Do Earmarks Increase Giving to Government?*

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Abstract:

Voluntary taxes constitute a miniscule proportion of the federal budget. We design a lab experiment to investigate the potential effect of allowing voluntary donations to government that are earmarked for specific purposes. We find that earmarking more than doubles gifts and the probability of giving to federal government organizations. Although the preference for control over the target of contributions is also borne out for private charities whose missions mirror the government organizations, earmarks increase giving to government more substantially. The results suggest the potential of creating a new mechanism to facilitate voluntary taxes, especially for specific programs.

JEL codes: H2, D64, C91

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I.   Introduction

In 2000 critical shortages of materials in public schools lead Charles Best, a high school teacher, to create DonorsChoose.org with the mission "…to improve public education by empowering every teacher to be a change-maker and enabling any citizen to be a philanthropist (www.donorschoose.org/about/how_it_works.html#start)." DonorsChoose.org receives requests from public school teachers for classroom materials of all sorts. The requests are vetted by DonorsChoose.org and posted on its website. Donors can search the website for projects they deem worthy and make their contributions via online payment methods or by check. Once the necessary funding is raised, DonorsChoose.org buys the requested materials and ships them to the teacher. To date DonorChoose.org has funded more than 180,000 projects. Between 2003 and 2010, annual donations have increased from approximately $1 million to approximately $27 million. Essentially giving to DonorsChoose.org is voluntary taxation. The donor has earmarked his donation for a specific government project.[1]

Here is another anecdote. In 2000 the state of Pennsylvania mailed out 2.5 million income tax rebates to its taxpayers. Hundreds of taxpayers, some who lived in the poorest city neighborhoods, signed over their checks to local school districts. One donor was quoted as saying that "That's exactly the point in giving people their own money – to do with it what they want".[2] This example again illustrates that taxpayers appear willing to pay voluntary taxes if they can choose to earmark their tax payments.

As the economy has weakened, revenue raised by taxation has fallen, and federal, state and local governments face ballooning budget deficits. Proposals to increase tax rates to close the budget gaps tend to be unpopular, and many have suggested that raising taxes during a recession would be counterproductive. Nevertheless, many citizens would, and do, vote in favor of tax increases, indicating that at least some individuals are willing to pay additional taxes rather

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[1] According to the Merriam-Webster online dictionary (http://www.merriam-webster.com/dictionary/earmark) an earmark is "a provision in Congressional legislation that allocates a specified amount of money for a specific project, program, or organization." More broadly defined, earmarking is the act of allocating a specific amount of money for a specific project or purpose.

[2] *The New York Times*, 2000. "Taxpayers Return Their Rebates to Help Pennsylvania's Schools." November 25. http://www.nytimes.com/2000/11/25/us/taxpayers-return-their-rebates-to-help-pennsylvania-s-schools.html

than reduce services.[3] At present governments make little effort to exploit the willingness of taxpayers to pay higher taxes in both times of fiscal stress, such as the present, or during a period of crisis, such as during a war or following a natural disaster.

Few opportunities currently exist for taxpayers to voluntarily pay higher taxes. One such opportunity is the "Gifts to the United States" fund established in 1843.[4] The amount of gifts totaled $394,000 in fiscal year 2001, and increased substantially after September 11, 2001 (Miniter 2002).[5] At the state level, many state income tax forms have "check-off" programs enabling taxpayers to make voluntary contributions to selected public or social programs. These programs have gained popularity since they were first implemented in 1977, and in 2002, 210 such programs collected a total amount of $32.8 million.[6] As of 2010, the number of such programs had grown to 323 across the forty-one states that have a broad-based personal income tax. The most common programs provide funding for nongame wildlife preservation, child abuse and neglect prevention, breast cancer research and prevention, and military families.

While mechanisms for paying voluntary taxes exist, these mechanisms are few, not well known, and only infrequently presented to taxpayers. The revenue-raising potential of voluntary taxation may as a result be under-realized. The success of DonorsChoose.org, the tax rebate story in Pennsylvania and the growing popularity of state check-off programs all highlight the potential power of allowing taxpayers to make choices over how to spend their tax payments. These examples coupled with the unpopularity of general tax increases suggest that taxpayers are willing to pay voluntary taxes for specific projects or programs they have a special interest in, rather than a general fund over which they have little or no say in how the funds are dispersed. In this study we investigate a new mechanism that allows voluntary donations to government organizations that are earmarked for specific purposes. We compare earmarked giving (i.e., giving to federal agencies that serve specific causes) to non-earmarked giving (i.e., giving to the "Gifts to the United States" fund). We also collect similar information about giving to parallel

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[3] For example, Minnesota voters voted for 3/8 of 1 percent increase in the sales tax (from 6.5 percent to 6.875 percent) beginning in 2009, with revenues dedicated to outdoor, environmental and arts programs (FTA Bulletin, 2008).

[4] Giving to the federal government earmarked for reducing the national debt has been possible since 1961. The Internal Revenue Service has included instructions in the personal income packets on how to make such contributions since 1982 (Slemrod 2003).

[5] Miniter, B. 2002. "To Uncle Sam With Love—Taxes Too Low? The Treasury is Happy to Take Your Money." *Wall Street Journal*, April 15.

[6] Federation of Tax Administrators (FTA) conducted biannual surveys on state check-off programs from 1989 to 2003. FTA 2003. "Check-off Programs See Strong Growth". URL: http://www.taxadmin.org/fta/rate/checkoff03.html.

private charities, whose missions mirror the government organizations (i.e., charities serving specific needs versus the general fund of the United Way).

This research adopts the methodology in Li, Eckel, Grossman and Brown (2011), which uses a "real-donation" lab experiment (Eckel and Grossman 1996, Fong and Luttmer 2009) to explore individual donations to government and private organizations.[7] That study focuses on individual willingness to give to government organizations as compared to private counterparts that serve the same missions. Li et al. find that, while participants are willing to give 22 percent of their endowment to government organizations, they give significantly more to – and hence show a preference for – private charities that serve the same functions. The difference in preferences is influenced by the causes supported by the organizations, the levels of the organizations (federal, state or local), and perceptions of effectiveness and efficiency.

In this study, we compare earmarked giving and giving to the general fund for the federal government, and attempt to examine the impact of earmarks on the willingness to pay voluntary taxes. We find that allowing earmarks more than doubles both contributions and the likelihood of giving to government organizations. Participants give on average $1.68 from a $20 initial payment for general purposes, compared to $5.52 for cancer research and $4.04 for disaster relief; the likelihood of giving increases from 30 percent for general purposes to 66 percent for cancer research and 61 percent for disaster relief. Although the preference for control over the target of contributions is also borne out for private charities, earmarks increase both contributions to and willingness to give to government more substantially than to private charities, resulting in a shift in *relative* preferences towards government.

The rest of the paper is organized as follows. Section II discusses the literature. Section III presents the experimental design. Section IV presents the analysis and results. Section V concludes.

II.   Literature Review

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[7] See Eckel and Grossman (1996) for the first real donation experiment using the dictator game. A similar design is adopted in Fong and Luttmer (2009), who investigate the role of ethnic-group loyalty on generosity in a representative sample of the US adult population. In their study, participants were asked to divide $100 between themselves and a charity (the local chapter of Habitat for Humanity) that benefits Katrina victims. The decisions were implemented for 10 percent of the participants.

Earmarking of government revenue from specific sources is widely practiced.[8] The traditional argument made for not earmarking tax revenues is that they place restrictions on the independence of the budgetary authority resulting in inefficiencies in the fiscal process. The budgetary authority is restricted in its ability to allocate revenues where their marginal benefits are greatest. The underlying assumption of this is that of the benevolent despot. It assumes that the budgetary authority is making the best decision possible for the citizenry as a whole and earmarks hinder this process.

Buchanan (1963) offers a counter-argument, approaching the subject from the public choice perspective. He argues from the premise that the budgetary authority may not act in the general public's interest, but rather to advance its own agendas. In this context, earmarks allow individual citizens a more direct role in making public expenditure decisions. Earmarks allow for private choices on the basis of benefits and costs of each specific public service. Rather than a simple up or down vote on a total budget presented by the budgetary authority, comprised of predetermined bundles of public services, the citizens vote on each specific public service level.[9]

Bös (2000) and Brett and Keen (2000) in turn offer counter–arguments to Buchanan's position. Bös presents a model with ministers in charge of taxing and spending, who are monitored by parliament. He finds that earmarking is more likely to be adopted by parliament if the ministers are vote-maximizers rather than welfare-maximizers. Brett and Keen argue that earmarking will be used by sitting governments to restrict the actions of future governments with conflicting policy goals.

