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## The unintended side effects of regulating charities: Donors penalise administrative burden almost as much as overheads\*

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#### Abstract

Recent experimental evidence suggests that donors are averse to giving to charities with high overhead ratios. This paper asks whether donors are also averse to giving to charities spending a high share of the donations on unavoidable administrative expenses. The results of an experiment with a nationally representative sample (n = 1,032) suggest that donors dislike paying for administrative burden almost as much as for overhead. While donors care primarily about how much of their donations are used for program-related services, donors seem to have a weak preference for charities to spend their donations on administrative burden rather than on overheads. Government subsidies that help alleviate charities' administrative burden can reduce donors' aversion to give to charities with high administrative expenses. Overall, we show that regulations that aim to increase transparency and accountability in the charity sector can have the unintended side effect of reducing charitable giving. **JEL codes:** C99; D64; L31

**Keywords:** charitable giving; administrative burden; overhead aversion; information; dictator game; online experiment

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### 1 Introduction

The overhead ratio is frequently used as an indicator to compare the efficiency of different charities.<sup>1</sup> A low overhead ratio indicates that a charity uses a large share of donations to pay for core program expenses, i.e. the services it exists to deliver, thus indicating that donations are used efficiently. Overhead costs are typically described as comprising salaries, fundraising, and administration (e.g., Coupet and Berrett, 2019; Gneezy et al., 2014). Partly due to government regulations and voluntary measures that aim to increase transparency and accountability, charities spend an increasing amount of time and money on administrative tasks (Cordery and Deguchi, 2018; Hyndman and McKillop, 2018; McGregor-Lowndes and Ryan, 2009). To the extent that these tasks become onerous, the public administration literature describes them as administrative burdens (Burden et al., 2012; Herd and Moynihan, 2019) and behavioural economists call some of them sludge (Shahab and Lades, 2020; Soman, 2020; Sunstein, 2020; Thaler, 2018). Most charities cannot influence how much time and money they spend on administrative tasks while still complying with all requirements, because these requirements are determined by the sector the charity operates in, the complexity of the charity, and relevant government regulations. This contrasts with the stronger influence charities have over how much they spend on salaries and fundraising. However, the distinction between relatively easily influenced overhead costs (for salaries and fundraising) and costs that are hard to influence (administrative costs related to compliance with regulations) is often neglected in debates about the effectiveness of charities.

A number of recent papers have demonstrated that donors penalise high overhead ratios when deciding about how much and to whom to give. These experiments show that increasing overhead costs (and thus lowering program expenses) decreases donations when donors have the choice between different charities with different overhead ratios (Charles et al., 2020; Gneezy et al., 2014; Portillo and Stinn, 2018). Donors want their donation to make as much difference as possible, whether they are motivated by pure altruism (Andreoni, 1988) or "warm glow" (Andreoni, 1990). High overheads can also

<sup>&</sup>lt;sup>1</sup>For instance, charity watchdog agencies such as Charity Navigator and CharityWatch assign ratings to charities based largely on their relative spending on overhead.

be used as an excuse not to give at all (Exley, 2019). An implication of this "overhead aversion" is that many charities aim to aggressively reduce overhead costs to appear efficient (although some studies suggest that the optimal overhead lies around 40%, see e.g. Park and Matkin, 2020).<sup>2</sup> A danger of cutting overheads too much is that it can lead charities into "starvation cycles" due to underinvestment in organizational infrastructure, which can thus impair organizational effectiveness (e.g., Schubert and Boenigk, 2019; Tian et al., 2020). A second response to donors' overhead aversion is that charities underreport their overhead expenses when filing their accounts (Dang and Owens, 2020) which can raise concerns in the public about the whole sector's transparency and accountability.

To avoid the dangers of starvation cycles and underreporting of overhead costs, a solution might be to communicate to donors that there are different types of non-program expenses, and that charities can influence some of these expenses more than others.<sup>3</sup> Recent research has begun to test whether the strength of overhead aversion depends on the type of overhead. For example, Portillo and Stinn (2018) show that donors prefer paying for fundraising efforts, which could be perceived as investments to generate future donations, rather than salary-related expenditures, which have received some negative coverage in the media. However, the role that compliance costs play (as one particularly important but unavoidable administrative cost) for donation decisions has not yet been investigated. Theories of pure altruism and warm glow (Andreoni, 1988, 1990) can explain the preference for high spending on core program expenses, but can not predict any differences between overhead aversion and the aversion to pay for compliance-related expenses. However, since compliance costs are externally imposed by regulations and cannot be influenced by charities, donors may consider compliance costs as more justifiable than overhead costs. For example, models of intention-based reciprocity (Rabin, 1993; Dufwenberg and Kirchsteiger, 2004) would predict that donors reward charities that make

<sup>&</sup>lt;sup>2</sup>Some overhead spending is necessary for organizations to survive and thrive relative to accomplishing their missions, and increasing overhead spending can foster organizational growth and better position organizations to achieve success relative to their missions. Moreover, some overhead spending is *unavoidable* due to government regulations on reporting and other administrative tasks—a characteristic which may matter for donors.

<sup>&</sup>lt;sup>3</sup>Henceforth, unless otherwise clarified, we use the term "overheads" to mean those non-program expenses that charities can influence, including salaries and fundraising, and we use "administrative burden" to mean unavoidable administrative expenses and tasks due to complying with regulations.

the effort to minimise costs where possible.<sup>4</sup> We do not know whether donors punish charities for spending donations on unavoidable administrative costs just as they punish charities for spending on potentially avoidable overheads. Perhaps as a result of this lack of knowledge, charities and charity comparison sites do not prominently communicate their compliance costs alongside program and overhead costs.

