

*The Effect of Recipient Contribution  
Requirements on Support for Social Programs*

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# The Effect of Recipient Contribution Requirements on Support for Social Programs

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## Abstract

Whether aid programs should require recipients to contribute their own resources to receive benefits is widely debated, but little is known about public support for these requirements. Using randomized experiments, we find an inverted u-shape response to monetary contribution requirements for a food aid program: support increases when recipients make small monetary contributions and returns to baseline under large contribution requirements. Recipient time contribution requirements also increase program support. Analysis of mechanisms suggests that individuals screen recipients to target those who need and value the aid. We find suggestive evidence of stronger responses to monetary contributions among conservatives versus liberals.

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# 1 Introduction

Many government and non-profit aid programs distribute benefits to needy recipients free of charge. Many others require recipients to contribute their own resources (time or money) in order to receive benefits. For instance, to qualify for a home from the non-profit Habitat for Humanity, low-income recipients must make small monthly payments and contribute hundreds of hours to the building process. Government workfare programs, which condition transfers on recipient labor, are prevalent across the world. And both government and non-profit programs that provide in-kind transfers, such as health products and education, often require recipients to pay a small part of the cost through subsidized pricing or fees.<sup>1</sup>

There is heated debate among policymakers over the use of recipient contribution requirements. In a recent example from the U.S., Republican lawmakers have pushed to tie Medicaid and food stamp benefits to recipient work. Democratic lawmakers and consumer advocates have argued that such requirements strip benefits from those who need them most. In response, the GOP White House budget director defended the proposed policies saying, “what we’ve done is not to try and remove the safety net for folks who need it, but to try and figure out if there’s folks who don’t need it that need to be back in the workforce.”<sup>2</sup>

A long line of theoretical work provides justification for these policies, arguing that if there is imperfect information about recipients, contribution requirements can act as a screening device to target those who most need and value aid (Akerlof, 1978). However, contribution requirements involve tradeoffs. They impose costs on recipients

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<sup>1</sup>Habitat for Humanity International ranked 11 on the list of top charities in the U.S. in 2016 (<https://www.forbes.com/top-charities/list/>). See <https://www.habitat.org/housing-help/apply> for details. For health products, see Population Services International (health products) <http://www.psi.org/research/evidence/social-marketing-evidence-base/>. For education, see Unicef “Free or Fee: 2006 Global Report” [https://www.unicef.org/education/bege\\_61665.html](https://www.unicef.org/education/bege_61665.html).

<sup>2</sup>See T. Luhby, Republicans want the poor to work for their government benefits, *CNN Money* (2107; <http://money.cnn.com/2017/05/30/news/economy/republicans-work-requirements-poor-benefits/index.html>).

whose welfare we are aiming to improve. And the requirements may screen out the neediest if they are less able to make contributions.<sup>3</sup> Due to these tradeoffs, there is an ongoing debate in development and public economics regarding the optimal structure of recipient contribution requirements.

This debate has focused on the impact of recipient contribution requirements on the demand (recipient) side, largely ignoring the supply side: the voters and charitable donors who shape social programs. This is a critical gap because optimal policy design requires that programs be structured in ways that are both economically efficient *and* politically attractive. In this vein, a large literature examines individual preferences for redistribution and support for social programs. But this work has given little attention to public support for recipient contribution requirements, or to the screening concerns these requirements address.

In this paper we ask, do people support programs with costly recipient contribution requirements? And if so, do they use contribution requirements to screen recipients as theoretical models predict? To answer these questions, we experimentally vary recipient contribution requirements for a food aid program and study the impact on individual-level support for the program.

We first conduct a laboratory experiment in which over 1,000 undergraduate students choose between allocating a \$100 donation to a children's charity or to a healthy food aid program. We then conduct a field experiment that includes nearly 5,000 nationally representative Americans from an internet survey panel, in which participants can donate a portion of their survey earnings to a healthy food aid program. In both experiments, we vary the recipient monetary contribution requirements of the aid program described to participants: the recipient makes no contribution, pays 10% of the cost, or pays 50% of the cost. In the field experiment, we also include treatments in which the recipient has to expend time (5 minutes or 25 minutes) registering for the

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<sup>3</sup>Time contribution requirements can also impose deadweight loss from wasted time.

program to receive the food. We use donations to the food program as our measure of program support.

Across both the laboratory and field experiments, we find an ‘inverted u-shape’ of support in response to monetary contributions by recipients: support increases when recipients pay 10% of the cost and drops back to baseline when recipients pay 50% of the cost. Both low and high contributions of time by recipients increase program support.

The behavior in our study closely matches the predictions of our theoretical framework discussed in Section 3, in which people use recipient contribution requirements to screen those who most need and value the good. People are uncertain about the value of the good (healthy food) to recipients, and recipients self-target by being willing to contribute a nominal amount (10% of the cost). However, larger monetary contribution requirements (50% of cost) may be too burdensome or more likely to screen out those who are most in need but least able to pay. In contrast, people may perceive higher contributions of time as more likely to target those in need if they believe that poorer recipients have lower costs of time.<sup>4</sup> Together, our results suggest that people want to screen recipients, recognize recipient contributions as a targeting mechanism, respond to tradeoffs that monetary contribution requirements involve, and perceive time contributions as an effective screening device.

Through additional treatments, we examine several alternative interpretations of our results for recipient monetary contributions. These include: (1) “price” or “outcome” motivations: donors want to generate a certain amount of the charitable good from a given donation amount; (2) “personal impact” motivations: donors want to provide a certain proportion of the cost of the good; and (3) “investment” motivations:

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<sup>4</sup>This is in line with the literature on ordeal mechanisms, which argues that for aid programs aiming to screen out wealthier recipients, time contribution requirements can improve targeting if the cost of time is higher for the rich than the poor (Nichols et al., 1971; Nichols and Zeckhauser, 1982; Besley and Coate, 1992; Alatas et al., 2016).

donors want recipients to provide a certain proportion of the cost of the good.<sup>5</sup> The results of our additional treatments are inconsistent with these alternative mechanisms.

Finally, we examine the extent to which individual preferences align with the political debate in the U.S. – i.e., that conservative policymakers are generally less in favor of social programs and more in favor of recipient contribution requirements than are liberal policymakers. We find suggestive evidence of differences in screening preferences between liberal- and conservative-leaning participants, as identified by previously reported voting intentions in the 2016 U.S. Presidential election. The inverted u-shape response to recipient monetary contributions that we find in the full sample is strongest among conservative-leaning participants. They have lower levels of program support than liberal-leaning participants at baseline, but almost fully close the gap in support when recipients make small monetary contributions.

To our knowledge, this study is the first to examine individual preferences for recipient contribution requirements and the role of screening concerns in support for social programs. Using an incentivized decision in a nationally representative sample, we demonstrate that small changes in the description of a program’s recipient contribution requirements have a significant impact on support for the program. Related work has used similar approaches to examine distributional and giving decisions in response to recipients’ characteristics, including their race, income, and perceived deservingness (e.g., Fong and Luttmer, 2009, 2011; Cappelen et al., 2007; Almås et al., 2016; Lefgren et al., 2016). We contribute to a large literature examining preferences for redistribution – much of which focuses on beliefs and preferences regarding the

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<sup>5</sup>For a discussion of personal impact motivations, see e.g., Cryder et al. (2013). Investment motivations could be driven by social preferences for fairness and reciprocity (donors believe recipients who make a contribution are more deserving of aid). A large literature examines fairness preferences (Falk et al., 2008; Almås et al., 2010, 2016). Investment motivations could also be driven by beliefs that making a contribution will improve recipients’ valuation or usage of the good. This can occur if recipients are sensitive to sunk costs (Thaler, 1980; Arkes and Blumer, 1985) or infer quality from price (Bagwell and Riordan, 1991; Riley, 2001). On the recipient side, Ashraf et al. (2010), Cohen and Dupas (2010) and Berry et al. (2015) examine sunk cost effects and find no evidence that making an investment induces recipients to increase usage.

extent of inequality and its sources, whether due to effort or luck (see e.g., Alesina and Giuliano, 2011; Kuziemko et al., 2015; Almås et al., 2016, for recent discussions).<sup>6</sup> Our findings suggest that screening concerns are an additional factor shaping support for redistribution and social programs.

Our results also highlight a potential gap between optimal policy on the demand side and preferences on the supply side. Studies examining the impact of contribution requirements on take-up and usage of aid find mixed evidence on their effectiveness.<sup>7</sup> Related work demonstrates that even small barriers to program participation can work against the policy goal of improving outcomes for those most in need (see Bertrand et al., 2004; Currie, 2006; Banerjee and Duflo, 2012, for discussion). And programs that condition transfers on recipients' behavior may increase administrative costs without significantly improving outcomes (Baird et al., 2014, provide a review). At the same time, our work shows that recipient contribution requirements can increase public support for social programs. Hence, the design of policies in response to evidence on the demand side may also need to address political economy considerations on the supply side.

In the remainder of the paper, Section 2 describes the design of our experiments and our main treatments, Section 3 discusses our theoretical framework and additional treatments, Section 4 summarizes the results, and Section 5 concludes.

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<sup>6</sup>In related work, Drenik and Perez-Truglia (2017) surveyed Amazon Mechanical Turk respondents and found that stated support for cash transfers increases when a beneficiary is described as hard-working compared to when a beneficiary is described as lazy, and that rating diligent beneficiaries as more deserving is positively correlated with support for work requirements in social programs. They incorporate fairness preferences into a model of redistribution as previous studies have also done (e.g., Alesina and Angeletos, 2005).

<sup>7</sup>Dupas (2014) and Dupas and Miguel (2017) review the literature on recipient monetary contribution requirements for health products in developing countries and argue that increases in under-inclusion (not giving a good to someone who needs it) generally outweigh decreases in over-inclusion (giving a good to someone who will not use it), though this is not always the case (e.g., Cohen et al., 2015). Studies of time contribution requirements, or ordeal mechanisms, generally argue that they improve targeting with fewer concerns about under-inclusion (Ravallion, 1991; Alatas et al., 2016; Rennane, 2016; Dupas et al., 2016), though again this does not always hold (Deshpande and Li, 2017).

## 2 Setting and Experimental Design

### 2.1 Experimental Settings

We conducted a laboratory experiment and a field experiment in which we varied the characteristics of a food aid program, and then examine the impact on individual-level support for the program through costly donations.

The laboratory experiment was conducted in October-November 2016 with 1,020 undergraduate students at the University of California San Diego (UCSD), who received class credit for their participation. Participants were shown information about the children’s charity Kids Korps and a healthy food program side by side and asked to choose which one to direct a \$100 donation to (we randomly chose one participant’s decision to determine the actual donation).<sup>8</sup> Kids Korps was described as ‘*a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.*’ The food program was described as ‘*a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food.*’ The description of the healthy food program was followed by the treatment message; the description of Kid Korps stayed constant in all treatments (See Appendix B for screenshots of the study).

The field experiment was conducted with 4,908 respondents of the Understanding America Study (UAS) at the University of Southern California (USC). The UAS is a probability-based Internet panel of about 6,000 adults that are representative of the American population.<sup>9</sup> Panel members routinely receive incentives to participate in surveys. The experiment was conducted as part of the panel’s end-of-year survey in December, 2016 - February, 2017. Participants received \$8 for the survey, which took approximately 14 minutes to complete.

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<sup>8</sup>This design is similar to Gneezy et al. (2014).

<sup>9</sup>Panel members are recruited through address based sampling, in which recruitment letters are sent to randomly selected households using address lists from the U.S. Postal Service. Panel members without prior access to the Internet receive a tablet and internet.



Prior to the beginning of the survey, we offered respondents the opportunity to donate any amount of their survey payment to our food program, which was described as, *‘a healthy food basket program . . . to provide families in need with \$10 worth of fresh fruits and vegetables’*. This description was followed by the treatment message and a note that 100% of donations would go towards purchasing the food items in the basket (See Appendix C for screenshots of the study). Participants were told that the question about donating was separate from the survey and were not told that it was part of an experiment, with the following message from the survey administrators: *‘We would like to share with you an optional opportunity we have been invited to participate in by another project run at USC [...] your participation in this other project is completely voluntary [...] after we give you information about this project and you make your selection, our end of the year survey will begin’*.

## 2.2 Main treatments

Our main experimental treatments vary the recipient contribution requirements, either money or time, and are summarized in Table 1. In the monetary contribution treatments (both in the laboratory and field experiment), we varied whether we told respondents that the recipients contribute nothing (\$0 of the \$10 cost), a low amount (\$1 of the \$10 cost), or a high amount (\$5 of \$10 the cost). Our time contribution treatments are modeled after social assistance programs such as Medicaid and food stamps in the U.S., which some have argued involve a time-consuming application process - i.e., an ordeal mechanism - in order to screen recipients (Nichols et al., 1971; Besley and Coate, 1992). In these treatments (field experiment only), we varied whether we told respondents that the recipients contribute nothing (no additional registration process), a low amount (a 5 minute additional registration process) or a high amount (a 25 minute additional registration process).

For the field experiment monetary contribution treatments, respondents were told

Table 1: Main Experimental Treatments

Contribution Level	Monetary Contribution	Time Contribution
None	\$0	\$0, No additional time
Low	\$1	\$0, 5 minutes
High	\$5	\$0, 25 minutes

in the No Recipient Contribution treatment: *‘Families pay nothing for the basket. Donations provide the full \$10 cost.’*; in the Low (High) Recipient Contribution treatment: *‘Families contribute \$1 (\$5) for the basket. Donations provide the other \$9 (\$5).’*<sup>10</sup> In all time contribution treatments, respondents were told *‘Families pay nothing for the basket. Donations cover the full \$10 cost.’* In addition, respondents were told in the No Time Contribution treatment: *‘Families receive the basket with no additional registration process’*; in the Low (High) Time Contribution treatment: *‘Families receive the basket following an additional 5 (25) minute registration process.’*

In both the laboratory and field experiment, all experimental manipulations were truthful. After the survey was complete, the funds that we raised were used to purchase baskets of food for low-income households in and around Los Angeles, CA at the cost-sharing amounts for each treatment. UAS participants also received an update in their quarterly newsletter regarding the total amount raised for the programs and the number of baskets distributed to date. In Section 3.3, we discuss additional treatments that allow us to disentangle mechanisms for the main treatment effects.