Our interest is less in whether earmarking enhances overall welfare and more in the ability of earmarking to generate additional government revenues to fund public goods. The evidence suggests that it may. Novarro (2002) considers the effect of earmarking lottery proceeds for education spending. Standard political economic models predict that earmarking should be irrelevant since total education spending vastly exceeds the level of earmarked funds. Novarro's evidence is inconsistent with the standard theory. She finds that a dollar earmarked for education spending increases education spending by approximately $0.36 more than an un-earmarked dollar. Landry and Price (2007) find that states that earmark lottery revenues have higher per

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[8] Novarro (2002) notes, for example, that in 1997 cigarette and tobacco and motor fuel taxes were earmarked for specific programs in 28 and 50 states, respectively.
[9] See also Goetz (1968), Browning (1975), Wyrick and Arnold (1989), Athanassakos (1990), and Dhillon and Perroni (2001). Teja (1988) surveys the arguments for earmarking tax revenues.

capita spending on lottery tickets. These results suggest that wagering is not the sole motivation for lottery play, but rather that decisions to play the lottery are influenced by the public good being financed.

Elfenbein and McManus (2009) report a related finding. Using data from eBay, they find that bidders are willing to pay higher prices on charity than non-charity auctions for the identical product. They conclude that auction participants "… may value the public goods aspect of the charity revenue … (p.26)." In addition, Kallbekken and Aasen (2010) conducted a focus group study concerning earmarking of environmental taxes. They report a resistance on the part of the focus group to environmental taxes if revenues are used to reduce other taxes. However, the group expressed a strong preference for earmarking the taxes revenue for environmental purposes (i.e., earmarking increased support for the tax). The group expressed a desire for more information about how tax revenues are spent and indicated greater support for taxes if they are dedicated to a specific purpose.

Finally, our study is also related to a small but growing literature that studies the impact of donor choices on charitable giving. For example, in a door-to-door fund-raising experiment, Soetevent (2011) investigates how the menu of payment choices (cash or debit) offered by the charity influences charitable giving. He finds that participation drops by 87 percent when debit replaces cash, but conditional on participation donors in the Debit-only treatment give more generously than donors in Cash-only. Almost all donors prefer cash when they are allowed to choose.

III. The Experiment

To study how earmarks influence voluntary giving to government, we employ a 'real donation' experiment to compare giving to government agencies that serve specific causes with a general federal government account that precludes earmarking. The experiment also includes private charities that are parallel to the government organizations in mission and scope of activities, which allows us to study how earmarks may influence giving *differently* for government and for private charities. Since these decisions involve real trade-offs between subjects' own experiment earnings and amounts sent to the organizations, or real trade-offs between the amounts sent to government agencies and private charities, these measures are likely to be more accurate and

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informative than survey-based measures of altruistic behavior (see Forsythe, et al, 1994 for a comparison of hypothetical and real decisions).

Organizations. We selected six organizations comprised of three pairs of government agencies and private charities (see Appendix A for brief descriptions).[10] As shown in Table 1, these organizations serve the entire nation, and vary by type (government agency or private charity), mission (Cancer Research or Disaster Relief), and whether the contribution is earmarked for specific causes.[11] For the pair of general-purpose organizations we selected the United Way and a federal account called 'Gifts to the United States.' The United Way is a national network of about 1,300 charitable organizations, and accepts non-earmarked financial gifts.[12] Subjects were told that their contribution to the United Way would not be earmarked for any specific cause and would be included in the general fund of the organization. Gifts to the United States is a federal government account that accepts contributions by citizens who wish to make a general donation to the U.S. government. This account was established in 1843 and has been maintained by the Department of Treasury to "accept gifts, such as bequests, from individuals wishing to express their patriotism to the United States." Funds contributed to this account are considered an unconditional gift for general use by the federal government. Financial gifts can be made by check or money order payable to the United States Treasury and mailed to the address specified on their website (URL: http://www.fms.treas.gov/faq/moretopics_gifts.html).

[Table 1 about here]

Including Gifts to the United States and the United Way in the design serves two purposes. First, individuals' willingness to give to the federal government when funds are not earmarked serves as a baseline measure of *voluntary* tax payments as compared to voluntary donations to a general private charity fund. Second, comparing contributions for specific purposes with those to the general funds allows us to study how earmarks may affect voluntary

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[10] As shown in the experimental instruction in Appendix B, subjects also made decisions for two pairs of Texas state level organizations for education enhancement and low income housing support. In three of the seven sessions subjects made decisions for the national level organizations before the state organizations. The order was reversed in the other four sessions. In all sessions they made decisions for the general federal funds and the United Way last. We find no order effect. This paper focuses on the comparison between giving to *national* organizations (i.e., cancer research, or disaster relief) and to the general purpose, since the research question of interest is how earmarks affect contribution conditional on the service area and scope of activities.

[11] We adopt the same pairs of organizations in the categories of Cancer Research, and Disaster Relief in Li et al. (2011).

[12] The United Way allows donors to give to either a general fund with money allocated by the United Way to member organizations or to give to the United Way but designate (i.e., earmark) how their contributions are dispersed among the member organizations.

contributions to government, and how the impact may differ for government agency and for private charities.[13]

When we designed the experiments, time and care was invested to ensure that the selected government agencies had the capability to receive donations and that they were parallel to the private charities in their mission. In addition, all the organizations provide nationwide services, and hence are comparable in terms of the scope of activities and beneficiaries. This parallel feature allows us to focus on *relative* giving, and not be concerned with heterogeneity of organizations apart from their governmental or private status. In addition to the information in Appendix A, a separate sheet containing more detailed descriptions of these organizations was also provided to subjects before they made their decisions.

Allocation Decisions. The study consists of two experiments in which subjects make a series of distinct budget allocation decisions anonymously and in private, and a 'real donation' is made to each organization. In Experiment 1, subjects choose how much (if any) of an endowment to contribute to a government and/or private organization, and keep the remaining funds. In Experiment 2, subjects choose how to allocate an endowment between a government agency and a private charity, but are not allowed to allocate any to themselves.

Table 2 summarizes these allocation decisions. Take the Cancer Research allocation decisions for example. In Experiment 1, subjects make the following three distinct decisions: a) how to allocate $20.00 between themselves and the National Cancer Institute Gift Fund (a government agency); b) how to allocate $20.00 between themselves and the American Cancer Society (a private charity); c) how to allocate *$30.00* amongst the National Cancer Institute Gift Fund, the American Cancer Society, and themselves. In Experiment 2, they allocate $20 between the two organizations, with no option to keep anything for themselves. All subjects participated in the same sets of experiments with the same combinations of organizations. Each subject makes the same three sets of decisions for Cancer Research, Disaster Relief, and the general purpose (U.S. federal government account vs. the United Way), respectively. To avoid any potential income effect, subjects were not informed about Experiment 2 when they made decisions in Experiment 1. Appendix B includes sample instructions.

[Table 2 about here]

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[13] Individuals, giving to private charities that serve specific functions, are essentially earmarking their donations for specific causes. They direct their donations to those causes that most matter to them.

The protocol in decisions 1a and 1b is adopted from Li et al. (2011).[14] The design of the three-way division in decision 1c serves as a robustness check for 1a and 1b by allowing a *direct* tradeoff between giving to government and charity. Unlike decision 1c in Experiment 1, the decision in Experiment 2 does not affect own payoff. This design helps elicit preferences of the non-givers who did not contribute regardless of the organization in Experiment 1.

Procedures. Seven sessions were conducted at the Center for Behavioral and Experimental Economic Science (CBEES) at the University of Texas at Dallas (UTD) in October, 2008. The number of subjects per session varied from 11 to 13. Eighty-seven subjects participated with seven serving as monitors, leaving 80 decision makers.

Subjects were recruited through email using the online recruiting software ORSEE (Greiner 2004). The experiment lasted for about an hour. Before starting, the experimenters asked for a volunteer to act as monitor. It was public information that the monitor, who would be paid a flat amount of $20, would monitor the procedure, and accompany the experimenters to mail the checks to the organizations after the experiment was over.

