



## The giving type: Identifying donors

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### ABSTRACT

One commonly used strategy in charitable fundraising is sharing names and contact information of donors between organizations, even those whose missions are unrelated. The efficacy of this practice hinges on the existence of “giving types,” that is, a positive correlation at the individual level between giving to one organization and to another. We run an experiment using a non-student sample (an artificial field experiment) in which participants have the opportunity to donate to multiple charitable organizations. We examine the relationship between giving to one organization and giving to another. Our results support the existence of a giving type; a factor analysis demonstrates that giving decisions are driven by a single (unique) factor, and individuals who give to one organization, give significantly more to other organizations than do non-donors. Our results have important implications for the economics of charity and for fundraising practice.

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## 1. Introduction

One of the most challenging activities charities face is identifying new donors. Limited resources are available for solicitation, and response rates soliciting new donors are generally less than 1%.<sup>3</sup> In response, charities often trade donor lists with other (related or unrelated) organizations, or buy donor lists from third party firms in order to identify potential new donors.<sup>4</sup>

The efficacy of this practice hinges on the existence of a “giving type,” that is a positive correlation at the individual level between giving to one organization and to another, possibly unrelated, organization. However, these correlations are difficult to observe in the field, as privacy concerns and competitive forces lead charities to guard donors' information from researchers. While some data are

available on total giving by individuals via tax returns (see Vesterlund, 2006; Andreoni, 2006), studies typically do not distinguish between individuals who give to many organizations and those who give more to a single organization.<sup>5</sup>

A set of recent studies utilize lab and field experiments in order to illuminate questions in the economics of charity. Researchers have investigated the impact of matching contributions, challenges and rebates (e.g. Eckel and Grossman, 2008; Karlan and List, 2007; Rondeau and List, 2008; List and Rondeau, 2003; Huck and Rasul, 2008), of seed money (e.g. List and Lucking-Reiley, 2002; Bracha et al., in press), of social information (e.g. Frey and Meier, 2004; Croson and Shang, 2008; Shang and Croson, 2006, 2009; Shang et al., 2008; Chen et al., 2010),<sup>6</sup> of simultaneous and sequential fundraising appeals (e.g. Vesterlund, 2003; Potters et al., 2005, 2007; Duffy et al., 2007), of the social status of early donors (e.g. Kumru and Vesterlund, 2010), of charity auctions and tontines (e.g. Lange et al., 2007; Carpenter et al., 2008b), of social connections among donors (e.g. List and Price, 2009), and many other topics. These studies all provide actionable

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<sup>3</sup> A rule of thumb for direct mail solicitation is to expect response rates of 0.5–2.5% (Sharpe, 2007). Eckel and Grossman (2008) report a rate of 0.5–0.6% for prospect solicitations for a direct mail campaign conducted by Minnesota Public Radio. Bray (2008) cites a successful response rate for solicitation of new donors as 1% (p. 134).

<sup>4</sup> For example, in a British study of direct mail response rates for fundraising, Sargeant (2005) reports a response rate of 1.14% for new prospect mailings and a rate of 4.14% from a mailing based on a list swap. Bray (2008) notes the strategic value of list swaps (p. 120).

<sup>5</sup> In a study of crowding out across types of nonprofit organizations, Ribar and Wilhelm (2002) note the absence of studies that examine giving to multiple organizations.

<sup>6</sup> One could also consider the positive relationship between own and others' contributions in the VCM as a form of social information (e.g. Ashley et al., 2010; Bardsley, 2000; Croson, 2007; Fischbacher et al., 2001; Keser and van Winden, 2000; Weimann, 1994), in addition to the considerable literature on dictator and ultimatum games, which is beyond the scope of this paper.

recommendations and mechanisms that nonprofits can use in order to increase the effectiveness of their fundraising campaigns.

In contrast, we examine the relationship of individual's giving to multiple organizations. We run an experiment on giving using a non-student sample (an 'artefactual' field experiment in the typology of Harrison and List, 2004) in which participants have the opportunity to give to multiple neighborhood charitable organizations, as well as to make donations in a standard public goods game, the voluntary contribution mechanism (VCM). Donations are matched (doubled) to provide an incentive to give. The study targets a unique, understudied population in a historically low-income African-American neighborhood in Dallas, TX.

By examining donations in this setting, we combine the control of the laboratory with the context of the field and a population of interest. Our experiments feature controls, for example we know that each individual receives a solicitation, and thus we can directly attribute donations of zero to a desire not to donate. Our experiments provide data of interest to our question that we cannot observe naturally. We examine the correlation of donations within an individual across organizations and interpret these correlations as measures of willingness to donate given that they receive "the ask." Our experiment includes some field context as well. Participants are really giving money that they could otherwise keep to real charities. Finally, our experiment examines a population of particular interest that has been previously overlooked in other studies of giving: the poor.