## 2.3 Randomization and baseline characteristics

For the randomization, we pre-specified the sample sizes for each treatment group, but did not stratify (or otherwise balance) on any baseline characteristics. Based on a conservative estimate of 4,800 participants, we allocated sample sizes as follows: 600 participants in each of the monetary contribution treatments (none, low and high); 500

<sup>10</sup>The treatment messages were identical for the laboratory experiment except we replaced the word ‘families’ with ‘parents.’

participants in each of the time contribution treatments (none, low and high); and 300 participants in each of the secondary treatments discussed in Section 3.3. In the lab experiment, we allocated participants equally to each treatment.

We merge our field experimental data with a rich set of demographic characteristics collected by the UAS panel, including: age, gender, race/ethnicity, marital status, educational attainment, household income, and household size. In the lab experiment, we conduct a short demographic survey after the donation decision asking participants their age, gender, and race/ethnicity.

We also merge our field experimental data with additional data that USC collected on respondents' voting intentions in the 2016 U.S. Presidential election. Between July and November 2016, panel members were asked weekly: *'What is the percent chance that ... 1) you will vote in the Presidential election? 2) you will vote for Clinton, Trump, or someone else?'* We average responses to these questions across all weeks until the election. Reported intentions were a good predictor of actual voting behavior in similar continuous Presidential election polls conducted in 2008 and 2012 (Delavande and Manski, 2010; Gutsche et al., 2014). We report the following voting intentions for the 2016 Presidential Election: probability of voting, and the candidate most likely to vote for - this data is available for 85% of the sample since it was gathered in earlier surveys.<sup>11</sup>

Tables 2 and 3 present average baseline characteristics by treatment group in the laboratory and field experiments, respectively.<sup>12</sup> We report statistically significant differences of binary comparisons of each contribution treatment group and the relevant no contribution (money or time) treatment group. In the final column, we report the  $p$ -value from a joint F-test that the group means across all monetary and time contri-

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<sup>11</sup>Missing data is due either to respondents choosing not to complete these prior surveys, or not being asked to complete the prior surveys if they joined the panel after the surveys were fielded. In the main analysis, we include the full sample; in the analysis of liberal/conservative leanings, we drop the 15% for whom voting intentions data are not available.

<sup>12</sup>The baseline characteristics for our secondary treatments discussed in Section 3.3 are presented in Appendix Table A.1 and Appendix Table A.2 for the laboratory and field experiment, respectively.

bution treatments are equal. Our treatment groups are well balanced on observable characteristics. In the laboratory experiment, there are no significant differences at the 10% level. In the field experiment, of the 96 binary comparisons of means we test, three are significantly different at the 10% level and two are significantly different at the 5% level, slightly less than would be expected by chance. Comparing across all treatments, there are statistically significant differences in one household income category and whether a respondent has non-missing voting intentions.

### 3 Theoretical framework

#### 3.1 Model set up

In this section, we develop a simple framework that motivates our experimental design. We model support for social programs as a donation decision. The intuition is as follows. Altruistic donors would like to target recipients who receive the largest utility from a charitable good. Recipients' utility depends both on their marginal utility from receiving a cash transfer, which we assume is decreasing in income, and on their willingness to pay for the good, which is heterogeneous (holding income fixed). If donors had perfect information, they would target low-income recipients who highly value the good. However, donors do not (perfectly) observe individual recipient income and valuation for the good, but rather form expectations based on the recipient population distribution. In such cases, recipient contribution requirements can serve as a screening device, shifting the distribution to include only recipients who are willing to incur the required costs in order to receive the good.

More formally, we consider a good with an individual potential donor and a population of potential recipients with income distribution  $\phi$ . Recipients choose whether to receive a single unit of the good  $g$ . To receive the good, recipients must incur costs  $c = c(r, h, y)$ , where  $r$  is the recipient monetary contribution required to receive the

good,  $h$  is the recipient time contribution required to receive the good, and  $y$  is recipient income. We assume costs are increasing in recipient contributions  $r$  and  $h$  (we discuss below cases in which costs do or do not depend on income).

Fixing income  $y$ , valuation for the good has distribution  $\psi$  with mean  $\mu(y)$  and standard deviation  $\sigma$ , which for simplicity we assume is independent of income. Willingness to pay for a single unit of the good is  $v = v(q, y)$ , where  $q \in [0, 1]$  is the proportion of potential recipients with income  $y$  whose valuation for  $g$  is at least  $v$ .<sup>13</sup>

Recipient surplus denominated in cash is the recipient's willingness to pay minus the recipient's cost,  $v - c$ . Recipient utility from a single unit of the good is the recipient's marginal utility of receiving a cash transfer multiplied by the cash equivalent of the good to the recipient (i.e., recipient surplus). The marginal utility of receiving a cash transfer is  $\lambda(y)$ , where  $\lambda$  is the marginal utility of income and we assume  $\lambda$  is decreasing in  $y$ . Thus, recipient utility is  $\lambda(y)[v(q, y) - c(r, h, y)]$ .

The potential donor does not (perfectly) observe each potential recipients' income or valuation. Instead he/she forms expectations of recipient utility based on the population distributions of income and valuation,  $\phi$  and  $\psi$ . Expected recipient utility is:

$$E[\lambda(v - c)]|_{v \geq c} = \frac{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r, h, y)} \lambda(y)[v(q, y) - c(r, h, y)] \phi(y) dq dy}{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r, h, y)} \phi(y) dq dy}$$

where  $q^*(r, h, y)$  is the proportion of potential recipients with income  $y$  willing to incur costs  $c(r, h, y)$  to receive  $g$  – i.e., those for whom  $v \geq c$ . The potential donor allocates his/her income  $m$  between personal consumption  $x$  and charitable giving  $b$  to maximize

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<sup>13</sup> $v$  is the inverse of  $1 - \Psi$ , where  $\Psi$  is the cumulative density function of  $\psi$ . That is, the downward-sloping demand curve is formed by ranking the willingness to pay of recipients from highest to lowest, as in e.g., Glaeser and Luttmer (2003).

the following utility function subject to the budget constraint  $x + b \leq m$ :

$$V = V(x, b) = u(x) + \alpha \left( \frac{b}{p\kappa} \right) \frac{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r,h,y)} \lambda(y)[v(q, y) - c(r, h, y)] \phi(y) dq dy}{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r,h,y)} \phi(y) dq dy}$$

where we assume  $u$  is increasing and concave and  $\alpha \in [0, 1]$ . Utility from charitable giving is the total units of charitable good produced multiplied by expected recipient utility from a single unit of the good. The total units produced is  $\frac{b}{p\kappa}$ , where  $\kappa$  is the unit cost of the good and  $p \in (0, 1]$  is the proportion of the good's cost covered by the donor.

The donor gives according to the following first order condition:

$$u'(m - b) = \alpha \left( \frac{1}{p\kappa} \right) \frac{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r,h,y)} \lambda(y)[v(q, y) - c(r, h, y)] \phi(y) dq dy}{\int_{y=0}^{\infty} \int_{q=0}^{q^*(r,h,y)} \phi(y) dq dy}$$

### 3.2 Predicted Effects of Recipient Contributions

Below, we consider the effect of recipient monetary contributions  $r$  and recipient time contributions  $h$  on giving  $b$  via the following four mechanisms:

1. *Price*: By concavity of  $u$ , giving  $b$  is decreasing in the proportion of costs covered by the donor  $p$  (i.e., the price to the donor of producing one unit of the good).
2. *Expected recipient cost*: By concavity of  $u$ , giving  $b$  is decreasing in expected recipient costs  $E[c]|_{v \geq c}$ .
3. *Expected recipient willingness to pay*: By concavity of  $u$ , giving  $b$  is increasing in expected recipient willingness to pay  $E[v]|_{v \geq c}$ .
4. *Expected recipient income*: By concavity of  $u$ , giving  $b$  is increasing in the expected marginal utility of income  $E[\lambda(y)]|_{v \geq c}$ . Thus, by  $\lambda$  decreasing in  $y$ , giving

is decreasing in expected recipient income.

We now consider how recipient monetary contributions  $r$  affect the four mechanisms discussed above. We first discuss the effect on price and then discuss effects on expected recipient utility via expected recipients costs, willingness to pay, and income. We assume recipients' costs are equal to the monetary contribution  $c(r, h, y) = r$ .

First, recipient monetary contributions decrease the price of giving, where the proportion of the costs covered by the donor is  $p = 1 - r$  (i.e., the donor can produce more of the good for the same level of giving). Second, recipient monetary contributions increase recipient costs. Third, recipient monetary contributions (weakly) increase expected recipient valuation by shifting the distribution from including all recipients with willingness to pay  $v \geq 0$  to including only those recipients with willingness to pay  $v \geq r$ . Figure 1a illustrates an example of the effect of recipient costs  $c = 0$  vs.  $c = r$  on expected recipient valuation  $E[v]$  and expected recipient surplus  $E[v - c]$ .<sup>14</sup> Fourth, if  $g$  is a normal good, then recipient monetary contributions (weakly) increase the expected income of recipients who select into receiving the good. Figure 1b illustrates an example of selection on income for recipient costs  $c = r$ , where the proportion of potential recipients with willingness to pay  $v \geq r$  is larger for high-income than low-income recipients  $q_H^* > q_L^*$ .

Taken together, the four effects yield equivocal predictions. The decreased price of giving and selection of recipients who highly value the good increase giving. However, the monetary contribution requirements come with a tradeoff. They impose costs on recipients and differentially screen out low-income recipients who donors want to target, which decreases giving. Therefore, recipient monetary contributions can in-

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<sup>14</sup>In Figure 1a, we fix an income level  $y$ ,  $E[v]_{c=0}$  is the mean valuation of all potential recipients with  $v \geq 0$ ,  $q^*$  is the proportion of potential recipients with willingness to pay  $v \geq r$ , and  $E[v]_{c=r}$  is the expected willingness to pay of those recipients. The effect of  $r$  on expected recipient surplus  $E[v - c]$  depends on the valuation distribution  $\psi$ . The figure illustrates an example with a lognormal distribution of  $\psi$  in which expected recipient surplus has a local minimum and is increasing in costs thereafter. If, for example,  $\psi$  has a standard normal distribution, expected recipient surplus is decreasing in costs  $\forall c$ .

crease, decrease, or have no net effect on giving. Next, we discuss a special case of low monetary contributions where these tradeoffs are potentially minimized.

We now consider a special case of low recipient monetary contributions,  $r = \varepsilon$ , shown in Figure 2a. If recipient contributions are nominal (i.e., just above zero), the effects on price and recipient costs are negligible. The primary effect is to screen out potential recipients with  $v(q, y) < \varepsilon$  – i.e. those recipients who have (almost) no value for the basket but will accept it if it is free. If a substantial proportion of recipients have low valuations, then low contribution requirements can non-negligibly increase expected recipient willingness to pay. Finally, low contribution requirements can also non-negligibly increase expected recipient income. However, the negative effect on giving of increased expected recipient income is dampened because recipients with (close to) zero cash value for the basket receive (close to) zero utility from the good regardless of their marginal utility of income. Low contributions screen out recipients who have little value for the good without imposing a costly burden on recipients and with less concern about screening out low-income recipients. Thus, we predict that for charitable goods in which potential recipients may not value the good, low recipient monetary contributions will increase giving.

The effectiveness of low monetary contributions depends on uncertainty in recipients' valuation for the good. As illustrated in Figure 2b, low contribution requirements are most effective for valuation distributions with high standard deviations,  $\sigma_H$  (i.e., there is large heterogeneity). For goods with a low standard deviation  $\sigma_L$ , low recipient contributions will have little impact because they will screen out a trivial proportion of the population. Thus, we predict that low monetary contributions will have little impact on giving for goods in which there is (close to) a common valuation among recipients – i.e., it is not necessary to screen out low valuation recipients because there are very few of them.

We now turn to recipient time contributions  $h$ . If time costs do not vary with



income, then the effects on expected recipient utility via expected recipient costs, willingness to pay, and income are the same for time contributions as for monetary contributions (time contributions do not affect price). Where predictions differ is if time costs are increasing in income, as is commonly modeled in the literature on or-deal mechanisms.<sup>15</sup> Under this assumption, there will be less positive selection on income than under monetary contributions because the higher willingness to pay of higher-income recipients will be offset by the relatively higher costs to them of time contributions. If time costs increase faster in income than does willingness to pay, then expected income will be decreasing in time contributions, which will increase giving. Time contributions impose relatively lower cost burdens on poorer recipients, are less likely than monetary contributions to screen out poorer recipients and more likely to screen out higher-income recipients. Thus, we predict that both low and high recipient time contributions may increase giving while, as discussed above, high recipient monetary contributions may not.

### 3.3 Additional Treatments

Our framework motivates several experimental treatments in addition to our main treatments described in Section 2. The first two additional design features aim to disentangle the mechanisms discussed above. First, we add treatments (in both the laboratory and field experiment) in which monetary contributions (low and high) are provided by a third-party donor rather than by recipients.<sup>16</sup> This allows us to examine the effects of changes in price  $p$  while holding constant the distribution of recipients and

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<sup>15</sup>For example, time costs will be increasing in income if the cost of time is increasing in wages and wages are increasing in income. It could also be the case that time is more costly for low-income recipients, for example due to higher transportation costs. See e.g., Alatas et al. (2016) for discussion.