This paper presents a pre-registered experiment with a large, nationally representative sample from Ireland (n = 1,032). We test whether the type of non-program expenses matters for donation decisions. We differentiate non-program expenses into unavoidable costs to comply with government regulation, which we call "administrative burden", and overhead costs that can be influenced by each charity, such as the costs related to fundraising and salaries. Thus, the charities described in our experiment spend donations on (i) program expenses, (ii) administrative burden, and (iii) overhead expenses. In a within-subject dictator game design, we sequentially ask participants to allocate 10 EUR between themselves and seven different nameless charities that vary only in terms of how they allocate donations to the three different uses. Additionally, in a between-subject design that follows the approach used by Gneezy et al. (2014), we ask participants to decide once which of two charities should receive 100 EUR. For one of the two charities, which is the same for all participants, no information about the split of non-program costs is available. The alternative charity varies across participants and they are given information about how this alternative charity splits donations between administrative burdens and overheads.

Our results suggest that the share of expenses spent on program costs is the key information donors consider when deciding about how much to donate. A reduction of program expenses from 80% to 60% due to an increase in overhead implies 18.1% lower donations, which is in line with the literature on overhead aversion (e.g., Meer, 2014). Additionally, we show that the same reduction in program expenses due to an increase in expenses related to administrative burden (holding the overhead constant)

<sup>&</sup>lt;sup>4</sup>Reciprocity in charitable giving is typically studied in the context of a small gift given to donors, which is typically found to lead to increased donation as donors reciprocate (Jasper and Samek, 2014; Falk, 2007; Landry et al., 2010). However, it is not unreasonable to extrapolate that donors negatively reciprocate bad intentions, such as when a charity has a high level of avoidable costs which they could have reduced.

reduces giving by 15.1%, which is a novel contribution to the literature. Holding program expenses constant, we find small treatment effects in some tests indicating that donors may prefer paying for administrative burden rather than for salaries and fundraising. We find no effects of providing information about how non-program expenses are split into overhead and administrative burden compared to a situation where donors are not made aware of this distinction, though once donors are made aware, they prefer charities that communicate how non-program expenses are split. Finally, we find that a subsidy that pays for some of the expenses related to administrative burden can increase donations to levels that would be reached with lower non-program expenses, consistent with Gneezy et al.'s (2014) finding that informing donors that overheads are covered by someone else restores giving to a level without overheads.

These results contribute to the literature on charitable giving. First, we provide additional evidence for the existence of overhead aversion from an experiment with a nationally representative sample, thus contributing to questions about the generalizability of previous findings related to overhead aversion (Charles et al., 2020; Gneezy et al., 2014). We use a dictator game design to show overhead aversion in a setting where participants allocate 10 EUR between themselves and a charity, which mimics real world donation decisions for which potential donors also decide about donating or keeping money for themselves. Moreover, the design allows us to study how much people give, in contrast to previous studies that ask subjects to choose one charity out of two to donate to. Second, our finding that donors give less, when core program spending is reduced due to higher administrative costs, suggests that even well-meant additional regulations can have the unintended side effect of reducing donations. Third, the finding that participants weakly prefer giving to charities that spend more on administrative burden rather than on salaries and fundraising suggests that charities may overcome part of overhead aversion by transparently communicating that much of their non-program expenses are used to comply with government regulations. Finally, we show that donations would increase if governments provide subsidies that cover charity expenses related to administrative burden.

The paper also contributes to the literature on the consequences of administrative

burden (e.g., Burden et al., 2012; Heinrich, 2016; Herd and Moynihan, 2019). Much of this literature focuses on administrative burden faced by citizens in state-citizen interactions. We contribute to a subset of this literature which studies administrative burden as experienced by institutions such as non-profit organizations. In the charity sector, this literature focuses on the compliance costs that charities face (Cordery et al., 2017). By investigating how donors perceive information about administrative burden, we highlight an indirect consequence of administrative burden on charities: donations are reduced if donors perceive that charities spend time and money on compliance related tasks rather than delivering their programs and services.

The remainder of the paper is structured as follows. Section 2 presents the background literature. Section 3 presents the experimental design, including the sample, the measures we use, the hypotheses, as well as the statistical approach. Section 4 presents the results of the sequential dictator games and the results of the choice between two charities to donate to. Section 5 concludes with a brief discussion.

## 2 Background

#### 2.1 Overhead aversion

The literature on charitable giving consistently finds that donors give less to charities with high overhead costs, a finding called "overhead aversion" (e.g., Caviola et al., 2014; Gneezy et al., 2014; Meer, 2014; Metzger and Günther, 2019). In line with the effective altruism movement (MacAskill, 2015), many donors systematically donate to the most effective charities, as proxied by the lowest overhead, to maximize the impacts of their donations. However, a high overhead ratio does not necessarily mean that the charity is not cost-effective (Park and Matkin, 2020), and there is a debate on whether and how much donors should rely on the overhead ratio (rather than other metrics such as cost effectiveness and lives saved) when making decisions about how much and to whom to give. For example, Park and Matkin (2020) find an inverted U-shaped relationship between administrative cost ratios and financial sustainability and suggest a "sweet spot"

(at about 40 %) in the level of administrative support that tends to promote organizational sustainability.

