

Encouraging Giving: Subsidies in the Field*

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Abstract: We conduct a field experiment to test the effect of different forms of subsidy on charitable donations. Previous field studies are unable to distinguish donors who are aware of and act in response to the offer of a subsidy. We require donors to check a box on the donor form in order to receive the subsidy, allowing us to separate out the donors who ignored or rejected the offer. Thus we are able to estimate more accurately than previous studies the effect of a change in the ‘price’ of giving. Comparison with data generated from parallel lab studies is also more valid and accurate. Another important feature of our study is donors could secure an additional contribution of \$5 for their charity by completing and returning a survey, which collected basic demographic information and self-reporting charitable giving behavior. The study was conducted in conjunction with a religious-affiliated social services organization, and includes a control condition and two match and rebate offer levels, resulting in a price of giving one dollar to the charity of \$1/\$1, \$.80/\$1, and \$.75/\$1. We find that donors are more likely to accept a matching than a rebate offer (39% v. 73%), and that own initial ‘checkbook’ giving (not adjusting for subsidies) is higher for those who accept a subsidy offer. While there are no significant differences in the response rate across treatments, the amount given is higher for all subsidy rates among those who accepted the subsidy by checking the box. Match and rebate subsidies have similar effects on giving for those who accept the subsidies. We conclude that subsidies can be an important determinant of giving, especially among college-educated donors, and that the matching subsidy results in larger total donations to the charity.

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Encouraging Giving: Subsidies in the Field

Subsidies are a relatively common feature of economic life. Both matching subsidies and rebate subsidies are frequently used in marketing to encourage expenditures on a particular product or activity. In the private sector, a buy-one at full price, get-one-at half price offer is an example of a matching subsidy, and instant and mail-in rebate offers are pervasive for products.¹ From the point of view of the firm, the primary purpose of these offers is to facilitate price discrimination among consumers, allowing firms to target lower prices to more price sensitive consumers.²

In fiscal policy, prominent examples of rebate subsidies include the tax deduction afforded mortgage interest, medical expenses, and charitable contributions for those who itemize. Matching grants are a common feature of intergovernmental relations, though not tax policy toward individuals. Typically the higher level of government's contribution to a program or project is contingent on the lower level government first committing some minimum level of funding on its own. For example, federal grants for infrastructure (bridges, water treatment, highways) often involve matching local funds.

In the nonprofit sector, matching subsidies are common, and include corporate matches of employee contributions to nonprofit institutions, and the many examples of "challenge" grants for specific fundraising events where a large donor offers to match the contributions of other donors.³ By reducing the cost of giving, matching grants serve the purpose of encouraging the more price sensitive donors to give. They may also serve as an endorsement of the charity, offering third-party confirmation that the charity is worthwhile (see Rose-

¹ Chen, Moorthy, and Zhang (2001) note that cents off coupons are more common with "frequently purchased packaged goods" and rebates are more common for durable goods.

² See the literature cited in Chen, Moorthy, and Zhang (2001). A number of papers have suggested alternative explanations for rebate offers, in particular rebates for durable items (see, for example, Narasimhan, 1988; Soman, 1998); Chen, Moorthy, and Zhang, 2001; and Bruce and Staelin, 2006).

³ In its 1995, 1997, and 1999 surveys of approximately 1,000 corporations, the Council for Advancement and Support of Education (1999) reports that almost 100 percent have programs that match employee contributions to colleges and universities.

Ackerman, 1986; Andreoni, 2006). In-kind rebates are also widely used, including t-shirts, mugs, and other “gifts”.⁴ However, with the exception of tax deductibility, cash rebate subsidies are never (to our knowledge) used in fundraising.

Clearly, matching and rebate subsidies can be designed in a way that makes them equivalent in their impact on the price of a product. A one-for-one match of an expenditure or donation is functionally equivalent to a rebate that returns half of the donation.⁵ It is not clear from a purely theoretical point of view why one would dominate the other. In the private sector, firms use both to market their products, and presumably they have good reasons for using one or the other for a particular promotion. It is well known that rebate offers have very low cost to the firm, since the probability they will be redeemed is rather small, in the range of 5 to 10 percent (see Bulkeley, 1998). This low redemption rate implies that, at least in practice, the two types of subsidy are not equivalent due to the transactions costs of redemption (record keeping, filling out forms, waiting for the rebate check and cashing it). The redemption rate is a direct function of the rebate amount; thus rebates are more likely to be used by firms to market higher ticket items, and other types of subsidies that more closely resemble matching (e.g., buy one get one free) for lower-cost items. This differentiation does not carry over directly to charitable giving.⁶ The two types of subsidies are treated asymmetrically in tax policy and fundraising: tax policy subsidizes charitable giving exclusively in the form of rebates, but corporations subsidize giving by their employees by matching contributions. The absence of matching offers in tax policy and of cash rebate offers in fundraising, while both are prevalent in the private sector, is something of a puzzle.

⁴ Such gifts, while serving as a rebate, may have more value as status identifiers, outward signs that the owner is a public minded or cultured individual.

⁵ A rebate subsidy of rate s_r is functionally equivalent to a matching subsidy of rate $s_m = s_r / (1 - s_r)$, except for very large donations as a percent of income. Other things equal, an individual should be indifferent between the two subsidies and the total amount received by the nonprofits would be the same.

⁶ While an argument could be made that large donors are more likely to itemize deductions, taking advantage of the tax rebate on charitable donations, with small donors more likely to have their donations matched by corporate matching programs, it seems unlikely that federal tax policy was designed with price discrimination in mind.

This puzzle led us to investigate whether, in practice, the two forms of subsidy have the same effect on giving. We initially approached this question in laboratory experiments where ‘instant’ rebates can be implemented, lowering to zero the redemption cost of the rebate and making the two subsidy types as equivalent as possible. We found that the dollar value of the donation was significantly greater under matching subsidies than under equivalent rebate subsidies (Eckel and Grossman 2003 and 2006b). The pattern of giving was otherwise consistent with consumer theory, treating charitable giving as just another good; i.e., giving increased as the cost of giving declined and as the change in income (in the form of an endowment from the experimenter) increased.⁷ However, these studies leave unanswered the question of how the two subsidies affect giving in the field.

Our first field study implemented rebates and matches in conjunction with a mail campaign conducted by Minnesota Public Radio (Eckel and Grossman, 2008), and included both rebate and matching subsidies with a net price of giving of \$.80 and \$.75.⁸ Results of this study were similar to the lab results in some respects; the price elasticity of giving for the match subsidy was virtually identical to the lab measure, and the rebate elasticity was substantially lower, probably due to the transactions costs of rebates. As with other studies of subsidies in the field (Karlán and List, 2007; Meier, 2007; Huck and Rasul, 2007a, b), we are not able to observe whether the targets actually saw the subsidy offer and took it into account when making a decision. This makes the lab and field noncomparable, since those unaware of the subsidy obviously cannot respond to it. The superior level of control in lab experiments means that researchers can know that their subjects read and understood the instructions, whereas in the field this control is lost.

⁷ In subsequent experimental studies, we and others investigated various hypotheses about this finding, and were able to conclude that the difference in the form of the subsidy has a persistent effect on giving. In the lab, the more similar the presentation of the allocation problems, the closer the outcomes of the decisions. At one extreme is Davis (2006) which uses a protocol that makes the two subsidies transparently equivalent by presenting both together in a common format. At the other extreme is Eckel and Grossman (2006b) where subjects see only one type of subsidy and are unaware of any others (as in the field studies).

⁸ We chose these subsidy levels because they are similar to the subsidies in the Federal tax code, rounded for convenience.