<sup>16</sup>In the field experiment respondents were told in the Low (High) Donor Contribution treatment: ‘Funding from a private donor provides \$1 (\$5) for the basket. Donations provide the other \$9 (\$5).’ The treatment messages were identical for the laboratory experiment except we replaced ‘private donor’ with ‘private foundation.’

expected recipient utility (expected recipient costs, willingness to pay and income).<sup>17</sup> Our framework predicts that lower prices will increase giving.

Second, in the recipient monetary contribution treatments (field experiment only), we surprise those who choose to make a donation with the option to have their donation help cover the recipient’s contribution (i.e., give recipients a refund for their contribution).<sup>18</sup> This allows donors to screen recipients without imposing costs on them. That is, it holds constant the distribution of recipients while lowering recipient costs and increasing the price of the good to donors. If price effects dominate, then we predict that donors will not want to refund recipients. But if recipient cost effects dominate, then we predict donors will take up the refund option.

Our last two design features examine the two primary mechanisms of our framework: donors’ uncertainty about recipients’ value for the good (i.e., the distribution of recipient valuation  $\psi$ ) and donors’ desire to target the neediest recipients (i.e., the distribution of recipient income  $\phi$ ). To examine uncertainty in recipients’ valuation, we include treatments in the field experiment in which recipients receive foods of their choice, rather than being restricted to healthy foods (under the none, low and high monetary contribution requirements).<sup>19</sup> If recipients are choosing their own foods, we expect there to be little heterogeneity (i.e., less uncertainty) in recipients’ valuation for the basket. As discussed above and illustrated in Figure 2b, our framework predicts that recipient monetary contributions will have less effect on giving in this case. Finally, to examine the distribution of recipient income, we elicit donors’ beliefs about

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<sup>17</sup>In addition to operating through price effects, third-party donations may also serve as a signal of a charity’s quality, which can be modeled as operating through  $\alpha$  in our framework (Vesterlund, 2003; Andreoni, 2006; Potters et al., 2007; Karlan and List, 2012).

<sup>18</sup>In the Low (High) Contribution treatments we tell donors, ‘*You have the option to use your donation to help cover the cost of the baskets to families. If you choose this option, families will receive a refund for the their \$1 (\$5) contribution to the basket.*’

<sup>19</sup>We described the food program as a ‘*a food basket program . . . to provide families in need with \$10 worth of foods of their choice.*’ All treatment messages were identical to the monetary contribution treatments described in Section 2.2. If donors are (not) paternalistic, they may prefer programs that (do not) limit recipients’ food choices. As shown in Appendix Figure A.1, we do not find differences in share of support for the “healthy” vs. “foods of choice” programs at baseline (i.e., when there are no recipient contributions).

recipients' household income. As discussed above and illustrated in Figure 1b, our framework predicts that recipient monetary contribution requirements will increase expected recipient income and that these effects will be dampened (or even reversed) under recipient time contribution requirements.

## 4 Results

In this section, we first discuss the effects of our main experimental treatments: recipient monetary and time contributions. We next discuss alternative interpretations of our results and the additional treatments we use to examine these, as well as further evidence supporting the predictions of our framework. Finally, we examine the effects of recipient contribution requirements by political preference.<sup>20</sup>

### 4.1 Effects of recipient contribution on program support

The main results of our experiment are presented in Figure 3. Our outcome measure is 'Share of Support' for the program. In the laboratory experiment, share of support is the proportion of subjects who choose to direct the \$100 donation to the food program (the outside option is to direct the donation to the alternate program). In the field experiment, share of support is the average share of a participant's \$8 survey payment donated to the food program, including zeroes (the outside option is to keep the payment).

For both the laboratory and field experiment, we observe an inverted u-shape response to recipient monetary contributions: relative to no contribution, donations increase when recipients contribute 10% of the cost and drop back to baseline when recipients contribute 50% of the cost. For contributions of time, both low and high (5 and 25 minute) recipient contributions increase program support.

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<sup>20</sup>We pre-registered our analysis plan for the field experiment, including testing associations with liberal/conservative leanings. See <https://www.socialscisceregistry.org/trials/1850>.

Table 4 reports OLS estimates of the effects of the recipient contribution treatments on program support. In Panel A, the dependent variable is ‘Share of Support’ (as in Figure 3). In Panel B, the dependent variable is ‘Any Support,’ which is an indicator variable that is equal to 0 if participants in the field experiment choose not to donate and is equal to 1 if participants choose to give a non-zero donation. We also report the  $p$ -value from a test of equality of the Low and High contribution treatments.

Columns 1-4 estimate the effects of recipient monetary contributions (the omitted group is No Monetary Contribution) in the laboratory experiment and field experiments. Columns 5-6 estimate the effects of recipient time contributions (the omitted group is No Time Contribution). Odd numbered columns include indicator variables for treatment only, while even numbered columns add additional controls. Column 2 adds controls for session fixed effects and the demographic characteristics in Table 2: age, gender, and race/ethnicity. Columns 4 and 6 add survey day fixed effects and controls for the demographics characteristics in Table 3: age, gender, race/ethnicity, marital status, educational attainment, household income, and household size. To increase efficiency when covariates are included, the regressions include the respondents in all ‘healthy basket’ treatments (the main treatments and the donor contribution treatments described in Section 3.3).<sup>21</sup>

Low monetary contributions by recipients increase program support significantly in both the laboratory and field experiments. In the laboratory experiment, low monetary contributions increase the share of support by an estimated 8 – 10 percentage points ( $p = 0.042$  without covariates,  $p = 0.097$  with covariates). In the field experiment, the share of support increases by an estimated 5 percentage points ( $p = 0.043$  without

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<sup>21</sup>In the analysis of the laboratory experiment, we exclude 62 participants for whom we are missing demographic information: 32 people are missing age, 31 people are missing gender, and 33 people are missing race/ethnicity. In the analysis of the field experiment, we exclude 5 people for whom we are missing demographic information: 4 people missing age and 1 person missing gender. We also exclude 12 participants who started but did not complete the survey. Including these participants does not affect the results (Appendix Table A.3). Restricting the sample to respondents with non-missing voting intentions also yields similar results, except for the the estimated effects of the Low Time contribution treatment which are smaller in the voter preference sample (Appendix Table A.4).

covariates,  $p = 0.051$  with covariates). The effects are stronger when we examine the effects on any support, which increases by an estimated 8 percentage points ( $p < 0.01$  with and without covariates). There is no impact of high recipient monetary contributions in either the laboratory or field experiment. Importantly, we find that the effects of low monetary contributions are significantly different from the effects of high monetary contributions (we reject that the effects of the Low and High monetary contribution treatments are equal at the 5% level in five of six estimates).

Turning to the time contribution treatments, both low and high recipient time contribution treatments increase program support. Low time contributions increase share of support for the program by an estimated 5 percentage points ( $p = 0.062$  without covariates,  $p = 0.046$  with covariates). High time contributions increase donations by an estimated 7 percentage points ( $p = 0.013$  without covariates,  $p = 0.017$  with covariates). The estimated effects are similar (though statistically weaker) when we examine the impact on any support. The estimated effects of the Low and High time contributions are never statistically distinguishable.<sup>22</sup>

## 4.2 Mechanisms

The inverted u-shape in support we find in response to recipient monetary contributions is consistent with our framework in which individuals use low monetary contribution requirements to target recipients who value the healthy food basket but are concerned that high monetary contribution requirements may be too burdensome or screen out low-income recipients. In this section, we examine several alternative interpretations of our results for recipient monetary contributions. As discussed in the introduction, these include: (1) “price” or “outcome” motivations: donors want to generate a certain

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<sup>22</sup>We also estimate  $p$ -values adjusting for multiple hypothesis testing in regressions without covariates using both the procedures developed by List et al. (2016) and by Holm (1979). The only changes in the significance levels (1%, 5%, 10%) reported for Table 4 are the effect of the High Time treatment on Any Support which is no longer significant at the 10% level; and the test of equality of the effects of the Low and High Monetary treatments on Share of Support, which is significant at the 10% level rather than the 5% level.

amount of the charitable good from a given donation amount; (2) “personal impact” motivations: donors want to provide a certain proportion of the cost of the good; and (3) “investment” motivations: donors want recipients to provide a certain proportion of the cost of the good.

First, we compare the effects of our recipient monetary contribution treatments to the effects of the same monetary contribution made by a third-party donor. As discussed in Section 3, recipient monetary contributions affect both the price of giving (i.e., more of the good can be produced from a given donation) and the distribution of recipients, which introduces screening concerns. The donor contribution treatments allow us to indentify price mechanisms – by varying the proportion of costs provided by the individual – without changing the pool of recipients.

Figure 4 and Table 5 present the results for the donor contribution treatments in the laboratory and field experiments (the regressions have the same structure as columns 1-4 in in Table 4). Critically, there is no evidence of an inverted u-shape response to levels of donor contributions. Instead, the point estimates increase at higher donor contribution rates. This is consistent with our framework in which lower prices increase program support, though the effects we observe are generally small.<sup>23</sup> These findings suggest that the our main results are not driven by the effect of recipient contributions on the price of giving, or by personal impact motivations in which donors prefer to give a certain proportion of the cost of the good.

Second, in order to disentangle screening motivations from investment motivations, we gave donors the option of using their donation to cover the recipients’ contribution. We only ask this of respondents who chose to make a non-zero donation and only

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<sup>23</sup>There are no statistically significant differences between no contribution, low donor contribution and high donor contribution treatments (as discussed in Section 2.3, these secondary treatments have about half the sample size of the main treatments). In the field experiment, the estimated effects of the High Donor Contribution treatment are similar in size to the estimated effects of the Low Recipient Contribution treatment. Our results are consistent with a large empirical literature on the effect of third-party leadership gifts, which generally finds that giving increases in response to such gifts, and that that giving is either flat or positive in response to the size of the contribution (List, 2011; Andreoni and Payne, 2013, provide reviews).

reveal the option after they choose their donation level. This allows us to separately identify donors’ desire to screen recipients who are willing to make a contribution from donors’ desire to have recipients make the actual investment in the good. A large majority of donors (78%) chose to cover the recipients’ contribution. A small percentage (10%) declined to cover the recipients’ cost (the remainder indicated that they did not understand the option). This suggests that most donors are not motivated by wanting recipients to contribute a certain proportion of the cost of the good. It is also inconsistent with the other alternative mechanisms: donors wanting to produce a certain amount of the good from a given donation or provide a certain proportion of the costs.

### 4.3 Further evidence

We now turn to the last two features of our design, which test the two primary mechanisms of our framework: donor uncertainty about whether recipients need and value the good (results are reported in the Appendix). Regarding recipients’ value for the good, our framework predicts that recipient monetary contributions will be less effective when there is greater certainty that recipients value the good they are receiving, and so there is little need for screening. To examine this prediction, we estimate treatment effects for recipient monetary contributions when families receive foods of their choice, rather than being restricted to healthy foods (we expect there to be greater certainty among donors that recipients value the food when it is unrestricted). Consistent with our framework, there is no effect of recipient monetary contributions on share of program support when recipients receive foods of their choice (Appendix Figure A.1).<sup>24</sup>

Regarding recipients’ need for the good, our framework predicts that recipient contribution requirements will affect the expected income distribution of those who select into receiving the good: recipient monetary contribution requirements will increase the

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<sup>24</sup>Interestingly, both the Low and High contribution treatments increase donation rates (i.e., any support), but this is offset by lower donations conditional on donating. Results available upon request.

expected income of recipients; while expected income will be flatter or even decreasing in response to recipient time contribution requirements. To examine this prediction, we elicit respondents’ beliefs about the household income of recipients who choose to participate in the program.<sup>25</sup>

As shown in Appendix Figure A.2, we find suggestive evidence that individuals believe high monetary contribution requirements may screen out the poorest recipients while time contribution requirements are less likely to do so. As monetary contributions increase, individuals perceive recipients as having higher incomes: respondents believe recipients are less likely to have household incomes below \$26,000 and more likely to have household incomes above \$35,000. The effects of the Low Time contribution treatment follow the opposite pattern: respondents believe that recipients are more likely to have low household incomes and less likely to have high household incomes (we do not find a consistent pattern for the High Time contribution treatment).

We also find suggestive evidence on the recipient side to support the beliefs of our respondents. Among a sample of 133 people at a low-income-area grocery store, we elicited willingness to receive a healthy food basket under each of the recipient contribution requirement treatments. We find that as monetary contribution requirements increase, the proportion of participating recipients with household incomes under \$26,000 decreases while the proportion with household incomes over \$35,000 increases, with no impact on households making \$26,000-\$35,000. We observe the opposite pat-

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<sup>25</sup>After respondents have made their donation decisions, we ask them what portion of families who participate in the basket program they believe are in each of the following household income categories: \$0-\$5,000, \$6,000-\$15,000, \$16,000-\$25,000, \$26,000-\$35,000, \$36,000-\$45,000, \$46,000-\$60,000, \$61,000-\$75,000. Answers are on a 7-point scale corresponding to ‘None, Almost None, Some, About Half, Most, Almost All, All.’ Appendix Figure A.2 reports coefficient estimates (with standard error bars) from regressions for each income category that include all ‘healthy basket’ treatments and the full set of covariates (the omitted group is the relevant No Contribution (time or money) treatment). Positive coefficients indicate a higher estimated proportion of households in a given income category compared to baseline; negative coefficients indicate a lower estimated proportion. We also ask respondents in the field experiment their beliefs about recipients’ race/ethnicity, as well as how much of the food in the basket is eaten and how deserving the recipients are. We report the estimates for the other belief questions in Appendix Table A.5 using the same regressions specification as for the beliefs about household income. We find little impact of treatment on perceptions of how much of the food is eaten, deservingness or recipient race/ethnicity.



tern for time contributions. As time contribution requirements increase, the proportion of participating recipients making under \$26,000 increases and the proportion making over \$36,000 decreases with again no impact on households making \$26,000-\$35,000.<sup>26</sup>

#### 4.4 Effects by political preference

Finally, in order to better understand public support for recipient contribution requirements, we investigate the role of political leanings in preferences for these policies. As discussed in the introduction, we wish to see whether individual preferences are in line with the political debate in the U.S., in which conservative-leaning policymakers are generally less in favor of social programs and more in favor of recipient contribution requirements than are liberal policymakers. We are in a good position to examine this issue due to the representative nature of our sample, and due to our ability to incorporate data on voting intentions in the 2016 U.S. Presidential election before the winning candidate was announced (self-reported voting after elections take place generally overstate support for the winning candidate). We consider individuals to lean conservative if their preferred candidate was the Republican nominee, Donald Trump, and to lean liberal if their preferred candidate was the Democratic nominee, Hillary Clinton.