One consequence of overhead aversion is the "non-profit starvation cycle" (Gregory and Howard, 2009; Schubert and Boenigk, 2019; Tian et al., 2020). As donors do not want to pay for overheads, charities are under pressure to reduce their overhead and thus some invest less in infrastructure than is necessary to run an efficient charity. A second response to donors' overhead aversion is that charities underreport their overhead expenses when filing their accounts (Dang and Owens, 2020; Krishnan et al., 2006), which can raise concerns in the public about the whole sector's transparency and accountability.

Gneezy et al. (2014) suggest one strategy to overcome the non-profit starvation cycle. They show that despite the need to spend money on overheads, donations can be increased if the donor is told that someone else covers the overhead so that 100% of the donation is used for program expenses. Since this external subsidy covers the overhead, the donor can be satisfied that their dollar is the one making a difference, generating feelings of warm glow (Andreoni, 1990). Hence, finding external donors who are willing to cover the overhead is a strategy to break the non-profit starvation cycle. Disadvantages of this approach include the difficulty to find a donor willing to cover all overheads and that this approach strengthens the perception that overheads should be reduced as much as possible. As an alternative to overcome the starvation cycle, Tian et al. (2020) suggest informing potential donors about the charity's commitment to transparency. They show that donors are willing to donate to high-overhead non-profits if those non-profits are effective and transparent. Moreover, Portillo and Stinn (2018) show that while donors prefer overhead-free donations, if these are not available, they prefer paying for fundraising efforts rather than salary-related expenditures. Providing information about charities' performances may also help overcome the starvation cycle (Butera and Horn, 2020; Karlan and Wood, 2017).

#### 2.2 Administrative burden and sludge in the charity sector

Administrative burden is discussed primarily by public administration scholars (Burden et al., 2012; Heinrich, 2016; Herd and Moynihan, 2019; Moynihan et al., 2015). Recently

behavioural scientists have also begun to research administrative frictions, calling them "sludge" (Shahab and Lades, 2020; Soman, 2020; Sunstein, 2020; Thaler, 2018). In the public administration literature, administrative burdens describe the experience of policy implementation as "onerous". The three key dimensions of administrative burden are learning costs, compliance costs, and psychological costs (Moynihan et al., 2015). Learning costs refer to the time and effort spent in identifying public services; compliance costs refer to effort and money spent in completing administrative requirements; and psychological costs refer to negative emotions related to interactions with the government. While much of this literature focuses on citizens' interactions with the government, organizations such as charities also face administrative burden, which can have knock-on effects on how the public views these organizations. For example, Keiser and Miller (2020) show that information about existing administrative processes in organizations can change public approval rating.

Compliance costs are frequently discussed as a relevant administrative burden that charities face. Charities incur compliance costs as they need to gain and maintain their regulatory status and face the threat of being de-registered otherwise (Cordery et al., 2017). The type of regulation differs across countries and over time ranging from voluntary self-regulation regimes to harder requirements (Cordery and Deguchi, 2018). Examples of activities that lead to compliance costs include requirements to register to obtain tax exemptions, to file regularly, and to follow different accounting standards requiring extra information to be filled (Cordery and Deguchi, 2018). While regulation of the charity sector leads to administrative burden and compliance costs, many charities and donors welcome this regulation as it leads to higher transparency, accountability, and overall trust in the charity sector. Moreover, charities often receive tax exemptions and other government support which justify the need to be monitored.

The administrative burden faced by charities is, however, often neglected in the media, on comparison websites, and in the academic literature on charitable giving. In line with this, recent studies have not distinguished between administrative burden and overheads when describing charities' non-program expenses. For example, Metzger and Günther (2019) vary "administrative costs" in their laboratory experiment but define this for the subjects as "The administration cost include the cost of the work done by the NGO as well as the expenses for fundraising and advertising". When informed of the existence of the administrative burden faced by charities, and the fact that this is outside the control of the charity, donors might either take these burdens into account for the very first time or update their beliefs about the size of the burdens.

Since we present results from a study on administrative burden and charitable giving conducted with a nationally representative sample in Ireland, here we briefly describe the national context. Several charity-related scandals related to poor reporting, undeclared conflicts of interests, and excessive CEO remuneration have caused public outrage in Ireland.<sup>5</sup> The Irish Charities Regulator responded by putting the "Charities Governance Code" into practice which explains the minimum standards charities need to meet to guarantee the charity is managed with integrity in an effective, efficient, accountable and transparent way.<sup>6</sup> This compulsory code replaced the voluntary code that had been in place since 2012. Since 2020, charities have been expected to comply with the code, and from 2021 onwards charities are expected to report on their compliance with the code. Hence, although administrative burden affects charities across countries, Irish charities in particular anticipate an increasing amount of reporting and compliance obligations which they will have to devote additional resources to.

## 3 Experimental design and hypotheses

#### 3.1 Participants, procedure, and payment

In January 2021, we recruited 1,032 participants through Qualtrics. The sample was representative of the Irish population in terms of age and gender.<sup>7</sup> All participants

<sup>&</sup>lt;sup>5</sup>The participants of a pilot test for our study mentioned several scandals, such as those involving the charities Console (https://www.thejournal.ie/console-wound-down-2866465-Jul2016/), Rehab (https://www.thejournal.ie/angela-kerins-pac-timeline-3214906-Jan2017/), and CRC (https://www.thejournal.ie/crc-top-ups-1213133-Dec2013/), all links accessed 25-Jan-2021.

<sup>&</sup>lt;sup>6</sup>More details on the governance code is available at https://www.charitiesregulator.ie/en/information-for-charities/charities-governance-code, accessed 29-Jan-2021.