This paper reports results from a new field study comparing the effects of rebates and matching subsidies for charitable contributions with the same set of treatments as before, but with a new methodological twist: the donor must check a box on the pledge form to receive the subsidy. Donors are asked to check the box to indicate that they have read the enclosed materials and wish to receive the subsidy. The materials explain that the subsidy comes from a third party, and that any unclaimed subsidies will not accrue to the charity. Thus we are able to distinguish donors who accepted the subsidy, and made their decision with the subsidy in mind, from those who did not. Twice as many donors accepted the offered matching subsidies as accepted the rebate subsidies, a strong indication of the added costs of rebates.⁹ The fact that many refused or failed to notice the subsidy implies that elasticities of giving from previous studies likely underestimated the response of donors to subsidies, as those who reject it face the unsubsidized price.

The response rate – the proportion of solicitations yielding a response (consisting of a completed survey and/or donation) – is not significantly different across treatments. However, own initial giving (‘checkbook’ giving) is higher for all subsidy categories than for the control group, suggesting that the mere presence of a subsidy increases donations, regardless of its type or amount. Giving by donors who accepted the rebate subsidies increases by an amount sufficient to cover the cost of the rebate; giving by donors who accepted the match subsidies either increases or remains constant, allowing all of the matching contribution to flow on to the charity. Thus we can conclude that the subsidy does not crowd out private giving for those who acknowledge and accept the subsidy, but rather may crowd in additional giving. Finally, our estimated price and income elasticities of giving are comparable with those found using non-experimental tax data.

⁹ This result is in contrast to lab experiments, where we give subjects the option of choosing a 1/1 match or a 50% “instant” rebate and find no difference in the fraction choosing each offer (Eckel and Grossman, 2006a).

III. Field Study Procedures

Field experiments differ in important ways from lab experiments, and a choice between the two approaches to the study of decision making involves tradeoffs. Lab experiments allow for a great deal of control over the decision environment, but at a cost, since lab decisions are necessarily artificial in some respects. While the lab experiments use real money, and subjects make real allocations of that money between themselves and real charities, still they are making decisions with “house money” provided by the experimenter, and in an environment where they know their decisions will be observed.

Harrison and List (2004, p. 1012) identify six dimensions on which lab and field experiments can differ, including the nature of the subject pool; the information that the subjects bring to the task; the commodity; the task or trading rules applied; the stakes; and the environment that the subject operates in. The important differences for our study are the first two factors, and the last two. The subject pool consists of adults of all ages and income levels instead of the usual convenience sample of university students; donors probably know more about the activities of the charity than the descriptions that might be provided to lab subjects; and decisions are made using their own money instead of ours, generally involving contributions that are larger than the lab-provided stakes. The environment is a framed field experiment, rather than the artificial environment of the lab.

The field study was conducted with the cooperation of Lutheran Social Service (LSS) as part of regular LSS mailed fundraising drives. Mailings to past contributors were conducted in November/December 2003 and May – July 2004. Included in the usual LSS mailed solicitation was a flyer announcing either a rebate or a matching offer and providing relevant details of the offer (see Appendix for examples of the flyers).¹⁰ A cover letter contained a

¹⁰ No flyers were included in solicitations mailed to the no-subsidy donors.

request to complete and return an enclosed survey, which collected socio-economic data, a subject's pattern of charitable giving, and a measure of the subject's perceived benefits from the charity. To encourage recipients to complete the survey, the recipients were informed that \$5 would be donated to LSS for every completed survey. Budget limitations required the overall maximum paid out in rebates, matches, and survey incentives to be capped and donors were informed of these limits. The subsidy specific caps -- 20% rebate: \$5,000; 25% match: \$10,000; 25% rebate: \$8,000; and 33 1/3% match: \$15,000 -- are stated on the respective flyers.¹¹ In practice, the limits were nonbinding.

The solicitation also included a donor card on which donors indicated their contribution. A unique feature of our design is a check box amended to the usual LSS donor card that donors were required to mark if they wished to receive the particular subsidy. The check box was included to ensure that donors were aware of the subsidy possibility, and, if not, to draw their attention to the enclosed flyer. Previous studies of subsidies in the field (e.g., Eckel and Grossman 2008, Karlan and List 2007) did not contain this feature, making it impossible to know if donors were aware of the subsidy when making their decisions. Thus we know whether the subsidy was taken into consideration when the decision was made and we are able to examine donations contingent on the decision to accept the offered subsidy, as well as the characteristics of donors who accept, and so respond to, the subsidy.

IV. Results

A total of 24,116 solicitations were mailed with 1207 responses received, an overall response rate of 5.0 percent.¹² (Subject characteristics by price/subsidy-type category are reported in Appendix Table 1.) Information provided by LSS for eighteen appeals between

¹¹ The caps are the same used in a similar study with Minnesota Public Radio field survey (Eckel and Grossman, 2005), which were estimated based on information provided by MPR on average contributions and response rates. In this case, however, they were generous and in no instance did the cap prove binding. Karlan and List (2007) show that announced limits have no effect on donations.

¹² An additional 247 responses (17 percent of total responses) were received but excluded because of incomplete information. Mean giving for included and excluded observations did not differ significantly. Including these extra observations (where possible) when calculating summary statistics does not alter the reported results.

December 2002 and December 2006 suggests that our 5 percent response rate is within their normal range.¹³ For the eighteen appeals, the response rates varied from as little as 1.28 percent to as high as 16.4 percent with an overall average of 4%.

The five price/subsidy-type categories, as shown in Table 1, are : 1) \$1.00/*no subsidy*; 2) \$0.80/*20% rebate*; 3) \$0.80/*25% match*; 4) \$0.75/*25% rebate*; and 5) \$0.75/*33 1/3% match*. The offer of a subsidy does not appear to have positively or negatively affected the decision to respond. The response rates range from a high of 5.4% for the no-subsidy and 20% rebate categories to 4.3% for the 25% rebate, but these differences are not statistically significant.¹⁴

Table 1 also shows the breakdown of respondents into those who returned the survey only and those who made a donation, as well as the fraction of donors who checked the box indicating acceptance of the subsidy. Seventy-two percent of all respondents made a donation. No-subsidy respondents were the least likely to give; 33 1/3 percent match respondents were the most likely to give. Respondents from the treatment group that saw the 33 1/3 percent match were significantly more likely to make donations than subjects in any other treatment.¹⁵

However, not all donors accepted the offered subsidy. Of the 664 donors in the four subsidy treatments, 376 (56.6 percent) checked the box on their donor cards indicating that they wanted to receive the offered subsidy. As shown in the table, the acceptance rate differed significantly between those offered a match subsidy and those offered a rebate subsidy. Donors in the match treatments were almost twice as likely to accept the subsidy as their counterparts in the rebate treatment (73 percent versus 38 percent). Comparing the subsidy acceptance rates for the matched pairs of rebate and match subsidies, Fisher exact tests reject the hypothesis that the decision to check the box is independent of the subsidy type offered.

¹³ Correspondence with Steve Griffith of LSS.

¹⁴ A similar test for the donation rate (number of donations divided by solicitations) produces a similar result. Donation rates are 3.6% overall, and range between 3.1% for the 25% rebate to 4.0% for the 33-1/3% match, but the differences are not significant. Details available on request.

¹⁵ All pairings of the proportion of donors in the 33 1/3 percent match with the other price/subsidy categories had Fisher Exact Test p-values < 0.02. Meier and Frey (2003) report a similar result (a higher willingness to give by subjects offered a 33 1/3 percent match than subjects offered a 25 percent match).

In Table 2 we report logit regression results for the decision to accept the subsidy.

Donor characteristics included as independent variables are:¹⁶

REBATE = 1 if a the subsidy offered was a rebate, 0 if a match; and

COLLEGEGRAD = 1 if received a college diploma or higher, 0 otherwise.