Figures 5 and 6 show the share of program support by treatment and political leanings – Trump or Clinton – for recipient monetary contributions and recipient time contributions respectively. As shown in Figure 5, Lean Trump respondents give less than Lean Clinton respondents at baseline (No Contribution treatment). However, the inverted u-shape in response to recipient monetary contributions is stronger for Lean Trump respondents, almost closing the gap in program support in the Low Monetary contribution treatment. The pattern of program support for recipient time contribu-

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<sup>26</sup>The percentage of our sample of recipients with household incomes below \$26,000, \$26,000-\$35,000 and above \$35,000 is 53%, 17% and 30% respectively. The decision was incentivized: one of the choices was randomly chosen to be implemented, and recipients actually had to pay/put in time to receive a basket of healthy food.

tions is similar for Lean Trump and Lean Clinton respondents.

Table 6 reports OLS estimates of treatment effects by political preference (the regressions have the same structure as those in Table 4 with the full set of covariates). Among Lean Trump respondents, the effects of low monetary contributions on program support are an estimated 7 percentage points for Share of Support ( $p = 0.093$ ) and an estimated 10 percentage points for Any Support ( $p = 0.045$ ). The size of these effects are similar to the baseline Trump-Clinton gap in program support of 7 – 9 percentage points. The estimated effects of the Low Monetary contribution treatment are smaller among Lean Clinton respondents (2 – 5 percentage points), which helps to close the gap in program support in this treatment. As in the full sample, high monetary contributions do not affect program support among either Lean Trump or Lean Clinton respondents. In response to time contributions by recipients, the estimated effects on share of support are larger among Trump voters, but the estimated effects on any support are larger among Clinton voters. Note that the results by political preference are only suggestive, as the estimated treatment effects for Trump and Clinton voters are not significantly different at conventional levels.

## 5 Conclusion

In this study, we demonstrate two novel findings. First, contributions of both money and time by recipients in a food aid program increase public support for the program. Second, the response to recipient monetary contributions takes an inverted-u-shape: small monetary contributions increase program support, while large contributions do not. Our experimental results are consistent with a theoretical framework in which donors use recipient contributions to target those who most need and value the good.

A large literature in public finance and development has examined how to optimally target aid when the social planner has imperfect information. Prior work on recipient contribution requirements has largely focused on the impact of these policies

on the recipient side. We add to this literature by examining the effects of recipient contribution requirements on the voters and donors who influence the provision of aid programs.

Surprisingly, like a social planner, individuals seem to recognize both that contribution requirements can serve as a screening device, and that they involve tradeoffs between under-inclusion (not giving a good to someone who needs it) and over-inclusion (giving a good to someone who will not use it). Individuals also seem to perceive time contribution requirements as an effective self-targeting mechanism, despite the potential deadweight loss of wasted time.

Comparing the effects of the money and time contribution treatments, the estimated effects of recipients contributing \$1 are very similar to the effects of recipients contributing 5 minutes of their time (equivalent at a \$12/hour cost of time). However, the effects diverge for high contribution treatments: high monetary contributions (\$5) have no impact on program support while high time contributions (25 minutes) increase program support substantially.

Our results suggest that screening concerns may be an important driver of support for social programs, particularly if there is uncertainty about recipients' need or value for aid. Individual preferences for these policies can help explain why programs may continue to include recipient contribution requirements even if there is empirical evidence of their inefficiencies.<sup>27</sup> An open question is whether people would be responsive to information about the impact of recipient contribution requirements on the demand side. Previous studies generally find that information has limited impact on support for social programs, (Kuziemko et al., 2015, provide a discussion). Though, recent work in the context of immigration policy suggests that empirical evidence can affect

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<sup>27</sup>This resonates with Fiszbein and Schady (2009) who conclude that, “even in situations where a narrow technical assessment might suggest that an unconditional transfer is more appropriate than a [Conditional Cash Transfer] (say, because there is no evidence of imperfect information . . .), conditions might be justified because they lead to a preferable political economy equilibrium. The political process may make significant cash transfers to the poor close to impossible unless those transfers are tied somehow to clear evidence of beneficiaries’ ‘positive behaviors.’”

preferences (Haaland and Roth, 2017). Finally, we believe our suggestive evidence that screening concerns may vary by individuals’ political preference deserves further study, and can help shed light on the large literature examining what shapes support for redistribution and social programs.

## References

- Akerlof, G. A. (1978). The economics of” tagging” as applied to the optimal income tax, welfare programs, and manpower planning. *The American economic review*, 68(1):8–19.
- Alatas, V., Purnamasari, R., Wai-Poi, M., Banerjee, A., Olken, B. A., and Hanna, R. (2016). Self-targeting: Evidence from a field experiment in indonesia. *Journal of Political Economy*, 124(2):371–427.
- Alesina, A. and Angeletos, G.-M. (2005). Fairness and redistribution: Us vs. europe. *American Economic Review*, 95.
- Alesina, A. F. and Giuliano, P. (2011). Preferences for redistribution. In Bisin, A. and Benhabib, J., editors, *Handbook of Social Economics*, pages 93–132. North Holland.
- Almås, I., Cappelen, A. W., Sørensen, E. Ø., and Tungodden, B. (2010). Fairness and the development of inequality acceptance. *Science*, 328(5982):1176–1178.
- Almås, I., Cappelen, A. W., and Tungodden, B. (2016). Cutthroat capitalism versus cuddly socialism: Are americans more meritocratic and efficiency-seeking than scandinavians?
- Andreoni, J. (2006). Leadership giving in charitable fund-raising. *Journal of Public Economic Theory*, 8(1):1–22.
- Andreoni, J. and Payne, A. A. (2013). Charitable giving. *Handbook of public economics*, 5:1–50.
- Arkes, H. R. and Blumer, C. (1985). The psychology of sunk cost. *Organizational behavior and human decision processes*, 35(1):124–140.
- Ashraf, N., Berry, J., and Shapiro, J. M. (2010). Can higher prices stimulate product use? evidence from a field experiment in zambia. *The American economic review*, 100(5):2383–2413.
- Bagwell, K. and Riordan, M. H. (1991). High and declining prices signal product quality. *The American Economic Review*, pages 224–239.

- Baird, S., Ferreira, F. H., Özler, B., and Woolcock, M. (2014). Conditional, unconditional and everything in between: a systematic review of the effects of cash transfer programmes on schooling outcomes. *Journal of Development Effectiveness*, 6(1):1–43.
- Banerjee, A. and Duflo, E. (2012). *Poor economics: A radical rethinking of the way to fight global poverty*. PublicAffairs.
- Berry, J., Fischer, G., and Guiteras, R. P. (2015). Eliciting and utilizing willingness to pay: Evidence from field trials in northern ghana.
- Bertrand, M., Mullainathan, S., and Shafr, E. (2004). A behavioral-economics view of poverty. *The American Economic Review*, 94(2):419–423.
- Besley, T. and Coate, S. (1992). Workfare versus welfare: Incentive arguments for work requirements in poverty-alleviation programs. *The American Economic Review*, 82(1):249–261.
- Cappelen, A. W., Hole, A. D., Sørensen, E. Ø., and Tungodden, B. (2007). The pluralism of fairness ideals: An experimental approach. *The American Economic Review*, 97(3):818–827.
- Cohen, J. and Dupas, P. (2010). Free distribution or cost-sharing? evidence from a randomized malaria prevention experiment. *The Quarterly Journal of Economics*, pages 1–45.
- Cohen, J., Dupas, P., and Schaner, S. (2015). Price subsidies, diagnostic tests, and targeting of malaria treatment: evidence from a randomized controlled trial. *The American Economic Review*, 105(2):609–645.
- Cryder, C. E., Loewenstein, G., and Seltman, H. (2013). Goal gradient in helping behavior. *Journal of Experimental Social Psychology*, 49(6):1078–1083.
- Currie, J. (2006). The take up of social benefits. In Auerbach, A., Card, D., and Quigley, J., editors, *Poverty, the distribution of income, and public policy*. New York: Russell Sage Foundation.
- Delavande, A. and Manski, C. F. (2010). Probabilistic polling and voting in the 2008 presidential election evidence from the american life panel. *Public opinion quarterly*, page nfq019.
- Deshpande, M. and Li, Y. (2017). Who is screened out? application costs and the targeting of disability programs.
- Drenik, A. and Perez-Truglia, R. (2017). Sympathy for the diligent and the demand for workfare. *NBER Working Paper*.
- Dupas, P. (2014). Getting essential health products to their end users: Subsidize, but how much? *Science*, 345(6202):1279–1281.

- Dupas, P., Hoffmann, V., Kremer, M., and Zwane, A. P. (2016). Targeting health subsidies through a nonprice mechanism: A randomized controlled trial in kenya. *Science*, 353(6302):889–895.
- Dupas, P. and Miguel, E. (2017). Impacts and determinants of health levels in low-income countries. *Handbook of Economic Field Experiments*, 2:3–93.
- Falk, A., Fehr, E., and Fischbacher, U. (2008). Testing theories of fairness intentions matter. *Games and Economic Behavior*, 62(1):287–303.
- Fiszbein, A. and Schady, N. R. (2009). *Conditional cash transfers: reducing present and future poverty*. World Bank Publications.
- Fong, C. M. and Luttmer, E. F. (2009). What determines giving to hurricane katrina victims? experimental evidence on racial group loyalty. *American Economic Journal: Applied Economics*, 1(2):64–87.
- Fong, C. M. and Luttmer, E. F. (2011). Do fairness and race matter in generosity? evidence from a nationally representative charity experiment. *Journal of Public Economics*, 95(5):372–394.
- Glaeser, E. L. and Luttmer, E. F. (2003). The misallocation of housing under rent control. *The American Economic Review*, 93(4):1027–1046.
- Gneezy, U., Keenan, E. A., and Gneezy, A. (2014). Avoiding overhead aversion in charity. *Science*, 346(6209):632–635.
- Gutsche, T. L., Kapteyn, A., Meijer, E., and Weerman, B. (2014). The rand continuous 2012 presidential election poll. *Public Opinion Quarterly*, 78(S1):233–254.
- Haaland, I. and Roth, C. (2017). Labor market concerns and support for immigration.
- Holm, S. (1979). A simple sequentially rejective multiple test procedure. *Scandinavian journal of statistics*, pages 65–70.
- Karlan, D. and List, J. A. (2012). How can bill and melinda gates increase other people’s donations to fund public goods? Technical report, National Bureau of Economic Research.
- Kuziemko, I., Norton, M. I., Saez, E., and Stantcheva, S. (2015). How elastic are preferences for redistribution? evidence from randomized survey experiments. *The American Economic Review*, 105(4):1478–1508.
- Lefgren, L., Sims, D., and Stoddard, O. (2016). The other 1%: Class leavening, contamination and voting for redistribution.
- List, J. A. (2011). The market for charitable giving. *The Journal of Economic Perspectives*, 25(2):157–180.

- List, J. A., Shaikh, A. M., and Xu, Y. (2016). Multiple hypothesis testing in experimental economics. Technical report, National Bureau of Economic Research.
- Nichols, A. L. and Zeckhauser, R. J. (1982). Targeting transfers through restrictions on recipients. *The American Economic Review*, 72(2):372–377.
- Nichols, D., Smolensky, E., and Tideman, T. N. (1971). Discrimination by waiting time in merit goods. *The American Economic Review*, 61(3):312–323.
- Potters, J., Sefton, M., and Vesterlund, L. (2007). Leading-by-example and signaling in voluntary contribution games: an experimental study. *Economic Theory*, 33(1):169–182.
- Ravallion, M. (1991). Reaching the rural poor through public employment: arguments, evidence, and lessons from south asia. *The World Bank Research Observer*, 6(2):153–175.
- Rennane, S. (2016). The effect of lower transaction costs on ssdi application rates and participation. In *2016 Fall Conference: The Role of Research in Making Government More Effective*. Appam.
- Riley, J. G. (2001). Silver signals: Twenty-five years of screening and signaling. *Journal of Economic literature*, 39(2):432–478.
- Thaler, R. (1980). Toward a positive theory of consumer choice. *Journal of Economic Behavior & Organization*, 1(1):39–60.
- Vesterlund, L. (2003). The informational value of sequential fundraising. *Journal of Public Economics*, 87(3):627–657.