<sup>&</sup>lt;sup>7</sup>In the pre-analysis plan, we pre-registered a sample of 500, which was motivated by budgetary considerations. However, Qualtrics accidentally collected a larger sample and we see no reason to drop the extra observations. Our results are qualitatively similar if we use a randomly selected sub-sample of 500

received a baseline monetary compensation through the panel provider and could earn additional money as described below. The sample consisted of 48% males, the median age was 41, and roughly 49% had a net monthly income of 3,000 EUR or less. Further summary statistics of the sample are presented later in Table 2. We pre-registered our study at OSF. For the few cases in which we deviate from the pre-registered approach, we provide reasons for the deviations. The full survey is included in Appendix C.

The experiment consisted of three parts: (i) seven sequential dictator games in which participants allocate 10 EUR amongst themselves and charities with varying expense structures, (ii) one choice about which of two charities should receive a donation of 100 EUR, and (iii) additional survey questions. The questions in parts (i) and (ii) were incentivised. For part (i), we informed participants that there was a 1 in 10 chance of being picked as a winner, and if chosen, one random choice out of the seven would be implemented. In that case, the subject was paid the amount they decided to keep on top of their fixed participation fee, and we transferred the participant's donation to a charity that matched the chosen expense structure as closely as possible.<sup>8</sup> We informed participants that: "These payments to you and the charity are real. The results of the lottery and proof of the donation will be available after data collection has ended and can be accessed here [link]. The link will also be shown to you at the end of the experiment. Hence, since each decision potentially involves real money, please think of your choices carefully." During the data collection, the linked document stated that "this study is ongoing." After the data collection was completed, we uploaded a new document stating the donations made to each charity, providing the receipts. This document is included in Appendix D.9

from our data.

<sup>&</sup>lt;sup>8</sup>We picked the charities based on the proportion of donation spent on the three expense categories Program Expenses, Overhead Expenses and Administrative Burden, which are proxied by "Charitable work", "Fundraising" and "Governance costs" as revealed in an Irish Times investigation from 2016, in the absence of more recent information. See https://www.irishtimes.com/news/social-affairs/charities-reveal-how-every-1-donated-is-spent-1.2482613, accessed 25-Jan-2021. In most cases, we were not able to find the *exact* match, but we found close matches for all charities by prioritizing program costs.

<sup>&</sup>lt;sup>9</sup>The above payment information was presented to the subjects three times: at the beginning, at the start of part (ii), and at the end of the experiment. In total, 55 subjects (5%) clicked on the link once, and only three subjects clicked more than once. Due to a technical issue, the panel provider was unable to pay winning participants less than the full 10 EUR bonus. Hence, to address the situation in which a winner chose to donate a portion of the 10 EUR, we informed participants at the end of the experiment that winners may also get a separate bonus (i.e. the amount they chose to donate) and we instead paid the charity by using additional funds from our research budget.

#### 3.2 Design of the sequential dictator games

In the first part of the experiment, we showed participants seven nameless charities, one at a time. Each of the charities varied in the proportion of donations that went toward: (i) program expenses, (ii) administrative burden, and (iii) overhead expenses. For each charity, we asked participants how they would split 10 EUR between themselves and the charity. The complete set of expense structures for the seven charities, abbreviated C1-C7, is shown in Table 1.

Expense type	C1	C2	C3	C4	C5	C6	C <sub>7</sub>
Program expenses	80%	80%	60%	60%	80%	80%	80%
Administrative burden	unspecified	10%	10%	30%	2%	18%	10% (20% subsidy)
<b>Overhead expenses</b>	unspecified	10%	30%	10%	18%	2%	10%

Table 1: Expense structures of Charities 1-7

To determine the values of the expense structures we considered that the majority of Irish charities spend around 80-90% on program costs.<sup>10</sup> We chose the lower value to allow for more variation in the non-program cost categories. For Charity 2, we split non-program expenses evenly between administrative burden and overhead expenses, to give 10% for each. For Charities 3 and 4, we kept one non-program expense (administrative burden or overheads) constant and increased the other, such that program expenses are reduced to 60%, which reflects the lower bound for Irish charities. For Charities 5 and 6, we kept the program expenses constant at 80% but let one of the non-program categories take up almost all of the remaining 20%. These parameters allowed us to find similar, real charities that would later receive the participants' donations while staying close to values used in other papers in the literature. For example, Metzger and Günther (2019) use values between 61% and 90%.

At the beginning of the study, we presented participants with information about the two types of expenses charities may face, "program expenses" and "non-program expenses", using Figure 1 and the following definitions:

<sup>&</sup>lt;sup>10</sup>See https://www.irishtimes.com/news/social-affairs/charities-reveal-how-every-1-donated-is-spent-1.2482613, accessed 25-Jan-2021.

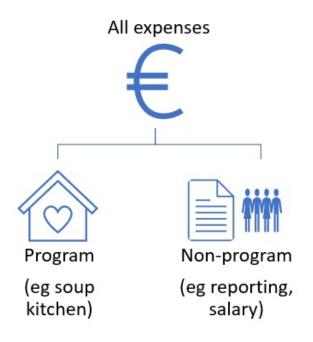


Figure 1: Description of program and non-program expenses

- **Program expenses** describe the programs and services the charity exists to deliver. For example, if you donate to a charity helping the homeless, this expense category would include meals provided for people and families affected by homelessness.
- Non-program expenses describe other operational expenses that are outside of direct charitable activities. For example, this expense category would include staff salaries and costs associated with reporting.

