

Does Volunteering Build Confidence in Charitable Organizations?

René Bekkers (Utrecht University, Netherlands)

Woods Bowman (DePaul University, USA)

Abstract

Confidence in charitable organizations is an important prerequisite for philanthropic contributions. Previous research relying on cross-sectional data suggests that volunteering promotes confidence in charitable organizations. This research note addresses the question using longitudinal panel data from the Netherlands (n=1,244) and show that this is not the case. Volunteers have more confidence in charitable organizations, but changes in confidence are not related to changes in volunteering. We identify generalized social trust and altruistic values as omitted variables that produce the previously observed relationship. The practical implication of this finding is that drawing people into volunteering does not enhance charitable confidence. The theoretical implication is that volunteering is primarily symbolic social behavior.

Introduction

Concern over weak public confidence in charitable organizations (“charitable confidence”) is palpable and international in scope. In the U.S., the Brookings Institution documents a drop in charitable confidence lasting at least two years following destruction of the World Trade Center (Light 2004).¹ The United Kingdom recently amended its Charities Act to add increasing public trust and confidence in charities to the list of objectives of the Charities Commission (Opinion Leader Research 2005). Concern is based on the assumption that weak charitable confidence suppresses donations and volunteer support and, if a way could be found to boost confidence, the charitable sector would gain increased resources.

In the present paper we focus on the relationship between confidence and volunteering. Previous research suggests that the causality in the relationship runs from volunteering to confidence. Bowman (2004) observes that most people in the U.S. volunteer because someone asks them, thus even people with the lowest levels of charitable confidence are volunteers.² Charitable confidence may not be a very important factor in the decision to start volunteering. But volunteering may help build charitable confidence. Bowman builds a two-equation model to capture both the effect of charitable confidence on the likelihood of volunteering and the feedback (reverse) effect between volunteering and charitable confidence, and tests it with cross-sectional data from the Independent Sector’s 1996 Giving and Volunteering survey. He finds that the effect of volunteering on charitable confidence is stronger than the effect of charitable confidence on volunteering. Thus, a problem of low charitable confidence will be self-correcting once people are recruited as volunteers.

However, Bowman cannot give a definitive answer to the causality problem because unmeasured variables that influence both confidence and volunteering may cause a bias in the estimated effect of volunteering on confidence. This paper is the first to explore the possibility of a causal relationship running from volunteering to charitable

confidence with panel data from the Giving in the Netherlands Panel Survey. We proceed in two steps. In the first step, we analyze the Dutch panel data and find that changes in volunteering are not associated with changes in confidence. This suggests that the higher level of confidence among volunteers is due to selection of more confident individuals into volunteering, potentially on the basis of omitted variables. In the second step, we identify generalized trust and altruistic values as omitted variables and find that decisions to start or quit volunteering are partly rooted in trust and altruistic values.

Inter-Temporal Analysis of Covariance

An adequate estimate of the effect of volunteering on confidence requires an analysis of how charitable confidence changes *after* people start or quit volunteering. If volunteering has a causal impact on confidence, we should find that people have elevated confidence after they have started volunteering, and that people lose confidence after they quit volunteering. Thus, it is changes in confidence within individuals that we are after; not differences in confidence between individuals who do or do not volunteer. Panel datasets allow us to estimate the magnitude of changes within individuals over time by using an appropriate regression model (Greene, 2003).

Two types of regression models are available for panel data: random effects and fixed effects models. The random effects model is an OLS regression with pooled data, which treats both individual-specific and time-varying effects as random variables that are subsumed in the constant and random error terms. The fixed effects model can be thought of as an ordinary regression model including a series of dummy variables for each individual capturing the 'unit effects' (Halaby, 2004). As a result, only variables that change within individuals over time can be included in a fixed effect regression model. The model assumes confounding variables (included and omitted) are constant over time and drop out of the analysis. Any actual time-varying changes are subsumed into the constant and random error term.