Several previous experimental studies compare giving between in-lab experiments (like the dictator game or VCM) using student samples.<sup>7</sup> Laury and Taylor (2008) compare public goods contributions in the lab and giving to a particular charitable organization: Trees Atlanta, which plants shade trees in urban areas. They find mixed evidence of a giving type. When average contributions are used as measure of altruism, or consistent free riding behavior as an indicator of its absence, then they find statistically significant correlations between lab and field behavior. However, when they use the lab data to estimate a utility function with an altruism parameter, these measures are not significantly correlated with field behavior. Benz and Meier (2008) show evidence of a giving type: donations in a dictator game where the recipient is a charity rather than a person significantly predict individual donations to the University's social funds. While college student giving is likely to be a good proxy for giving by the college-educated later in life, our data provide the first evidence of patterns of giving by individuals at the lower end of the income distribution in the US.

Two additional studies compare giving by students and non-student adults. Carpenter et al. (2005) compare dictator and ultimatum giving by undergraduate students with that of non-traditional community college students and workers in a distribution center. They find that the workers in the distribution center are more cooperative than students, and considerably more likely to divide amounts equally. These latter two groups are less affluent than the student group, but have average incomes that are 2–3 times those in our sample. Carpenter et al. (2008a) examine altruistic behavior using a \$100 dictator game where subjects could write in a charitable organization or give to the American Red Cross, and compare giving by students and by a sample of community members. They find that community members give more, but that giving is correlated with survey-based measures of altruism for both samples, supporting presence of a giving type.

Our work is most similar to that of Carpenter and Myers (2010), who find a positive relationship between donation decisions in dictator games and volunteer decisions in the field, using a sample of

firefighters and other adult (non-student) community members. We go beyond previous papers by examining the relationship between giving to one organization and giving to another, rather than between giving the lab and giving or donating in the field. Thus we are able to make comparisons of giving levels across multiple field domains, which allows us to look at "types" in the population—givers and non-givers—as well as providing a preliminary but direct assessment of the value of list-sharing.

Our results support the existence of a giving type. We find a positive and significant relationship among levels of giving to the various organizations and to the VCM. A factor analysis demonstrates that giving decisions are driven by a single (unique) factor. A rough calculation suggests that individuals who give the maximum to one organization give \$42 to \$52 more to a different organization than individuals who give zero.<sup>8</sup> These results have important implications for charitable organizations. They suggest that list trading or name buying will be an effective tactic, even when organizations obtain donor lists from others who are not directly aligned with their own missions.

Our results are also of interest to charitable organizations because of the unique and understudied sample used. Our sample is low-income, with median per-capita income of \$10,700 and median household income of \$19,600 (Williams Institute, 2006). Andreoni (2006, p. 1208) shows that individuals in the lowest category of household income (below \$10,000 in 1995) give the highest proportion of their income to charities (4% versus 1.3% by median-income households and 3% by the highest-income individuals), thus a better understanding of the giving decisions of these individuals is particularly relevant. Our study is the first to examine the determinants of giving in this type of population.

The remainder of the paper is organized as follows. Section 2 introduces the experimental design and implementation. Section 3 describes the subject pool and aggregate results. Section 4 analyzes the existence of types. Section 5 examines the determinants of the types, and Section 6 provides a discussion of the value of identifying previous donors. Section 7 concludes.

## 2. Experimental design and implementation

Experimental sessions were run in June 2007, at a field station in the Fair Park neighborhood of Dallas, TX explicitly rented and furnished for this purpose. Our results are based on 190 participants who were recruited via flyers at their homes and in local stores. The flyers described key aspects of the experiment, and included a phone number to call to register. Participants called the number, registered for a session, and arrived at our site.

Upon arrival, participants were asked to read and sign a consent form and were paid a \$20 show-up fee. Participants worked through an activity booklet containing a number of incentivized tasks, including a one-shot VCM and three donation tasks developed for this study.<sup>9</sup> No feedback was given on the decisions of other participants until after all tasks were completed. At the end of the session, one of the incentivized tasks was randomly chosen for payment, as was fully explained to the participants.<sup>10</sup> Participants completed an exit survey before departing.

The decision tasks and resulting forms and instructions were explicitly designed for a low-literacy population, with the tasks

<sup>8</sup> Note these estimates rely on our particular experimental design, including the use of windfall money, the charities we chose, and many other institutional details, and will almost certainly generalize only imperfectly to other contexts.

