The Effects of Volunteering for Non-profit Organizations on Social Capital Formation:
Evidence from a Statewide Survey

by

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ABSTRACT

We use the household production framework to theoretically connect sociability and purposive incentives for volunteering and two forms of social capital: social connections and civic capacity. Then, using a unique statewide data set, we estimate the determinants of (a) the probability of receiving social capital benefits and (b) the level of such benefits. We show that: religious and social service organizations have a large impact on social capital formation; the probability of being socially and civically engaged increases with volunteering; and two-adult families are more likely to feel socially and civically engaged. These results are consistent with recent aggregate evidence on the decline of social capital in the United States: social capital formation declines with less religious and altruistic orientation at the community level, and as families move away from a two-adult family structure. By contrast, through volunteering, one can increase the likelihood of being socially and civically engaged.

INTRODUCTION

When faced with the dramatic empirical evidence of declining group membership and community activity since the late 1950s, the logical connection made by Putnam (2000) and so many other scholars of civic engagement (Skocpol 1999, Costa and Kahn 2001) is that many forms of social capital, 'the networks and norms that facilitate collective action (Woolcock 1998),' have also declined.

However, the empirical evidence on changes in volunteering in the United States is quite different. Even as Americans have become less involved in community groups and projects, they are volunteering[1] at about the same rate. Putnam (2000) documents a steady increase of volunteering from 1975 to 1998. Costa and Kahn (2001), using three different data sets on volunteering, show that by some measures volunteer rates have grown and by others they have fallen; in no case do they find the dramatic decline of civic activity associated with group membership and community activity. While volunteering trends differ among age cohorts – in 1998, Americans in their 30s were volunteering at a 25 percent lower rate than their counterparts in 1975 (Putnam 2000) – one can generally affirm that there has been a structural shift in civic engagement in the United States: as Americans have devoted less time to community groups and activities, they are still committing time to volunteering[2].

This shift raises an intriguing possibility: perhaps Americans are still volunteering because they feel that these hours are a better investment in their own social capital? If this is true, volunteering may indeed have been a significant creator of social capital in the United States over the last 40 years. Very few empirical studies test the relationship between volunteering and social capital. Wollenbaek and Selle (2002), using data from a

survey of adult Norwegians find that participation in voluntary associations contributes to the building of social capital.

Vermont is an ideal state for testing the relationship between social capital and volunteering. First, this relatively small (population 613,000 as of 2000) and rural state had as a proud tradition of civic activity, led by its annual town meetings (Bryan and McClaughry 1989). Today, it ranks at the top of nationwide measures of social capital (Putnam 2000; Knack 2001). For example, Vermonters report that, on average, they work on four community projects per year, the highest rate in the nation, and Vermont has the 3.6 non-profit groups per 1,000 inhabitants, the highest per capita level in the United States (Putnam 2000). Yet at the same time, Vermonters volunteer 6.9 times per year, less often than their counterparts in 29 states as diverse as Utah (9.5), Minnesota (9), New Mexico (8.6), and Washington (8.5) (Putnam 2000). In Vermont, by most measures, networks of social connections and norms related to civic capacity are very high. What is not known is to what degree does volunteering contribute to these high forms of social capital?

In this paper, we use a unique recent survey of adult Vermonters to test the effect of volunteering in the nonprofit sector on social capital, as reported by individuals themselves. By controlling for a range of demographic and other possible determinants of social capital, we are able to provide evidence on the role of involvement in a local nonprofit on one's social connections and civic capacity. Specifically, since our sample was among adults who had obtained benefits from local nonprofit organizations, we are able to identify whether and how volunteering impacts individual social capital accumulation.

Our analytical strategy is as follows. First, we show how the household production model (Becker 1965) can be used to theoretically connect sociability and purposive incentives for volunteering (Smith 2000) and two forms of social capital: social connections and civic capacity. We then review the relevant data on nonprofit organizations, volunteering and social capital. Then, we discuss our empirical methodology and our results. We conclude with a discussion of the implications of the results.