At this stage, we did not yet break down non-program expenses into administrative burden and overhead expenses. Following the information, we asked participants a followup question on the difference between program expenses and non-program expenses to raise attention to this distinction and to check their understanding.<sup>11</sup> Afterwards, we asked all participants how they would split 10 EUR between themselves and Charity 1: a nameless charity that spends 80% of donations on program expenses and 20% on non-program expenses. To present the information about how the charity uses the money

<sup>&</sup>lt;sup>11</sup>The question read "Just to see if you are paying attention: How do we call the expenses that a charity spends to deliver its services?" with "Program expenses" and "Non-program expenses" as answer possibilities. 75% of the participants answered correctly.

donated to them, we used pie charts that clearly showed the relevant proportions (see Appendix C). Participants responded using a slider for both the amount to keep and the amount to donate, see Figure 2. The sliders had to be clicked to be activated (there was no default) and the total amount had to sum up to 10.

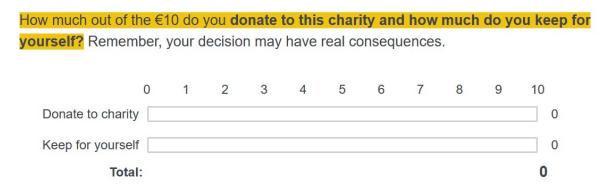


Figure 2: Sliders used to elicit donation in sequential dictator games

Before proceeding to Charity 2, we introduced participants to two sub-categories of non-program expenses, "administrative burden" and "overhead expenses", using Figure 3 and the following definitions:

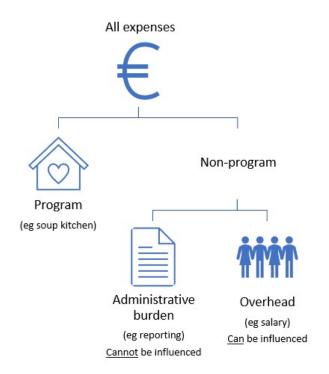


Figure 3: Description of the two types of non-program expenses

- Administrative burden is the costs to comply with government regulation to ensure transparency and accountability. These costs are standard for the charity sector and may vary depending on the size of the charity, the sector it operates in, and government regulation. An individual charity CANNOT influence these costs. For example, this expense category would include costs associated with reporting to the government.
- Overhead expenses describe other costs that are not used to comply with government regulation (everything else). These costs vary for different charities. An individual charity CAN influence these costs. For example, this expense category would include staff salaries, fundraising, and venue rentals.

Again, to raise attention to the distinction between program expenses, administrative burden, and overhead and to check their understanding, we asked participants two follow-up questions on the distinction.<sup>12</sup> We then asked them how they would split 10 EUR between themselves and Charities 2-6, presented one at a time, which varied in the percentage of donation spent on program expenses, administrative burden, and overhead expenses. We presented Charities 2 to 4 in a random order and afterwards Charities 5 and 6 also in a random order. Charities 2-4 are sufficient for us to test our hypotheses, while Charities 5 and 6 are added to enable additional tests.

Finally, in Charity 7 we study the effect of a government subsidy that would help reduce charities' administrative burden and direct more money towards core programs. The Wheel, Ireland's national association of charities, have noted the lack of public investment in charities to support their capacity to comply with the upcoming new requirements and the increasing quantity of reporting and compliance obligations more generally.<sup>13</sup> Given the result of Gneezy et al. (2014), where informing donors that overheads are covered by

<sup>&</sup>lt;sup>12</sup>The first question was "Just to see if you are paying attention: How do we call the expenses that a charity spends to comply with government regulations?" and the answer options were "Program expenses", "Administrative burden", and "Overhead expenses". 80% answered correctly. The second question was "And how do we call the expenses that a charity spends on staff salaries, fundraising, and venue rentals?" with the answer options "Program expenses", "Administrative burden", and "Overhead expenses", "Administrative burden", and "Overhead expenses", with the answer options "Program expenses", "Administrative burden", and "Overhead expenses" to which 80% answered correctly. In Appendix Table A4, we show that our findings are robust, and in fact stronger, when dropping 44% of subjects who got at least one of the three attention check questions wrong.

<sup>&</sup>lt;sup>13</sup>See http://research.ie/assets/uploads/2017/04/Charities-seeking-Researcher-Sheet-for-Website-04-11-19-2.xlsx, accessed 8-Nov-2019.

someone else is shown to neutralize the negative effect of overheads, we study whether such effect will be present in the context of a public subsidy to cover part of a charity's administrative burden as well. Before asking participants to decide how to split the 10 EUR with the seventh charity, we gave the following information:

"In this final scenario, suppose the government implements a policy to invest resources which reduce charities' administrative burden. For example, the government could create a program that streamlines the charity's reporting requirements. As a result, the level of transparency and accountability is maintained, but the charity now spends less of each donation on administrative burden. Therefore, more of your donation will go towards program expenses. Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below. There is a 30% administrative burden, but due to the government investment, this is reduced to 10%. As a result, only 10% of donation will be used toward administrative burden and program expenses increase by 20%."

Participants then proceeded to input their donation using the slider.

#### 3.3 Design of the choice between two charities

The second part of the experiment randomized participants into one of five treatments designed to study the effect of administrative burden on the choice of charity to donate to, in line with the design used by Gneezy et al. (2014). Each treatment showed participants two different charities at the same time. One of the charities was always Charity 1 as defined above (spending 80% of donations on program expenses and 20% on non-program expenses without further categorization of the non-program expenses). Charity 1 appeared randomly either on the left or on the right. Since participants had completed the first part of the experiment at this stage, they knew that non-program expenses could potentially be categorized further. The other charity was one of Charities 2-6 also described above. For these charities, the percentage of donations spent on program expenses, administrative burden, and overhead expenses were explicitly specified. We asked participants to choose

which charity should receive 100 EUR, informing them that the decision of a randomly chosen participant will be implemented. We also reminded them that the payment to the charity was real and provided the link to the website on which we would upload the proof of the donation once data collection had ended.