While researchers commonly use random effects models rather than fixed effects models, the latter are to be preferred in most cases (Halaby, 2004). The random effects regression model yields biased estimates when the (fixed) unit effects are correlated with the explanatory variables. Hausman (1978) developed a statistical test for such correlations based on the logic that the coefficients obtained in random effects models should be equivalent to the same coefficients obtained in a fixed effect specification if in fact the (fixed) unit effects are not correlated with the explanatory variables. In our case, the Hausman test is significant, ($\chi^2=12.99$, $p<.000$), indicating that the effect of volunteering on confidence is significantly different in the fixed effects model than in the random effects model. Because the Hausman test is significant, the random effects model yields biased estimates. Therefore we use the fixed effects model.

For illustrative purposes, the top panel of Table 1 shows the results of a random effects model. The results show that charitable confidence is positively related to volunteering. This means that on average, volunteers have a higher level of charitable confidence than non-volunteers. In cross-sectional datasets, and in the present random

Table 1

Analysis of Covariance, Random and Fixed Effects
with Dutch Data for 2004 and 2006

Random Effects Model		
Charitable Confidence	Coeff.	Standard Error
Volunteering	0.182 ***	0.031
Constant	3.062 ***	0.022
Sigma_u	0.611	
Sigma_e	0.537	
rho	0.564	
Wald Chi Square	33.85 ***	

Fixed Effects Model		
Charitable Confidence	Coeff.	Standard Error
Volunteering	-0.014	0.063
Constant	3.142 ***	0.029
Sigma_u	0.791	
Sigma_e	0.537	
rho	0.685	
F	0.05	

In both models:

Number of observations = 2,790

Number of groups = 2,079

*** Significant at the .001 level.

effects model, changes within individuals and differences between individuals are confounded by design: changes within individuals over time, as well as differences between individuals at the same point in time, are commingled sources of variance.³

The bottom panel of Table 1 shows the results of the fixed effects model. The effect of volunteering on charitable confidence is unexpectedly negative, but it is not significant. The discrepancy between the random and fixed effects estimates implies that volunteers as a group have more confidence than non-volunteers, but that changes in volunteering within respondents do not correlate with changes in confidence.

Identifying Omitted Variables

If volunteering does not promote confidence, then why do volunteers have more confidence in charitable organizations? The Giving in the Netherlands Panel Survey includes several variables not available in the Independent Sector data that may be acting as omitted variables. New confounding variables on Table 4 are: (1) Town size, (2) Gender, (3) Marital Status, (4) Parents' education, (5) Dummies for religious affiliation (Roman Catholic, Reformed Protestant, Re-reformed Protestant, other Christian affiliation, and non-Christian affiliation), (6) Number of solicitations for money in two weeks prior to survey, (7) Religious Socialization, and (8) Altruistic values, measured with a Dutch translation of eight items on "benevolence" from Gordon's (1976) Interpersonal Values scale (Lindeman 1995). The items formed a reliable scale ($\alpha=0.81$). Previous research indicates that altruistic values are a strong predictor of charitable giving (Bekkers 2002) and volunteering (Unger, 1991). All of these variables are measured in 2002.

We perform an OLS regression of charitable confidence as measured on a 5-point scale in 2004 on a dummy variable indicating volunteering activity in 2002, a dummy variable indicating whether a respondent stopped volunteering between 2002 and 2004, and another dummy indicating whether a respondent quit volunteering between 2002 and 2004. Analyses of confidence on a three point scale and a dichotomous confidence variable revealed similar results (results available upon request). We regress charitable confidence in 2006 on volunteering variables from an earlier time period to control for the mutual influence between contemporaneous volunteering and charitable confidence. Other regressors are the confounding variables listed above in addition to those present in the U.S. data: Age, Education, Income, Employment Status, and a dummy variable indicating whether either parent had been a volunteer. All of these confounding variables are measured in 2002.