<sup>9</sup> Other tasks, which will not be discussed here, included risk and time preference elicitations.

<sup>10</sup> The choice of one task for payment (sometimes called the random lottery incentive mechanism) avoids portfolio effects and has been validated in a variety of studies (e.g., Cubitt et al. 1998). One of the particular advantages of this mechanism for our sample is that we are able to increase the payoffs for each decision, making the incentives of the games particularly salient.

<sup>7</sup> Eckel and Grossman (1996) compare giving to an anonymous individual in the lab with giving to a charity using independent samples and find significantly higher giving to the charity.

presented in pictorial form with minimal text. Instructions can be found and complete forms are on our website.<sup>11</sup> The experimenter followed a pre-tested script to explain each task (available upon request), and answered questions before each one.

In the tasks of interest to this study, participants were randomly assigned into independent and anonymous groups of three and given an endowment of \$60 which they could either keep for themselves or donate. In order to simplify the decision, participants were given four discrete options. They could choose to: (1) keep all \$60, (2) keep \$40 and donate \$20, (3) keep \$20 and donate \$40, or (4) donate all \$60.<sup>12</sup> Money donated was matched (doubled), and then allocated as described below. Since clarity was of particular importance for this subject pool, in the experiment we described the decisions very concretely; individuals decided how much they wanted to “put in their wallet” and how much they wanted to give.

In the VCM, money donated was doubled and then divided equally among the three members of the group, regardless of their decisions (MPCR = 0.66). In the three donation tasks, money donated was doubled and then given to a neighborhood charity; a charitable organization that operates within the neighborhood.

We examined donation amounts to three neighborhood charities: health services (H), educational services for children (C), and job training services (J). We chose organizations that were well known and respected in the community. Before making their donation decisions, participants received a description of each organization which was read aloud. Specifically, participants were told:

[Name of Health Charity]

The [Charity Name] provides medical and dental care to residents of Fair Park. The clinic provides patient access to health care and helps to eliminate racial disparities in health care.

[Name of Children's Education Charity]

The [Charity Name] provides the children of Fair Park with educational opportunities. The computer lab includes activities to teach reading and math, spelling, and computer skills.

[Name of Job Training Charity]

The [Charity Name] supports the growth of new and small businesses in Fair Park. The [Charity Name] also teaches students how to start and run a small business.

Our goal was to provide information about the organizations so that the decisions that participants faced were clear and understandable, but to keep the language as neutral as possible in order to minimize experimenter demand effects.

Participants always completed the VCM first, without feedback. We then fully blocked the order of the charities, resulting in six variations: HCJ, HJC, CJH CHJ, JCH, and JHC. Participants were randomly assigned to one of these six treatments (orders). We find no statistically significant order effects.<sup>13</sup>

<sup>11</sup> <http://www.cbees.utdallas.edu/projects.php#nhs>.

<sup>12</sup> We intentionally excluded the option to donate half of the endowment. First, we wanted to move people away from the focal tendency to divide equally by donating half. This ensures variability in the data. Second, since we displayed everything in a visual manner, this design choice enabled us to depict the choices pictorially using \$20 bills.

<sup>13</sup> In all cases the VCM was run first, followed by one of the six possible neighborhood charity orders. Contrary to the contingent valuation literature, where the charity/cause that participants hear about first is more highly valued, in our study there are no order effects for the amount contributed to the neighborhood charities. Specifically, there were no significant differences in the average contributions to the VCM or any of the neighborhood charities by blocking order. The following are from the Pearson's  $\chi^2$  contingency table test of blocking order and average session contributions: VCM  $p = 0.360$ , Health  $p = 0.189$ , Children  $p = 0.458$ , Jobs  $p = 0.277$ . Further, if they are used as controls in the econometric analysis, the indicators are not significant individually (lowest  $p$ -value > 0.2) nor are they jointly significant (likelihood-ratio test,  $\chi^2 = 6.50$ ,  $df = 5$ , Prob >  $\chi^2 = 0.26$ ).

Experimental sessions lasted on average 2 h, and participants were paid a \$20 show-up fee plus their earnings from the experiment. The median per capita income in this neighborhood is approximately \$10,700<sup>14</sup> and median household income is approximately \$19,600 (Williams Institute, 2006). Note that in the VCM, if everyone played the dominant strategy of keeping everything, earnings would be  $\$60 + \$20 = \$80$ , equal to nearly 2-day wages (15.5 h). If everyone played the social optimum of donating everything, earnings would be  $\$120 + \$20 = \$140$ , more than 3-day wages (27 h). Thus we believe that the stakes were large enough to ensure that participants thought carefully about the problems. Average earnings were \$79 (\$108 if you include payments to the charities).