Figure 1a: Effect of recipient contribution on expected recipient surplus  $E[v - c]$

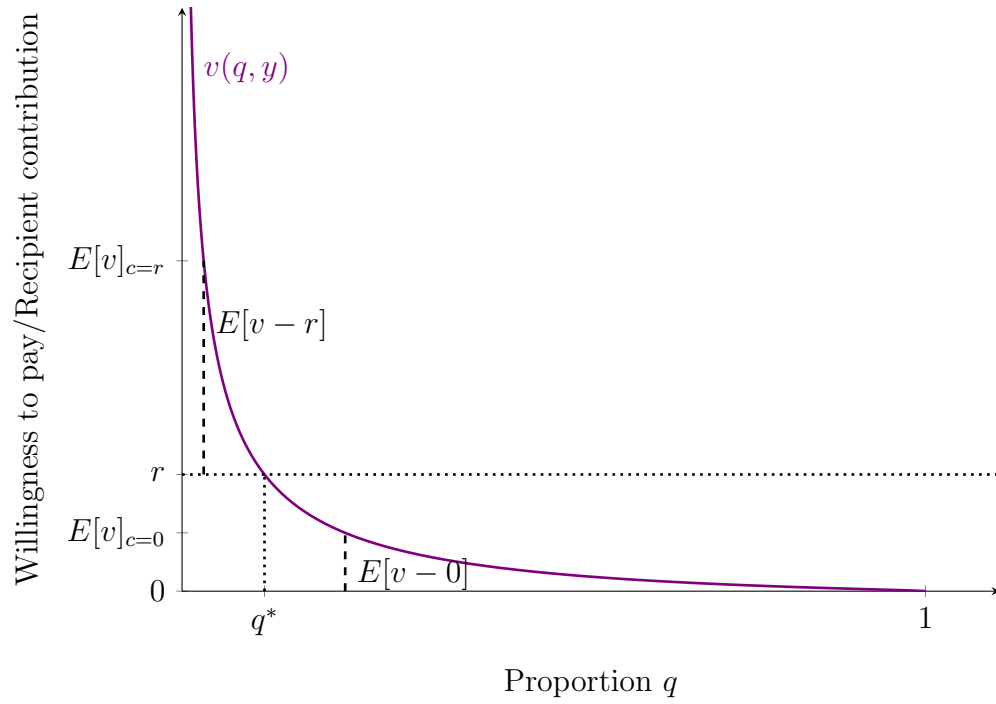


Figure 1b: Effect of recipient contribution for low income vs. high income recipients

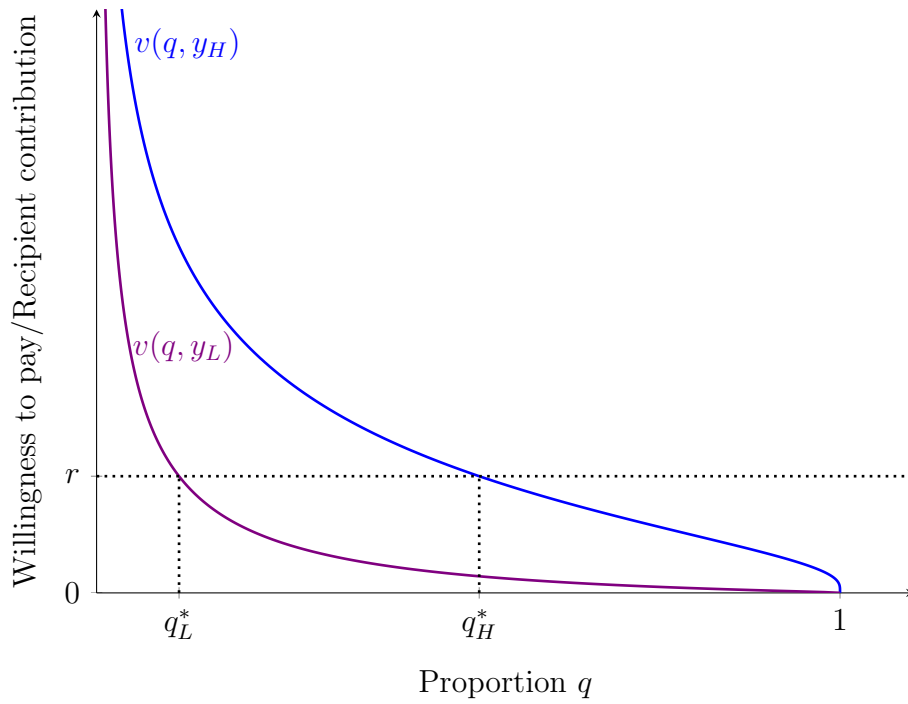




Figure 2a: Effect of low recipient contribution on expected recipient surplus  $E[v - c]$

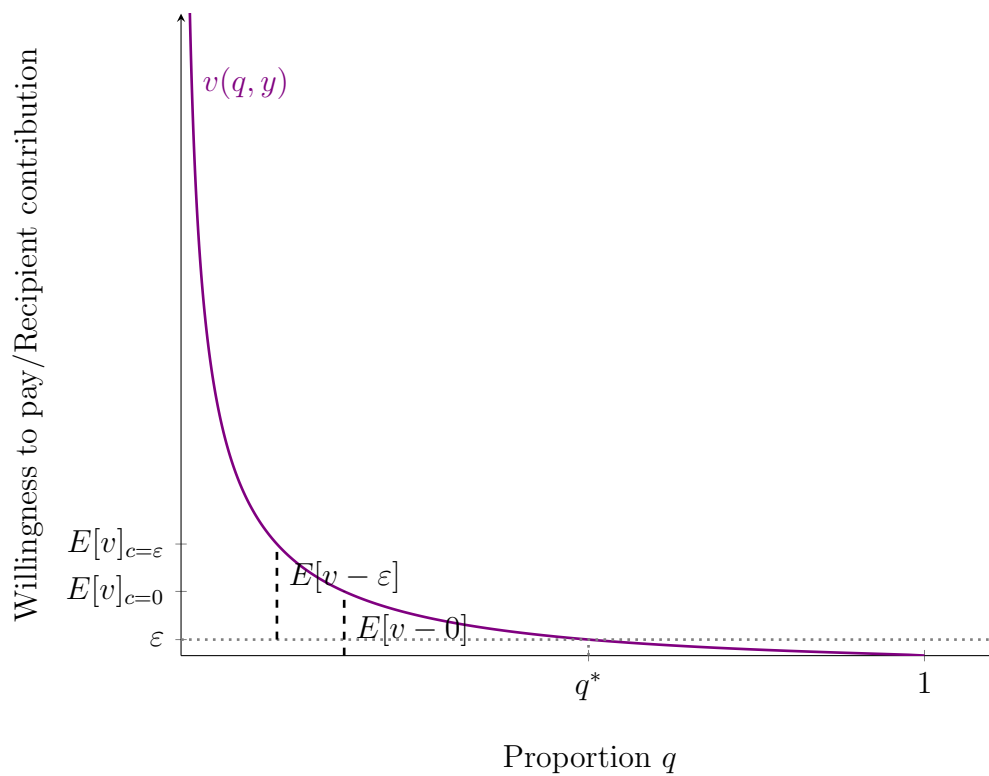


Figure 2b: Effect of low recipient contribution for low  $\sigma_L$  vs. high  $\sigma_H$  distributions

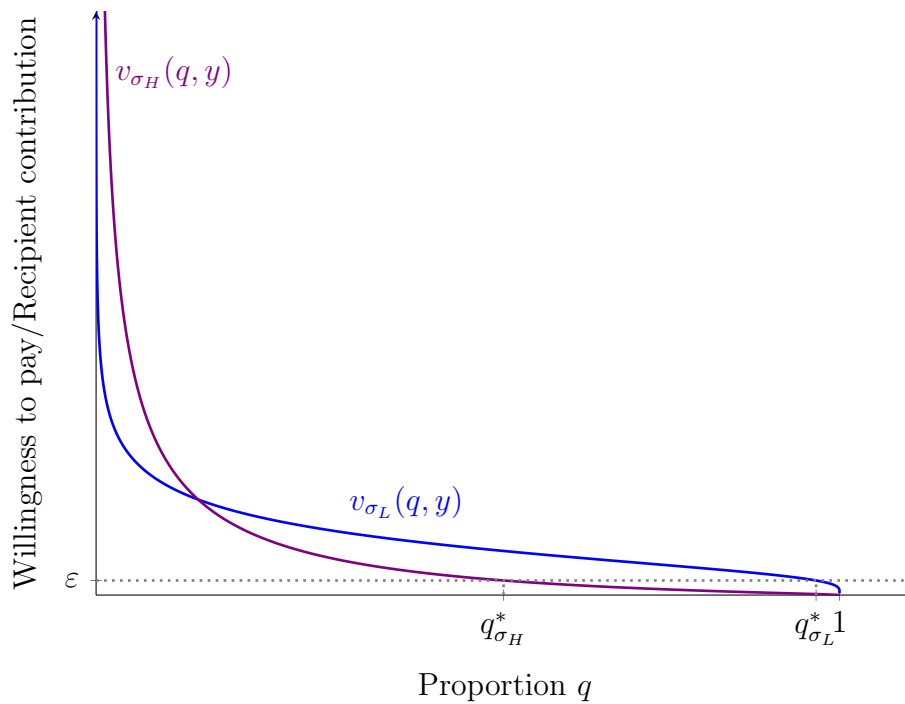
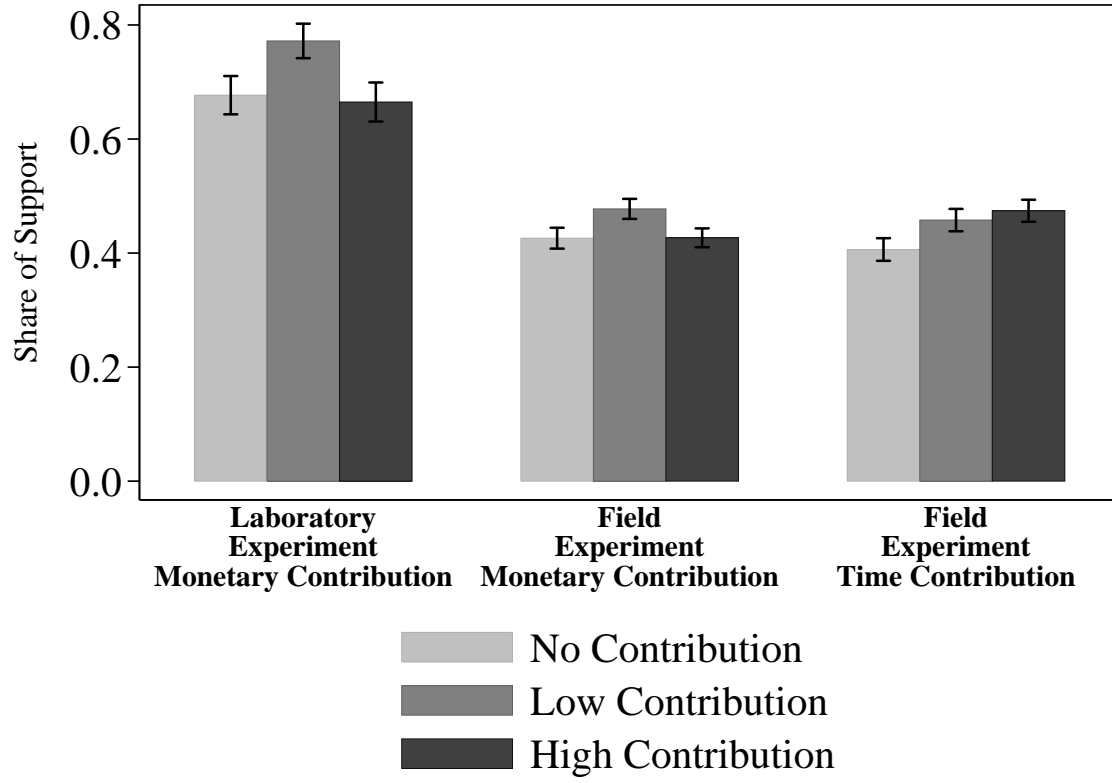
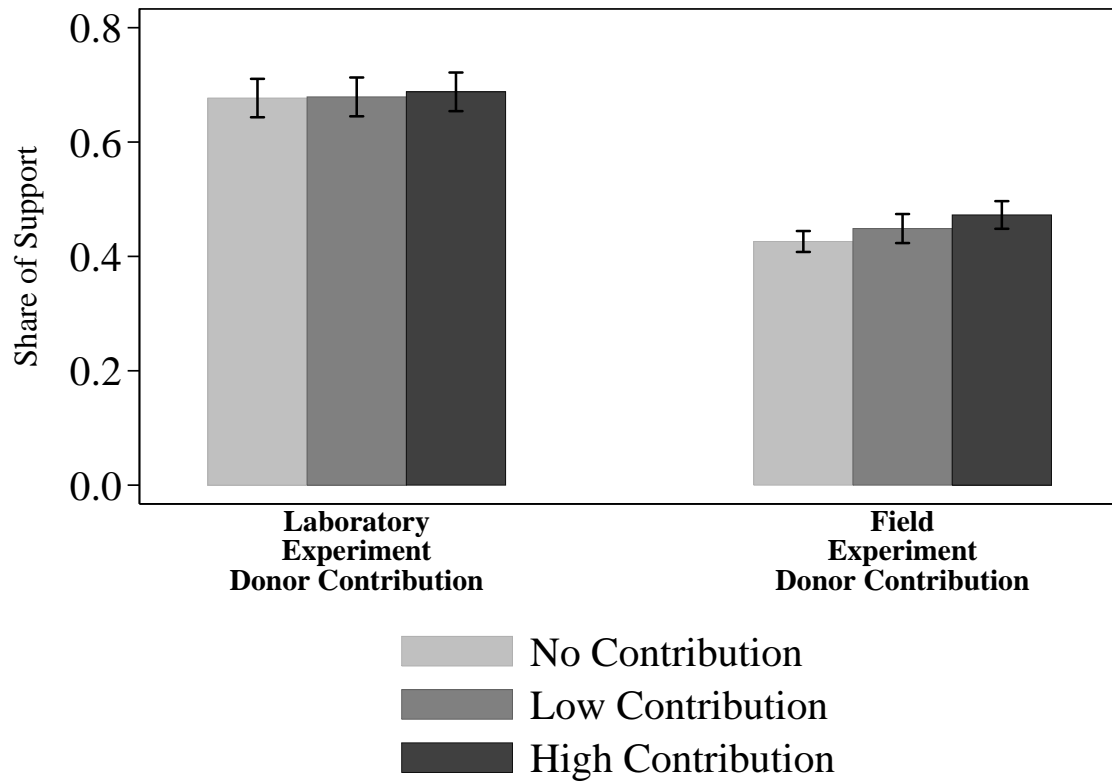