Table 2 reports results for two regressions: one using the volunteering variables and generalized social trust alone, and the other using all of the confounding variables. In the simpler model, previous volunteering experience has a significant ($p < .001$) positive effect on charitable confidence. The coefficient on the variable indicating that a respondent quit volunteering between 2002 and 2004 has an expected negative sign, but it is not significant, even at the 0.10 level. The coefficient on the variable indicating that a respondent began volunteering between 2002 and 2004 is significantly positive ($p < 0.10$). It is not surprising that Generalized Social Trust is significantly positive ($p < 0.001$).

Table 2

Effect of Additional Confounding Variables
Dutch Data

Charitable Confidence in (2004)	Coeff.	Standard Error	Coeff.	Standard Error
Volunteered in 2002 [^]	0.231 ***	0.052	0.078	0.055
Quit between 2002 & 2004 [^]	-0.133	0.082	-0.071	0.079
Began between 2002 & 2004 [^]	0.165 (*)	0.063	0.063	0.062
Generalized Social Trust	0.116 ***	0.022	0.108 ***	0.021
Altruism (mean score of 8 items)			0.171 ***	0.024
Number of Solicitations for Money			0.034 **	0.016
Age			-0.003	0.002
Gross Household Income (x€1000)			-0.002 (*)	0.001
Lower (Primary) Secondary Education ^{^^}			-0.094	0.114
Middle Secondary Education ^{^^}			0.041	0.072
Higher Secondary Education ^{^^}			0.133	0.101
Lower Tertiary Education ^{^^}			0.074	0.062
Middle Tertiary Education ^{^^}			0.086	0.076
Higher Tertiary Education ^{^^}			0.234 **	0.076
Highest Level of Education of Parents			0.000	0.014
Working Part-Time ^{^^}			0.008	0.062
Not Working ^{^^}			-0.129 *	0.062
Religious Socialization			0.008	0.028
Roman Catholic ^{^^}			-0.101	0.064
Reformed Protestant ^{^^}			-0.004	0.070
Re-reformed Protestant ^{^^}			0.053	0.083
Other Religion ^{^^}			0.095	0.108
Female ^{^^}			0.058	0.048
Married ^{^^}			-0.033	0.052
Children Present ^{^^}			0.043	0.051
Role Model			0.039	0.025
Town Size			0.000	0.000
Constant	2.959 ***	0.032	3.134 ***	0.110
Adjusted R Square	0.039 ***	0.767	0.128 ***	0.731
N	1,244		1,244	

Note: Unless otherwise specified, explanatory variables were measured in 2002.

[^] Dummy variables; reference group is persons not volunteering in 2002 & 2004.

^{^^} Dummy variable; yes = 1.

(*) = .10 level, * = .05 level, ** = .01 level, *** = .001 level of significance.

However, when all confounding variables are included, the influence of the volunteering variables vanishes. Interestingly, very few regressors have significant coefficients: (1) Generalized Social Trust, (2) Altruism, (3) Gross Household Income, (4) Higher Tertiary Education, (5) Not Working, and (6) Number of Solicitations for Money in the two weeks prior to survey, which is a proxy for social connectedness. Examination of stepwise regressions revealed that the altruism variable is primarily responsible for eliminating the influence of volunteering. When we deleted the altruistic values variable while retaining all the other covariates, we observed a marginally significant positive effect of joining as a volunteer ($\beta=0.050$, $p<.085$), whereas quitting as a volunteer has no significant effect ($\beta= -0.034$, $p<.254$). Respondents who endorse helping others as an important goal in their lives are more likely to volunteer as well as to have confidence in charitable organizations.

Selection of individuals who are more trusting and who have more altruistic values into volunteering is generating the relationship between volunteering and confidence, because trust and altruistic values are also sources of confidence in charitable organizations. Such selection may be the result of a higher likelihood of starting to volunteer among respondents with higher levels of trust and altruism and/or a lower likelihood of quitting volunteering among these respondents. To address these possibilities, we conducted probit regression analyses of joining and quitting as a volunteer between two consecutive waves and trust and altruism in the former wave. Table 3 reports the results.