#### 3.4 Survey questions

The third part of the experiment asked several questions about the participants' personal views regarding the importance of a charity to be transparent and impactful, the role charities play in society, and how much charities can be trusted. We also asked about subjects' views about income redistribution, altruism and trust using the measures from Falk et al. (2018), past donations, awareness of recent regulations and scandals in the charity sector, and other demographic variables (we had asked for age, gender, and region at the very beginning to only allow participants in quotas that were not yet full to allow the sample to be nationally representative). All survey questions are available in Appendix C.

#### 3.5 Hypotheses

We designed the above experiment to test the following pre-registered hypotheses. The first hypothesis concerns the impact of providing the information that some of the non-program expenses are devoted to cover compliance costs related to unavoidable administrative burden. Letting  $D_i$  denote the amount donated to charity *i*, we predict that:

**Hypothesis 1.**  $D_1$ , the amount donated without specifying how non-program costs are split, is not significantly different from the average of  $D_2$ ,  $D_5$ , and  $D_6$ , the amount donated when subjects know some portion of non-program costs are unavoidable, holding program expenses constant.

The second hypothesis deals with the aversion to pay for non-program expenses. There are two parts of this hypothesis. First, informed by previous findings on overhead aversion (e.g., Meer, 2014; Metzger and Günther, 2019; Gneezy et al., 2014), Hypothesis 2a predicts that higher overheads at the expense of spending on core programs lead to lower donations.

**Hypothesis 2a.** Donation decreases as overhead expenses increase at the expense of program costs  $(D_3 < D_2)$ .

In Hypothesis 2b we also predict that higher administrative burden at the expense of spending on core programs leads to lower donations.

**Hypothesis 2b.** Donation decreases as administrative burden increases at the expense of program costs ( $D_4 < D_2$ ).

The third hypothesis deals with how administrative burden is perceived relative to overheads. We predict that participants view administrative burden, which we communicate as unavoidable, as a more justifiable source of "inefficiency" and hence that the aversion to overheads is stronger than the aversion to administrative burden (as only the former can be influenced by charities), keeping program expenses constant.

**Hypothesis 3.** Donation increases as administrative burden increases keeping program expenses constant (and thus as overhead expenses decrease) ( $D_3 < D_4$ , additionally,  $D_5 < D_2$ ,  $D_5 < D_6$ , and  $D_2 < D_6$ ).

The fourth hypothesis concerns the impact of having a government subsidy cover some of the administrative burden. Gneezy et al. (2014) find that if the donor is told that someone else is covering the overhead, giving is restored to a higher level since the donor gets the "warm glow" that their money is making the difference. We predict a similar effect when part of the administrative burden is subsidized by the government.

**Hypothesis 4a.** Donation increases if part of the administrative burden is subsidized, keeping overhead expenses constant (so that program expenses increase) ( $D_7 > D_4$ ).

We also test whether the subsidy, which lowers administrative burden to 10%, restores donation to the same level as Charity 2 whose unsubsidised administrative burden is also at 10%.

**Hypothesis 4b.** The subsidy restores donation to the level corresponding to lower administrative burden ( $D_7 = D_2$ ).

#### 3.6 Analysis strategy

We start the analysis of the dictator game choices by calculating the predicted mean values of the donation amounts for all seven dictator games without considering any control variables. We present these results graphically. To test the hypotheses, we compare the mean donation amounts from the dictator games using various *t*-tests. When we test the same hypothesis with multiple *t*-tests, we adjust for multiple tests using the Bonferroni correction.

To obtain more precise estimates of the effects of information, program expenses, overhead aversion, and administrative burden, we specify the following models using each donation decision as one observation:

$$D_{ij} = \alpha_{ij} + \beta_1 Info_j + \beta_2 Program_j + \beta_5 Subsidy_j + \delta_i + \varepsilon_{ij}$$
(1)

$$D_{ij} = \alpha_{ij} + \beta_3 AdminBurden_j + \beta_4 Overhead_j + \beta_5 Subsidy_j + \delta_i + \varepsilon_{ij}$$
(2)

$$D_{ij} = \alpha_{ij} + \beta_2 Program_j + \beta_3 AdminBurden_j + \beta_5 Subsidy_j + \delta_i + \varepsilon_{ij}$$
(3)

where  $D_{ij}$  is the amount donated out of 10 EUR by subject *i* to Charity *j*. *Info<sub>j</sub>* is a dummy variable which equals 1 if the split of non-program expenses is specified, i.e., in Charities 2 to 7, *Program<sub>j</sub>* is the percentage of donation spent on program expenses, *Subsidy<sub>j</sub>* is the percentage of donation that would have gone to administrative burden but is now subsidised, i.e. 20 in Charity 7 and 0 otherwise, *AdminBurden<sub>j</sub>* is the percentage of donation spent on administrative burden, and *Overhead<sub>j</sub>* is the percentage of donation spent on overheads. In the main regression models, we include individual fixed-effects  $\delta_i$ . In all models, we use robust standard errors clustered at the individual level. To check the robustness of the results to the inclusion of demographic and other controls, we also run the regressions without individual fixed-effects. The number of observations in models that control for other variables are reduced if some data are missing for some participants. In a robustness check in Appendix Table A<sub>3</sub>, we run the same models with the smaller sample of observations for which all data are available and show that our results are qualitatively similar.