### 3. Subject pool and descriptive results

In this section, we describe our sample and descriptive results from each of our measures of interest. The sample and neighborhood characteristics are described in Table 1. These participants are very different from the typical student sample; they are older, tend to have children, and to be the main wage-earner in their homes. The sample is almost completely African-American, with low levels of income and other financial assets. Although our data over-samples single women relative to the neighborhood population, our analysis below illustrates that gender and marital status are not consequential for the donating decisions.

Figs. 1 and 2 show the distribution of donations; Fig. 1 presents histograms of the proportion of individuals contributing each amount and Fig. 2 presents box plots showing the distribution of donations for each target charity and the VCM. In Fig. 1, we see a substantial level of donation in the VCM. Note that the mean donation is 41.1% of the endowment, which is within the normal donations range for prior VCM studies of 40% to 60% (Ledyard, 1995), giving us confidence that the simplified protocol was not altering the perception of the game, and suggesting that our results are comparable to other samples.

We see somewhat less donation to the neighborhood charities than to the VCM task, as shown in the shift toward zero in Fig. 1 and the lower levels for the 75th-percentile in Fig. 2. However, we see that individuals donate on average 30.4% of their endowment to the Health charity, 31.1% to the Children's Education charity and 27.2% to the Job Training charity.

Since our exact experimental protocol has not been tested with other populations, we cannot directly compare behavior among individuals in this population to other studies. In a similar study of student giving to hurricane-relief organizations, Eckel et al. (2007) include a treatment with a \$50 endowment and doubling of donations. They find that participants give 46.7% of their endowment on average—substantially more than our sample, but with a different charity as recipient and with wealthier (student) participants as subjects.

Using means or proportions tests, we find no differences in donation levels for the VCM or donations experiments by key demographic categories such as gender, home ownership, employment status, education, age, marital status, number of children, or the number of years an individual has lived in the neighborhood. We also find no differences in the mean donation to the charities by whether or not the individuals needed assistance with written materials, or the number of people they recognize, know by name, or consider friends in the session.<sup>15</sup>

In sum, we see significant donation activity in this low-income population. Further, the observed donation level does not vary significantly with demographic characteristics. We next turn to our

<sup>14</sup> Note that for a 40-h per week, 52 weeks a year job, this is equivalent to \$5.15 an hour.

<sup>15</sup> All  $p$ -values greater than 0.20, except Years in Neighborhood (Job Training only,  $p = 0.156$ ), Number of children (Health = 0.142, Education = 0.135).

**Table 1**Description of the sample.  $N = 190$  participants.

Demographic	Fair Park neighborhood	Our sample		
Female	49%	61%		
Ethnicity	76% African American 20% Hispanic 4% Other	98% African American 2% Other		
Marital status	39% Single, never married 34% Married 13% Divorced 12% Widow/er	57% Single, never married 16% Married 21% Divorced 5% Widow/er		
Highest education achieved	50% high school dropout 28% finished high school 15% some college 7% college, or higher	24% high school dropout 34% finished high school, 32% some college 10% college, or higher		
Employment status <sup>a</sup>	46% in the labor force (employed or unemployed)	22 % full-time, permanent job 76% part-time, temporary job, or looking for work		
Unemployed last year?	–	61%		
Chief wage earner?	–	52%		
Home owners	33.3%	15%		
Financial assets	–	66% Checking Account 55% Savings Account 16% Retirement account 8% Mutual funds other assets		
		Min	max	Average
Age, in years	–	18	64	40.1
Years in neighborhood	–	0	62	17.7
Children at home	–	0	7	1.25

Source: Data taken from the Analyze Dallas website, 2004: <http://www.analyzedallas.org/AnalyzeDallas/Pages/BrowseDataSets.aspx>.

Notes: Some percentages may not sum to 1 due to rounding or missing observations.

<sup>a</sup> Percentages do not sum to 1 because categories are not mutually exclusive.

primary question of interest, the relationship between donations in one setting and donations in another, and the resulting identification of types of donors.

#### 4. Identifying types

We will now turn to the identification of the ‘giving type.’ Previous research has identified different factors which may motivate individuals to give, including altruism (Becker, 1974), warm glow (Andreoni, 1989, 1990), and reciprocity or fairness (Camerer and Fehr, 2004). We do not distinguish between these motivations. Instead we vary the contextual details (the charities receiving the donation) and ask if there is an underlying preference or propensity to give. We, therefore, investigate the existence of a “giving type.”