HOUSEHOLD PRODUCTION AND THE BENEFITS OF VOLUNTEERING

Why volunteer? From an economist's perspective, the benefit of an hour of volunteering must exceed the opportunity cost: the benefit of an hour in the next-best alternative activity. The idea that volunteering produces some identifiable benefit is not new; nor is estimating its opportunity cost using a market or replacement wage approach (Hawrylshyn 1978; Day and Devlin 1998; Brown, 1999; Foster, 2001)[3].

A great deal of influential scholarly activity surrounding the costs and benefits of unremunerated action has been in the area of household production (Becker 1965; Michael and Becker 1973; Foster *et al*., 2001). In this section, we provide a brief review of the household production framework, and then use the framework to illustrate the how the individual benefits of volunteering can be related to an individual's formation of social capital.

The household production model enhanced traditional consumer theory by explicitly bringing an individual's allocation of time into their utility (e.g. welfare) maximizing behavior. The insight of Becker and his collaborators (Becker 1965; Michael and Becker 1973; Ghez and Becker 1975) was that consumer goods themselves

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do not make people happier: in the process of combining those goods with one's own time, one 'produces' some desirable outcome, which they called (perhaps unfortunately) 'a commodity.' So for example, a recreation-loving individual combines purchased tennis equipment and hours of playing tennis to produce (with others, in this case) a game of tennis. By taking this formalized approach, Becker and his colleagues were able to formally explore individual trade-offs between time and purchased inputs.

In the original formulation of the household production model (Becker 1965, Michael and Becker 1973), a household maximize its own utility over a set of commodities "primary objects of consumer choice … from which utility is directly obtained" (Michael and Becker 1973). Commodities are 'produced' in a household with sets of purchased goods and of time. With constant average earnings, the price of time equals the wage, the opportunity cost of foregone earnings. In Becker's extension of the household production model to 'a theory of social interactions' (Becker 1974) (which anticipated some of the current theoretical conceptualizations of social capital (e.g. Glaeser *et al.* 2001)), an individual's own utility is influenced by 'characteristics of other persons' (Becker 1974) that affect the production of a range of commodities. For example, if an individual is happier as she achieves distinction in her occupation, the opinions of other people in the same occupation will directly affect her own level of happiness (Becker 1974).

In this paper, we us Becker's extended household production framework to conceptualize the relationship between volunteering and the two most important types of individual incentives for volunteering (Chinman and Wandersman 1999, as cited in Smith (2000)) - incentives that we believe can be conceptualized as increases in one own

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social capital. The first type is 'sociability incentives,' 'rewards that provide member satisfaction from the social presence of, and interaction with other[s]' (Smith 2000)[4]. In other words, the more one is involved with neighbors and like-minded individuals in volunteering for a non-profit, the more one is likely to feel satisfaction from the social presence and interaction of others. Accordingly (as described below), we develop a measure of 'social connections' from our survey data to capture this form of social capital.

The second type is 'purposive incentives', 'normative or ideological rewards … provide[d] to members for working toward or helping to achieve their [group's] goals' (Smith 2000.) In other words, one is likely to derive more pleasure during the volunteer experience if one is helping a client who is perceived to be especially needy (e.g., the low-income elderly) or important for social welfare (e.g. a local health clinic). Accordingly (as described below), we develop a measure of 'civic capacity' from our survey data to capture this form of social capital.

This approach is consistent with Becker's integration of social capital into the household production framework (Becker 1996) after the concept was formalized by his University of Chicago colleague, James Coleman (Coleman 1990). Specifically, he models individual utility as a function of commodities, human capital, and social capital, which "incorporates the influence of past actions by peers and others in an individual's social network and control system" (Becker 1996, p. 4).

The formal solution to the optimization of a household production model that incorporates social capital and volunteering yields a set of solutions such that social capital --- measured as both 'social connections' and 'civic capacity' -- will be a direct

function of the relationship between the volunteer and the recipient, selected

characteristics of the recipient, and other direct or indirect determinants of social capital

accumulation, including individual (demographic) characteristics[5]. As we discuss in the

next section, the data from our sample allows us to estimate the effects of these

determinants on an individual's social capital accumulation.