Table 3 contains four panels: results pertaining to changes in volunteering between 2002 and 2004 (left panels) and between 2004 and 2006 (right panels); and results pertaining to joining (top panels) and quitting volunteering (bottom panels). In all panels, generalized trust and altruistic values are included as regressors; in the right panels, confidence is also included as an additional predictor. The top left panel shows that among those who did not volunteer in 2002, individuals with more altruistic values were more likely to start volunteering between 2002 and 2004. In the top right panel we do not find evidence for a higher likelihood of starting to volunteer among the non-volunteers in 2004 with stronger altruistic values. Neither do we observe effects of generalized trust on joining, or effects of charitable confidence.⁴

The bottom panels show that trust lowers the likelihood to quit volunteering, both in 2002-2004 and 2004-2006. The bottom right panel shows that altruism and confidence are not related to volunteer attachment. Together, these results reveal that generalized trust and altruistic values are important characteristics of persons in decisions to start and quit volunteering. Individuals with more altruistic values are more likely to join, and to a lesser extent they are also less likely to quit volunteering. More trusting individuals are less likely to quit, and to a lesser extent they are more likely to join.

We caution that the effect of prior levels of altruistic values on changes in volunteering does not prove that volunteering is motivated by altruism in the economic sense (Andreoni, 1990, Bowman, 2004). The effect merely shows that endorsement of altruistic motives enhances the attractiveness of volunteering. A proper test of altruistic motivation for volunteering requires identification of changes in volunteering upon

Table 3

Effect of Omitted Variables on Starting and Quitting Volunteering

	<u>started volunteering</u>			<u>started volunteering</u>	
2002-2004	Coeff.	Standard Error	2004-2006	Coeff.	Standard Error
Generalized trust	0.017	0.011	Generalized trust	0.009	0.028
Altruistic values	0.052 ***	0.010	Altruistic values	0.023	0.039
			Confidence	0.029	0.026
Log likelihood	-526.68		Log likelihood	-224.10	
N	1233		N	428	
	<u>quit volunteering</u>			<u>quit volunteering</u>	
Charitable Confidence	Coeff.	Standard Error	2004-2006	Coeff.	Standard Error
Generalized trust	-0.033 (*)	0.018	Generalized trust	-0.060 (*)	0.033
Altruistic values	-0.028	0.021	Altruistic values	-0.097 *	0.048
			Confidence	-0.008	0.034
Log likelihood	-503.47		Log likelihood	-176.40	
N	731		N	334	

*** Significant at the .001 level. ** Significant at the .01 level. * Significant at the .05 level. (*) Significant at the .1 level.

changes in the need for volunteering. Examples of such changes are changing levels of involvement among colleague volunteers, or changes in well being of clients served by volunteers.

Discussion and Conclusions

Previous estimates of the effect of volunteering on confidence suggest reciprocal causation. However, these estimates are biased because error terms in the equations for volunteering and confidence are significantly correlated, suggesting that omitted variables simultaneously influence both volunteering and charitable confidence. Eliminating the omitted variable bias in a fixed effects regression model, we find that there is no effect of changes in volunteering on changes in confidence. The effect observed in Bowman's (2004) paper can be traced to omitting generalized social trust and altruistic values. The latter finding is consistent with work by Uslaner (2002) who finds evidence that volunteering and confidence are *both* the result of an attitude of generalized social trust, ultimately driven by feelings of general optimism and the degree of economic inequality.