The results provide strong evidence of rebate aversion; donors are significantly less likely to accept the rebate offer (as noted above). The positive and significant coefficient for COLLEGEGRAD suggests that more educated people are more willing to make the effort to take into account the details of the subsidy offer.

The higher rejection rate for the rebate offer may have several causes. In lab experiments (Eckel and Grossman, 2006a) we gave subjects the option of choosing a 1 for 1 matching subsidy or a fifty percent instant rebate. Subjects chose the two in equal proportions. This result suggests that it is not a rebate per se that subjects dislike, but perhaps the extra costs associated with keeping track of and cashing a rebate check. Bénabou and Tirole (2006) suggest another explanation for the differential in acceptance rates for rebate and matching surveys. If giving is (partially) motivated by warm glow, then accepting a rebate offer may make the donor feel “greedy”, reducing the warm glow benefit and making the donor feel less good about himself. Rejecting the rebate offer maintains the warm glow feelings. Warm glow would be unaffected (or possibly enhanced) by a match subsidy. In the analysis below, we compare whether or not those who failed to accept the subsidy behaved in a substantially different way from those who accepted the subsidy and those in our no-subsidy control group. If those who failed to accept the subsidy behaved in a manner consistent with our no-subsidy control group, we can conclude that the offered subsidy did not affect their decisions. This is an improvement over previous field studies of the effect of subsidies which were unable to differentiate those who took the subsidy into account when making their decisions.

¹⁶ In other specifications we also included variables measuring income, attendance at religious services, annual giving to nonprofits, and whether or not the donor itemized on her last tax return. These variables were excluded for lack of explanatory power.

Before examining the contributions data, we review the predicted impact of the subsidies on giving. If charitable giving – in essence the purchase of charitable goods or services – is a normal good, then decreasing its price will increase total giving. But little can be predicted about own giving (what we refer to below as checkbook giving). Donors' checkbook giving could be greater, the same, or less than it would have been without the subsidy, depending on the substitution and income effects of the subsidies. If donors ignore the subsidies, then checkbook giving (apart from any subsidy amounts) should be equal across all treatments, including the no-subsidy control. For matching subsidies, the lower price of giving should increase total giving, but checkbook giving could be higher, unchanged or lower than without the subsidy, depending on the extent to which the matching donation crowds out (or in) own giving.¹⁷ Equally, for the rebate subsidy, checkbook giving should increase but the increase could be more, the same, or less than the full amount of the rebate, again, due to crowding out (or in) of net giving by the rebate donation.

Table 3 reports mean checkbook giving or revenue per solicitation (RPS) by subsidy type.¹⁸ The 24,116 solicitations generated on average \$2.51 in donations, incorporating both differences in response rate, as shown in Table 1, and average donations. Note that this table and the following figures show checkbook giving and *do not* include the matching contributions. RPS averaged \$2.28 for the non-subsidy category and \$2.30 and \$2.03 for the 20 percent and 25 percent rebate subsidy categories, respectively. RPS averaged \$3.16 and \$3.36 for the 25 percent and 33 1/3 percent match subsidy categories, respectively. Mean RPS for the No Subsidy and rebate categories are not significantly different, but mean RPS for the match categories is significantly different from both.¹⁹ This result shows that, even without considering the matches themselves, the presence of a match increases donations by potential

¹⁷ The effect of framing on crowding in/out is discussed in Eckel, Grossman, and Johnston (2005).

¹⁸ For mean RPS figures we used all responses with contributions that could be positively allocated to a treatment group.

¹⁹ Results available upon request.

donors; including the match amounts would make the differences between the match categories and the other treatments even larger. Since neither the response rate nor the overall donation rate per solicitation differs significantly across categories, this difference can be attributed to higher contributions by those who make the decision to donate.

Table 3 also reports mean checkbook donations (and means tests) by subsidy category for all donors, donors who failed to accept the offered subsidy, and donors who accepted the offered subsidy. Consider first all donors. Mean checkbook donations for the no-subsidy, 20 percent rebate, and 25 percent rebate categories are all approximately \$50. Mean donations for both match categories are higher: the 25 percent match and 33 1/3 match categories are \$75 and \$70, respectively.²⁰ Pairwise means tests indicate checkbook giving under each of the match subsidies is significantly higher (p-value < 0.05) than under the equivalent rebate subsidy (column 4).

For those donors who *failed to accept* the offered subsidy (Table 3, columns 6 and 7), pairwise comparisons show that, while recipients in the match treatments donated more on average than their respective rebate treatment counterparts, the differences are not significant. Furthermore, the mean amounts given by donors in these categories do not differ significantly from the mean giving for the No Subsidy treatment.²¹ For those donors who *accepted* the offered subsidy (Table 3, columns 7 and 8), pairwise comparisons again show no difference between rebate and match amounts given. It is worth emphasizing that this means the matching subsidy will result in substantially larger total donations to the charity, once the subsidies are included. However, for all subsidy treatments (except the 20% rebate) mean donations by those accepting the offered subsidy are significantly higher than mean donation by the no-subsidy category (see fn. c in Table 3).

²⁰ The higher average level of giving for the 25 percent match category relative to the 33 1/3 percent match category is the result of a small number of large gifts. In the 25 percent match category there were three \$1,000 and three \$500 gifts. In the 33 1/3 percent match category the largest gifts were one of \$750 and four of \$500.

²¹ Details available upon request of the authors.

Consider giving by those who did not accept and those who did accept the offered subsidies. Donors who accepted the rebate offers, on average, gave significantly more (between 79 and 87 percent more) than did their counterparts who did not accept the rebate offers (Table 3, columns 5 and 7). Importantly, the increase in giving is more than the amount of the rebate offered. (For example, for the 25 percent rebate category, the mean donation increased \$34.42, from \$39.46 for subjects not accepting the subsidy to \$73.88 for those accepting the subsidy. The mean rebate payment would be only \$18.47.)

For those offered a matching subsidy the picture is more complicated but is also indicative of greater giving. Recall that a matching subsidy can increase, leave unchanged, or decrease checkbook giving, while still resulting in a higher total received by the charity (including the match). The means tests reported in Table 3, column 9 indicate that, on average, donors in the 25 percent match treatment who accepted the subsidy actually increased (significantly) their giving, indicating that the subsidy ‘crowds in’ additional giving by the donor. For donors in the 33 1/3 percent match treatment, the difference between those who accepted the subsidy and those who did not is not significantly different. Because of its size, the higher subsidy rate may have induced less crowding in, as donors factored in the giving by the matching donor. By increasing or holding constant their contributions, those accepting the subsidy increased the total amount received by the nonprofit.

The means test may not be the best indication of differences in the behavior of the two donor types due to the relatively large standard deviations for the match subsidy categories.²² Figures 1- 4 show the distributions of donations for the four subsidy treatments (Figure 5 reports the distribution of donations for the No Subsidy control group). Each figure distinguishes donations by donors who accepted the subsidy and those who did not. Clearly, the lower contributions come mostly from those who did not accept the subsidy, while

²² The higher standard deviations are a result of more high-level donations (see Figures 1-4).

accepting the subsidy appears to have shifted donors to higher contribution levels. The mode giving for those who accepted the subsidy appears higher in the figures.

Table 4 reports nonparametric Median and Wilcoxon two-sample tests comparing checkbook donations by those who did not accept and those who accepted the offered subsidy, by subsidy category. For the No Subsidy donors, the median level of giving was \$25, the same as that for donors who did not accept the subsidy, regardless of subsidy offered. Across all subsidy categories the median donation by those donors who accepted the offered subsidy is higher than that for donors who did not accept the subsidy and the difference in each case is significant. The presence of a subsidy appears to have moved donors to the next focal contribution level, from \$25 to \$50. This finding is reaffirmed by the Wilcoxon two-sample test results. For each subsidy category, the null hypothesis that the two distributions come from the same population is rejected.