THE SURVEY DATA

In this section, we summarize our data from a survey of adult Vermonters and our

measures of social capital and volunteering. Data for this study were from an annual

representative survey of Vermont residents who are over the age of 18 and are registered

voters. Respondents are selected using random digit dialing and computer aided

telephone survey techniques. Analyses based on the Vermonter Poll have a confidence

interval of 95 percent with a margin of error of plus or minus 5 percent (DeSisto and

Kolodinsky 2002).

The local non-profit organizations in Vermont tend to be very small. Seventy-

three percent of statewide non-profit organizations have annual gross revenues below

$199,000, with 37 percent below $25,000 (Kimberly *et al.* 2002). About 75 percent of the

organizations have fewer than ten employees, with 62 percent employing fewer than five

persons. In addition, 77 percent of survey respondents indicated that they volunteered for

small organizations (based on the definition in Kimberly *et al.* (2002)). Most Vermont

non-profit organizations, then, can be categorized as community or grassroots

associations.

The 2002 poll included two sets of questions related to local non-profit

organizations. The exact wording of the introduction to the survey component about local

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non-profit organizations was: "Now I'd like to ask you a few questions about nonprofit organizations—those groups not managed by government or private business. They include a wide range of humanitarian, artistic, health care, social service, educational, environmental, religious, or other organization." In the first set of questions about non-profit organizations, we asked respondents to identify the types of organizations for which they volunteered -- if any -- in the previous year, and then to estimate the total number of hours that they volunteered. The poll collected total number of hours and type of organization volunteered for the "most" and "second most." In our analysis, volunteer hours is a calculated variable. If an individual volunteered for one organization and that organization provided the most benefit to them, the total number of hours is used. If an individual volunteered for more than one organization and the organization volunteered for "the most" provided the most benefit, we made the assumption that 75% of the total volunteer hours were attributed to that organization. If an individual volunteered for more than one organization and the organization volunteered for "second most" provided the most benefit, 25 percent of total volunteer hours were attributed to that organization[6]. Table 1 presents a description of volunteer activity of the sample.

In the second set of questions, we asked respondents to identify the type of organization that provided them with the greatest personal benefit – which, critically, may or may not be an organization for which they volunteer. So for example, a busy low-income single adult household may receive the most personal benefit from a grassroots social service organization that offers free day-care support; a retired two-adult household may receive the most personal benefit from an elderly services organization for which they also volunteer. It is only information about the most beneficial

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organization that we use to test our model of the household production of social capital: this allows us to focus on the production of social capital through the organization that is most important to the daily lives of our respondents. Respondents most often stated that religious and social service organizations provided them with personal benefits. We note that although 22 percent of respondents reported receiving personal benefits from religious organizations, 13.5 percent of respondents actually volunteered for those organizations. And, while 15 percent received benefits from a social service organization, 6.7 percent volunteered for that type of organization.

Respondents were asked to rate -- on a 0 - 10 scale, where 0 represents no benefit and 10 indicates the greatest benefit -- the different kinds of benefits provided by that organization. The possible benefits included physical health, emotional well-being, financial resources, sense of security, level of knowledge, spiritual well-being, overall quality of life, and two social capital benefits (as discussed in the previous section): social connections and civic participation. Five hundred and ten respondents reported that they received a benefit from a charitable non-profit organization. Four hundred reported a social connection benefit, and 405 reported a civic connection benefit.

Table 2 presents a description of social capital benefits reported by the sample. The first column indicates the percentage of respondents who reported receiving each of the two social capital benefits included in this study. The second column indicates the average level of benefit for all respondents who reported receiving a benefit. The third column indicates the average level of benefit for those who reported no volunteer hours for that non-profit organization. The fourth column indicates the average level of benefit for individuals who both received benefits from and volunteered for an organization.

The information about volunteerism and benefits discussed above are measured using a continuous variable for volunteer hours, and dummy variables assigned a "1" if the characteristic is present and "0" otherwise. Religion and social service indicate the type of organization that provided a benefit. Volunteer for religious organization and volunteer for social service organization indicate that the respondent, not only received a benefit from these organizations, but also volunteered hours.