The experiments were conducted using paper and pencil. Subjects made decisions in private at partitioned desks. ID numbers were used to ensure anonymity. The instructions were read aloud and examples were explained. During each experiment subjects sealed decisions in envelopes provided before turning them in. In Experiment 1, one of the decisions was randomly chosen for each subject to determine payment and the amount the organizations would receive.[15] In the government-charity allocations in Experiment 2, the monitor randomly selected one individual and one of his/her decisions to determine the amount that the organizations would receive.[16] A post-experiment survey was conducted to collect information on demographics,

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[14] Since the experiment in Li et al. (2011) was conducted a year earlier in fall, 2007, the economic environment had changed. Despite this, the results are largely consistent between these two studies (see Appendix C). Average contributions range from $4 to $9 to the organizations. Higher contributions are made to private charities than to their governmental counterparts for Cancer Research and Disaster Relief. Across the two studies, subjects give similar amounts conditional on types and causes of organization, except for the charities of Disaster Relief in which they give significantly lower amount ($5.39) in this study compared to $8.76 in Li et al. ($p < 0.001$, 2-sided test of means for unpaired samples). This may occur due to the worsened economy, or to somewhat closer proximity of the earlier study to the Hurricane Katrina disaster and Indonesian tsunami.

[15] To determine payment, each subject separately drew a chip corresponding to a specific decision. Having each subject separately and randomly determining his paired organization ensured independent decisions. If a common decision were chosen for all subjects, crowding out might occur based on subjects' (differential) expectations of the donations of others in their session, complicating inferences from the data.

[16] The monitor then announced in public the subject's ID number (but not identity), the number of his/her decision, and the organizations selected (but not the contribution amount). After the experiment was over, the selected subject

political affiliation, and perceptions about the target organizations (see Appendix D for questions on perceptions and Appendix E on summary statistics). Experimenters and the monitor prepared payment in a separate room. Earnings (allocation to self) and a slip reminding each subject of his/her donation and the selected organization were sealed in a payment envelope with subject ID marked on the front. Subjects used their ID cards to claim payment. These procedures, which subjects were informed about at the beginning of experiments, ensured anonymity of decisions. The monitor helped make out the checks to the organizations, and then walked with an experimenter to drop the checks in the mailbox. Subjects also were invited to accompany them to the mailbox, although none did.

IV. Results

In this section, we first present summary statistics and the results based on aggregate data. We then use regression analysis to investigate how earmarks influence giving to government and to charity, respectively, using self v. organization decisions in experiment 1a-1b. Allocation decisions in experiment 1c and experiment 2 serve as robustness check.

In Experiment 1, 17 out of the 80 subjects (21 percent) always gave zero and kept the full amount for themselves regardless of the organizations, in all three decisions 1a to 1c. The number of non-givers varies by category: there were 19 non-givers (24 percent) for Cancer Research, 19 (24 percent) for Disaster Relief, and 35 (44 percent) for the General Purpose category.

[Figure 1 about here]

Figure 1 presents average contributions on the left and the likelihood of contributing on the right, with the decisions for organization v. self (1a and 1b) reported in the top figures, 3-way allocations (1c) in the middle, and government-charity allocations (Experiment 2) in the bottom. All allocations share similar patterns. Consistent with Li et al. (2011), average contributions and the likelihood of contributing to Disaster Relief and Cancer Research all significantly exceed zero ($p = 0.00$, two-sided t-test of means). Conditional on function, subjects generally are more generous toward private charities than government agencies ($p < 0.05$, two-sided t-test of means for paired samples). Our first finding is that even when the funds are not earmarked, participants in our experiment are still willing to part with some of the endowment to support the federal

was asked to sign a separate payment form stating they were given $20 to split between a government organization and private charity.

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government. They give $1.68 (8.5 percent of endowment) to the federal general fund in the allocations for government v. self, $1.83 (6 percent of endowment) in the 3-way allocation, and $4.23 (21 percent of endowment) in the government-charity division, all significantly greater than zero ($p = 0.00$, two-sided t-test of means). This leads to Result 1.

Result 1: Some participants are willing to give voluntarily to the U.S. federal government general fund, paying voluntary taxes.

Figure 1 also shows that average gifts and the likelihood of giving are significantly lower for the federal general fund, compared to other government agencies that serve specific functions such as Disaster Relief and Cancer Research ($p = 0.00$, two-side test of means for paired samples). In the government-self allocation decisions (1a), subjects give $1.68 to the federal general fund with 30 percent of subjects contributing, compared to $4.78 and 64 percent giving to the two federal government agencies on average. This revealed preference for control over the target of funds also is borne out for private charities (decision 1b), with the United Way receiving $3.69 (54 percent contributing) compared to the average amount of $5.82 (74 percent contributing) for Disaster Relief and Cancer Research. This suggests that people value control over the use of their contributions. When such control is lacking (e.g., the federal general fund or the United Way), people give significantly less and are more likely to give zero.

Next, we present descriptive summary statistics on individual preferences, with an eye to how earmarks change willingness to contribute to government and charity differently. There are four types of participants: those who strictly favor government, those who strictly favor charity, those who give equal positive amount to government and charity, and those who give zero regardless of the types of organizations. Table 3 presents the distributions of these preference types. We focus on self v. organization allocations in the top panel (decisions 1a-1b) since the patterns are similar to decision 1c (middle panel) and experiment 2 (bottom panel). We observe that the proportion of non-contributors (column 4) decreases sharply from 46.3 percent for general purpose funds to 25.0 percent for Cancer Research and Disaster Relief ($p < 0.01$, McNemar's test for matched samples); the proportion of contributors who give an equal positive amount to government and charity increases from 11.3 percent for general purpose funds to 36.3 percent for Cancer Research ($p < 0.01$), and 30.0 percent for Disaster Relief ($p < 0.01$). This

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again suggests a substantial increase in willingness to give if contributions can target specific functions. Comparing general purpose to Cancer Research, we also find a shift of relative preferences from charity to government – those who strictly prefer charity decreases from 37.5 percent to 26.3 percent, whereas those who strictly prefer government increases from 5.0 percent to 12.5 percent ($p < 0.05$), and those who give an equal positive amount increases from 11.3 percent to 36.3 percent ($p < 0.01$). This implies greater positive impact of the earmarking feature on giving to government than to charity, a hypothesis we will test further in the regression analysis below.

[Table 3 about here]

Figure 1 and Table 3 show that the data in experiment 1a-1b share similar patterns with those in experiments 1c and 2. Therefore, we next focus on organization-self allocations in experiment 1a-1b, and use regression analysis to examine the impact of the earmarking feature on giving (Table 4) and the likelihood of giving (Table 5). The analysis in Table 4 uses a tobit model with observations censored at $0 and $20, since 40 percent of contributions are $0 and 3.5 percent are $20. The analysis in Table 5 uses a logit model. Both tables share some common features. The analysis is conducted separately for government agencies (columns 1-3) and private charities (columns 4-6), pooling data for the two specific causes with the general purpose category. Columns 1 and 4 include only an index variable "specific causes" with the general purpose category omitted. The coefficient of this variable measures the average effect on contributions or the likelihood of giving of allowing individuals to control the use of their funds. Columns 2 and 5 further control for subjects' perceptions of the organizations: whether the organization serves an *important cause*, whether it is a *good organization*, and whether it needs *additional resources*. The variables *Important Cause* and *Additional Resources* are constructed directly from responses to survey questions 1 and 6 (see Appendix D). The variable *Good Organization* is derived from a single factor comprised of three items – *trust* (question 2), *quality of work* (question 5), and *efficiency* (question 7) of the organization.[17] Confirmatory factor analysis with a varimax rotation shows that these three items load together on the same factor (eigenvalue = 1.88) and there is no other factor with an eigenvalue above 1. This gives us

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[17] Questions 3 and 4 were not applicable for the federal general fund and the national United Way.

confidence that these items are common to a single factor.[18] We use the resulting factor scores for our measure, *Good Organization*. Columns 3 and 6 also include demographic variables such as gender, race, age, college major, and political affiliation, with male, Caucasian, non-economics/business majors, and Democrat in the omitted categories.[19]

In columns 7-9 we pool data for government agencies and private charities (the omitted category). Including the interaction term *specific causes*government* allows us to examine the different impact of the earmarking feature on the two types of organizations. Similarly, the interactions between the perception variables (e.g., *important*, and *good organization*) and the government dummy allow perceptions to affect giving to government and private charities differently.[20] For all the analysis standard errors are clustered on the individual level, and marginal effects are reported.

[Table 4 about here]

[Table 5 about here]

The marginal effect of "specific causes" in columns 1-3 of Table 4 suggests that out of the $20 endowment participants give between $2.62 and $3.22 more to the two government agencies for Disaster Relief and Cancer Research than to the federal general fund ($p < 0.01$). This is an increase of between 156 and 192 percent compared to $1.68, the average contribution to the federal general fund. The two private charities for Disaster Relief and Cancer Research receive between $1.25 and $2.29 more contributions than the average amount to the national United Way $3.69, equivalent to an increase in contributions of between 34 and 62 percent. Results in Table 5 on the likelihood of giving are consistent. For both government and charity, subjects are significantly more likely to give to organizations with specific causes than to general purpose funds. The increase in the likelihood of giving is between 30 and 34 percentage points ($p < 0.01$) for government, and between 15 and 21 percentage points ($p < 0.01$) for charity. This leads to Result 2.