We now turn to regression analysis, which allows us to control for other characteristics of the donors that may influence giving. We first estimate the effect of the subsidy offers on the likelihood of giving. Using probit models we estimate the two specifications:

$$\text{DONATE} = \alpha_0 + \alpha_1\text{R20} + \alpha_2\text{R25} + \alpha_3\text{M25} + \alpha_4\text{M33} + \varepsilon_i \quad (1)$$

$$\text{DONATE} = \beta_0 + \beta_1\text{R20} + \beta_2\text{R25} + \beta_3\text{M25} + \beta_4\text{M33} + \beta_5\text{ITEMIZE} + \beta_6\text{ATTEND1} + \beta_7\text{ATTEND2} + \beta_8\text{ATTEND3} + \beta_9\text{ATTEND4} + \varepsilon_i, \quad (2)$$

where dummy variables in the regression are defined as follows (and are 0 otherwise):

DONATE = 1 if subject donated a positive amount;

R20 = 1 if subject offered the 20 percent rebate subsidy;

R25 = 1 if subject offered the 25 percent rebate subsidy;

M25 = 1 if subject offered the 25 percent match subsidy;

M33 = 1 if subject offered the 33 1/3 percent match subsidy;

ITEMIZE = 1 if itemized deductions on the previous year's income tax;

- ATTEND1 = 1 if subject attended religious services but less than once a month;
ATTEND2 = 1 if subject attended religious services at least once a month;
ATTEND3 = 1 if subject attended religious services once a week; and
ATTEND4 = 1 if subject attended religious services more than once a week.²³

Table 5 presents the probit results, using the sample of 1207 respondents. Relative to the No Subsidy treatment, the offer of a subsidy significantly increases the probability of donating only for those receiving the 33 1/3 percent match subsidy offer. The probability a recipient of the 33 1/3 percent match subsidy will donate is 9 - 10 percentage points higher than that for a No Subsidy recipient. Not surprisingly, itemizers are more likely to donate than are non-itemizers. The negative and increasing coefficients on the attendance at religious services variables seems counterintuitive at first. However, this might be explained by the fact that frequent churchgoers are not less generous overall, but instead are more likely to direct their contributions to the church rather than to any other nonprofit, even if church-affiliated. Consistent with this hypothesis, we did find a significant and positive correlation between frequency of attendance and the level of annual giving reported in the survey ($r = 0.16$, p -value < 0.001).

Table 6 contains OLS regression analysis of the amount donated (both checkbook giving, model 3, and total giving, model 4), conditional on giving. In addition to price and income, we control for those donors offered a subsidy but who choose to reject it, a donor's level of total giving per annum (to all nonprofits), and whether or not the donor itemizes on his federal tax return. The regression models are:

$$\text{Checkbook} = \beta_0 + \beta_1 \text{Rebate Price} + \beta_2 \text{Match Price} + \beta_3 \text{Reject Rebate} + \beta_4 \text{Reject Match} + \beta_5 \text{Income} + \beta_6 \text{Anngift1} + \beta_7 \text{Anngift2} + \beta_8 \text{Anngift3} + \beta_9 \text{Itemize} + \varepsilon_i \quad (3)$$

$$\text{Total} = \beta^*_0 + \beta^*_1 \text{Rebate Price} + \beta^*_2 \text{Match Price} + \beta^*_3 \text{Reject Rebate} +$$

²³ In preliminary specifications we included variables measuring income and total annual giving to all charities. These variables were individually, and jointly, insignificant. Results are available from the authors.

$$\beta^*_4\text{Reject Match} + \beta^*_5\text{Income} + \beta^*_6\text{Anngift1} + \beta^*_7\text{Anngift2} + \beta^*_8\text{Anngift3} + \beta^*_9\text{Itemize} + \varepsilon_i \quad (4)$$

where variables are defined as follows (dummy variables are 0 except as indicated):

Checkbook	= ln donation (excluding any matching contribution) to LSS,
Total	= ln donation (including any matching contribution) to LSS,
Rebate Price	= ln of the price of giving \$1 to LSS (\$0.75, \$0.80, or \$1.00) X Rebate Subsidy(= 1 if subject was offered a rebate subsidy) if the subsidy was accepted; =1 otherwise.;
Match Price	= ln of the price of giving \$1 to LSS (\$0.75, \$0.80, or \$1.00) X Match Subsidy (= 1 if subject was offered a match subsidy) if the subsidy was accepted; =1 otherwise;
Reject Rebate	= 1 if subject was offered and rejected a rebate subsidy;
Match Reject	= 1 if subject was offered and rejected a match subsidy;
Income	= subject's income in thousands (defined as the midpoint of the subject's income range and = \$155,000 for those with income > \$140,000);
Anngift1	= 1 if annual giving to charity is between \$100 and \$500;
Anngift2	= 1 if annual giving to charity is between \$500 and \$1,000;
Anngift3	= 1 if annual giving to charity is greater than \$1,000; and
Itemize	= 1 if the subject itemizes on the federal income tax.

Note that some care must be taken in constructing the price variables. In all cases the price is the subsidized price if the subsidy was accepted, and otherwise the price is equal to 1, reflecting no subsidy for those who failed to accept by checking the box. Consider first checkbook giving (model 3). The estimated price elasticities suggest that giving is more responsive to the offered rebate subsidies than to the offered match subsidies (-1.71 versus -

1.33, respectively), however the difference is not significant (the restricted model estimates a price elasticity of -1.45). We are unable to reject the null hypothesis that the price elasticities are equal [F-statistic (1, 855) = 0.94, p-value = 0.33]. In other respects, giving behaves as expected. Giving to LSS is a normal good (income elasticity = 0.344), giving to LSS increases as total annual giving increases, and federal income tax itemizers give significantly more. Finally, the coefficients for Reject Rebate and Reject Match are both insignificantly different from zero. This suggests that those donors who did not accept the offered subsidies behaved (with respect to giving) in a manner consistent with the No Subsidy control group.

Model 4 consider total giving (checkbook giving plus any matching contribution). Including the matching contribution results in higher estimated price elasticities for the match categories, indicating that giving is more responsive to the match than rebate subsidies (-2.33 versus -1.71, respectively), however the difference is only marginally significant [F-statistic (1, 855) = 2.75, p-value = 0.10]. The other results are unchanged.

The higher estimated elasticity for giving under the match subsidy is consistent with the previous lab and field results reported in EG (2003, 2006b, and 2008). In those studies, the match price elasticity of total giving was significantly larger than the rebate price elasticity of total giving. This study differs from these earlier studies in two ways. First, in the laboratory studies (EG, 2003 and 2006b), subjects could not opt out of the offered subsidies. Subjects received the subsidy whether they wanted it or not. The evidence provided in this study suggests there is considerably less willingness to accept a rebate than a matching subsidy. This difference may reflect past negative experiences with retail rebate offers or the perception that the delayed compensation is not worth the wait. It may also reflect Bénabou and Tirole's (2006) warm glow effect discussed above. For both rebates and matches the reluctance to accept the offered subsidy may reflect a reluctance to deal with something new or different. EG (2008) reported that MPR's Director of Membership Marketing observed that a seemingly

innocuous change in MPR's solicitation appeal -- merely adding a 1-800 number to the pledge form -- resulted instead in a significant drop in their response rate.