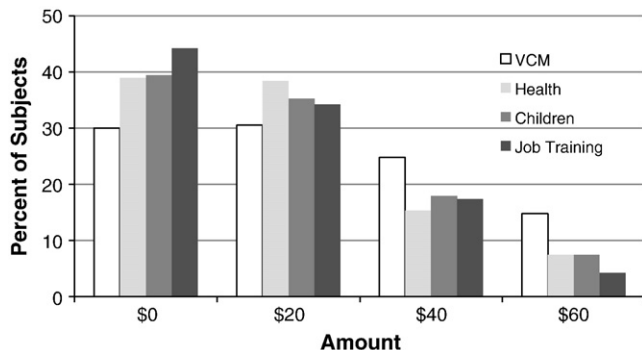
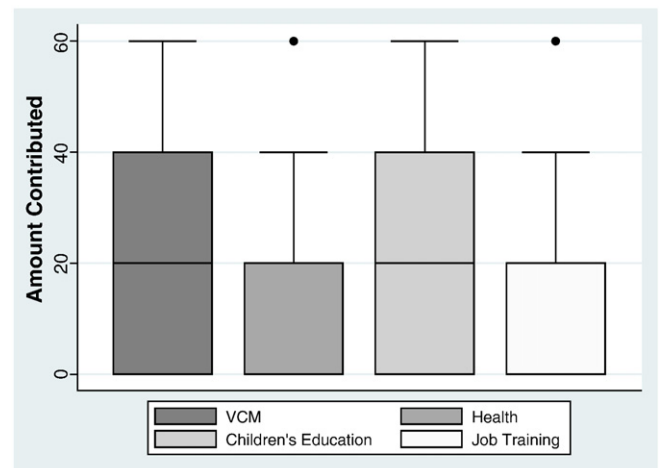
We begin by investigating the correlation between donation amounts to the three charities and the VCM (Table 2, below). We see a high consistency of donations among the three neighborhood charities (75–80%), with a lower (but still substantial and statistically

significant) correlation between the VCM and the neighborhood charities (40–50%).

These results support the idea that individuals have an underlying preference or propensity for giving. To more formally investigate the existence of an underlying type, we calculate the Cronbach's alpha for our data as:

$$\text{Cronbach's } \alpha = \frac{N}{N-1} \left( \frac{\text{Sum of variance of for each measure}}{\text{Total variance of all measures}} \right) \quad (1)$$

where  $N$  is the number of measures (Cortina, 1993). This statistic is a gauge of internal reliability—that that is of inter-relatedness of different measures of the underlying propensity to give. An alpha greater than 0.70 indicates that the responses measure a consistent underlying construct. We calculate two distinct values of Cronbach's

**Fig. 1.** Distribution of donations: VCM and charities ( $n = 190$ ).**Fig. 2.** Box plots of the amount donated.



**Table 2**  
Correlations among donations.

	VCM	Health	Children's education
Health	0.49***		
Children's education	0.43***	0.80***	
Job training	0.49***	0.76***	0.80***

<sup>+</sup> $p < 0.10$ . \* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

$\alpha$ , one using donations to the three neighborhood charities alone and one that also incorporates giving in the VCM.

Both are large and statistically significant. The  $\alpha$  for donations to the three neighborhood charities is 0.92, with a one-sided 95% confidence interval of 0.90, well above the 0.70 threshold. The  $\alpha$  for donations to all four activities (three neighborhood charities and the VCM) is 0.86, with a one-sided 95% confidence interval of 0.83, which is again well above the 0.70 threshold. This analysis provides further evidence that donations in these four settings represent multiple measures driven by a single, underlying motivation.

A final measure of the existence of underlying types is a factor analysis of donations in these settings. We use Principal Components Factor Analysis (Loehlin, 2004), which judges whether observed donations are being driven by one (or more) latent (unobservable) variables. As with the Cronbach's  $\alpha$ , we conduct two factor analyses, one for the three neighborhood charities in isolation, and one for the three neighborhood charities and the VCM together.

