Directed Giving Enhances Voluntary Giving to Government

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Abstract: Giving to private charities is commonplace, and the chance to direct one's gift is a standard fundraising strategy. But voluntary donations to government organizations are less widely known, and the impact of the opportunity to direct a gift is unexplored. We investigate the effect of directed giving on voluntary contributions to government organizations using a "real donation" lab experiment. We compare giving to the US federal general revenue fund with directed giving to particular government organizations. Directed giving more than doubles both the likelihood of giving and the size of contributions, indicating that individuals are responsive to the opportunity to direct their gifts in the government context. Our results suggest that the revenue-raising potential of directed voluntary gifts to government may be underutilized.

Key words: directed giving, voluntary giving to government, experiment

JEL codes: H2, D64, C9

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Introduction

Opportunities to direct one's donation to private charities that support specific causes are abundant in daily life; opportunities to do so for government organizations are few. One possible reason for this difference is that the willingness to voluntarily give to governments, especially to support important and worthy missions, has been underestimated, and therefore governments have not invested in mechanisms to facilitate donations.¹ As a result, the revenue-raising potential of allowing voluntary gifts to support specific government missions is surprisingly understudied. We fill this gap by investigating the potential impact of allowing voluntary payments directed to government organizations serving specific missions.

Many state governments afford their citizens the opportunity to donate to government: income tax forms have "check-off" programs enabling taxpayers to make contributions to selected causes. Opportunities to give to the federal government are more limited and relatively unknown; the "Gifts to the United States" fund (GUS) and the Bureau of the Public Debt accept gifts.

We consider the impact of directed giving on gifts to government by comparing giving to a general fund (GUS) to directed giving to two specific causes (disaster relief and cancer research). We find that directed giving more than doubles the likelihood of giving and the size of contributions, relative to that for the GUS. The results suggest that directed giving may have the potential to raise funds for programs serving popular causes, and suggest that the revenue-raising potential of voluntary gifts to government may be under-realized.

¹ Schizer and Listokin (2013) suggest ways to enhance government revenue streams, including exploiting the potential for voluntary, targeted giving, reinforcing our previous study establishing willingness to give to government (Li et al. 2011).

Experiment

We employ a “real donation” lab experiment. Subjects make three decisions. In each, they choose how much of a \$20 endowment to contribute to a government function: Cancer Research and Prevention, Disaster Relief (the same organizations used in Li et al., 2011), and GUS (see Appendix A for brief descriptions).² Comparing contributions to specific functions with those to GUS allows us to study how directed giving may affect willingness to support causes traditionally funded by taxes. Subjects were recruited using ORSEE (Greiner 2004). Seven sessions were conducted at the Center for Behavioral and Experimental Economic Science at the University of Texas at Dallas in October 2008. Session size varied from 11 to 13. Eighty subjects made decisions; seven subjects served as monitors (monitors were paid \$20 for assisting in the experiment).

ID numbers ensured anonymity. The instructions were read aloud and examples were explained.³ Subjects made decisions in private, sealing their decision sheets in envelopes provided before turning them in. One decision is selected, separately for each subject, at random for payment.

A post-experiment survey collected demographics, political affiliation, and perceptions about the target organizations (see Appendices C and D). Payments were prepared in a separate room and placed in envelopes marked with subjects’ IDs. Subjects used their IDs to claim payment. Checks made out to the organizations were mailed. Subjects were invited to accompany the experimenter and monitor to the mailbox, although none did.

² As shown in the instructions in Appendix B, subjects also made decisions for three private charities, as well as two pairs of Texas state-level government agencies and private charities for education enhancement and low-income housing support. These decisions are not included in this paper. The descriptive statistics on the amount and the likelihood of giving for these organizations, however, are provided in Appendix Figure 1.

³ Appendix B includes sample instructions. The allocation decisions labeled 1a in the instructions are the focus of this paper.