Our estimated checkbook giving price and income elasticities are comparable to estimates from previous, non-experimental studies. Randolph (1995) reports price elasticities that range between -0.70 and -1.59 and income (current) elasticities of 0.82 and 0.70. Estimates reported by Auten, et al (1992) were -1.11 for the price elasticity and 0.67 for the income elasticity. Finally elasticities estimated by Auten, et al (2002) ranged from -0.40 to -1.26 for price elasticities and 0.29 to 0.87 for income elasticities, depending upon whether price (income) was persistent or transitory and on the specific time period. Our income elasticity from the estimates in Table 6 is in the range of Auten's (2002) estimate, but below estimates from the other studies. The LSS respondents are especially responsive to price subsidies, however, with price elasticities above reported field estimates.

V. Comparison to Earlier Laboratory and Field Experiments

Because of the finer analysis allowed by the check box on the donor card accepting the offered subsidies, the results reported in Table 6 are not strictly comparable to earlier laboratory and field experiments. As noted above, the laboratory experiments (EG, 2003 and 2006b) compelled participants to accept the subsidy whether they wanted it or not (they were not asked). The EG (2008) field experiment was unable to determine whether or not donors had observed the offered subsidies; there was no check box on the donor card. All donors were assumed to have accepted the offered subsidy and the analysis of the data incorporated this assumption. To generate comparable results, we re-estimated model 4 ignoring whether or not the offered subsidy was accepted or rejected, treating the price variables as to reflect the offered price (if the subsidy was always accepted). The estimated price and income elasticities

are reported in Table 7, along with price and income elasticities from EG (2003, 2006b, and 2008).

For the two field studies we compare results for MPR continuing members (from EG 2008) and LSS donors since the LSS sample is comprised of prior donors. We find qualitatively similar results: in both, matching subsidies result in larger total contributions to the charity than rebate subsidies, with the match price elasticity approximately five times as large as the rebate price elasticity. The quantitative elasticity estimates are about twice as large in the LSS study as the MPR study (match: -1.945 vs -1.099; rebate: -0.383 vs. -0.193, respectively).²⁴

The most dramatic difference is between the two field studies is in the income elasticity estimates (0.356) versus 0.014). The difference may be explained by the different measures of income in the two studies. The MPR study used median family income for 1999 by zip code as reported by the U.S. Bureau of the Census. Rather than a precise measure of family income, this measure of income is instead only an indicator of the range of income in which the donor is likely to fall. The LSS measure of income is an individual measure consisting of the midpoint of the self-reported income range from the survey. As noted above, the LSS estimated income elasticity is consistent with income elasticity estimates from non-experimental studies, lending it credence.

Comparing our results to the two laboratory studies, we find they, too, are qualitatively similar. The difference between the rebate and match subsidies in their impact on giving is smaller in the lab. In particular, moving from the lab to the field does not eliminate the difference in the two subsidies, but rather increases the difference, making them even less equivalent. The estimated elasticity for the Rebate Price in the 2003 lab study (-0.340) is

²⁴ In a field study similar to EG 2008, Karlan and List (2007) estimate match price elasticities for much higher subsidy levels (100%, 200% and 300%, yielding prices of giving equal to \$.5, \$.33 and \$.25.). Their estimate, excluding the match, is -.225, with a range of between 0 and -.668 across states. (Our comparable estimate, excluding the match, is .945 with a standard error of 0.32).

similar in magnitude to field estimate (-0.383), but one-third the size of the 2006 lab estimate (-1.491). In every study, however, the Match Price elasticity estimate is larger than the respective rebate price elasticity estimate. Our Match Price elasticity estimate (-1.945) falls between the two laboratory estimates (2003: -1.067; 2006b: -3.174). The estimated income elasticities also differ, though less dramatically, between this field study and the two laboratory studies (0.356 versus 0.821, 2003, and 0.987, 2006b). Again, these differences may be explained by the different measures of income in the two types of studies. In the lab studies, income is defined as the endowment given to the subjects by the experimenter, which varied between \$4 and \$10 (\$7.50 in the 2006b study). With such different measures of income, differences in estimated income elasticities are not unexpected.

V. Conclusions

We present results of a field experiment designed to test the impact of alternative ways to subsidize charitable giving. A rebate subsidy of s_r and a matching subsidy of rate $s_m = s_r / (1 - s_r)$ present a donor with the same net cost of giving to the charity and therefore should result in the same level of total (own plus any subsidy) giving. In laboratory experiments Eckel and Grossman (2003) found that total giving to the charity is sensitive to whether the subsidy takes the form of a rebate or a match. Total giving was significantly higher with matching subsidies than with rebate subsidies.

The field study was conducted in conjunction with a religiously affiliated social services charity, Lutheran Social Service of Minnesota. The field experiment has three main treatments: a baseline with no subsidy, a rebate to donors of a portion of their contribution to the charity, and an equivalent matching contribution. Within each subsidy treatment there are two rates of subsidy: 20 and 25 percent rebates and 25 and 33 1/3 percent matches, corresponding to prices of giving \$1 to charity of \$.80 and \$.75.

Several conclusions can be drawn from our results. While response rates were statistically the same across treatment groups, the higher match subsidy offer increased the probability that a responder was a donor. Overall, 72 percent of all responders made a donation; for the 33 1/3 percent match group, the rate was 79 percent. There is evidence that some givers are averse to rebate subsidies. Only 39 percent of all donors receiving a rebate subsidy offer (regardless of the rate) accepted the offered subsidy compared with 73 percent of all match donors. This difference may be due to a dislike of the rebate process (keeping track of and cashing a check), or as suggested by Benabou and Tirole, accepting a subsidy might make donors feel “greedy” and lessen the warm glow effect of giving. In contrast, accepting a match subsidy should not have this effect. Educated donors (college degree or more) are more likely to accept the offered subsidy, suggesting that paying attention to the details of the offer may have a cognitive cost for lower-educated respondents. Though we do not know why donors failed to accept the offered subsidy, we find that the pattern of giving by these donors, regardless of the subsidy type and amount offered, is strikingly similar to that of our No Subsidy control group, suggesting strongly that the offered subsidy did not materially affect their decisions.

With respect to donations, own giving by all donors in the match treatments were significantly greater than for donors in the rebate treatment. This contradicts expectations. If donors treat equivalent match and rebate offers the same, then giving by donors in the rebate treatment should be higher than in the match treatment by the subsidy amount. As indicated by the median tests, the presence of a subsidy appears to have triggered a movement by donors from one focal point (\$25) to a higher focal point (\$50), regardless of the subsidy type.

For those donors who did not accept the offered subsidies, we found no significant differences in mean giving levels across subsidy treatments. Furthermore, donors who failed to accept the offered subsidy did not differ significantly in their level of giving from the No

Subsidy control group. Mean donations by donors who accepted the offered subsidies also are statistically the same across subsidy treatments, and each category's mean donation, except the 20 percent rebate, is significantly higher than the mean donation for the No Subsidy control group. Furthermore, the mean donations by donors accepting the rebate subsidy offers were significantly larger than the mean donations by their subsidy counterparts who did not accept the subsidy offer. For the match subsidies, mean donations either increased or remained unchanged. This pattern of giving by those accepting the offered subsidies is consistent with a desire to pass on to the charity the full subsidy amount: the accepted subsidies did not crowd out own giving. These conclusions are confirmed by our regression analysis.

Another important result is that, while giving is sensitive to the presence of a subsidy, it is does not appear to be significantly affected by the level of the subsidy. This suggests that low subsidy levels could be effective in stimulating charitable giving, at least in some sectors. This result is consistent with findings reported by Karlan and List (2007). They find that "... simply announcing that match money is available considerably increases the revenue per solicitation (p. 3)" and the probability of donating. However, the impact did not differ with the size of the match.

Assuming our results are confirmed, the findings have important implications for government policies towards subsidization of nonprofit and charitable organizations. They suggest that replacing the current system of tax rebates with an equivalently costly matching subsidy system could increase contributions to charitable organizations. If LSS contributors are typical, and matching subsidies increase giving nearly as much as rebate subsidies, then substituting matches could increase total giving. This implication relies on the inference from these results that the presence of a subsidy is the critical factor in stimulating contributions. Considerably more work would be necessary to confirm this possibility before changes in the tax system were considered.