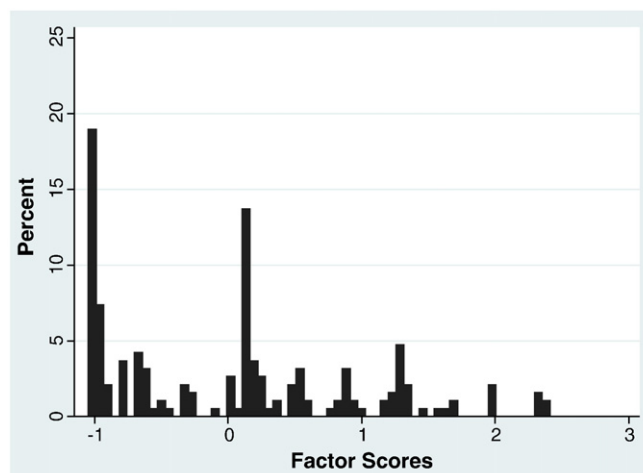
Results support the existence of a single, unique factor driving donations in all the settings. In the factor analysis with the three neighborhood charities we find a single factor with an eigenvalue of 2.26. In the factor analysis with all four charitable activities (three neighborhood charities and the VCM), we find a single factor with an eigenvalue of 2.55.<sup>16</sup> No other factors are significant. This analysis clearly shows that individuals tend to be consistent in their giving behavior. It is possible that this consistency is being driven by our experimental setting, in which individuals make multiple decisions in close proximity to each other (much like receiving three solicitations in the mail around the holidays). One concern might be that these results are being driven by individuals donating the exact same amount in each task, perhaps in a desire to appear consistent. To investigate this possibility, we examine the amounts each individual donates in each of the four tasks. We find that 38.4% of individuals donate the same amount across all four tasks. While this number is somewhat high, it is quite far below a value of one, suggesting that our results are not being driven purely by individuals seeking consistency.

## 5. Determinants of types

With this factor analysis in hand, we can construct an estimate of the latent variable for each individual; their *generosity index*, weighting their donations to the different charities by their factor loadings. We use the index that results from the second factor analysis (with all four tasks), though all results are robust to using the output from the other analysis.

Fig. 3 graphs the resulting generosity indices for each of our participants. This figure reveals three overlapping clusters, which we interpret as evidence of types of givers. At the low end, the non-givers are clustered around  $-1$ . At the middle, the somewhat generous are clustered around 0.25. At the high end, the 'giving type' participants are clustered around 1.5.

Researchers and philanthropic organizations alike often focus on socioeconomic status and key demographic characteristics to predict charitable giving (e.g., Karlan and List, 2007). By examining the



**Fig. 3.** Distribution of generosity indices derived from factor analysis (all four tasks).

determinants of the generosity index, we can check whether variation in the index across individuals is determined by socioeconomic or demographic variation, or whether the index provides a new measure that cannot be predicted from observable characteristics of the individual. An OLS regression reported in Table 3 uses the individual's generosity index as the dependent variable and demographic characteristics as independent variables.<sup>17</sup> In particular, we examine age, gender, and two variables designed to capture their level of disposable income; whether the respondent spends at or above their income and the number of children under the age of 18 living in their household.

This regression suggests a number of interesting conclusions.

First, none of the socio-demographic variables are significantly related to the generosity index.<sup>18</sup> This is an indication that the index contains new information—information that is not predictable using observable characteristics. This result implies that studies that rely on demographic variation to understand differences in charitable giving may be missing key unobservable factors that are responsible for giving.

Second, these results provide an additional confirmation of the validity of our sample. The fact that there are no significant differences in index by gender provides some reassurance that the oversampling of women has not led to a systematic bias in the results. It is often argued that giving is determined mainly by income and wealth levels, but in our data we see no evidence that income affects the generosity score. However, while the proxies we use for income are clearly related to economic solvency, they may not fully capture differences in income. In addition, because our sample consists of low-income individuals, there may not be sufficient variation in income within the sample to produce a statistically significant relationship, even if one existed. Finally, the fact that donations are made from an endowment may diminish the correlation with household income.

In order to further account for any tendency to be consistent, in panel (b) we include a dummy variable equal to one if the subject donated the same amount in all four of the generous activities. We see that individuals who tend to be consistent are less generous. This is mainly driven by the individuals who never contribute, and who are thus extremely consistent. Of the 73 individuals who are consistent,

<sup>17</sup> We recognize that factors are typically used as independent rather than dependent variables. We were seeking to set a summary index for each individual regarding their propensity to be generous. Alternatively, one could examine each dimension separately, estimate the model as a seemingly unrelated regression, or construct a panel, with four decisions for each individual. Under any of these methods, the qualitative results are unchanged.

<sup>18</sup> Other independent variables were never significant, including (age)<sup>2</sup>, education, current employment status, whether the individual had been unemployed or behind on loan payments in the last year, and whether individual currently holds outstanding loans.

<sup>16</sup> The Kaiser–Guttman rule (Loehlin, 2004) indicates that the number of factors is equal to the number of eigenvalues greater than one. All other factors from both analyses are less than 0.15 in absolute value.