In addition to information about volunteerism and these benefits, the survey also collected information about demographic characteristics of the respondents, including household composition, employment, length of residence, location of residence, age, gender, length of residence in the state, and income. Household composition is measured using two dummy variables. Single adult is assigned a value of "1" if the household is headed by a single adult and children are present and "0" otherwise. Two adults is assigned a value of "1" if two adults and children are present in the household. The left out category includes all households with no children under the age of 18 present. Unemployed is a dummy variable assigned a value of "1" if all adults in the household are not employed in the labor force, and "0" otherwise. Dual earner is a dummy variable assigned a "1" if, in a two-adult household, both adults are employed in the labor force, and a "0" otherwise. Tenure is a continuous variable measured as the percent of one's life lived in Vermont. Rural is a dummy variable assigned a value of "1" if the respondent does not live in the only urban county in Vermont, as designated by the U.S. Census, and "0" otherwise. Age is a continuous variable measuring the age of the respondent in years. Male is a dummy variable assigned a "1" if the respondent is male, and "0" otherwise. Income is measured in quartiles. Low income is a dummy variable assigned a

"1" if the respondent is in the lowest quartile of income, as indicated by U.S. Census data, and "0" otherwise. High income is a dummy variable assigned a "1" if the respondent is in the highest quartile of income, as indicated by the U.S. Census data and "0" otherwise. Table 3 provides summary statistics for the sample.

<u>THE ECONOMETRIC MODEL AND RESULTS</u>

In this section, we present our econometric strategy for testing the relationship between volunteering and social capital and the econometric results.

As noted above, our social capital measures are censored at 0. Econometrically, if y^* (in this case, a level of social capital) is non-positive, a 0 is observed for y, otherwise the observation is of y^* (Greene, 1998). We argue (along the lines of Fin and Schmidt (1984)) that the probability of receiving a social capital benefit is determined separately from the level of that benefit. For example, the type of organization one volunteers for may impact the probability of receiving a social capital benefit, but have no effect on the level of the benefit. Similarly, the level of hours of volunteering may impact the level of social capital, but may have no effect on the probability of receiving a social capital benefit. This model (Cragg, 1971) is written:

Prob $[y^*>0] = \Phi(\gamma'z)$,

Prob $[y^*,= 0] = 1- \Phi(\gamma'z)$,

where y^* is the level of social capital benefit and individual receives. If $y^* >0$, a truncated regression in B'x applies (Greene, 1998).

This model is therefore estimated in two parts. First, we estimate the probability of having any social capital benefit (the non-limit observation) using the Probit

procedure. Second, we estimate the level of social capital benefit (the non-limit level) is

using the truncated procedure[7].

We estimate each of these models with 'social connection' and 'civic

participation' separately. The general forms of the equations are as follows:

Probability of building social capital $= \alpha_0 + \alpha_1$ religious $+ \alpha_2$ social service $+\alpha_3$

Volunteer hours $+ \alpha_4$Volunteer for rel $+ \alpha_5$ Volunteer for SS $+ \alpha_6$ male $+ \alpha_7$ rural $+ \alpha_8$

dual earner $+ \alpha_9$age $+ \alpha_{10}$unemployed $+ \alpha_{11}$ single adult $+ \alpha_{12}$ two adults $+ \alpha_{13}$ low

income $+ \alpha_{14}$ high income $+ \alpha_{15}$ tenure $+$ Error

and

Level of social Capital $= \beta_0 + \beta_1$ religious $+ \beta_2$ social service $+\beta_3$ Volunteer hours

$+\beta_4$Volunteer for rel $+ \beta_5$ Volunteer for ss $+ \beta_6$ male $+ \beta_7$ rural $+ \beta_8$ dual earner $+ \beta_9$age $+$

β_{10}unemployed $+ \beta_{11}$ single adult $+ \beta_{12}$ two adults $+ \beta_{13}$ low income $+ \beta_{14}$ high income $+$