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Table 1: Solicitations, Respondents, Donations, and Checked Boxes

	Solicitations	Respondents (% of solicitations)*	Survey Only (% of respondents)	Donation > \$0 (% of respondents)	Percentage of donors with checked box**
No-subsidy	5501	297 (5.4%)	92 (31.0%)	205 (69.0%)	N/A
20% Rebate	4463	242 (5.4%)	70 (28.9%)	172 (71.1%)	39.0%
25% Match	4462	216 (4.8%)	65 (30.1%)	151 (69.9%)	74.3%
25% rebate	4856	208 (4.3%)	59 (28.4%)	149 (71.6%)	38.3%
33 1/3% Match	4834	244 (5.0%)	52 (21.3%)	192 (78.7%)	72.9%
Total	24116	1,207 (5.0%)	338 (27.9%)	869 (72.1%)	56.6%**

* Percent of respondents is not significantly different across treatments using a chi-square contingency table test ($\chi^2(4) = 9, p=.061$).

** Fisher exact test indicates a significant difference in the acceptance rate between the match and rebate subsidies, $p<.0001$

*** This is 366/664, the proportion of donors in the four subsidy treatments who checked the box.

Table 2: Probability of Accepting the Offered Subsidy

(Dependent variable = 1 if donor accepted offered subsidy, 0 otherwise)

Variable	Coefficient (Std. Dev.)
REBATE	-1.484 (0.17)
COLLEGEGRAD	0.577 (0.18)
CONSTANT	0.641 (0.17)
LLF	-407.2
N	664

Table 3: Mean Checkbook Revenue per Solicitations and Mean Checkbook Donations by Subsidy Category^a

(1)	Mean Revenue per Solicitation (2)	All Donors		Did Not Check Box		Checked Box		Means Test t-statistic (p-value ≤) ^b Col. 5 and 7 (9)
		Mean Donation (Std. Dev.) N (3)	Means Test t-statistic (p-value ≤) ^b (4)	Mean Donation (Std. Dev.) N (5)	Means Test t-statistic (p-value ≤) ^b (6)	Mean Donation (Std. Dev.) N (7)	Means Test t-statistic (p-value ≤) ^b (8)	
20% Rebate	\$2.30	\$49.92 (57.94) 172	2.00 (0.05)	\$38.14 (43.37) 105	0.51 (0.61)	\$68.38 (71.89) 67	1.02 (0.31)	3.10 (0.003)
25% Match	\$3.16	\$75.24 (145.65) 151		\$42.21 (42.32) 39		\$86.74 (165.95) 112		2.61 (0.01)
25% Rebate	\$2.03	\$52.62 (51.71) 149	2.04 (0.04)	\$39.46 (40.50) 92	1.62 (0.11)	\$73.88 (60.50) 57	0.17 (0.86)	3.80 (0.001)
33 1/3% Match	\$3.36	\$69.86 (101.40) 192		\$64.42 (106.74) 52		\$71.88 (99.66) 140		0.44 (0.66)
No Subsidy	\$2.28	\$50.89 ^c (90.85) 205						
All	\$2.61	59.41 (95.38) 869		\$43.86 (59.64) 288		75.98 (115.50) 376		4.65 (0.001)

a – Revenue and donation figures do not include the \$5 per survey completion payment, or any matching contributions.

b – Two-tailed test.

c – The mean donation by the No Subsidy donors does not significantly differ from the mean donation for each of the other category of givers who did not accept the offered subsidy but does differ significantly from the mean donation for each of the other category of givers who accepted the offered subsidy except for the 20 percent rebate category. Results are available upon request.

Table 4: Median and Wilcoxon Test Results for Donors Who Failed to Accept and Who Accepted Offered Subsidy by Subsidy Category

(1)	Did Not Check Box	Checked Box	Median Test p-value (3)	Wilcoxon Test p-value (4)
	Median Checkbook Donation N (2)	Median Checkbook Donation N (2)		
20% Rebate	\$25 105	\$50 67	0.001	0.001
25% Match	\$25 39	\$50 112	0.025	0.014
25% Rebate	\$25 92	\$50 57	0.001	0.001
33 1/3% Match	\$25 52	\$50 140	0.035	0.012
No Subsidy	\$25 205			

Table 5: Probability of a Donation: Probit Regression

(Dependent variable = 1 if subject contributed, 0 if not)

Variable	Coefficient (Std. Error) <i>Marginal Effect</i>	
	(1)	(2)
R20	0.058 (0.11) <i>0.02</i>	0.058 (0.12) <i>0.02</i>
R25	0.076 (0.12) <i>0.03</i>	0.071 (0.12) <i>0.02</i>
M25	0.025 (0.12) <i>0.008</i>	0.011 (0.12) <i>0.004</i>
M33	0.299* (0.12) <i>0.10</i>	0.272* (0.12) <i>0.09</i>
ITEM	...	0.316* (0.09) <i>0.11</i>
ATTEND1	...	-0.463 (0.33) <i>-0.15</i>
ATTEND2	...	-0.464 (0.33) <i>-0.16</i>
ATTEND3	...	-0.610* (0.30) <i>-0.20</i>
ATTEND4	...	-0.841* (0.32) <i>-0.28</i>
CONSTANT	0.497* (0.08)	0.875* (0.31)
Log LF	-712	-700
N	1207	1207

* - significant at the 5% level, two-tailed test.

Table 6: Amount Donated Regression

Variable	Coefficient (Std. Error)	
	Checkbook (3)	Total (4)
Rebate Price	-1.705** (0.40)	-1.705** (0.40)
Match Price	-1.335** (0.32)	-2.335** (0.32)
Reject Rebate	-0.129 (0.09)	-0.129 (0.09)
Reject Match	-0.066 (0.11)	-0.066 (0.11)
INCOME	0.344** (0.05)	0.344** (0.05)
ANNGIFT1	0.712* (0.38)	0.712* (0.38)
ANNGIFT2	0.751* (0.38)	0.751* (0.38)
ANNGIFT3	1.047** (0.37)	1.047** (0.37)
ITEMIZE	0.291** (0.08)	0.291** (0.08)
CONSTANT	0.870** (0.39)	0.870** (0.39)
R²	21.2	25.2
SSE	682.9	682.9
N	865	865

* - significant at the 10% level, two-tailed test.

** - significant at the 5% level, two-tailed test.

Table 7: Comparison of Lab and Field Elasticity Estimates: Total Giving (including subsidy)
Coefficient^a
(Std. Error)

Elasticity	LSS Study (MPR Comparable) n=865	MPR Study EG (2008) Continuing n=5183	Laboratory	
			EG (2003) n=168	EG (2006b) n=90
Income	0.356 (0.05)	0.014 (0.01)	0.821 (0.07)	0.987 (0.17)
Price – Rebate	-0.383 (0.32)	-0.193 (0.05)	-0.340 (0.19)	-1.491 (0.24)
Price– Match	-1.945 (0.31)	-1.099 (0.05)	-1.067 (0.18)	-3.174 (0.24)

^a Significant (p-value < 0.05) differences between the relevant LSS study elasticity estimate and the reported point-estimates for the other studies are indicated by bold typeface.