**Table 3**  
Determinants of the generosity index.

Variable	(a)	(b)
Female (1 = true)	0.128 (0.15)	0.124 (0.14)
Age (in years)	0.004 (0.01)	0.005 (0.01)
Children (number in household)	−0.012 (0.06)	−0.027 (0.05)
Do not currently save (1 = true)	−0.205 (0.15)	−0.227 (0.15)
Consistent (= 1 if all amounts equal)	–	−0.417** (0.14)
Constant	−0.167 (0.29)	−0.014 (0.28)
F; Prob>F	0.66; 0.62	2.21; 0.06
R <sup>2</sup>	0.0151	0.0603
Adjusted R <sup>2</sup>	−0.0077	0.0330

<sup>+</sup> $p < 0.10$ , \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

Notes: OLS,  $n = 178$  (some observations dropped due to missing survey data). The dependent variable is the generosity index from the factor analysis using all four experimental measures: the VCM and the three charities. Standard errors are in parentheses. Results are robust to use of the generosity index that comes from the factor analysis on just the three charities. Additionally, the following were never significant in the analysis: order of the charities, age<sup>2</sup>, education, and other proxies for financial well-being, including: current employment status, whether the individual had been unemployed in the last year, whether the individual had been behind on loan payments in the last year, and whether the individual currently holds any loans.

36 of them always give zero, 26 always give \$20, 9 always give \$40, and 2 always give \$60. This indicates that people who contribute are, as a rule, not giving the exact same amount to each organization, but instead are giving more to all organizations than others. This result suggests that there is indeed a giving type, and that our results are not being driven by individuals who are generous to one organization, but believe they need to give the same amount to other organizations in order to appear consistent to the experimenter.

## 6. What's a name worth?

The previous analysis suggests that there exist giving types, and that charitable organizations might increase their earnings by identifying and targeting them. But how might they do this targeting? What information might a charity use to predict whether a potential donor might be a giving type?

One might imagine two strategies an organization could follow. First they could type their potential donors themselves, using an exercise akin to the VCM task that we use. Second, they can explicitly solicit individuals who have previously donated to other organizations, even if those organizations' missions are not the same as their own. Here we use our data to provide rough estimates of the relative value of targeting, using each of these strategies.<sup>19</sup>

We first compare giving to the neighborhood charities based on the individual's donation to the VCM. A rough typing distinguishes between non-donors (those who gave zero to the VCM) and donors (those who gave something to the VCM). Non-donors to the VCM gave positive donations to an average of 0.72 charities, i.e. less than one donation, while donors to the VCM donated to 2.23 charities. On average, donors to the VCM donate \$16 more to the neighborhood charities than non-donors (\$22.57 versus \$5.96). Thus simply identifying individuals who give (regardless of their gift size) versus individuals who do not give can significantly improve the ability to identify new donors and the return-on-investment of a solicitation.

**Table 4**  
Average donation to each charity, by the amount donated to the VCM.

Amount donated to VCM	Average donation to health charity	Average donation to children charity	Average donation to job charity	Average donation across charities
\$0	\$7.01	\$6.66	\$4.21	\$5.96
\$20	\$14.48	\$16.89	\$12.79	\$14.72
\$40	\$31.06	\$32.76	\$31.06	\$31.62
\$60	\$27.92	\$21.57	\$21.43	\$23.64
Average	\$18.21	\$18.63	\$16.31	\$17.71

We next examine the amounts donated to each neighborhood charity based on the level of the individual's donation to the VCM. These results are shown in Table 4, below.

Individuals who donated \$60 to the VCM donated an average of \$17.68 more to neighborhood charities than individuals who donated \$0 to the VCM (\$23.64 versus \$5.96). Individuals who donated \$60 to the VCM donated an average of \$6 more to neighborhood charities than a randomly selected individual in our sample (\$23.64 versus \$17.71). Thus identifying the most generous donors in the VCM and soliciting them to donate to a neighborhood charity would yield significant additional revenue.

A second analysis investigates giving among charities, leaving aside the VCM. Parallel to the above analysis, a rough typing distinguishes between non-donors (those who gave zero to the health (job) [children] charity and donors (those who gave something. Donors to the health (job) [children] charity gave on average to 1.76 (1.79) [1.98] other charities (out of a possible two), while non-donors gave to only 0.23 (0.21) [0.37] additional charities. Donors to the health (job) [children] charity donate an average of \$24.63 (\$24.34) [\$25.55] more to the other two neighborhood charities than do non-donors. Once again, identifying individuals who give (regardless of the size or target of their gift) can significantly improve the likelihood of receiving a donation and the return-on-investment of a solicitation.