Figure 3: Program support by recipient contribution treatment group



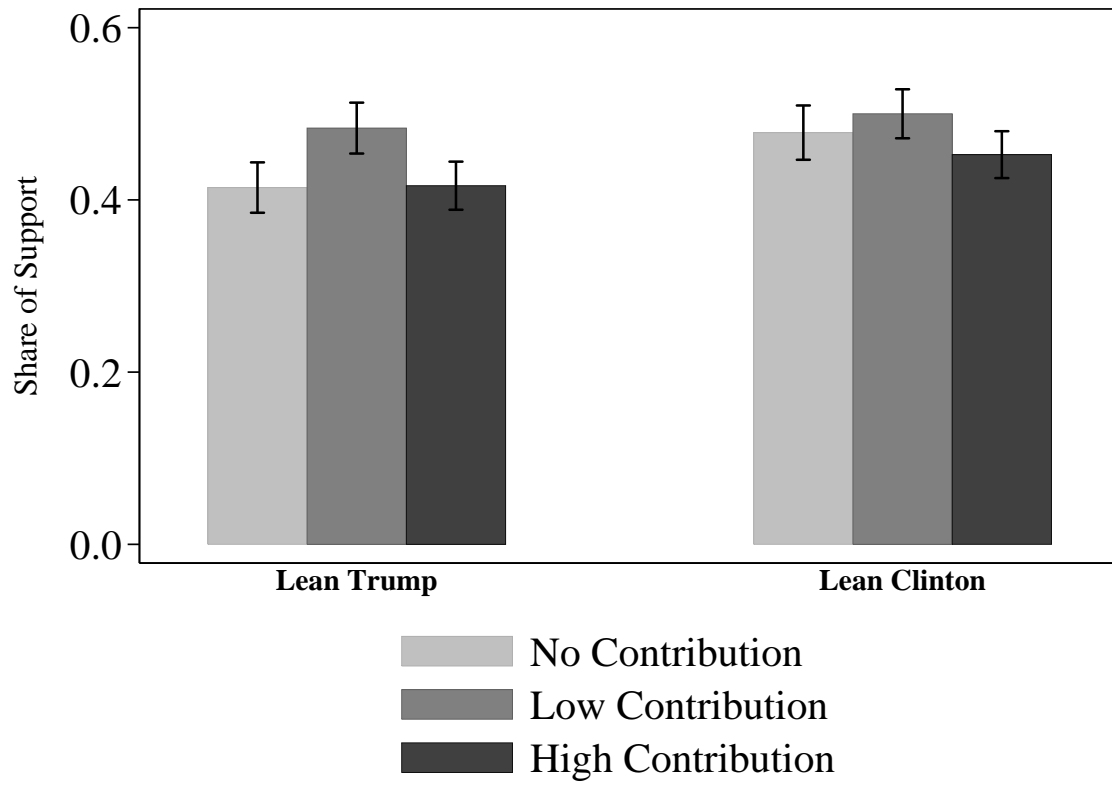
*Notes:* The figure presents mean share of support and standard errors bars for the laboratory experiment (proportion of participants who direct the donation to the food aid program) and the field experiment (share of total payment participants donate to the food aid program, including zeroes).

Figure 4: Program support by donor contribution treatment group



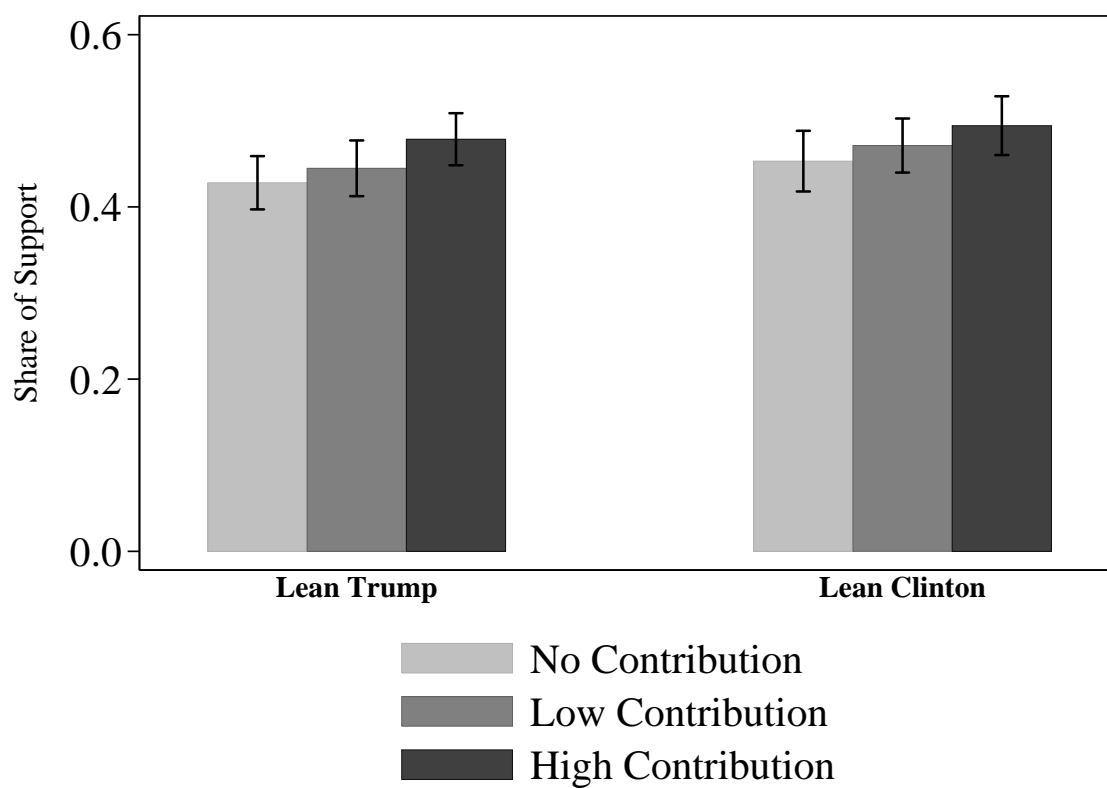
*Notes:* The figure presents mean share of support and standard errors bars for the laboratory experiment (proportion of participants who direct the donation to the food aid program) and the field experiment (share of total payment participants donate to the food aid program, including zeroes).

Figure 5: Program support by political preference: Recipient monetary contributions



*Notes:* The figure presents mean share of support and standard errors bars for the field experiment (share of total payment participants donate to the food aid program, including zeroes).

Figure 6: Program support by political preference: Recipient time contributions



*Notes:* The figure presents mean share of support and standard errors bars for the laboratory experiment (proportion of participants who direct the donation to the food aid program) and the field experiment (share of total payment participants donate to the food aid program, including zeroes).

Table 2: Baseline characteristics by treatment group: Laboratory experiment

	Monetary Contribution (\$)			F-test $p$ -value
	None	Low (\$1)	High (\$5)	
N	195	193	191	
Age	20.97 (2.85)	20.93 (2.50)	20.84 (2.27)	1.00
Female	0.47 (0.50)	0.53 (0.50)	0.52 (0.50)	0.57
Asian	0.60 (0.49)	0.60 (0.49)	0.61 (0.49)	0.96
Hispanic	0.08 (0.28)	0.06 (0.23)	0.06 (0.23)	0.53
White	0.23 (0.42)	0.25 (0.43)	0.24 (0.43)	0.88
Other	0.09 (0.29)	0.10 (0.30)	0.09 (0.29)	0.95

*Notes:* The table reports group means. Standard deviations in parentheses. The reported  $p$ -value is the probability from a joint  $F$ -test that the group means are equal to each other. Asterisks indicate a difference of means compared to the No Contribution group significant at the \* 0.1, \*\* 0.05, \*\*\* 0.01 level.

Table 3: Baseline characteristics by treatment group: Field experiment

	Monetary Contribution (\$)			Time Contribution (mins)			F-test <i>p</i> -value
	None	Low (\$1)	High (\$5)	None	Low (5)	High (25)	
N	580	605	657	484	516	533	
Age	49.08 (15.22)	48.81 (15.30)	49.90 (15.51)	50.48 (14.63)	49.92 (15.41)	48.60** (15.77)	0.91
Female	0.56 (0.50)	0.55 (0.50)	0.59 (0.49)	0.58 (0.49)	0.62 (0.49)	0.59 (0.49)	0.35
White	0.73 (0.44)	0.77 (0.42)	0.75 (0.43)	0.73 (0.44)	0.72 (0.45)	0.76 (0.43)	0.77
Black	0.08 (0.27)	0.07 (0.26)	0.09 (0.29)	0.09 (0.29)	0.09 (0.29)	0.08 (0.28)	0.88
Hispanic	0.09 (0.29)	0.08 (0.28)	0.07 (0.26)	0.10 (0.30)	0.11 (0.32)	0.10 (0.30)	0.21
Other	0.10 (0.30)	0.07 (0.26)	0.09 (0.28)	0.08 (0.27)	0.08 (0.27)	0.06 (0.24)	0.40
Married	0.61 (0.49)	0.60 (0.49)	0.56 (0.50)	0.59 (0.49)	0.61 (0.49)	0.61 (0.49)	0.74
Dropout or High School	0.28 (0.45)	0.24 (0.43)	0.25 (0.43)	0.24 (0.43)	0.28 (0.45)	0.23 (0.42)	0.29
Some College or AA Degree	0.38 (0.49)	0.39 (0.49)	0.39 (0.49)	0.41 (0.49)	0.35* (0.48)	0.37 (0.48)	0.66
Bachelor's Degree or Higher	0.34 (0.48)	0.37 (0.48)	0.37 (0.48)	0.35 (0.48)	0.37 (0.48)	0.40 (0.49)	0.57
Hh Income: Below 25,000	0.24 (0.43)	0.24 (0.43)	0.24 (0.43)	0.25 (0.43)	0.23 (0.42)	0.22 (0.41)	0.89
Hh Income: 25,000-49,999	0.23 (0.42)	0.20 (0.40)	0.24 (0.43)	0.25 (0.43)	0.25 (0.43)	0.22 (0.41)	0.40
Hh Income: 50,000-74,999	0.18 (0.38)	0.20 (0.40)	0.17 (0.38)	0.19 (0.39)	0.21 (0.41)	0.21 (0.41)	0.44
Hh Income: 75,000-99,999	0.17 (0.38)	0.16 (0.37)	0.14 (0.35)	0.12 (0.32)	0.11 (0.31)	0.13 (0.34)	0.01
Hh Income: 100,000 and Above	0.18 (0.39)	0.20 (0.40)	0.20 (0.40)	0.20 (0.40)	0.20 (0.40)	0.23 (0.42)	0.59
Hh Size 1	0.16 (0.37)	0.16 (0.36)	0.17 (0.37)	0.17 (0.38)	0.14 (0.34)	0.16 (0.37)	0.76
Hh Size 2	0.39 (0.49)	0.40 (0.49)	0.41 (0.49)	0.43 (0.50)	0.42 (0.49)	0.37* (0.48)	0.55
Hh Size 3	0.17 (0.38)	0.19 (0.40)	0.16 (0.37)	0.15 (0.36)	0.17 (0.37)	0.17 (0.37)	0.66
Hh Size 4+	0.27 (0.45)	0.25 (0.44)	0.26 (0.44)	0.24 (0.43)	0.28 (0.45)	0.30* (0.46)	0.49
Probability Vote	0.86 (0.27)	0.85 (0.29)	0.85 (0.28)	0.88 (0.25)	0.86 (0.28)	0.85 (0.29)	0.97
Lean Trump	0.47 (0.50)	0.41* (0.49)	0.42* (0.49)	0.47 (0.50)	0.42 (0.49)	0.47 (0.50)	0.23
Lean Clinton	0.41 (0.49)	0.42 (0.49)	0.45 (0.50)	0.40 (0.49)	0.44 (0.50)	0.39 (0.49)	0.32
Lean Other	0.12 (0.32)	0.17** (0.37)	0.13 (0.34)	0.14 (0.35)	0.14 (0.35)	0.14 (0.35)	0.39
Preference Missing	0.16 (0.36)	0.13 (0.34)	0.18 (0.38)	0.12 (0.33)	0.13 (0.33)	0.14 (0.35)	0.10

*Notes:* The table reports group means. Standard deviations in parentheses. The reported *p*-value is the probability from a joint *F*-test that the group means are equal to each other. Asterisks indicate a difference of means compared to the relevant No Contribution (money or time) group significant at the \* 0.1, \*\* 0.05, \*\*\* 0.01 level.

Table 4: Effects of recipient contribution on program support

	Monetary Contribution				Time Contribution	
	Laboratory		Field		Field	
	Experiment		Experiment		Experiment	
<i>Panel A: Share of support</i>						
Low Contribution	0.095** (0.047)	0.079* (0.048)	0.051** (0.025)	0.049* (0.025)	0.052* (0.028)	0.054** (0.027)
High Contribution	-0.012 (0.047)	-0.009 (0.048)	0.001 (0.025)	0.000 (0.025)	0.068** (0.027)	0.065** (0.027)
Control mean	0.68 (0.03)		0.43 (0.02)		0.41 (0.02)	
Pr(Low=High)	0.023	0.064	0.039	0.045	0.545	0.695
N	958	958	4,000	4,000	4,000	4,000
<i>Panel B: Any support</i>						
Low Contribution			0.083*** (0.028)	0.081*** (0.028)	0.050 (0.031)	0.051* (0.031)
High Contribution			0.026 (0.028)	0.023 (0.028)	0.056* (0.030)	0.053* (0.030)
Control mean			0.59 (0.02)		0.57 (0.02)	
Pr(Low=High)			0.038	0.033	0.831	0.938
N			4,000	4,000	4,000	4,000
Session/Survey day	No	Yes	No	Yes	No	Yes
Demographics	No	Yes	No	Yes	No	Yes

*Notes:* OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Contribution for money (col 1-4) or time (col 5-6). Columns 1, 3 and 5 include indicator variables for treatment. Column 2 adds session fixed effects and demographic covariates (age, gender, race/ethnicity). Columns 4 and 6 add survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size). \* 0.1, \*\* 0.05, \*\*\* 0.01.