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[18] The eigenvalues of other factors are -0.13 and -0.14, respectively. We refer the readers to Brown (2006), and Harrington (2008) for a detailed description of the confirmatory factor analysis. Here we outline how it is implemented in our study.

[19] We did not include income variable due to lots of missing values and lack of income variation in our sample. Only 57 out of 80 subjects reported their annual income, with 54 having annual income below $13,999, and 3 subjects having income between $14,000 and $27,999.

[20] The interaction term between the government dummy and the perception variable 'need for additional resources' has insignificant effect on giving and the likelihood of giving. Including or excluding this interaction term does not affect estimates of other variables.

Result 2: For both government and charity, the amount of contributions and the likelihood of giving are significantly higher for organizations with specific functions than to general funds.

Result 2 for government organizations is consistent with findings in Alm et al. (1993). They find in a series of lab experiments on tax compliance behaviors that individuals respond positively when tax proceeds are directed to programs they approve of.

In the pooled analysis (columns 7-9 in Tables 4 and 5), the interaction term *specific causes*government* enters with a positive and significant sign, suggesting that the earmarking feature increases contributions and the likelihood of contributing more substantially for government agencies than for private charities. Earmarking increases contribution to government, relative to private charities, by additional amount of \$1.92- \$2.23 (columns 7-9 of Table 4, $p < 0.01$); it increases the likelihood of giving by additional 11.6 to 15.6 percentage points (columns 7-9 of Table 5, $p < 0.05$). This leads to Result 3.

Result 3: Earmarks increase participants' contributions and the likelihood of giving to government more significantly than to private charities.

Subjects' perceptions also influence giving. Being perceived as serving an 'important' cause significantly increases contributions ($p < 0.01$, columns 2-3 in Table 4) and likelihood of contributing to government ($p < 0.10$, columns 2-3 in Table 5), and the impact is greater than on giving to charity (as shown by the marginal effect of *important*government*, $p < 0.05$ in columns 8-9 of Table 4 and column 8 of Table 5, $p < 0.10$ in column 9 of Table 5). Being perceived as a *good organization* – being trusted, providing good quality work, efficiently utilizing donations – increases the likelihood of giving to private charities ($p < 0.01$, columns 5-6 in Table 5), and its impact on private charities is greater than on government ($p < 0.01$, as shown by *good organization*government* in columns 8-9 of Table 5). Willingness to give is higher for women than for men ($p < 0.05$), and lower for economics/business majors than other majors ($p < 0.01$). Age and race has little impact on giving. Republicans and Independents/Others give more to government relative to Democrats ($p < 0.10$ in column 3 of Table 4); Independents/Others are more likely to give to both types of organizations than Democrats ($p < 0.05$ in columns 3 and 6 of

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Table 5). But the political affiliations affect giving to government and to charities in similar ways.

Experiment 1 allows for the possibility that subjects keep all of the endowment, as discussed at the beginning of this section, and a substantial fraction of subjects do so regardless of the organization for each category (hereafter "non-contributors", in contrast to "contributors" who makes contribution to some organization). Since non-contributors' preferences over government versus charity can be observed in the government-charity allocation in Experiment 2, this allows us to study whether the relative preferences for the two types of organizations differ between contributors and non-contributors. Figure 2 shows the average contributions to government and charity in Experiment 2. Although the difference in contributions between government and charity is smaller for the non-contributors than for the contributors, none of the differences are statistically significant ($p > 0.10$). It suggests that they share similar preferences over government and private charity.

Overall, the results in this section highlight the potential of providing new mechanisms for taxpayers to voluntarily make donations 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. We will revisit these results when discussing policy implications in the conclusion.

V.   Conclusion

In the political lexicon, 'earmark' has become a dirty word, associated with the infamous Alaskan "bridge to nowhere" and other attempts by members of Congress to circumvent the usual budgetary process, rewarding politically-connected special interests or enhancing their own reelection chances by bringing home "pork" to their legislative districts. But earmarks, more broadly defined as allocations of money for a specific cause or project, need not be interpreted as an insidious act. In this paper we consider a positive aspect of earmarks more broadly defined: their ability to generate revenue for specific projects or causes. We compare earmarked giving and giving to a general fund for both private charities and government (i.e., voluntary taxation). We find that people will give to government agencies, including a general federal fund, paying a voluntary tax to the government. While contributors favor private charities over government agencies, for both types of organizations they show both a greater willingness to give and greater

generosity of giving when they can earmark their gift for a specific cause. In addition, earmarks boost giving more substantially for government organizations than for private charities.

We acknowledge that college students may not be the ideal subject pool for studying voluntary taxation since they are, on average, younger and less experienced with the income tax system relative to the general taxpaying public. However, since our results are mostly based on comparative statics – the comparisons across types of organizations, and specific causes vs. general purpose – they are likely hold at least qualitatively in the field.

Our results support greater use of earmarking opportunities by both private charities and government agencies. In one sense giving to a specific private charity is a form of earmarking, and our results suggest that this system encourages greater giving than only permitting unrestricted giving to a clearinghouse such as the United Way. Many specific charities permit even more refined degrees of earmarking, allowing donors to direct their contributions to specific needs or causes served by the charity; for example, many universities accept donations directed at particular departments or for specific purposes (i.e., scholarships or athletics). However, the ability of donors to earmark their contributions is not always evident.[21] Making this option more obvious may generate greater overall giving.

Although earmarked giving to private charities is much the norm, giving to government (voluntary taxation), while sometimes possible, is less well-known. As noted in the introduction, individuals have been able to make gifts to the federal government's general revenue fund since 1843 and giving to reduce the federal debt has been possible since 1961, although contributions to these funds are a tiny fraction of the federal budget. 'Check-off' programs at the state level earmark funds for specific causes, and are the most important source of voluntary donations. However, it is difficult even to find ways to give directly to specific government organizations or functions. A simple, transparent mechanism to facilitate such giving, along the lines of DonorsChoose.org, could have a positive impact on the current fiscal crisis in the US.

For governments, especially the federal government, the option to earmark appears to be greatly underutilized. Currently, while giving to governments may be possible in a few cases, it is spotty, inconvenient and poorly publicized – the only direct appeals made are annually when taxpayers are completing their federal and state tax forms. The Hurricane Katrina and Gulf oil spill are two examples where earmarked giving to government organizations could have been an

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[21] The difficulty making earmarked gifts to university departments may be deliberate; university administrators prefer unrestricted giving (i.e. giving to a general fund) for the freedom to allocate revenues as they see best.

effective mechanism for raising *additional* revenue. Natural and man-made disasters place immediate and significant demands on government budgets, both in the short-run (e.g., emergency relief) and in the long-run (e.g., rebuilding and environmental recovery). There are many funds available to help people in the short term (e.g., American Red Cross, federal disaster relief funds, etc.), but there are few to help them in the long run, and few avenues to donate for long term recovery (technical solutions, research, etc.) If the government were to set up and publicize such a fund, our results suggest people would be willing to give to government.

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Table 1: Target Organizations

Causes	Service area	Government agencies	Private charities
General purpose	National	Gifts to the United States	The United Way
Cancer research	National	National Cancer Institute Gift Fund	American Cancer Society
Disaster relief	National	Corporation for National and Community Service Disaster Relief Fund	American Red Cross Disaster Relief Fund

Table 2: Types of Allocation Decisions

	Decision	Endowment	Allocation Decisions
Experiment 1	1a	$20	Self vs. government agency
	1b	$20	Self vs. charity
	1c	$30	Self, government and charity
Experiment 2	2	$20	Government vs. charity

Table 3: Distribution of Subjects' Preferences

Self-Organization Allocation Decisions in 1a-1b (%)

Causes	(1) Gov > Charity	(2) Charity > Gov	(3) Gov = Charity > 0	(4) Gov = Charity = 0
General purpose	5.0	37.5	11.3	46.3
Cancer research	12.5	26.3	36.3	25.0
Disaster relief	5.0	40.0	30.0	25.0
Average of specific causes	8.8	33.1	33.1	25.0
Average of all categories	7.5	34.6	25.8	32.1

3-Way Allocation Decisions in Experiment 1c (%)

Causes	(1) Gov > Charity	(2) Charity > Gov	(3) Gov = Charity > 0	(4) Gov = Charity = 0
General purpose	2.5	35.0	15.0	47.5
Cancer research	13.8	28.8	32.5	25.0
Disaster relief	7.5	38.8	28.8	25.0
Average of specific causes	10.7	33.8	30.7	25.0
Average of all categories	7.9	34.2	25.4	32.5

Government-Charity Allocation in Experiment 2 (%)

Causes	(1) Gov > Charity	(2) Charity > Gov	(3) Gov = Charity > 0	(4) Gov = Charity = 0
General purpose	7.5	75.0	17.5	0
Cancer research	20.0	42.5	37.5	0
Disaster relief	12.5	67.5	20.0	0
Average of specific causes	16.3	55.0	28.8	0
Average of all categories	13.3	61.7	25.0	0

Note: The last column in the third table is zero by design.

