0.040)
Centrality 2008			0.119*** (0.005)
Political interest		-0.045 (0.081)	0.082 (0.083)
Age		-0.022 (0.021)	-0.017 (0.022)
Income		-0.006 (0.018)	0.036* (0.019)
Retired		-0.204** (0.093)	-0.076 (0.096)
White		-0.071 (0.139)	-0.437*** (0.141)
Constant	0.515*** (0.054)	0.987*** (0.283)	0.341 (0.294)
Observations	395	336	336
Log Likelihood	-1,194.558	-1,019.231	-798.028
Akaike Inf. Crit.	2,395.116	2,054.462	1,614.057

Note: *p<0.1; **p<0.05; ***p<0.01

Table 5: Poisson regressions using centrality to predict counts of volunteer activity in 2008

	<i>Dependent variable:</i>		
	Total activity	Social activity	Non-social activity
	(1)	(2)	(3)
Centrality 2008	0.022*** (0.008)	0.024** (0.011)	0.019* (0.011)
Political interest	0.137 (0.091)	0.188 (0.132)	0.089 (0.125)
Age	0.018 (0.025)	−0.043 (0.034)	0.082** (0.036)
Income	−0.002 (0.020)	−0.011 (0.029)	0.008 (0.028)
Retired	−0.113 (0.102)	−0.070 (0.150)	−0.163 (0.139)
White	0.274 (0.213)	0.409 (0.322)	0.150 (0.284)
Constant	0.349 (0.340)	−0.330 (0.502)	−0.411 (0.465)
Observations	235	235	235
Log Likelihood	−423.132	−328.296	−322.442
Akaike Inf. Crit.	860.264	670.592	658.885

Note:

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

Table 6: Poisson regressions using centrality to predict counts of volunteer activity in 2010

	<i>Dependent variable:</i>		
	Total activity	Social activity	Non-social activity
	(1)	(2)	(3)
Centrality 2010	0.019*** (0.007)	0.024** (0.009)	0.014 (0.010)
Political interest	0.115 (0.076)	0.189* (0.111)	0.043 (0.104)
Age	0.034 (0.021)	−0.045 (0.028)	0.123*** (0.031)
Income	−0.002 (0.017)	−0.013 (0.024)	0.012 (0.024)
Retired	−0.027 (0.084)	0.012 (0.124)	−0.084 (0.114)
White	−0.0005 (0.148)	0.024 (0.207)	−0.037 (0.211)
Constant	0.570** (0.276)	0.039 (0.397)	−0.359 (0.387)
Observations	336	336	336
Log Likelihood	−579.763	−459.934	−449.532
Akaike Inf. Crit.	1,173.525	933.868	913.065

Note:

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

Table 7: Poisson regression using centrality to predict volunteer hours in 2008

	<i>Dependent variable:</i>
	Volunteer hours
Centrality 2008	0.021*** (0.007)
Political interest	0.196** (0.088)
Age	0.002 (0.024)
Income	−0.008 (0.019)
Retired	0.070 (0.096)
White	−0.038 (0.190)
Constant	0.674** (0.324)
Observations	225
Log Likelihood	−411.819
Akaike Inf. Crit.	837.638
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 8: Poisson regression using centrality to predict volunteer hours in 2010

	<i>Dependent variable:</i>
	Volunteer hours
Centrality 2010	0.023*** (0.006)
Political interest	0.173** (0.074)
Age	−0.017 (0.019)
Income	0.007 (0.016)
Retired	0.044 (0.082)
White	−0.034 (0.136)
Constant	0.721*** (0.265)
Observations	329
Log Likelihood	−590.081
Akaike Inf. Crit.	1,194.162
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

Table 9: 2010 centrality mediates relationship between social contact and volunteerism

	<i>Dependent variable:</i>		
	2010 volunteerism		
	(1)	(2)	(3)
Social contact	0.136** (0.061)	0.072 (0.064)	0.073 (0.064)
Campaign contact	-0.087 (0.081)	-0.067 (0.080)	-0.065 (0.081)
Centrality 2010		0.058*** (0.019)	0.069*** (0.025)
Centrality 2008			-0.017 (0.025)
Political Interest	0.306* (0.164)	0.313* (0.162)	0.321** (0.163)
Age	0.098** (0.046)	0.102** (0.045)	0.101** (0.045)
Income	-0.011 (0.038)	-0.009 (0.038)	-0.010 (0.038)
Retired	-0.115 (0.191)	-0.088 (0.188)	-0.086 (0.189)
White	0.016 (0.332)	0.029 (0.328)	0.052 (0.330)
Constant	1.690*** (0.600)	1.526** (0.594)	1.489** (0.597)
Observations	336	336	336
R ²	0.046	0.073	0.074
Adjusted R ²	0.025	0.050	0.049
Residual Std. Error	1.283 (df = 328)	1.266 (df = 327)	1.267 (df = 326)
F Statistic	2.249** (df = 7; 328)	3.226*** (df = 8; 327)	2.913*** (df = 9; 326)

Note:

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

Appendix

Figure 1:

YOUNG DEMOCRATS FIELD EXPERIMENT – VOLUNTEER RECRUITMENT SCRIPT

Hi, is SUBJECT NAME available?

Hi, SUBJECT NAME, my name is YOUR NAME and I'm a volunteer with the Young Democrats at SCHOOL NAME. It's almost Election Day and I'm calling tonight to see if you'd be willing to help us get out the vote this weekend. We have canvasses coming up on Saturday, Sunday, Monday, and Tuesday and phone banks coming up tomorrow [Tuesday] and Monday. Do any of those days work for you?

[If yes] Great! We have events at [give times and see which one works]. [If they'll schedule, give info about the event time/place they pick] Thanks for your time tonight.

[If no] I'm sorry to hear that. Well, thanks for supporting our candidates and I hope you have a great night.

[Record information of individual and when they've signed up to volunteer]

Table 1: Logit regressions using displaying effects of social and campaign contact ‘treatment’ on 2010 volunteerism, created by weighting cases using exact matching

	<i>Dependent variable:</i>	
	Volunteerism	
	(1)	(2)
Campaign Contact Treatment	−0.737** (0.326)	
Social Contact Treatment		1.304*** (0.296)
Constant	2.167*** (0.274)	0.926*** (0.180)
Observations	351	358
Log Likelihood	−147.781	−151.659
Akaike Inf. Crit.	299.562	307.318

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

Note: Campaign and social contact treatments were created using the ‘MatchIt’ package in R to exactly match cases on level of political interest, age (categorical), income bracket, retirement, and race (white or non-white). Weights were then used to estimate the effect of receiving social or campaign contact on volunteerism, holding these control variables constant.