Results

Average contributions and the likelihood of contributing are presented in Table 1. The donation histogram is presented in Figure 1. Even when the funds are not directed to specific causes, participants are willing to give to support the federal government. Twenty-four (30%) out of the 80 participants gave a positive amount to the GUS fund. The average contribution is \$1.68 (8.4% of the endowment, $p=0.00$, two-sided t-test of means) across all participants and \$5.58 (27.9% of the endowment, $p=0.00$) across all contributors.

Average gifts and the likelihood of giving are significantly lower for GUS compared to the other government agencies ($p=0.00$, two-sided test of means for paired samples). Combined giving to the two agencies averages \$4.78 with a 64% contribution rate. Directed giving more than doubles the likelihood of giving, and raises nearly three times the revenue of undirected giving. This confirms our intuition that people value control over the use of their contributions.

Table 2 presents the results of the maximum likelihood estimation of the Hurdle model of contributions. The Hurdle model, commonly used in health economics, captures the idea that in our study subjects have to decide whether to contribute at all, and then decide on the amount of the contribution.⁴ The independent variable in columns 1 and 2 is the treatment variable “directed giving” with the general-purpose category omitted. In columns 3 and 4, we also control for subjects’ perceptions of the organizations: whether the organizations serve an *important cause*, are a *good organization*, and need *additional resources*. The variables *Important Cause* and *Additional Resources* are constructed from responses to survey questions 1 and 6 (Appendix C). The variable *Good Organization* is derived from a single factor comprised

⁴ We use the Cragg hurdle regression (“churdle”) in Stata 14 and the “margins” command to compute the marginal effects in the Hurdle model. The likelihood function for the overall Cragg Hurdle model is constructed as the product of two likelihoods including the first likelihood that the subjects contribute zero or not (probit) and the conditional likelihood that the subjects contribute a certain fraction of the \$20 endowment. See Botelho, et al. (2009) for a detailed discussion on the Hurdle model.

of three items: *trust* (question 2), *quality of work* (question 5), and *efficiency* of the organization (question 7).⁵ We use the resulting factor scores for our measure. Finally, we also include the variables gender, race, age, college major, and political affiliation, with male, Caucasian, non-economics/business majors, and Democrat in the omitted categories.⁶ Standard errors are clustered on the individual level, and marginal effects are reported.

We find that results are robust to the inclusion of the additional covariates in the analysis. Confirming the descriptive statistics, “directed giving” leads to a significant increase in the likelihood of giving and the contribution amount. Participants give \$2.540 ($p < 0.01$) more to the two government agencies than to GUS. This is an increase of 151% compared to \$1.68, the average contribution to GUS. Results for the selection stage of the Hurdle model are also consistent with the descriptive statistics. Subjects are significantly more likely to give to specific government causes than to GUS. The increase in the likelihood of giving is 28.4 ($p < 0.01$) percentage points. Our findings are consistent with Alm et al. (1993), who found that individuals respond positively when tax proceeds are directed to programs of which they approve.

Results further show that subjects’ perceptions play important roles in giving to government. Being perceived as serving an “important” cause significantly increases contributions ($p < 0.01$) and the likelihood of contributing to government ($p < 0.10$).

Individual characteristics also are correlated with giving. Willingness to give and amount given is higher for women than for men ($p < 0.10$), and lower for economics/business majors than other majors ($p < 0.05$). Republicans give more than Democrats ($p < 0.05$); Independents/Others are more likely to give than Democrats ($p < 0.05$).

⁵ Questions 3 and 4 were not applicable for the federal general fund. We refer the readers to Harrington (2008) for a detailed description of the confirmatory factor analysis.

⁶ We did not include an income variable due to the prevalence of missing values and lack of variation in our sample.