Table 4: Unconditional Giving

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Organization type	gov	gov	gov	charity	charity	charity	all	all	all
Specific causes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Perceptions		yes	yes		yes	yes		yes	Yes
Demographics			yes			yes			Yes
specific causes	3.222***	2.694***	2.623***	2.291***	1.311**	1.249**	2.064***	1.191**	1.133**
	(0.441)	(0.460)	(0.432)	(0.415)	(0.528)	(0.523)	(0.375)	(0.469)	(0.457)
important cause		1.645***	1.667***		0.747	0.941*		0.74	0.910**
		(0.539)	(0.510)		(0.538)	(0.501)		(0.485)	(0.444)
good organization		0.228	0.501		1.072	1.221*		1.116*	1.205**
		(0.549)	(0.510)		(0.741)	(0.695)		(0.665)	(0.602)
additional resources		0.403	0.237		1.012*	0.798		0.612	0.426
		(0.342)	(0.372)		(0.612)	(0.685)		(0.396)	(0.441)
government							-2.875***	-6.953***	-6.564***
							(0.619)	(2.112)	(2.071)
specific causes*gov't							1.918***	2.189***	2.228***
							(0.676)	(0.756)	(0.727)
important*gov't								1.088**	0.981**
								(0.500)	(0.478)
good organization*gov't								-0.95	-0.718
								(0.671)	(0.570)
female			2.021**			2.377**			2.183**
			(0.851)			(0.959)			(0.858)
non Caucasian			1.337*			1.265			1.306
			(0.809)			(1.032)			(0.883)
age			0.138			0.251			0.19
			(0.182)			(0.231)			(0.198)
economics/business major			-2.193***			-2.743**			-2.492***
			(0.835)			(1.125)			(0.932)
Republican			3.065*			3.176			3.194*
			(1.860)			(2.071)			(1.918)
Independent/Others			1.840*			1.895			1.915*
			(0.949)			(1.161)			(1.006)
L. L. F.	-505.6	-492.8	-476.0	-604.6	-592.1	-576.4	-1110.5	-1085.3	-1053.1
Observations	240	240	240	240	240	240	480	480	480
Number of person	80	80	80	80	80	80	80	80	80

Notes: Tobit model is used since the data are censored at $0 and $20. The dependent variable is the unconditional giving. A constant term is included in the analysis. Standard errors are clustered on the individual level and reported in parentheses. Marginal effects are reported. * significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.

Table 5: Likelihood of Giving

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Organization type	gov	gov	gov	charity	charity	charity	all	all	All
Specific causes	yes	yes	yes	yes	yes	yes	yes	yes	Yes
Perceptions		yes	yes		yes	yes		yes	Yes
Demographics			yes			yes			Yes
specific causes	0.338***	0.304***	0.361***	0.206***	0.153***	0.169***	0.221***	0.168***	0.188***
	(0.051)	(0.057)	(0.066)	(0.044)	(0.059)	(0.064)	(0.047)	(0.062)	(0.069)
important cause		0.090*	0.092*		-0.049	-0.027		-0.042	-0.011
		(0.053)	(0.053)		(0.046)	(0.042)		(0.048)	(0.045)
good organization		0.015	0.071		0.183***	0.190***		0.226***	0.243***
		(0.060)	(0.063)		(0.063)	(0.064)		(0.073)	(0.072)
additional resources		0.039	0.030		0.089*	0.080		0.056	0.049
		(0.041)	(0.050)		(0.054)	(0.060)		(0.041)	(0.047)
government							-0.234***	-0.614***	-0.552***
							(0.047)	(0.159)	(0.182)
specific causes*gov't							0.116**	0.127**	0.156**
							(0.053)	(0.062)	(0.066)
important*gov't								0.124**	0.096*
								(0.056)	(0.057)
good organization*gov't								-0.223***	-0.194***
								(0.068)	(0.066)
female			0.352***			0.194**			0.281***
			(0.104)			(0.097)			(0.095)
non Caucasian			0.187			0.173			0.184
			(0.123)			(0.108)			(0.114)
age			0.021			0.006			0.014
			(0.022)			(0.018)			(0.019)
economics/business major			-0.325***			-0.343***			-0.349***
			(0.123)			(0.125)			(0.123)
Republican			0.229			0.186*			0.220*
			(0.154)			(0.106)			(0.127)
Independent/Others			0.301**			0.235**			0.281**
			(0.123)			(0.111)			(0.111)
L. L. F.	-153.6	-148.6	-128.2	-146.3	-131.3	-114.1	-299.9	-280.5	-243.5
Observations	240	240	240	240	240	240	480	480	480
Number of person	80	80	80	80	80	80	80	80	80

Notes: Logit model is used with the likelihood of giving as the dependent variable. A constant term is included in the analysis. Standard errors are clustered on the individual level and reported in parentheses. Marginal effects are reported.
* significant at the 10% level, ** significant at the 5% level, *** significant at the 1% level.

Appendix A: Description of Organizations

Purpose	Area Served	Government Agency	Non-Government Charity
Cancer Research	United States	**National Cancer Institute Gift Fund** Part of the National Institutes of Health. It is the federal government's principal agency for cancer research, training, and treatments in clinical practice.	**American Cancer Society (ACS)** A non-profit organization for cancer research, education, advocacy and service. Its goal is to prevent cancer, save lives, and diminish suffering from cancer.
Disaster Relief	United States	**Corporation for National and Community Service Disaster Relief Fund** An independent federal agency whose efforts focus on meeting people's immediate emergency disaster-caused needs. It also provides strategic critical support to volunteer organizations.	**American Red Cross Disaster Relief Fund** A non-profit charity that focuses on providing aid to disaster victims nationwide. It meets people's immediate emergency disaster-caused needs for shelter, food, and health services.
General Fund	United States	**Gifts to the United States** A fund run by the Department of the Treasury established to accept unconditional gifts from individuals. Money in this account is for general use by the federal government and is available for budget needs.	**United Way** A national network of nearly 1,300 organizations that work to advance the common good by addressing the underlying causes of most significant issues.

Appendix B. Sample Instructions and Allocation Forms

INSTRUCTIONS for EXPERIMENT 1

You are going to participate in a study of decision making. The study will last about 60 minutes. You will receive compensation based on the decisions you make, which will be paid to you in cash at the end of the study. How your decisions affect your compensations is explained below.

For today's experiment I will select a MONITOR who will be paid $20.00 for helping me with the experiment. The MONITOR is responsible for verifying that all the decisions are made according to the instructions. The MONITOR is also responsible for making sure that any money donated to organizations in the course of the experiment actually gets mailed to the organization. At the end of the experiment the MONITOR will sign a form verifying that procedures were followed as described in the instructions.

Each of you has been given a set of INSTRUCTIONS, DECISION SHEETS, an ENVELOPE and an INDEX CARD. To insure the anonymity of your decisions, each of you has been assigned randomly a five-digit code number. This number is written on an index card that has been distributed to you. *Please keep this card: it is your claim check to pick up your earnings.* You will collect your compensation by turning in this code number.

Please take this time to check that the code number is the same on your INSTRUCTIONS, DECISION SHEETS, ENVELOPE and INDEX CARD.

Allocation Problems

For this study, you will make decisions in a series of allocation problems. In each allocation problem you are paired with one or multiple organizations. These organizations are either *government agencies* or a *non-governmental charities*. The *government agencies* are either U.S. federal government or the Texas state government agencies. The *non-government charities* also serve different geographic areas and cover either the U.S. or the State of Texas. A brief summary of each organization is provided on your DECISION SHEETS which we will go over later. You may also refer to the separate *green* sheets for more detailed descriptions of these organizations.