β_{15} tenure $+$ Error

A. The determinants of the probability of building social capital.

The results for the Probit models are presented in Table 4, where each marginal

effect describes the change in the probability of receiving each social capital benefit from

the respondent's most important organization. As we describe here, there are three major

results from these models. The first two rows show that the probability of receiving a

social capital benefit are much greater with religious or social service organizations, as

opposed to humanitarian, artistic, health care, or educational organizations, regardless of

whether they volunteered for that organization. If one's most important group is

religious, this increases by 0.31 the probability that one receives a 'social connections' benefit from the organization; the comparable figure for 'civic capacity' is 0.26. The (statistically significant) effect is smaller if one's most important group is social service-related. The probability of receiving a 'social connections' benefit increases by 0.14; the comparable figure for 'civic capacity' is 0.19. Thus, religious organizations and -- to a lesser degree – social service organizations generate relatively large amounts of social capital.

The second major result involves volunteer hours. The third row of Table 4 shows that the probability of receiving a 'social connections' and a 'civic capacity' benefit is significantly affected by the number of volunteer hours dedicated to the organization. What is the magnitude of this effect? If an individual increase their volunteering commitment by two hours per week (slightly less than the standard deviation of 'volunteer hours'), their probability of receiving a 'social connections' and a 'civic capacity' benefit increases by 0.10 and 0.08, respectively. The more one volunteers, the more one feels connected and civically engaged.

The results presented so far raise the following question: does volunteering for religious or social service organizations -- as opposed to the others types of organizations -- generate additional social capital? The (statistically insignificant) results presented in the fourth and fifth row show that this is not the case. A relationship with religious or social service organizations increases social capital; volunteering increases social capital; but volunteering for these specific groups does not have an additional social or civic payoff.

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The third major result involves two-adult families with children in the household. Compared to all households with no children under the age of 18 present (as noted above, the omitted variable here), the probability of receiving each of the two social capital benefits is 0.14 and 0.22 higher (respectively) for such two-adult families. We believe that this is an important result: adults in such families are more likely to receive social and civic benefits from the non-profit organizations that matter to them.

These results, the empirical punch line of this paper, can be summarized as follows: a relationship with religious and social service organizations have a large impact on social capital formation, volunteering has an impact on social capital formation, and two-adult families are more likely to feel socially and civically engaged.

B. The determinants of the level of social capital.

The results for the truncated regression models are presented in Table 5, which (following Cragg, 1971) are among only those respondents who received some social capital benefit. As we describe here, there are three major results from these models. First, the type of organization does not impact the level of social capital benefit. In particular, whether one's most important organization is a religious or social service organization does not raise the level of 'social connections' or 'civic capacity' associated with that organization. Recall relationships with these types of organizations did increase the probability of receiving a social capital benefit. No type of organization builds a higher level of social capital than any other.

Second, hours of volunteering have a significant, but relatively small, impact on increasing the level of the 'social connections' and 'civic capacity' benefits (which, as noted above, are scaled from 1-10). If an individual increase their volunteering

commitment by two hours per week, the level of the 'social connections' and 'civic

capacity' benefits increase by only 0.34 and 0.46, respectively. Since the standard

deviations of each of these social capital variables are 2.9 and 2.6 (Table 2), respectively,

these represent relatively small magnitudes. A significant amount of volunteering

increases the level of social capital by only a small amount. And, as indicated by the

fourth and fifth rows, volunteering for religious and social service organizations does not

have an additional affect on the level of social capital.

Finally, males receive a (statistically significant) lower level of 'social

connections' and 'civic capacity' benefit compared to females – but again, the

magnitudes of the effects (-0.66 and –0.51, respectively) are relatively small. Overall, no

other demographic characteristic – including two-adult families – affects the level of

social capital benefit received from an organization.