Table 5: Effects of donor contribution on program support

	Donor Monetary Contribution		Laboratory Field Experiment	
<i>Panel A: Share of support</i>				
Low Contribution	0.002 (0.047)	−0.003 (0.048)	0.023 (0.031)	0.026 (0.030)
High Contribution	0.011 (0.047)	0.008 (0.048)	0.046 (0.030)	0.041 (0.030)
Control mean	0.67 (0.03)		0.43 (0.02)	
Pr(Low=High)	0.851	0.824	0.496	0.679
N	958	958	4,000	4,000
<i>Panel B: Any support</i>				
Low Contribution			0.034 (0.034)	0.041 (0.034)
High Contribution			0.053 (0.034)	0.048 (0.034)
Control mean			0.59 (0.02)	
Pr(Low=High)			0.621	0.858
N			4,000	4,000
Session/Survey day	No	Yes	No	Yes
Demographics	No	Yes	No	Yes

*Notes:* OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Monetary Contribution. Columns 1 and 3 include indicator variables for treatment. Column 2 adds session fixed effects and demographic covariates (age, gender, race/ethnicity). Column 4 adds survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size). \* 0.1, \*\* 0.05, \*\*\* 0.01.

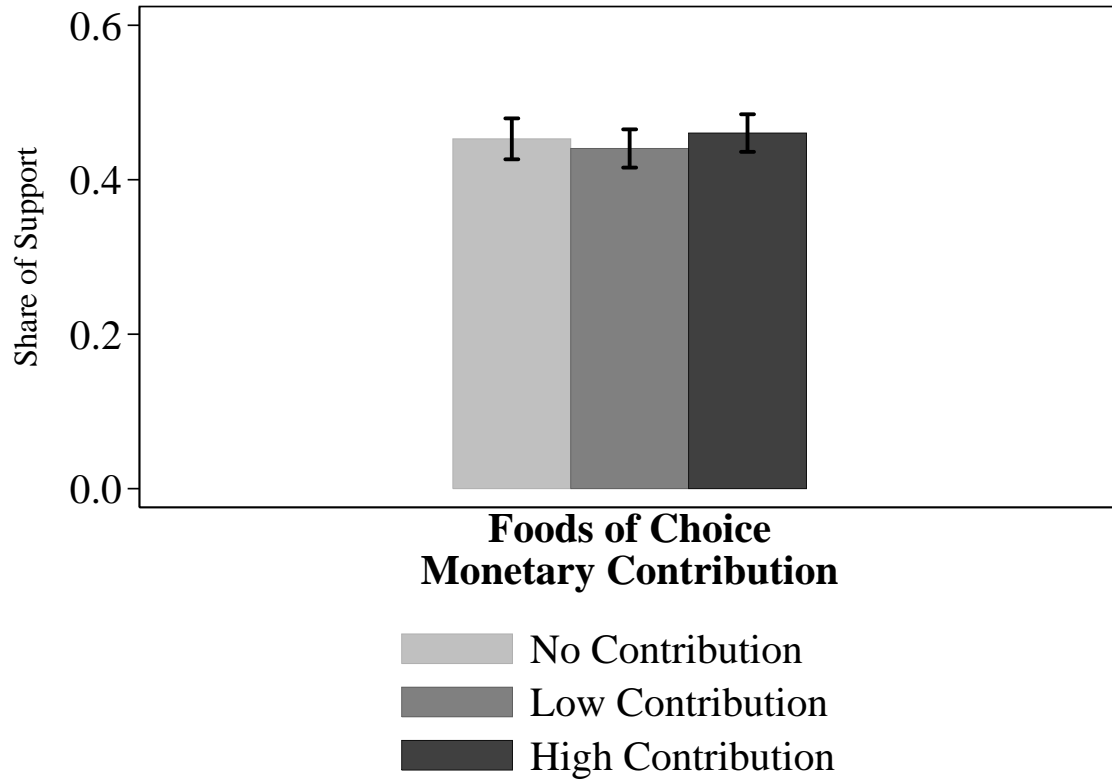
Table 6: Effects of recipient contribution by political preference

	Monetary Contribution		Time Contribution	
	Lean Trump	Lean Clinton	Lean Trump	Lean Clinton
<i>Panel A: Share of support</i>				
Low Contribution	0.070* (0.042)	0.023 (0.042)	0.030 (0.045)	0.012 (0.045)
High Contribution	0.002 (0.041)	0.002 (0.042)	0.063 (0.044)	0.037 (0.047)
Control mean	0.41 (0.03)	0.48 (0.03)	0.43 (0.03)	0.45 (0.04)
Pr(Low=High)	0.102	0.587	0.451	0.578
N	1,524	1,421	1,524	1,421
<i>Panel B: Any support</i>				
Low Contribution	0.095** (0.047)	0.051 (0.047)	-0.002 (0.051)	0.071 (0.050)
High Contribution	0.029 (0.047)	0.024 (0.046)	0.022 (0.049)	0.076 (0.051)
Control mean	0.57 (0.03)	0.66 (0.03)	0.61 (0.03)	0.58 (0.04)
Pr(Low=High)	0.164	0.531	0.639	0.910
N	1,524	1,421	1,524	1,421
Session/Survey day	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes

*Notes:* OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Contribution for money (col 1-2) or time (col 3-4). All columns include indicator variables for treatment, survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size). \* 0.1, \*\* 0.05, \*\*\* 0.01.

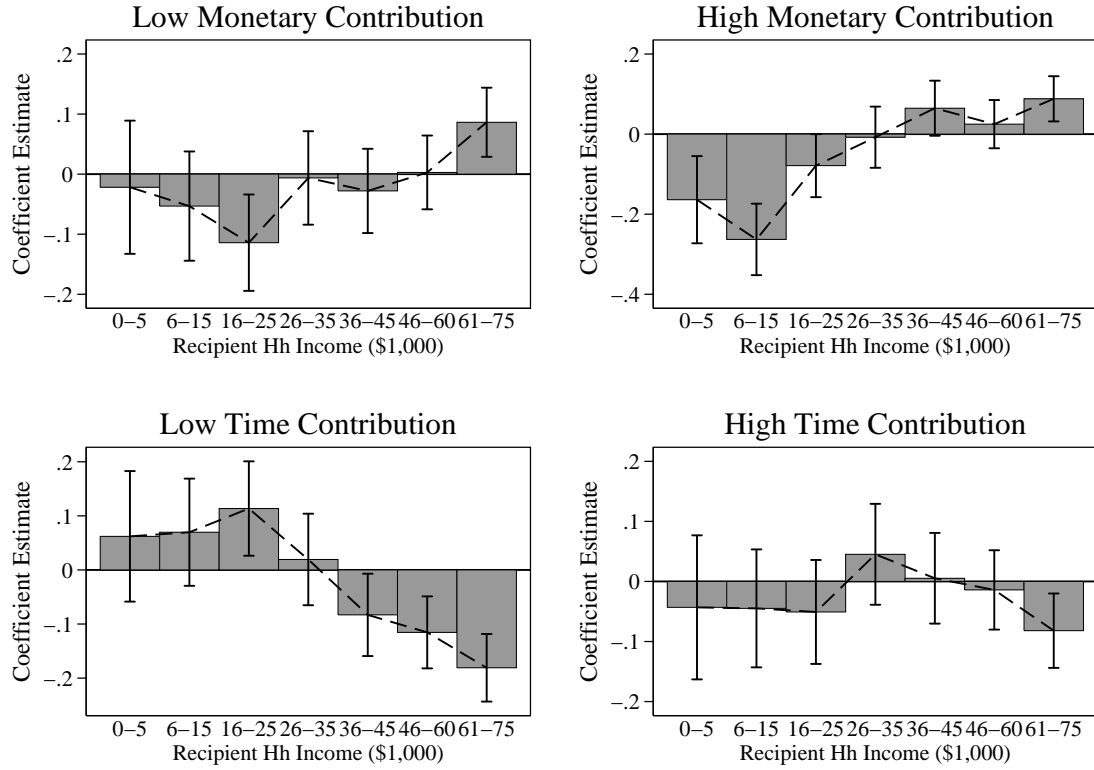
## A Appendix Figures and Tables

Figure A.1: Program support by recipient contribution treatment: Foods of choice



*Notes:* The figure presents mean share of support and standard errors bars for the field experiment (share of total payment participants donate to the food aid program, including zeroes).

Figure A.2: Treatment effects on beliefs about recipient income



*Notes:* The figure presents coefficients and standard error bars from OLS estimates for each income range of effects of recipient contribution treatment reported for each panel. Dependent variable is belief on 1-7 scale about proportion of households that are in a given income range. Regressions include all “healthy basket” treatments. Omitted group is No Contribution for money (top panels) or time (bottom panels). All regressions include indicator variables for treatment, survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size).

Table A.1: Baseline characteristics: Laboratory experiment additional treatments

	Donor None	Monetary Low (\$1)	Contribution (\$) High (\$5)	F-test $p$ -value
N	195	190	189	
Age	20.97 (2.85)	21.43 (6.05)	21.43 (6.00)	0.93
Female	0.47 (0.50)	0.50 (0.50)	0.46 (0.50)	0.76
Asian	0.60 (0.49)	0.58 (0.50)	0.59 (0.49)	0.95
Hispanic	0.08 (0.28)	0.06 (0.24)	0.07 (0.25)	0.75
White	0.23 (0.42)	0.25 (0.44)	0.24 (0.43)	0.84
Other	0.09 (0.29)	0.11 (0.31)	0.10 (0.30)	0.91

*Notes:* The table reports group means. Standard deviations in parentheses. The reported  $p$ -value is the probability from a joint  $F$ -test that the group means are equal to each other. Asterisks indicate a difference of means compared to the No Contribution group significant at the \* 0.1, \*\* 0.05, \*\*\* 0.01 level.

Table A.2: Baseline characteristics: Field experiment additional treatments

	Donor Monetary Contribution (\$)			Recipient Monetary Contribution (\$)			F-test <i>p</i> -value
	None	Healthy Food Low (\$1)	High (\$5)	None	Choice of Food Low (\$1)	High (\$5)	
N	580	307	318	292	296	303	
Female	0.56 (0.50)	0.55 (0.50)	0.58 (0.49)	0.50 (0.50)	0.56 (0.50)	0.54 (0.50)	0.81
Age in Years	49.08 (15.22)	48.36 (16.23)	49.69 (14.72)	49.87 (16.07)	49.17 (16.13)	47.52* (15.66)	0.98
White	0.73 (0.44)	0.76 (0.43)	0.76 (0.43)	0.72 (0.45)	0.72 (0.45)	0.74 (0.44)	0.95
Black	0.08 (0.27)	0.06 (0.24)	0.07 (0.25)	0.11 (0.31)	0.09 (0.28)	0.10 (0.30)	0.32
Hispanic	0.09 (0.29)	0.10 (0.30)	0.08 (0.27)	0.09 (0.29)	0.10 (0.30)	0.08 (0.28)	0.95
Other	0.10 (0.30)	0.08 (0.27)	0.09 (0.28)	0.08 (0.27)	0.09 (0.29)	0.08 (0.27)	0.86
Married	0.61 (0.49)	0.60 (0.49)	0.58 (0.49)	0.64 (0.48)	0.60 (0.49)	0.59 (0.49)	0.92
Dropout or High School	0.28 (0.45)	0.26 (0.44)	0.21** (0.41)	0.22 (0.41)	0.25 (0.43)	0.26 (0.44)	0.39
Some College or AA Degree	0.38 (0.49)	0.38 (0.49)	0.45* (0.50)	0.38 (0.49)	0.39 (0.49)	0.36 (0.48)	0.52
Bachelor's Degree or Higher	0.34 (0.48)	0.36 (0.48)	0.34 (0.47)	0.40 (0.49)	0.36 (0.48)	0.38 (0.49)	0.77
Hh Income: Below 25,000	0.24 (0.43)	0.18** (0.38)	0.22 (0.42)	0.21 (0.41)	0.24 (0.43)	0.20 (0.40)	0.50
Hh Income: 25,000-49,999	0.23 (0.42)	0.26 (0.44)	0.25 (0.43)	0.21 (0.41)	0.28* (0.45)	0.26 (0.44)	0.51
Hh Income: 50,000-74,999	0.18 (0.38)	0.21 (0.41)	0.17 (0.37)	0.22 (0.42)	0.18 (0.38)	0.19 (0.40)	0.50
Hh Income: 75,000-99,999	0.17 (0.38)	0.13 (0.34)	0.15 (0.36)	0.14 (0.35)	0.11 (0.31)	0.12 (0.33)	0.17
Hh Income: 100,000 and Above	0.18 (0.39)	0.22 (0.42)	0.21 (0.41)	0.22 (0.41)	0.20 (0.40)	0.22 (0.42)	0.70
Hh Size 1	0.16 (0.37)	0.14 (0.35)	0.17 (0.37)	0.15 (0.36)	0.17 (0.38)	0.17 (0.37)	0.94
Hh Size 2	0.39 (0.49)	0.37 (0.48)	0.38 (0.49)	0.38 (0.49)	0.33 (0.47)	0.33 (0.47)	0.58
Hh Size 3	0.17 (0.38)	0.16 (0.36)	0.17 (0.38)	0.17 (0.38)	0.16 (0.37)	0.22 (0.42)	0.31
Hh Size 4+	0.27 (0.45)	0.33* (0.47)	0.28 (0.45)	0.30 (0.46)	0.34 (0.47)	0.27 (0.45)	0.35
Probability Vote	0.86 (0.27)	0.86 (0.29)	0.85 (0.28)	0.86 (0.28)	0.89 (0.23)	0.87 (0.27)	1.00
Lean Trump	0.47 (0.50)	0.50 (0.50)	0.45 (0.50)	0.48 (0.50)	0.42 (0.50)	0.45 (0.50)	0.76
Lean Clinton	0.41 (0.49)	0.39 (0.49)	0.42 (0.49)	0.40 (0.49)	0.46 (0.50)	0.42 (0.49)	0.85
Lean Other	0.12 (0.32)	0.11 (0.31)	0.13 (0.33)	0.13 (0.33)	0.12 (0.32)	0.14 (0.34)	0.97
Preference Missing	0.16 (0.36)	0.19 (0.39)	0.15 (0.36)	0.16 (0.37)	0.15 (0.36)	0.15 (0.36)	0.68

*Notes:* The table reports group means. Standard deviations in parentheses. The reported *p*-value is the probability from a joint *F*-test that the group means are equal to each other. Asterisks indicate a difference of means compared to the relevant No Contribution (healthy or foods of choice) group significant at the \* 0.1, \*\* 0.05, \*\*\* 0.01 level.