For each allocation problem you are given an endowment, i.e., an initial amount of money, by the experimenter. You are asked to allocate this money between yourself and the organization or organizations you are paired with for that problem. One of the allocation decisions you make will be chosen at random to determine the payment. *You will be paid in cash the amount you allocated to yourself in that decision. The organization you are paired with for the chosen decision will receive a check for the amount you allocated to them.*

Let's look at two examples of allocation problems as they will appear on your DECISION SHEETS.

Example 1
In Example 1 below you are matched with the *National Cancer Institute Gift Fund*, a federal government agency that serves the entire nation of the U.S. Suppose that your initial endowment is $10.00. You must divide this amount between this organization and yourself. You can keep it all, keep some and pass some, or pass it all. For instance, suppose you elect to pass $7.00 and keep $3.00. I have filled in the table to show how you would indicate that choice. If this were your decision, the *National Cancer Institute Gift Fund* would receive $7.00 and you would earn $3.00.

Organizations' Purpose	Area Served
Cancer Research and Prevention	U.S.

Problem	Recipients	Government or Non-government Organization	Endowment	Amount
1	**National Cancer Institute Gift Fund** Part of the National Institutes of Health. It is the federal	Government agency	$10.00	**$7.00**

	government's principal agency for cancer research, training, and treatments in clinical practice.			
	Myself	Self		**$3.00**

Example 2

Now let's look at Example 2. In this problem you are matched with the *Housing Trust Fund,*, a Government agency serving the State of Texas, and the *Texas State Affordable Housing Corporation (TSAHC)*, a Non-government charity serving the State of Texas. For this problem, suppose that you must divide $15.00 between this government agency, non-government charity and yourself. You can allocate all, some or none of the endowment to each party. For instance, suppose you elect to allocate $6.75 to the *Housing Trust Fund*, $2.25 to the *Texas State Affordable Housing Corporation (TSAHC)* and $6.00 to yourself. I have filled in the table to show how you would indicate that choice. If this were your decision, the *Housing Trust Fund* would receive $6.75, the *Texas State Affordable Housing Corporation (TSAHC)* would receive $2.25 and you would receive $6.00 in cash.

Organizations' Purpose	Area Served
Low-Income Housing Support	Texas

Problem	Recipients	Government or Non-government Organization	Endowment	Amount
2	**The Housing Trust Fund** An independent state fund. It is the government's effort to create affordable housing for low and very low income individuals and families.	Government agency	$15.00	**$6.75**
	The Texas State Affordable Housing Corporation (TSAHC) A non-profit that serves the housing needs of low, very low and extremely low-income Texans and other underserved populations who do not have comparable housing options through conventional financial channels.	Non-government charity		**$2.25**
	Myself	Self		**$6.00**

Note, on your DECISION SHEETS you will have allocation problems similar to those above. *In all cases you may choose any amount to keep to yourself and any amount to pass to the organization or organizations, but the total amount you allocate <u>must</u> equal your endowment. The decision is up to you.*

To help preserve anonymity, please seal your INSTRUCTIONS and DECISION SHEETS in the envelope provided when you are done. Raise your hand and an experimenter will come by.

Payments

We will choose one decision for payment. That decision is chosen randomly, as follows. After you make your decisions, you will raise your hand and the experimenter will come to your carrel. You will pick one chip out of a bag to determine which allocation decision will be paid. There are 15 allocation decisions, so there are 15 chips numbered 1-15 in the bag. The number you draw will correspond to the chosen allocation's problem number. For example, if you draw 12 then the 12th decision in the decision sheets will determine your payment and the amount that your paired organization or organizations receive (in this case that decision is the allocation of the endowment between the Corporation for National and Community Service Disaster Relief Fund, the American Red Cross Disaster Relief Fund and yourself). The experimenter will record the number drawn on your envelope.

Since you will not know in advance which of your allocation decisions will be chosen for payment, it is important for you to make each decision as if it is the one that will be chosen.

Once everyone has completed these tasks, the study will continue. Please be patient as others are making their allocation decisions and are determining which allocation decision will determine their payment.

As a note, at the end of the study you will pick up your compensation. There will be an envelope with your code number on it. You will show the index card to the MONITOR as you pick up your envelope. Note the MONITOR is not the person that will put your payment into the envelopes. Hence any decision you make will in no way be linked directly back to you.

The MONITOR will also observe the experimenters calculating the total donation to each of the organizations. The experimenters will make out checks for these amounts and the MONITOR will place them in addressed and stamped envelopes. The experimenter and the MONITOR will go to the nearest mailbox and drop the envelopes in the mailbox. If you wish to remain after the experiment to learn how much has been donated to each organization and to verify that the checks were mailed, you are welcome to do so.

If you have any questions about the procedures, please ask now.

DECISION SHEETS for EXPERIMENT 1

Note that there are 5 pages of 15 allocation decisions to be made. It is important that you pay careful attention to the information provided on the government agencies or the non-government charities as you make each decision.

Notice that for each allocation problem in each category you are either given an endowment of **$20** or **$30**. And you must make a decision for each problem on how much of the endowment to keep for yourself and how much to pass to the organization. The amounts for each allocation decision must add up to $20 or $30.

Remember that you can allocate your endowment in any way you like. The total amount allocated in each allocation decision must add up to the endowment but each recipient in the decision does not necessarily have to receive any money. You can allocate all, some or none of the endowment to each recipient. The choice is up to you.

Recall that one of your allocation decisions will be chosen at random to determine payments. You will be paid in cash and the organization or organizations will receive a check based upon your decision in the chosen allocation problem.

When you are done with all allocation problems, please seal the INSTRUCTIONS and DECISION SHEETS in the provided envelope. Then raise your hand and an experimenter will come to let you draw a chip out of the bag. Keep the INDEX CARD with your code on it. You may also keep the *green* information sheets, if you wish.

For these problems, you are matched with **government agencies** and **non-government charities** which serve the entire **State of Texas**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next set of problems, the following is true:

Organizations' Purpose	Area Served
Education	Texas

Organizations' Purpose	Problem	Recipients	Government or Non-government Organization	Endowment	Amount
Education	1a	**The College for Texans Campaign.** Funds the Texas Higher Education Coordinating Board. The Board's mission is to enhance the Texas education system (K-12) to increase the percentage of students college bound.	Government agency	$20.00	
		Myself	Self		
	1b	**Texas Parent Teacher Association (PTA)** A non-profit organization consisting of educators, parents and the general public. It unites efforts to achieve the highest possible education for all children.	Non-government charity	$20.00	
		Myself	Self		
	1c	**The College for Texans Campaign.** Funds the Texas Higher Education Coordinating Board. The Board's mission is to enhance the Texas education system (K-12) to increase the percentage of students college bound.	Government agency	$30.00	
		Texas Parent Teacher Association (PTA) A non-profit organization consisting of educators, parents and the general public. It unites efforts to achieve the highest possible education for all children.	Non-government charity		
		Myself	Self		

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For these problems, you are matched with **government agencies** and **non-government charities** which serve the entire **State of Texas**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next set of problems, the following is true:

Organizations' Purpose	Area Served
Low-Income Housing Support	Texas

Organizations' Purpose	Problem	Recipients	Government or Non-government Organization	Endowment	Amount
Low-Income Housing Support	1a	**The Housing Trust Fund** An independent state fund. It is the government's effort to create affordable housing for low and very low income individuals and families.	Government agency	$20.00	
		Myself	Self		
	1b	**The Texas State Affordable Housing Corporation (TSAHC)** A non-profit that serves the housing needs of low, very low and extremely low-income Texans and other underserved populations who do not have comparable housing options through conventional financial channels.	Non-government charity	$20.00	
		Myself	Self		
	1c	**The Housing Trust Fund** An independent state fund. It is the government's effort to create affordable housing for low and very low income individuals and families.	Government agency	$30.00	
		The Texas State Affordable Housing Corporation (TSAHC) A non-profit that serves the housing needs of low, very low and extremely low-income Texans and other underserved populations who do not have comparable housing options through conventional financial channels.	Non-government charity		
		Myself	Self		

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For these problems, you are matched with **government agencies** and **non-government charities** which serve the entire **United States**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next set of problems, the following is true:

Organizations' Purpose	Area Served
Cancer Research and Prevention	U.S.