Charitable confidence and generalized social trust are social constructs, but volunteering is a willed act. Bowman develops a rationalist economic model of volunteering based on impure altruism. The concept of impure altruism was developed by Andreoni (1990) to explain monetary donations. As applied by Bowman to volunteering impure altruists derive utility from consuming a combination of a public good (charity) and a private good ('clubbiness'), both created by volunteering. Volunteering produces a 'warm glow' that will reflect in enhanced charitable confidence. On the other hand, volunteering is symbolic for some people. It is a way to broadcast "I'm a good person." There is no reason to expect the charitable confidence of such a person to change as a result of a personal volunteering experience.

We conclude that confidence is a matter of experience but generalized social trust is a matter of belief. Beliefs help us interpret experience in ways that do not threaten the beliefs themselves. A survey in the U.K. by Opinion Leader Research (OLR; 2005, 3) finds that the "main factor driving trust is an 'inherent belief that charities will spend wisely and effectively ... This belief is grounded in faith rather than any rationally based expectation, as the majority of people do not know how charities are run and most people do not scrutinise charities when they give money.'"⁵ Therefore generalized social trust is likely to influence confidence (persons with high trust are likely to have relatively more confidence in charities than persons with low trust), but not the other way around.⁶

We began this paper with the observation that concern over loss of confidence in charitable organizations is based on the assumption that a loss of charitable confidence causes donors and volunteers to withdraw their support from the sector across-the-board. And, if a way could be found to boost confidence, the charitable sector would gain increased volunteer (and other) resources. But, if volunteering and confidence are jointly determined by pure altruism and generalized social trust, perhaps there is little need to worry about occasional loss of confidence in charitable organizations because volunteering should not be affected very much. Our research shows that that decreasing charitable

confidence in charitable organizations cannot be corrected by drawing people into volunteering.

On the other hand, if volunteering is symbolic, individual organizations should be concerned about a loss of public confidence in them in particular. A signal becomes less credible when an organization is criticized *externally* and is confronted with a loss of *public* confidence. If signalling motivates people to volunteer, we would expect to find that a decrease in public confidence in an organization would induce volunteers to spend less time working for it or even stopping altogether – whether or not their own generalized social trust changes. Anecdotal evidence from the Netherlands supports this hypothesis: when the Dutch Heart Association faced loss of public trust upon publication of its director’s salary of €170,000 in 2004, many volunteers for the Association refused to go door-to-door to raise funds, and some quit altogether. We propose a confirmatory experiment. Such an experiment would require panel data on volunteers for several large organizations together with measures of public confidence in each organization. Another productive line of research would identify sources of organization-specific confidence that charitable organizations can themselves influence.

Appendix: Description of Key Variables

Bowman derives his cross-section results from 1996 Giving and Volunteering data gathered by the Independent Sector, containing approximately 500 items collected from 2,700 randomly sampled U.S. respondents. The panel data from the Netherlands consist of three waves. Data were collected with a web-based computer assisted self-interview, which drew respondents from a pool of approximately 70,000 individuals who regularly participate in poll surveys. Dutch fieldwork took place in May of 2002, 2004, and 2006.

Since volunteering and charitable confidence mutually influence each other, simultaneous equations estimation requires (1) including in the volunteering equation a variable that is theoretically correlated with volunteering but not with charitable confidence and (2) including in the confidence equation a different variable that is theoretically correlated with charitable confidence but not with volunteering. We need a theory that jointly explains volunteering and charitable confidence, rich enough to include other variables satisfying the conditions just stated – such as the impure altruism model.

The key variables in our regression models are volunteering, recruited (a dummy variable indicating whether a respondent was asked to volunteer), charitable confidence, and interpersonal trust. The dependent variable in each equation (charitable confidence and volunteering) also appears as an independent variable in the other equation. In the 2004 wave of Dutch surveys respondents reported about volunteering in calendar year 2003. In the collected two years later in May 2006, respondents reported about volunteering in calendar year 2005.⁷

The U.S. survey has no single question measuring charitable confidence. Instead, interviewers ask: “I am going to read you a list of private charitable institutions in American society. Please tell me how much confidence you, yourself, have in each one – a

great deal, quite a lot, some or very little.” Interviewers then recite 13 categories of nonprofit organizations. Bowman’s charitable confidence variable is dichotomous: high confidence respondents have a total score on these 13 questions above the sample mean, and low confidence respondents have a total score below the mean. A missing datum on any one question causes the entire case to be discarded. Coding ‘don’t know’ as zero retains a case for incorporation into the composite charitable confidence variable.