Figure 1: Distribution of 20 Percent Rebate Donors - Accepts and Rejects

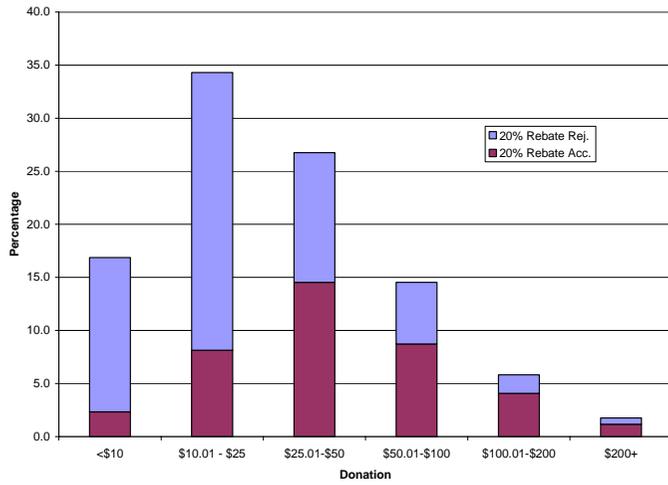


Figure 2: Distribution of 25 Percent Match Donors - Accepts and Rejects

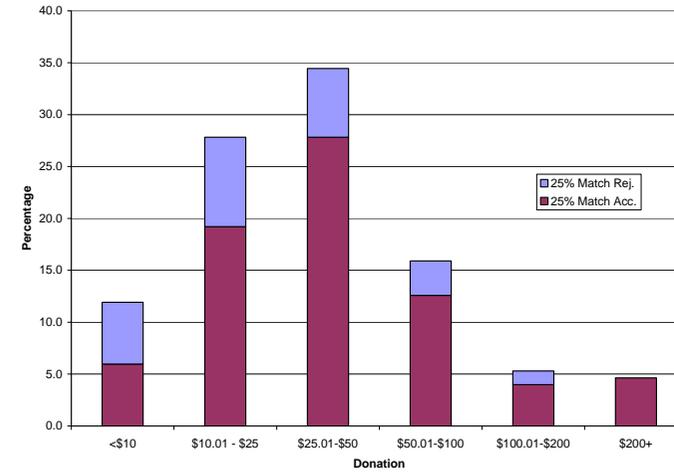


Figure 3: Distribution of 25 Percent Rebate Donors - Accepts and Rejects

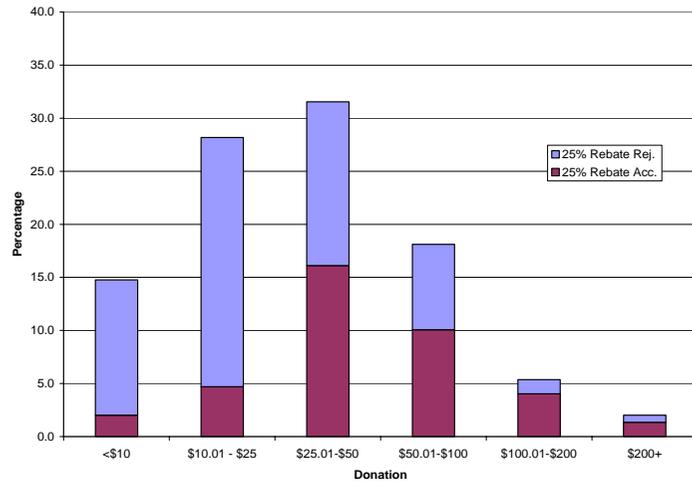


Figure 4: Distribution of 33 1/3 Percent Match Donors - Accepts and Rejects

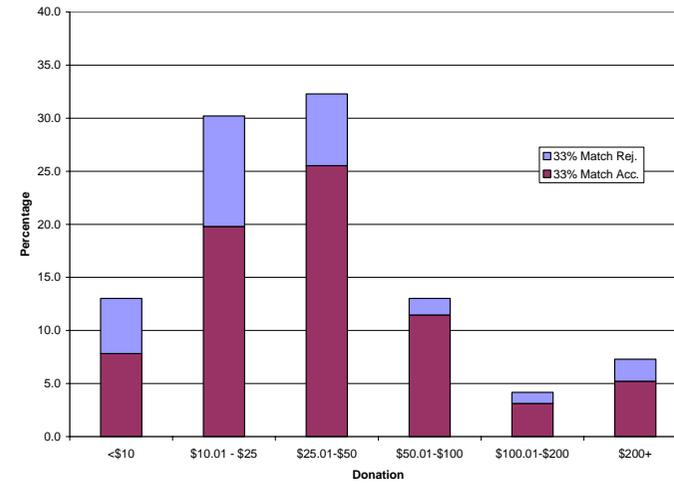
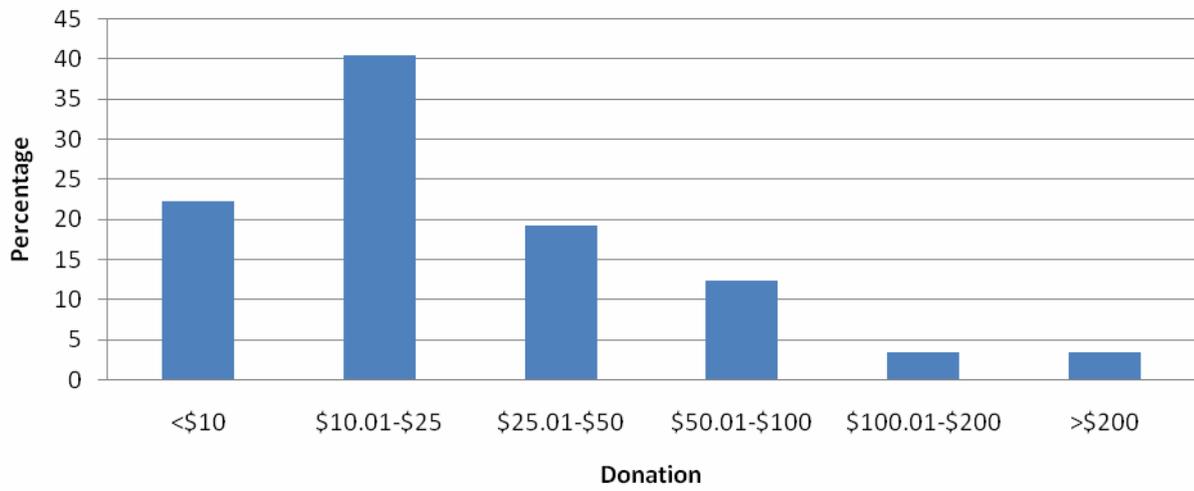


Figure 5: Distribution of No Subsidy Donors



APPENDIX

Safe Homes,
Hopeful Futures
**An opportunity for you to increase
the size of your gift to LSS
by 20% at no cost to you or LSS**

Lutheran Social Service of Minnesota is participating in a study * with a donor who will refund part of your contribution to you. **If you checked the box on the bottom of your contribution card, the donor will refund 20% of your contribution.** The table below illustrates the refund amount and net cost to you of giving various amounts to LSS. **Note that the refund will be paid for by the donor doing the research, NOT by LSS.**

If you give:	Your 20% refund will be:	Net cost of your gift to you:	LSS receives in total:
\$35	\$7.00	\$28.00	\$35.00
\$50	\$10.00	\$40.00	\$50.00
\$100	\$20.00	\$80.00	\$100.00
\$250	\$50.00	\$200.00	\$250.00
\$500	\$100.00	\$400.00	\$500.00

Remember, in order for you to receive the refund, you need to check the box on the contribution form on the bottom of the enclosed letter indicating you have read this enclosure and are willing to participate.

* The study provides funding for refunds up to a total of \$5,000. Refunds will be provided on a first-come, first-serve basis. If you have questions about the donor, the study, or the procedures for receiving your refund, please contact Professor Philip Grossman at 1-320-308-4232.