We test Model (1) on all observations across all seven charities. The coefficient of

interest in equation (1) is  $\beta_1$ , corresponding to a test of Hypothesis 1 but allowing us to include observations from additional charities while controlling for program expenses.<sup>14</sup> Corresponding to Hypotheses 2 and 3 respectively, we test Models (2) and (3) using observations of donations to Charities 2-7 since no percentage of administrative burden is specified for Charity 1.<sup>15</sup> The coefficients of interest are  $\beta_4$  for Hypothesis 2a and  $\beta_3$  for Hypothesis 2b in Model (2), and  $\beta_3$  in Model (3).

To test whether a government subsidy to cover administrative burden increases charitable giving, we estimate equation (4) on the subset of donations to Charities 2, 4, and 7. This serves as a robustness check of our results from the *t*-tests.

$$D_{ij} = \alpha_{ij} + \mathbf{WCharity_{ij}}\boldsymbol{\beta} + \delta_i + \varepsilon_{ij} \tag{4}$$

**WCharity**<sub>ij</sub> is a  $1 \times 2$  vector of dummy variables *WCharity*<sub>2ij</sub>, *WCharity*<sub>4ij</sub>, each of which equals 1 if the current decision, in the within-subject part of the experiment, concerns Charity 2 (or Charity 4) and o otherwise. *WCharity*<sub>7</sub> is used as the baseline variable. The coefficient of *WCharity*<sub>4</sub> captures a test of Hypothesis 4a and the coefficient of *WCharity*<sub>2</sub> captures a test of Hypothesis 4b. Although not pre-registered, we include this estimation as it provides the best regression-controlled test of Hypotheses 4a and 4b.

The analysis of the second part of the experiment described in section 3.3 follows a similar structure. First, we show the proportion choosing each alternative charity graphically. Second, we use tests of proportions to identify differences across the treatments that speak to our hypotheses. Third, we specify logit models of the form

$$ChooseAlt_i = \mathbf{BCharity_i}\boldsymbol{\beta} + \delta_i + \varepsilon_{ij} \tag{5}$$

where  $ChooseAlt_i$  is a dummy variable which equals 1 if the participant chooses the alternative charity (not Charity 1). **BCharity**<sub>i</sub> is a 1 × 4 vector of dummy variables

<sup>&</sup>lt;sup>14</sup>In the pre-analysis plan we did not include Subsidy in Model (1). However, we added the variable to control for the high donations to Charity 7.

<sup>&</sup>lt;sup>15</sup>Note that Model (2) is equivalent to Model (3), which we pre-registered, but Model (2) allows for easier interpretation of the coefficients by omitting program expenses instead of omitting overheads. E.g., in Hypothesis 2a we are interested in the effect of increasing overheads at the expense of program costs, keeping administrative burden constant, and that is captured by the coefficient  $\beta_4$  in Model (2).

 $BCharity_{3i}$ ,  $BCharity_{4i}$ ,  $BCharity_{5i}$ ,  $BCharity_{6i}$ , each of which equals 1 if, in this betweensubject part of the experiment, the subject faces a choice between that charity and Charity 1, and 0 otherwise.  $BCharity_2$  is used as the baseline variable.

## 4 Results

Summary statistics of our sample are presented in Table 2. Subsection 4.1 provides the results on the effect of administrative burden on charitable giving along the intensive margin, as measured by how much is donated in the seven dictator games. This is followed by 4.2, which presents the results along the extensive margin, as measured by the likelihood of donating to a particular charity in the between-subject experiment. Within each subsection, we organise our results in the order of the hypotheses presented above. For ease of reading, where necessary we re-label each charity as "X:Y:Z" where X is the percentage going to program expenses, Y is administrative burden, and Z is overhead expenses. For example, Charity 2 is re-labelled "80:10:10". Charity 1 is re-labelled "80:20" since non-program expenses are not further categorized into its components. Charity 7 is re-labelled "80:10\*:10" where the asterisk indicates the presence of a government subsidy.

#### 4.1 Donation amount in the dictator games

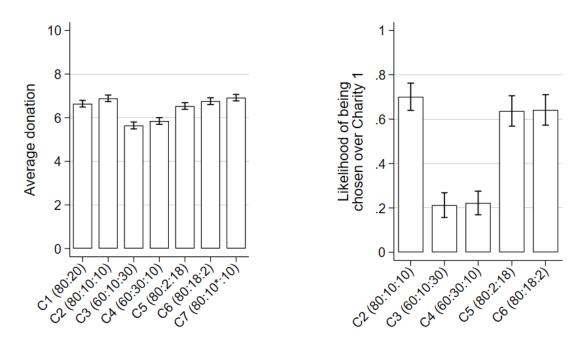
The average donations to each of the seven charities are shown in Figure 4a, with the full distributions provided in Figure A1 in the Appendix. On average, participants donated 6.45 EUR of the 10 EUR.<sup>16</sup> The average donation for each charity is presented at the bottom of Table 2. Figure 4a shows that donations were lower in Charities 3 and 4 which spend only 60% of the donations on program expenses compared to all other charities that spend 80% on program expenses.

<sup>&</sup>lt;sup>16</sup>While donating more than half the pie is more generous than the typical behaviour in a dictator game (Engel, 2011), this may be driven by the reduced salience of payment in our setting compared to the typical laboratory experiment. Our participants were paid through the panel provider after a delay of about a week. In a pilot conducted at the end of 2020, participants on average gave even more (6.79 vs 6.45, *t*-test, p = 0.0214), though in that pilot they were informed that the payment was hypothetical.