Table A.3: Effects of recipient contribution: All participants

	Monetary Contribution Laboratory Experiment	Field Experiment	Time Contribution Field Experiment
<i>Panel A: Share of support</i>			
Low Contribution	0.097** (0.046)	0.052** (0.025)	0.053* (0.028)
High Contribution	-0.023 (0.045)	0.000 (0.025)	0.069** (0.027)
Control mean	0.67 (0.03)	0.43 (0.02)	0.41 (0.02)
Pr(Low=High)	0.008	0.035	0.546
N	1,020	4,014	4,014
<i>Panel B: Any support</i>			
Low Contribution		0.084*** (0.028)	0.052* (0.031)
High Contribution		0.026 (0.028)	0.057* (0.030)
Control mean		0.59 (0.02)	0.57 (0.02)
Pr(Low=High)		0.033	0.850
N		4,014	4,014
Session/Survey day	No	No	No
Demographics	No	No	No

*Notes:* OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Contribution for money (col 1-2) or time (col 3). All columns include indicator variables for treatment. \* 0.1, \*\* 0.05, \*\*\* 0.01.

Table A.4: Effects of recipient contribution: Voter preference sample

	Monetary Contribution		Time Contribution	
<i>Panel A: Share of support</i>				
Low Contribution	0.059** (0.028)	0.060** (0.027)	0.016 (0.030)	0.021 (0.029)
High Contribution	0.003 (0.027)	0.008 (0.027)	0.053* (0.030)	0.054* (0.029)
Control mean		0.43 (0.02)		0.43 (0.02)
Pr(Low=High)	0.038	0.047	0.209	0.246
N	3,407	3,407	3,407	3,407
<i>Panel B: Any support</i>				
Low Contribution	0.092*** (0.030)	0.090*** (0.030)	0.018 (0.032)	0.024 (0.033)
High Contribution	0.038 (0.030)	0.036 (0.030)	0.039 (0.032)	0.045 (0.032)
Control mean		0.60 (0.02)		0.60 (0.02)
Pr(Low=High)	0.065	0.065	0.506	0.521
N	3,407	3,407	3,407	3,407
Session/Survey day	No	Yes	No	Yes
Demographics	No	Yes	No	Yes

*Notes:* OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Contribution for money (col 1-2) or time (col 3-4). Columns 1 and 3 include indicator variables for treatment. Columns 2 and 4 add survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size). \* 0.1, \*\* 0.05, \*\*\* 0.01.



Table A.5: Treatment effects on beliefs

	Food Eaten	How Deserving	White	Black	Recipient Race		
					Hispanic	Asian	Other
<i>Panel A: Monetary Contribution</i>							
Low Contribution	0.008 (0.076)	0.008 (0.047)	-0.087 (0.057)	-0.083 (0.069)	-0.063 (0.068)	-0.009 (0.061)	-0.018 (0.067)
High Contribution	-0.025 (0.075)	-0.041 (0.046)	-0.002 (0.056)	0.022 (0.068)	0.029 (0.066)	0.130** (0.060)	-0.002 (0.066)
Control mean	5.50 (0.056)	3.96 (0.034)	3.35 (0.043)	3.84 (0.050)	3.72 (0.050)	2.86 (0.046)	2.97 (0.049)
Pr(Low=High)	0.655	0.280	0.125	0.116	0.156	0.017	0.803
<i>Panel B: Time Contribution</i>							
Low Contribution	0.158* (0.083)	0.036 (0.051)	-0.021 (0.062)	-0.012 (0.075)	-0.050 (0.073)	0.024 (0.066)	0.024 (0.073)
High Contribution	0.068 (0.082)	0.050 (0.051)	-0.080 (0.062)	0.053 (0.074)	0.008 (0.073)	-0.040 (0.065)	0.017 (0.072)
Control mean	5.51 (0.059)	3.90 (0.035)	3.36 (0.048)	3.85 (0.056)	3.75 (0.055)	2.93 (0.050)	2.93 (0.053)
Pr(Low=High)	0.264	0.776	0.329	0.380	0.418	0.327	0.919
N	3,994	3,991	3,969	3,972	3,966	3,960	3,950

*Notes:* Dependent variable on 1-7 scale reported for each column. OLS estimates. Standard errors in parentheses. Includes all “healthy basket” treatments. Omitted group is No Contribution for money (panel A) or time (panel B). All columns include indicator variables for treatment, survey day fixed effects and demographic covariates (gender, age, race/ethnicity, marital status, education, Hh income and Hh size). \* 0.1, \*\* 0.05, \*\*\* 0.01.

## B Appendix: Laboratory Experiment Screenshots (For Online Publication)

Figure B.1: Control



In today's study we will ask you to give \$100 to one of two non-profits. At the end of the study, we will randomly choose the decision of one participant and implement it (i.e., make his/her specific payment). Your choice is whether to give the \$100 to "Kids Korps" or to "Louis' Groceries."

**Kids Korps.** Kids Korps is a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.

**Louis' Groceries.** Louis Groceries is a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food. Parents pay nothing for the basket. Donations provide the full \$10 cost.

Please tell us which organization you would like to give \$100 to:

- ☐ Kids Korps
- ☐ Louis' Groceries

>>

Figure B.2: Low Recipient Contribution



In today's study we will ask you to give \$100 to one of two non-profits. At the end of the study, we will randomly choose the decision of one participant and implement it (i.e., make his/her specific payment). Your choice is whether to give the \$100 to "Kids Korps" or to "Louis' Groceries."

**Kids Korps.** Kids Korps is a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.

**Louis' Groceries.** Louis' Groceries is a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food. Parents contribute \$1 for the basket. Donations provide the other \$9.

Please tell us which organization you would like to give \$100 to:

- ☐ Kids Korps
- ☐ Louis' Groceries

>>

Figure B.3: High Recipient Contribution



In today's study we will ask you to give \$100 to one of two non-profits. At the end of the study, we will randomly choose the decision of one participant and implement it (i.e., make his/her specific payment). Your choice is whether to give the \$100 to "Kids Korps" or to "Louis' Groceries."

**Kids Korps.** Kids Korps is a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.

**Louis' Groceries.** Louis' Groceries is a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food. Parents contribute \$5 for the basket. Donations provide the other \$5.

Please tell us which organization you would like to give \$100 to:

- ☐ Kids Korps
- ☐ Louis' Groceries

>>

Figure B.4: Low Donor Contribution



In today's study we will ask you to give \$100 to one of two non-profits. At the end of the study, we will randomly choose the decision of one participant and implement it (i.e., make his/her specific payment). Your choice is whether to give the \$100 to "Kids Korps" or to "Louis' Groceries."

**Kids Korps.** Kids Korps is a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.

**Louis' Groceries.** Louis' Groceries is a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food. Funding from a private foundation provides \$1 for the basket. Donations provide the other \$9.

Please tell us which organization you would like to give \$100 to:

- ☐ Kids Korps
- ☐ Louis' Groceries

>>

Figure B.5: High Donor Contribution



In today's study we will ask you to give \$100 to one of two non-profits. At the end of the study, we will randomly choose the decision of one participant and implement it (i.e., make his/her specific payment). Your choice is whether to give the \$100 to "Kids Korps" or to "Louis' Groceries."

**Kids Korps.** Kids Korps is a non-profit organization that engages young people in volunteerism and teaches them about leadership and civic responsibility.

**Louis' Groceries.** Louis' Groceries is a non-profit organization that delivers baskets with \$10 of fresh produce to families who lack access to healthy food. Funding from a private foundation provides \$5 for the basket. Donations provide the other \$5.

Please tell us which organization you would like to give \$100 to:

- ☐ Kids Korps
- ☐ Louis' Groceries

>>

## C Appendix: Field Experiment Screenshots (For Online Publication)

Figure C.1: Introduction Screen

**UnderStandingAmericaStudy**

**Español**

Before we begin, we would like to share with you an optional opportunity we have been invited to participate in by another project run at the University of Southern California. We will explain it on the next screen.

As always, your participation in this other project is completely voluntary and your participation is not necessary in order to continue the survey. After we give you information about this project and you make your selection, our end of the year survey will begin.

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Figure C.2: Donation Decision Screen (50% of cost treatment)

## UnderStandingAmericaStudy

Español

You are receiving \$8 for completing this survey. You have the opportunity to donate up to \$8 of your earnings today to the University of Southern California healthy food basket program.

**About the healthy food basket program:** USC is partnering with grocery stores in low-income areas to provide families in need with \$10 worth of fresh fruits and vegetables. Funding from a private donor provides \$5 for the basket. Donations provide the other \$5.

How you can donate to the food basket program: You can designate some portion of your participation earnings for this survey as a one-time donation. 100% of your donation today will go towards purchasing the food items in the baskets.

How much would you like to donate?

☐ \$1

☐ \$2

☐ \$3

☐ \$4

☐ \$5

☐ \$6

☐ \$7

☐ \$8

☐ Or type in:

\$

☐ I do not wish to donate

Figure C.3: Refund Screen (Only asked if positive donation amount)

## UnderStandingAmericaStudy

Español

You have the option to use your donation to help cover the cost of the baskets to families. If you choose this option, families will receive a refund for their \$1 contribution to the basket.

☐ Yes, I would like my donation to help cover the cost of the baskets to families.

☐ No, I would not like my donation to help cover the cost of the baskets to families.

☐ I don't understand this option.

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Figure C.4: Thank-You Screen

The screenshot shows the 'Thank-You Screen' of the UnderStandingAmericaStudy. At the top, the title 'UnderStandingAmericaStudy' is displayed in a large, brown, sans-serif font. Below the title is a grey navigation bar with an orange tab labeled 'Español'. The main content area is a light grey box with a thin border. It contains the text: 'Thank you for making a donation to the University of Southern California food basket program! Please click next to continue.' Below this text is a horizontal bar with two buttons: '<< Back' and 'Next >>'. At the bottom of the bar is a progress indicator consisting of a blue rectangle followed by a grey rectangle.

Figure C.5: Reminder Screen (follows other survey questions)

The screenshot shows the 'Reminder Screen' of the UnderStandingAmericaStudy. At the top, the title 'UnderStandingAmericaStudy' is displayed in a large, brown, sans-serif font. Below the title is a grey navigation bar with an orange tab labeled 'Español'. The main content area is a light grey box with a thin border. It contains the text: 'At the beginning of the survey, we asked you whether you would like to donate to the University of Southern California healthy food basket program. Remember, USC is partnering with grocery stores in low-income areas to provide families in need with \$10 worth of fresh fruits and vegetables. Funding from a private donor provides \$5 for the basket. Donations provide the other \$5. Now we are going to ask you about the families who participate in the program.' Below this text is a horizontal bar with two buttons: '<< Back' and 'Next >>'. At the bottom of the bar is a progress indicator consisting of a blue rectangle followed by a grey rectangle.

Figure C.6: Beliefs: Food Waste Question Screen

# UnderStandingAmericaStudy

Español

How much of the food do you think is eaten by the families?

- ☐ None of the food
- ☐ Almost none of the food
- ☐ Some of the food
- ☐ About half of the food
- ☐ Most of the food
- ☐ Almost all of the food
- ☐ All of the food

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Figure C.7: Beliefs: Deservingness Question Screen

# UnderStandingAmericaStudy

Español

How deserving of the basket do you think the families are?

- ☐ Not deserving at all
- ☐ Slightly deserving
- ☐ Moderately deserving
- ☐ Very deserving
- ☐ Extremely deserving

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Progress bar: 1 of 5 (1/5)

Figure C.8: Beliefs: Race/Ethnicity Question Screen

# UnderStandingAmericaStudy

Español

What do you think is the race/ethnicity of families who participate in the basket program?

	None of the families	Almost none of the families	Some of the families	About half of the families	Most of the families	Almost all of the families	All of the families
Asian	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hispanic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
White	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Figure C.9: Beliefs: Income Question Screen

# Understanding America Study

Español

What do you think is the yearly household income of families who participate in the basket program?  
Indicate approximately what portion of the families are in each income category below.

	None of the families	Almost none of the families	Some of the families	About half of the families	Most of the families	Almost all of the families	All of the families
\$0-\$5,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$6,000-\$15,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$16,000-\$25,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$26,000-\$35,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$36,000-\$45,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$46,000-\$60,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
\$61,000-\$75,000 per year	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Figure C.10: Final Earnings Screen

# UnderStandingAmericaStudy

Español

You chose to donate \$8 to the University of Southern California food basket program. Your earnings for this survey will be \$0.00 (\$8 minus your donation of \$8).

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Figure C.11: Newsletter Documenting Food Delivery Progress



Thank you to all of you who made a donation during the end of year survey.

We raised a total of **\$17,590** thanks to your generous contributions.

So far, the program has given out **540** food baskets valued at \$10 each.



We will continue to give out food baskets throughout the year thanks to your support!