<div align="center">DISCUSSION AND CONCLUSIONS</div>

The empirical results reported in this paper are consistent with recent aggregate

evidence on the on the decline of social capital in the United States (Putnam 2000, Costa

and Kahn 2001): the likelihood of being socially and civically engaged declines with less

religious and altruistic orientation at the community level, and as families move away

from a two-adult family structure. But the news may not be all bad: religious

affiliations have stayed at about 40 percent of the population since 1939, and there has

been renewed interest in social services as a response to what has been called social

decay (e.g., homelessness) (Economist, 1995; Greeley, 1997a). Relationships with these

types of organizations impact the probability of building social capital more compared

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with other types of organizations. These findings are consistent with Greeley (1997b),

who argues that religion continues to be a powerful and enduring source of social capital.

If there is a decline in the level of social capital being generated because of

changes in the connection of individuals to traditional organizations and changes in

family structure, our results show that through volunteering, one can increase the

likelihood of being socially and civically engaged. However, it is notable that the

estimates from this model imply that volunteering can only partially make up for the

declines of religious and social orientation and the two-adult family structure. Consider a

scenario where a member of a child-less household who is not religiously or

altruistically-oriented decides for the first time to volunteer. If he or she then volunteers

3.6 hours per week -- the average hours among volunteers in the United States

(Independent Sector 2001) – the probability of receiving a 'social connections' and a

'civic capacity' benefit goes up by 0.18 and 0.14, respectively. By contrast, a non-

volunteering member of a two-adult family who is religiously oriented would increase

their respective probabilities by 0.45 and 0.48, respectively. Volunteering is not a

complete substitute for these other important determinants of social capital formation.

We found, as did Wollenbaek and Selle (2002), that increases in the level of

social capital due to actively volunteering is small, albeit significant. Thus, while our

research corroborates the theory that voluntary associations are important determinants of

social and civic engagement, their role in increasing the formation of social capital may

be exaggerated.

END NOTES

1. Volunteering in this paper is synonymous with volunteer action, which is "significantly unremunerated volunteer action by an individual or group and results significantly from volunteer altruism" (Smith 2000).

2. On average, 3.6 weekly hours among individual adults aged 21 or older (Independent Sector 2002).

3. But valuing volunteer time at a market wage may overestimate the true monetary value of the time spent. Brown (1999) discusses at length why this is so, citing that volunteers almost certainly demand higher wages in their "day" jobs than on their volunteer jobs, which often require a lower set of skills and thus should command a lower rate of pay. The demographics of volunteers, more highly educated, for example, also points to a higher wage earned in their usual place of employment. Thus, the wage rate may overestimate to measure the opportunity cost of volunteering.

4. Wilson and Musick (2000) discuss returns to volunteering in the form of individual gains such as building character, improving one's physical and emotional health, and societal gains such as building a civil society. Other determinants of utility include personal economic returns, or 'utilitarian incentives' (Smith 2000). For example, Day and Devlin (1998), using data from a survey of Canadian households, show that volunteering increases human capital and wages.

5. Let the act of volunteering by person i be a time input (T_i) into a utility-generating accumulation of social capital (SC_i) that is also produced with purchased goods (X_i) -- for example, the cost of driving to a volunteer opportunity – and a vector of

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characteristics of persons 1 to j (R_j). The solution to this model is available from the authors.

6. To test the impact of our assumption on the final results, we also calculated volunteer hours based on a 51 percent and 99 percent allocation of volunteer hours for individuals who volunteered for more than one organization and the organization that provided the most benefit was the same as the organization the individual received the most benefit from. Volunteer hours for those who received the most benefit from the organization volunteered for "second most" were assigned values of 1 percent and 49 percent. These values were then used to test the stability of the estimated model. These are discussed briefly in the results, but did not cause significant differences in the estimates of social capital benefits.

7. If the probability of a non-limit value and the level of that value are impacted in the same direction and the same magnitude, the Tobit model is appropriate. The choice of appropriate model is an empirical question. A likelihood ratio test , tests the restriction of the Tobit model that z=x and γ=B. The restriction was rejected at the .01 level in preliminary analysis. Thus, we utilize the Cragg specification.

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TABLES

Table 1. Description of volunteer activity in the sample. (S.D. = standard deviation)

Percent of sample that volunteered for a religious organization	Percent of sample that volunteered for a social service organization	Average volunteer hours for all respondents	Average volunteer hours for those that volunteered for the organization providing the most benefit
13.5% S.D. = 34.2 N=510	6.7% S.D. =.24 N=510	100.93 S.D.= 175.54 N=522	126.88 S.D.=160.32 N=172

Table 2: Social Capital Benefits as Stated by Respondents.