Conclusion

We compare directed giving and giving to a US federal revenue general fund in order to gauge the potential effect of allowing individuals to direct their donations to specific government organizations. We find that participants in our study show a substantially greater willingness to give and greater generosity of giving when they can direct their gifts to either cancer research or disaster relief. This happens for two intertwined reasons. First, people value choice, and are more likely to give and give more generously when they can choose how their donations will be used. Second, when they choose they are able to selectively support causes that they consider more worthy and deserving than the average causes supported by the federal government.

These results may help explain the success of “crowd funding” of government projects (e.g., DonorsChoose.org) and state check-off programs despite the unpopularity of general taxation. They highlight the potential value of providing new mechanisms for taxpayers to voluntarily donate to specific government organizations. Voluntary donations such as these may be a useful additional source of funding for causes that are seen as salient and important to taxpayers. On the negative side, permitting directed giving to government organizations may run the risk of crowding out giving to competing private charities. This question, outside the scope of this paper, is an interesting topic for future research.

We acknowledge that college students’ preferences toward giving to government may not be representative of those of the general taxpaying public, which is more experienced with the income tax system. However, since our results are based on comparative statics – the comparisons between targeted causes vs. general purpose – they are likely to hold qualitatively in the field (Kessler and Vesterlund forthcoming).

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References

- Alm, J., B.R. Jackson, and M. McKee. 1993. Fiscal Exchange, Collective Decision Institutions, and Tax Compliance. *Journal of Economic Behavior and Organization* 22(4), 285-303.
- Botelho, A., G.W. Harrison, L.M. Pinto, and E.E. Rutström. 2009. Testing Static Game Theory with Dynamic Experiments: A Case Study of Public Goods. *Games and Economic Behavior* 67(1), 253-265.
- Greiner, B. 2004. The Online Recruitment System ORSEE 2.0 - A Guide for the Organization of Experiments in Economics. University of Cologne, Working Paper Series in Economics.
- Harrington, D. 2008. *Confirmatory Factor Analysis*. New York: Oxford University Press.
- Kessler, J.B. and L. Vesterlund. Forthcoming. “External Validity of Laboratory Experiments.” *The Methods of Modern Experimental Economics*, Guillaume Frechette and Andrew Schotter, Oxford University Press.
- Li, S.X., C.C. Eckel, P.J. Grossman, and T.L. Brown. 2011. Giving to Government: Voluntary Taxation in the Lab. *Journal of Public Economics* 95, 1190–1201.
- Schizer, D. and Y. Listokin. 2013. I Like to Pay Taxes: Taxpayer Support for Government Spending and the Efficiency of the Tax System. *66 Tax Law Review* 179.

Figure 1: Donation Histogram

Table 1: Summary of Results

Causes	Giving amount	Likelihood of giving (S.E.)
GUS	\$1.68 (0.42)	30% (0.052)
Disaster relief	\$4.04 (0.52)	61% (0.055)
Cancer research	\$5.52 (0.63)	66% (0.053)

Table 2: Maximum Likelihood Estimates of the Hurdle Model of Contributions

	Selection (Probit)	Contributions	Selection (Probit)	Contributions
directed giving	0.338*** (0.051)	3.108*** (0.524)	0.284*** (0.055)	2.540*** (0.459)
important cause			0.068* (0.038)	2.429*** (0.611)
good organization			0.057 (0.047)	0.471 (0.515)
additional resources			0.021 (0.036)	0.281 (0.350)
female			0.261*** (0.081)	1.351* (0.752)
non-Caucasian			0.125 (0.091)	1.014 (0.757)
age			0.015 (0.016)	0.102 (0.163)
economics/business			-0.253** (0.100)	-1.964*** (0.765)
Republican			0.165 (0.114)	3.093** (1.546)
Independent/Others			0.208** (0.092)	1.418 (0.925)
L. L. F.		-512.0		-466.8
Observations				240
Number of subjects				80

Notes: Marginal effects are reported. Standard errors (in parentheses) are clustered on the individual level. *, **, *** significant at the 10%, 5%, and 1% level.