The Giving in the Netherlands Panel Survey measures charitable confidence on a 1-5 scale (ranging from ‘none at all’ to ‘very much’) with the question, as translated from the original Dutch: “How much confidence do you have in charities?” In the 2006 survey, 4.1% replied ‘none’, 15.2% replied ‘little’, 38.0% replied ‘moderate’, 41.9% replied ‘much’ and only 0.8% ‘very much’. We collapsed the 57.3% who report none, little, or moderate confidence, and 42.7% reporting much or very much into a dichotomous confidence variable.

In the confidence equation, the main independent variable is generalized social trust. Both the U.S. and Dutch surveys measure trust with the question “Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people?” In both cases “most people can be trusted” is encoded as one and “you can’t be too careful in dealing with people” is encoded as zero (‘other, depends’ and ‘don’t know’ are also coded zero).

In the U.S. data, the volunteering question is, “In which, if any, of the areas listed on this card have you done some volunteer work in the past twelve months?” Interviewers then show respondents 15 types of nonprofit organizations. A positive response to one or more of these (except political, work-related, and informal) is coded one. A negative response to all is coded zero. A ‘don’t know’ or ‘refused’ is treated as a missing observation. In the Dutch data, volunteering is measured in an extensive Method-Area module. We consider only respondents who mention a concrete activity carried out without monetary compensation for a specific voluntary association in the 12 months prior to the survey. 37.2% of the respondents report monthly volunteering activities.

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Notes

¹ Brookings measured charitable confidence in July and December 2001, in May, August and September of 2002, in August and September of 2003, and in January and August of 2004. All data, except July 2001 were compiled by Princeton Survey Research Associates. July 2001 data were from Independent Sector. Since 1990 the Independent Sector's biennial surveys of giving and volunteering have shown "remarkable consistency in public trust in charitable organizations." (Toppe and Kirsch 2002) The percent of persons believing that charities are "honest and ethical in their use of funds" ranged from a low of 60% in 1996 to a high of 73.4% in February 2002. Just before Brookings began collecting data, charitable confidence had been at an all-time high, which may have been an aberrant measurement. Thus, concern over low levels of charitable confidence may be unfounded, but there is no denying that such concern exists.

² Volunteers are 10 percent of the quintile with the least charitable confidence. They are 27 percent of the next quintile, 46 percent of the next quintile, 55 percent of the next and 50 percent of the quintile with the highest levels of charitable confidence (Bowman 2004).

³ The Breusch and Pagan Lagrangian multiplier test for random effects is strongly significant, $\chi^2=229.80$, $p<.000$.

⁴ The effect of trust on joining is mitigated by selective panel attrition. Low trust respondents were more likely to leave the panel between 2004 and 2006; altruistic values and confidence were not related to panel attrition. A two-stage probit model with selection for trust reveals a significantly positive effect of trust in 2004 (coefficient .128 (.063), $p<.041$) on joining in the two consecutive years.

⁵ Some researchers (like OLR) use trust and charitable confidence interchangeably. We believe the context makes clear that they are referring to what we call charitable confidence. OLR hedged its bets in the survey by asking respondents, "How much trust and confidence do you have in charities?"

⁶ In an exploratory factor analysis by OLR, 88 percent of the variance in charitable confidence is "explained" by "inherent belief," which we associate with trust.

⁷ There was an earlier wave collected in 2002 but it did not include all of the relevant variables so we do not use those data. For our purposes 2004 is the first wave.