(Standard Errors are in parenthesis).

	Percentage of sample reporting a benefit	Average level of Benefit for Respondents who report receiving a benefit	Level of benefit for those who Do not volunteer for the non-profit that provided the most benefit	Level of benefit for those who Do volunteer for the non-profit that provided the most benefit
Social Connections	77% n=510	6.6 (2.9) n=405	6.2 (2.5) n=232	6.7 (2.9) n=173
Civic Capacity	78% n=510	6.4 (2.6) n=400	6.1 (2.6) n=230	6.5 (2.8) n=170

Table 3: Definitions and summary statistics of survey data

Variable Name	Definition	Mean	Std. Dev.
Dependent Variables			
Social connections	Level of social connection benefit reported (range 0-10)	5.7	3.2
Civic capacity	Level of civic capacity benefit reported(range 0-10)	5.6	3.1
Independent Variables			
Volunteer hours	Volunteer hours per year /52	.80	2.1
Religious	1=received benefit from a religious organization	.22	.42
Social service	1=received benefit from a social service organization	.15	.36
Male	1= male	.44	.49
Rural	1= resides in rural area	.56	.48
Dual earner	1= dual earner household	.41	.40
Age	Age in years	51.0	15.49
Unemployed	1= household is unemployed (includes retired)	.18	.39
Single adult	1=single adult household	.03	.15
Two adults	1=two adult household	.28	.45
Low income	1=income less than $20,000	.11	.10
High income	1=income greater than $60,000	.43	.50
Tenure	Percent of life lived in State	.39	.48
N = 510			

Table 4: Determinants of the Probability of Receiving a Social Capital Benefit

(Marginal effects reported)

	Social connections	(S.D.)	Civic Capacity	(S.D.)
Religious	.31***	(.07)	.26***	(.07)
Social service	.14***	(.06)	.19***	(.06)
Volunteer hours	.05***	(.02)	.04**	(.02)
Volunteered for Religious organization	.06	(.12)	.05	(.10)
Volunteered for Social Service organization	-.07	(.09)	-.03	(.11)
Male	-.04	(.03)	-.02	(.03)
Rural	-.01	(.03)	-.02	(.03)
Dual earner	.05	(.03)	-.02	(.03)
Age	-.001	(-.001)	-.001	(-.001)
Unemployed	-.04	(.05)	-.05	(.05)
Single adult	.02	(.06)	-.14	(.10)
Two adults	.14***	(.04)	.22***	(.05)
Low income	.001	(.05)	-.01	(.05)
High income	-.002	(.03)	-.03	(.04)
Tenure	-.06	(.05)	-.01	(.04)
Constant	.10	(.09)	.18**	(.08)
N	510		510	

Table 5: Determinants of the Level of Social Capital Benefit

	Social connections	(S.D.)	Civic Capacity	(S.D.)
Religious	.29	(.41)	.49	(.45)
Social service	-.12	(.43)	.69	(.46)
Volunteer hours	.17**	(.05)	.23**	(.06)
Volunteer for religious Organization	.25	(.47)	.08	(.52)
Volunteered for social service Organization	.96	(.62)	.03	(.65)
Male	-.66***	(.24)	-.51**	(.27)
Rural	-.10	(.25)	.20	(.27)
Dual earner	-.02	(.28)	.36	(.31)
Age	-.003	(.01)	.002	(.01)
Unemployed	-.45	(.44)	-.60	(.47)
Single adult	.29	(.87)	-.91	(1.04)
Two adults	-.27	(.30)	-.50*	(-.31)
Low income	-.57	(.46)	.19	(.51)
High income	-.10	(.27)	-.06	(.30)
Tenure	.35	(.38)	-.47	(.42)
Sigma	2.33***	(.90)	2.51	(.10)***
Constant	6.74***	(.65)	6.55***	(.71)
N	390		393	