Our second analysis again compares contributions to one charity based on the amount contributed to another. Table 5 provides an analysis similar to the one in Table 4.

Individuals who donated \$60 to the health (job) [children] charity donated an average of \$41.88 (\$52.06) [\$43.90] more to the other two charities than individuals who donated \$0 to the health (job) [children] charity. Individuals who donated \$60 to the health (job) [children] charity donated an average of \$26.81 (\$37.83) [\$29.17] more to neighborhood charities than a randomly selected individual in our sample. Thus identifying the most generous donors to one charity and soliciting them to donate to another charity would yield significant additional revenue.

This analysis highlights the potential power of list-sharing among charities, even among charities whose missions might be dissimilar. Individuals who donate to one charity are more likely to be the giving type, and will similarly donate more to another charity than a known non-giver or a random draw from the population.

**Table 5**  
Average donation to two charities by the amount donated to the third.

Donation to health charity	Average donation to children and job	Donation to job charity	Average donation to health and children	Donation to children charity	Average donation to health and job
\$0	\$2.43	\$0	\$4.16	\$0	\$2.53
\$20	\$19.95	\$20	\$23.68	\$20	\$19.10
\$40	\$36.55	\$40	\$35.14	\$40	\$34.11
\$60	\$44.28	\$60	\$56.25	\$60	\$46.43
Average	\$17.47	Average	\$18.41	Average	\$17.26

<sup>19</sup> We would like to thank the editor for suggesting this analysis.

## 7. Closing discussion

This paper investigates the existence of a 'giving type' by observing the relationship between the amounts that individuals donate to different neighborhood charities. Access to observational data on individual-level donations across charities is limited, thus we use experiments with non-student participants to examine this question. Participants in our experiments have the opportunity to donate \$0, \$20, \$40 or \$60 in a one-shot VCM, and then to each of three neighborhood charities. We examine the relationship among an individual's donations across these settings.

We find significant evidence in favor of an underlying preference for giving. We find a significant and positive correlation between amounts donated in the four tasks—the VCM and three donations experiments. We demonstrate high Cronbach's  $\alpha$  both among donations to the three neighborhood charities and among donations in all four tasks. A factor analysis identifies a single, unique factor which helps to organize the giving decisions. When we examine individuals' indices using this factor, we find that demographic characteristics (gender, age) and proxies for income are not correlated with the factor.

This result has important implications for charitable organizations. In particular, it supports the existing practice of list-sharing, where charities share lists of donors, even among organizations who do not share the same missions. Indeed, we find that when individuals give \$60 to one neighborhood charity, they give (on average) between \$42 and \$52 more to another neighborhood charity than those who gave \$0. The absolute levels of giving are likely to be sensitive to the lab setting, use of a windfall endowment, specific wording of the "ask", and the choice of charities. Thus care must be taken in generalizing these results from a single experiment with a specific population to different settings and populations. But the evidence we present supports the notion that giving to one organization is more likely among individuals who have donated elsewhere.

The population we targeted in our study is African-American and low-income, and the absence of high-end donors is notable. While this sample may understate levels of expected giving, the *relationship* between gifts to multiple charities is less likely to be affected by these factors. We chose this sample purposefully; it is unique and understudied. Low-income households give a larger proportion of their income than households from any other income strata (Andreoni, 2006). However, most previous studies examine giving by student or convenience samples. Ours provides the first evidence of patterns of giving by individuals at the lower end of the income distribution.

Many charitable organizations whose aim is to help the poor exclusively target wealthy donors. Our results suggest that soliciting donations from the individuals who are helped by the charity may also be of value, for two reasons. First, the poor do give, even though they may give absolutely less than the wealthy. Average donations in our experiment were 27–41% of the endowment that participants could have kept for themselves, which is quite substantial given the income constraints for many members of the community. We note that this donation level is in the presence of a match, but in practice matches might also be provided by the more wealthy donors and used as an inducement for the poor to donate.

Second, one might imagine that the argument for donating that a charity can make to its wealthy donors is bolstered by the fact that the beneficiaries of the charity's activities are themselves prepared to donate to the organization. These donations, although financially small, might serve as a signal of the quality of the charity, since the donors are themselves beneficiaries, and thus likely to have unique insights into its quality (Vesterlund, 2003; List and Lucking-Reiley, 2002). Although this paper does not provide data on this question, it seems a useful speculation that could be tested in further research.

This unique dataset thus enables us to answer questions that could not previously be answered, either using observational data or in

previous lab or field experiments. Our results provide support for the existence of giving types, and provide a rough estimate on the value of list-sharing and other techniques that can help charities to identify them.

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