Safe Homes, Hopeful Futures

An opportunity for you to increase the size of your gift to LSS by 25% at no cost to you or LSS

Lutheran Social Service of Minnesota is participating in a study * with a donor who will refund part of your contribution to you. **If you checked the box on the bottom of your contribution card, the donor will refund 25% of your contribution.** The table below illustrates the refund amount and net cost to you of giving various amounts to LSS. **Note that the refund will be paid for by the donor doing the research, NOT by LSS.**

If you give:	Your 25% refund will be:	Net cost of your gift to you:	LSS receives in total:
\$35	\$8.75	\$26.75	\$35.00
\$50	\$12.50	\$37.50	\$50.00
\$100	\$25.00	\$75.00	\$100.00
\$250	\$62.50	\$187.50	\$250.00
\$500	\$125.00	\$375.00	\$500.00

Remember, in order for you to receive the refund, you need to check the box on the contribution form on the bottom of the enclosed letter indicating you have read this enclosure and are willing to participate.

* The study provides funding for refunds up to a total of \$8,000. Refunds will be provided on a first-come, first-serve basis. If you have questions about the donor, the study, or the procedures for receiving your refund, please contact Professor Philip Grossman at 1-320-308-4232.

Safe Homes, Hopeful Futures

An opportunity for you to increase the size of your gift to LSS by 25% at no cost to you or LSS

Lutheran Social Service of Minnesota is participating in a study * with a donor who will match part of your contribution. **If you checked the box on the bottom of your contribution card, your contribution will be matched at a rate of 25% by the donor.** The table below illustrates details of the matching amounts possible for different levels of contribution. **These matching amounts are paid by the donor doing the research, NOT by LSS**

If you give:	The donor gives 1/4 (25%) more:	LSS receives in total:
\$35	\$8.75	\$43.75
\$50	\$12.50	\$62.50
\$100	\$25.00	\$125.00
\$250	\$62.50	\$312.50
\$500	\$125.00	\$625.00

Remember, for LSS to receive the matching amount, you need to check the box on the contribution form on the bottom of the enclosed letter indicating you have read this enclosure and are willing to participate.

Thank you for your time, consideration and support of LSS.

* The study provides funding for matching funds up to a total of \$8,000. Matching will be provided on a first-come, first-serve basis. If you have questions about the donor, the study, or the procedures for matching your contribution, please contact Professor Philip Grossman at 1-320-308-4232.

Safe Homes,
Hopeful Futures

**An opportunity for you to increase
the size of your gift to LSS by 33
1/3% at no cost to you or LSS**

Lutheran Social Service of Minnesota is participating in a study * with a donor who will match part of your contribution. **If you checked the box on the bottom of your contribution card, your contribution will be matched at a rate of 33 1/3% by the donor.** The table below illustrates details of the matching amounts possible for different levels of contribution. **These matching amounts are paid by the donor doing the research, NOT by LSS**

If you give:	The donor gives 1/3 (33 1/3%) more:	LSS receives in total:
\$35	\$11.66	\$46.66
\$50	\$16.65	\$66.65
\$100	\$33.30	\$133.30
\$250	\$83.25	\$333.25
\$500	\$166.50	\$666.50

Remember, for LSS to receive the matching amount, you need to check the box on the contribution form on the bottom of the enclosed letter indicating you have read this enclosure and are willing to participate.

Thank you for your time, consideration and support of LSS.

* The study provides funding for matching funds up to a total of \$15,000. Matching will be provided on a first-come, first-serve basis. If you have questions about the donor, the study, or the procedures for matching your contribution, please contact Professor Philip Grossman at 1-320-308-4232.

Appendix Table 1: Subject Characteristics

	No Subsidy N (%)	20% Rebate N (%)	25% Match N (%)	25% Rebate N (%)	33 1/3% Match N (%)	χ^2 Contingency Table Test Statistic (d.f.) p-value
Income (\$000)						
< \$20	25 (0.08)	19 (0.08)	17 (0.08)	15 (0.07)	16 (0.07)	19.2 (20) 0.511
\$20-\$50	132 (0.44)	109 (0.45)	80 (0.37)	92 (0.44)	91 (0.37)	
\$50-\$80	76 (0.26)	67 (0.28)	61 (0.28)	56 (0.27)	69 (0.28)	
\$80-\$110	36 (0.12)	29 (0.12)	34 (0.16)	20 (0.10)	44 (0.18)	
\$110-\$140	10 (0.03)	10 (0.04)	13 (0.06)	9 (0.04)	9 (0.04)	
> \$140	18 (0.06)	8 (0.03)	11 (0.05)	16 (0.08)	15 (0.06)	
Itemize Deductions^a	217 (0.73)	189 (0.78)	170 (0.79)	153 (0.74)	206 (0.84)	
Annual Giving						
< \$100	6 (0.02)	3 (0.01)	5 (0.02)	3 (0.01)	2 (0.01)	11.9 (12) 0.456
\$100-\$500	35 (0.12)	30 (0.12)	23 (0.11)	22 (0.11)	37 (0.15)	
\$500-\$1,000	43 (0.14)	31 (0.13)	33 (0.15)	23 (0.11)	20 (0.08)	
> \$1,000	213 (0.72)	178 (0.74)	155 (0.72)	160 (0.77)	185 (0.76)	

Attendance at Religious Services						
Never	11	5	5	3	5	
< Once per Month	(0.04)	(0.02)	(0.02)	(0.01)	(0.02)	
At least once a month	23	15	18	18	23	15.0
Once a week	(0.08)	(0.06)	(0.08)	(0.09)	(0.09)	(16)
> Once a week	31	19	16	30	23	0.527
	(0.10)	(0.08)	(0.07)	(0.14)	(0.09)	
	182	164	147	130	159	
	(0.61)	(0.68)	(0.69)	(0.63)	(0.65)	
	50	39	30	27	34	
	(0.17)	(0.16)	(0.13)	(0.13)	(0.14)	
Education						
< High School	4	5	6	4	3	
High School Diploma	(0.01)	(0.02)	(0.03)	(0.02)	(0.01)	
Some College	48	35	35	33	27	17.1
College Degree	(0.16)	(0.14)	(0.16)	(0.16)	(0.11)	(16)
Post College Degree	65	52	33	41	45	0.378
	(0.22)	(0.21)	(0.15)	(0.20)	(0.18)	
	84	79	73	80	88	
	(0.28)	(0.33)	(0.34)	(0.38)	(0.36)	
	96	71	69	50	81	
	(0.32)	(0.29)	(0.32)	(0.24)	(0.33)	
Age						
26-35	1	3	4	5	5	
36-45	(0.00)	(0.01)	(0.02)	(0.02)	(0.02)	18.8
46-60	19	7	14	7	19	(12)
> 60	(0.06)	(0.03)	(0.06)	(0.03)	(0.08)	0.094
	57	48	51	55	57	
	(0.19)	(0.20)	(0.24)	(0.26)	(0.23)	
	220	184	147	141	163	
	(0.74)	(0.76)	(0.68)	(0.68)	(0.67)	

Marital Status						
Married	187	148	147	135	167	
Widowed	(0.63)	(0.61)	(0.68)	(0.65)	(0.68)	
Divorced/Separated	67	49	36	38	43	11.5
Single	(0.23)	(0.20)	(0.17)	(0.18)	(0.18)	(12)
	11	19	10	16	12	0.486
	(0.04)	(0.08)	(0.05)	(0.08)	(0.05)	
	32	26	23	19	22	
	(0.11)	(0.11)	(0.11)	(0.09)	(0.09)	
N	297	242	216	208	244	

a - Binomial Proportions test p-values

	No Subsidy	20% Rebate	25% Match	25% Rebate
20% Rebate	0.177			
25% Match	0.143	0.875		
25% Rebate	0.902	0.261	0.214	
33 1/3% Match	0.001	0.074	0.113	0.004