Organizations' Purpose	Problem	Recipients	Government or Non-government Organization	Endowment	Amount
Cancer Research and Prevention	1a	**National Cancer Institute Gift Fund** Part of the National Institutes of Health. It is the federal government's principal agency for cancer research, training, and treatments in clinical practice.	Government agency	$20.00	
		Myself	Self		
	1b	**American Cancer Society (ACS)** A non-profit organization for cancer research, education, advocacy and service. Its goal is to prevent cancer, save lives, and diminish suffering from cancer.	Non-government charity	$20.00	
		Myself	Self		
	1c	**National Cancer Institute Gift Fund** Part of the National Institutes of Health. It is the federal government's principal agency for cancer research, training, and treatments in clinical practice.	Government agency	$30.00	
		American Cancer Society (ACS) A non-profit organization for cancer research, education, advocacy and service. Its goal is to prevent cancer, save lives, and diminish suffering from cancer.	Non-government charity		
		Myself	Self		

For these problems, you are matched with **government agencies** and **non-government charities** which serve the entire **United States**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next set of problems, the following is true:

Organizations' Purpose	Area Served
Disaster Relief	U.S.

Organizations' Purpose	Problem	Recipients	Government or Non-government Organization	Endowment	Amount
Disaster Relief	1a	**Corporation for National and Community Service Disaster Relief Fund** An independent federal agency whose efforts focus on meeting people's immediate emergency disaster-caused needs. It also provides strategic critical support to volunteer organizations.	Government agency	$20.00	
		Myself	Self		
	1b	**American Red Cross Disaster Relief Fund** A non-profit charity that focuses on providing aid to disaster victims nationwide. It meets people's immediate emergency disaster-caused needs for shelter, food, and health services.	Non-government charity	$20.00	
		Myself	Self		
	1c	**Corporation for National and Community Service Disaster Relief Fund** An independent federal agency whose efforts focus on meeting people's immediate emergency disaster-caused needs. It also provides strategic critical support to volunteer organizations.	Government agency	$30.00	
		American Red Cross Disaster Relief Fund A non-profit charity that focuses on providing aid to disaster victims nationwide. It meets people's immediate emergency disaster-caused needs for shelter, food, and health services.	Non-government charity		
		Myself	Self		

For these problems, you are matched with **government agencies** and **non-government charities** which serve the entire **United States**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next set of problems, the following is true:

Organizations' Purpose	Area Served
General Fund	United States

Organizations' Purpose	Problem	Recipients	Government or Non-government Organization	Endowment	Amount
General Fund	1a	**Gifts to the United States** A fund run by the Department of the Treasury established to accept unconditional gifts from individuals. Money in this account is for general use by the federal government and is available for budget needs.	Government agency	$20.00	
		Myself	Self		
	1b	**United Way** A national network of nearly 1,300 organizations that work to advance the common good by addressing the underlying causes of most significant issues.	Non-government charity	$20.00	
		Myself	Self		
	1c	**Gifts to the United States** A fund run by the Department of the Treasury established to accept unconditional gifts from individuals. Money in this account is for general use by the federal government and is available for budget needs.	Government agency	$30.00	
		United Way A national network of nearly 1,300 organizations that work to advance the common good by addressing the underlying causes of most significant issues.	Non-government charity		
		Myself	Self		

INSTRUCTIONS for EXPERIMENT 2

For this part of the study, you will make decisions for a different series of allocation problems. In each allocation problem you are paired with two organizations. For each allocation problem you are given an endowment, i.e., an initial amount of money, by the experimenter. You are asked to allocate this money between the organizations you are paired with for that problem. Note that you can not allocate or keep any money for yourself. One of the allocation decisions a participant in the room makes will be chosen at random and both organizations will receive the amount allocated to them in that decision.

These organizations benefit one of the categories from the first part of the experiment. As before, these organizations are either *government agencies* or *non-governmental charities*. The *government agencies* are at either U.S. federal government or Texas state government agencies. The *non-government charities* also serve different geographic areas and cover either the U.S. or the State of Texas. A brief summary of each organization is provided on your DECISION SHEETS which we will go over later. You may also refer to the separate *green* sheets for more detailed descriptions of these organizations.

Let's look at an example of the type of the allocation problems as they will appear on your DECISION SHEETS in this part of the experiment.

Example
In this problem you are matched with the *College for Texans Campaign*, a Government agency serving the State of Texas, and the *Texas Parent Teacher Association (PTA)*, a non-government charity serving the State of Texas. For this problem, suppose that you must divide $10.00 between this government agency and non-government charity. You can allocate all, some or none of the endowment to each organization. For instance, suppose you elect to allocate $4.12 to the *College for Texans Campaign* and $5.88 to the *Texas Parent Teacher Association (PTA)*. I have filled in the table to show how you would indicate that choice. If this were your decision, the *College for Texans Campaign* would receive $4.12 and the *Texas Parent Teacher Association (PTA)* would receive $5.88.

Example:

Organizations' Purpose	Area Served
Education	Texas

Problem	Recipients	Government or Non-government Organization	Endowment	Amount
1	**The College for Texans Campaign.** Funds the Texas Higher Education Coordinating Board. The Board's mission is to enhance the Texas education system (K-12) to increase the percentage of students college bound.	Government agency	$10.00	**$4.12**
	Texas Parent Teacher Association (PTA) A non-profit organization consisting of educators, parents and the general public. It unites efforts to achieve the highest possible education for all children.	Non-government charity		**$5.88**

Payments

In this part of the experiment, one decision from one participant in the room will randomly be chosen for payment. The participant's allocated amounts in this decision will be sent to the organizations. The MONITOR will announce which decision but not the amounts and verify that the amounts are sent. If one of your decisions is chosen, you may check to be sure the correct amount are sent to the applicable organizations, if you wish.

After completing these tasks, the experimenters will hand out a survey. _Please check to be sure the five-digit code number on the survey form and your index card are the same._ The survey will be used for research purposes only and your answers will in no way be directly linked back to you.

As a reminder, if you wish to remain after the experiment to learn how much has been donated to each organization and to verify that the checks were mailed, you are welcome to do so.

If you have any questions about the procedures, please ask now.

DECISION SHEETS for EXPERIMENT 2

Note that there are 5 allocation decisions to be made. It is important that you pay careful attention to the information provided on the government agencies or the non-government charities as you make each decision.

Notice that for each allocation problem in each category you are given an endowment of **$20**. And you must make a decision for each problem on how to allocate this money between the organizations you are paired with for that problem. The amounts for each allocation decision must add up to $20.

Remember that you can allocate your endowment in any way you like. The total amount allocated in each allocation decision must add up to the endowment but each recipient in the decision does not necessarily have to receive any money. You can allocate all, some or none of the endowment to each recipient. The choice is up to you.

Recall that one participant's allocation decisions will be chosen at random to determine payments. The organizations will receive a check based upon your decision in the chosen allocation problem.

When you are done with all allocation problems, please raise your hand and an experimenter will to collect your DECISION SHEETS and INSTRUCTIONS. You will be handed your survey to fill out. Keep the INDEX CARD with your code on it and the _green_ information sheets.

For these problems, you are matched with **government agencies** and **non-government charities**. Any money you pass will be mailed to the organization randomly selected at the end of the experiment.

For the next problem, the following is true:

Organizations' Purpose	Area Served
Cancer Research and Prevention	U.S.

Organizations' Purpose	Problem	Recipient	Government or Non-government Organization	Endowment	Amount
Cancer Research and Prevention	2	**National Cancer Institute Gift Fund** Part of the National Institutes of Health. It is the federal government's principal agency for cancer research, training, and treatments in clinical practice.	Government agency	$20.00	
		American Cancer Society (ACS) A non-profit organization for cancer research, education, advocacy and service. Its goal is to prevent cancer, save lives, and diminish suffering from cancer.	Non-government charity		

For the next problem, the following is true:

Organizations' Purpose	Area Served

| | | Disaster Relief | | U.S. | |

Organizations' Purpose	Problem	Recipient	Government or Non-government Organization	Endowment	Amount
Disaster Relief	2	**Corporation for National and Community Service Disaster Relief Fund** An independent federal agency whose efforts focus on meeting people's immediate emergency disaster-caused needs. It also provides strategic critical support to volunteer organizations.	Government agency	$20.00	
		American Red Cross Disaster Relief Fund A non-profit charity that focuses on providing aid to disaster victims nationwide. It meets people's immediate emergency disaster-caused needs for shelter, food, and health services.	Non-government charity		

For the next problem, the following is true:

Organizations' Purpose	Area Served
Education	Texas

Organizations' Purpose	Problem	Recipient	Government or Non-government Organization	Endowment	Amount
Education	2	**The College for Texans Campaign.** Funds the Texas Higher Education Coordinating Board. The Board's mission is to enhance the Texas education system (K-12) to increase the percentage of students college bound.	Government agency	$20.00	
		Texas Parent Teacher Association (PTA) A non-profit organization consisting of educators, parents and the general public. It unites efforts to achieve the highest possible education for all children.	Non-government charity		

For the next problem, the following is true:

Organizations' Purpose	Area Served
Low-Income Housing Support	Texas

Organizations' Purpose	Problem	Recipient	Government or Non-government Organization	Endowment	Amount
Low-Income Housing Support	2	**The Housing Trust Fund** An independent state fund. It is the government's effort to create affordable housing for low and very low income individuals and families.	Government agency	$20.00	
		The Texas State Affordable Housing Corporation (TSAHC) A non-profit that serves the housing needs of low, very low and extremely low-income Texans and other underserved populations who do not have comparable housing options through conventional financial channels.	Non-government charity		

For the next problem, the following is true:

Organizations' Purpose	Area Served
General Fund	United States

Organizations' Purpose	Problem	Recipient	Government or Non-government Organization	Endowment	Amount
General Fund	2	**Gifts to the United States** A fund run by the Department of the Treasury established to accept unconditional gifts from individuals. Money in this account is for general use by the federal government and is available for budget needs.	Government agency	$20.00	
		United Way A national network of nearly 1,300 organizations that work to advance the common good by addressing the underlying causes of most significant issues.	Non-government charity		

Appendix C: Comparison of Organization-Self Allocations with Li *et al.* (2011)

Cause (level)	Li *et al.* (2011)			This study (Experiment 1a-1b)		
	government	charity	p-value	government	charity	p-value
Cancer research (national)	$5.61	$7.89	0.00	$5.52	$6.25	0.06
Disaster relief (national)	$5.02	$8.76	0.00	$4.04	$5.39	0.00

Note: p-values of 2-side test of means are reported.

Appendix D. Post-Experimental Survey on Perceptions about Organizations

The first question was asked once for each function.

1. To what extent do you agree or disagree that supporting cancer research and prevention is an **important** cause? (1=strongly disagree, 5 = strongly agree)

The following questions were asked separately for each type of organization (e.g., education enhancement, low income housing support, cancer research and prevention, and disaster relief). Questions 2, 5, 6, and 7 were asked of the federal government in general and the national level United Way.

2. How much do you **trust** the following organizations in providing cancer research and prevention? (1=strongly distrust, 5=strongly trust)

3. To what extent do you agree or disagree that to provide cancer research and prevention is the **responsibility** of the following organizations? (1=strongly disagree, 5=strongly agree)

4. How many **resources** do you think the following organizations spend annually in cancer research and prevention? (1=low spending, 5=high spending)

5. Please evaluate the **quality of the work** done by the following organizations in supporting cancer research and prevention. (1=poor, 5=excellent)

6. How many **additional resources** do you think the following organizations need in order to provide better cancer research and prevention? (1=little resources, 5=lots of resources)

7. How confident are you that donations to the following cancer research and prevention organizations will be used **efficiently**? (1=not very confident at all, 5=very confident)

Appendix E: Summary Statistics on the Perceptions of National Organizations

	Perception Means (Std. Dev.)						
	Q1: Important cause	Q2: Trust	Q3: Responsibility	Q4: Resources	Q5: Quality	Q6: Need additional resources	Q7: Efficiency
General Fund							
Gifts to U.S. Government	4.20 (0.80)	2.94 (1.09)	-	-	2.85 (0.98)	3.20 (1.23)	1.93 (1.16)
United Way	3.98 (0.86)	3.50 (0.80)	-	-	3.34 (0.78)	3.93 (0.87)	3.34 (0.99)
Cancer Research	4.69 (0.52)						
Government		3.71 (0.96)	4.01 (1.19)	3.47 (1.14)	3.41 (0.92)	4.00 (0.93)	3.28 (1.26)
Private charity		3.98 (0.78)	3.91 (0.86)	4.04 (0.95)	3.76 (0.88)	4.36 (0.68)	3.74 (1.21)
Disaster Relief	4.34 (0.76)						
Government		3.01 (1.16)	4.50 (0.90)	3.43 (1.12)	2.79 (1.14)	3.46 (1.22)	2.73 (1.22)
Private charity		3.91 (0.92)	3.86 (0.87)	3.80 (0.92)	3.68 (1.02)	4.19 (0.83)	3.64 (1.08)

Note: Standard deviations are in the parentheses.

Figure 1: Amount of Giving and Likelihood of Giving

A: Organization vs. Self (Average Amount $)
B: Organization vs. Self (Likelihood of Giving)
C: Three Way Allocation (Average Amount $)
D: Three Way Allocation (Likelihood of Giving)
E: Government vs. Charity (Average Amount $)
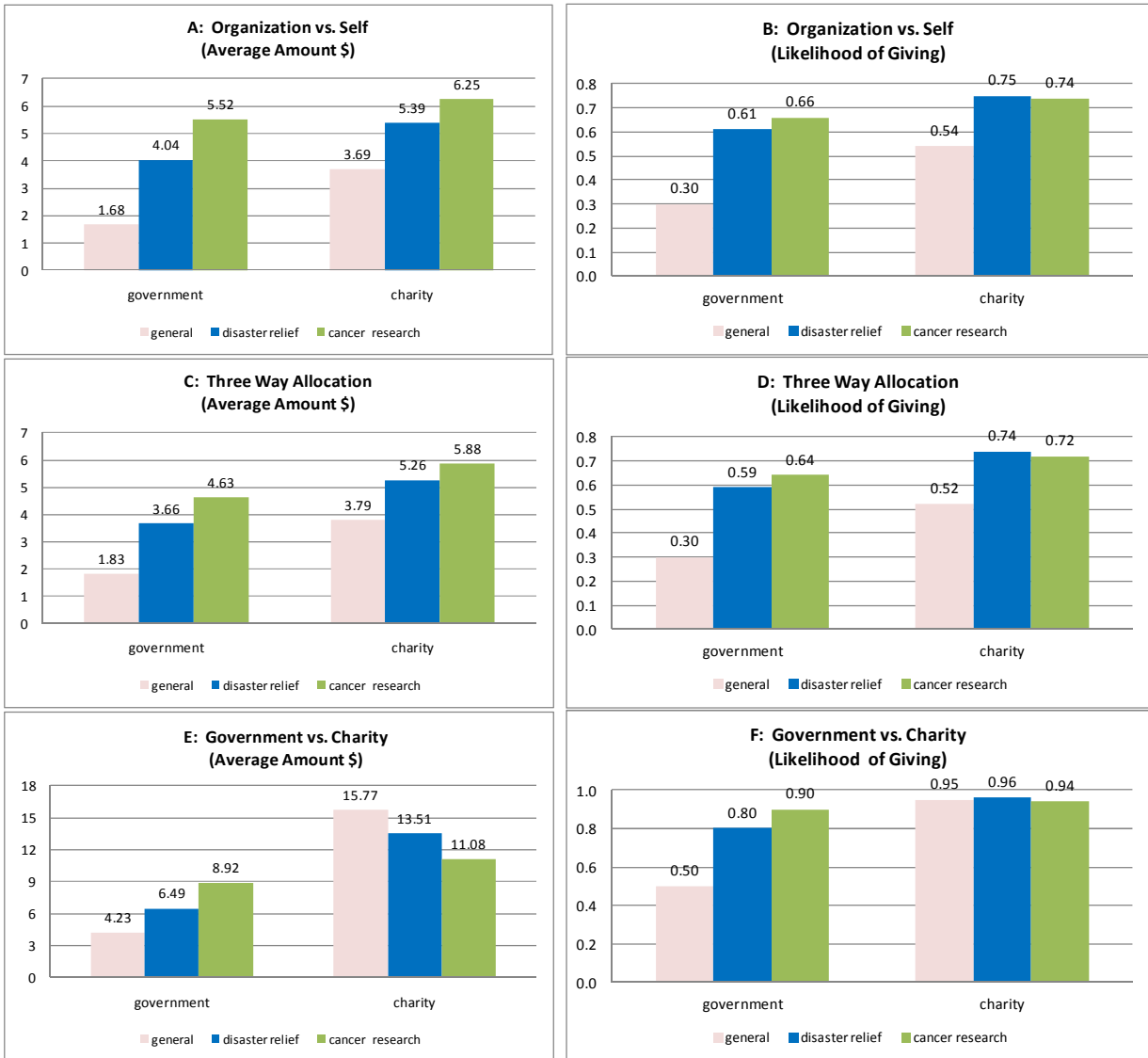F: Government vs. Charity (Likelihood of Giving)

Figure 2: Giving in Experiment 2 (Government-Charity Allocations) by Subject Type
(The numbers of subjects in parentheses.)