Table 2: Summary sta	itistics
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	Ν	Mean	SD	Min	Max
Age (in years)	1032	42.86	14.97	19	84
Male	1032	0.48	0.50	0	1
College degree	1032	0.22	0.41	0	1
Log income	919	7.93	0.74	6	9
Individual responsible for themselves*	1032	4.84	3.12	0	10
Redistribution thorugh taxes*	1032	4.94	1.54	1	7
Redistribution thorugh charities*	1032	3.95	1.73	1	7
GPS trust (Falk et al., 2018)	1032	0.00	1.00	-2	2
GPS altruism (Falk et al., 2018)	1032	0.00	1.00	-3	2
Importance of transparency*	1032	3.49	0.80	0	4
Importance of impact*	1032	3.39	0.84	0	4
Importance of charities' role*	1032	3.12	0.91	0	4
Trust in charities*	1032	6.31	2.11	0	10
Awareness of recent regulations*	1032	1.82	1.66	0	5
Awareness of recent scandals*	1032	0.44	0.50	0	1
Have donated in past 3 years	1032	0.90	0.31	0	1
Donate at least every month	1032	0.39	0.49	0	1
Attention checks (correct answers out of 3)	1032	2.35	0.85	0	3
Duration (minutes)	1032	16.56	60.48	2	1289
Donation to C1	1032	6.64	2.50	0	10
Donation to C2	1032	6.89	2.45	0	10
Donation to C <sub>3</sub>	1032	5.64	2.59	0	10
Donation to C4	1032	5.85	2.54	0	10
Donation to C <sub>5</sub>	1032	6.53	2.52	0	10
Donation to C6	1032	6.76	2.54	0	10
Donation to C7	1032	6.92	2.43	0	10

\*Notes: The exact questions are, in order, with emphasis for readability: Please tell us your view on government *responsibility* (Likert scale, o Government should take more responsibility to ensure that everyone is provided for - 10 People should take more responsibility to provide for themselves). Income redistribution (from the rich to the poor) should take place through *the tax system* (Likert scale, o Extremely disagree - 7 Extremely agree). Income redistribution (from the rich to the poor) should take place through *the tax system* (Likert scale, o Extremely disagree - 7 Extremely agree). Income redistribution (from the rich to the poor) should take place through *charitable donations* (Likert scale, o Extremely disagree - 7 Extremely agree). How important is it that a charity does its utmost to be *transparent*? (o Not at all important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 2 Moderately important, 3 Very important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 1 Slightly important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 3 Very important, 4 Extremely important, 1 Slightly important, 2 Moderately important, 4 Extremely important, 1 Slightly importan



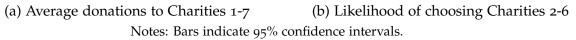


Figure 4: Participants' donations in sequential dictator games (Panel a) and choices between two charities (Panel b)

#### 4.1.1 Providing information about the split of non-program expenses

To test whether providing information about the split of non-program expenses has any effect on the amount participants donate, we compare the average donation to Charity 1 (80:20) with the average donation to Charities 2 (80:10:10), 5 (80:2:18), and 6 (80:18:2) combined. These three charities keep the program expenses constant at 80% but additionally specify how much of the remaining 20% goes to administrative burden or overhead expenses. This comparison suggests that participants do not donate significantly more or less to charities with specified splits of non-program expenses compared to charities for which no data on the composition of non-program expenses is available (6.64 vs 6.72, *t*-test, p = 0.3381).<sup>17</sup> This finding supports Hypothesis 1 that providing additional information about how non-program expenses are split does not change donation decisions. However, we cannot rule out any order effect in this particular finding as we always showed Charity 1 first before subjects were made aware about the two possible types of non-program costs.<sup>18</sup>

#### 4.1.2 Overhead aversion and "administrative burden aversion"

Next, we study how donations change when there is an increase in the amount charities spend on overhead and administrative burden at the expense of program costs. We replicate previous findings on overhead aversion: increasing overhead expenses that reduce spending on core programs (keeping administrative burden constant) reduces giving in Charity 3 (60:10:30) compared to Charity 2 (80:10:10) by 18.1% (5.64 vs 6.89, p < 0.0001). We find that administrative burden, though outside the influence of the charity, has a similar effect: increasing administrative burden at the expense of program costs, keeping overhead expenses constant, reduces giving to Charity 4 (60:30:10) compared to Charity 2 (80:10:10) by 15.1% (5.85 vs 6.89, p < 0.0001). These results provide support for Hypotheses 2a and 2b. Note that these results cannot be driven by order effects since

<sup>&</sup>lt;sup>17</sup>Comparing Charity 1 with Charities 2, 5, and 6 individually, the only significant difference is found between Charity 1 and Charity 2 (6.64 vs 6.89, p = 0.0235).

<sup>&</sup>lt;sup>18</sup>We showed Charity 1 first to capture the real-life situation, where the media focus on overheads means that many donors are currently unaware of or do not pay attention to administrative burden, and to study whether giving information (which cannot be reversed) has any effect on donation.

we randomized the order in which Charities 2, 3, and 4 appeared.<sup>19</sup>

#### 4.1.3 Overhead versus administrative burden

While donors appear to dislike administrative burden if it decreases the charities' spending on core programs, charities cannot influence administrative burden. Given two charities with the same level of program expenses, do subjects give more to the one with lower overhead expenses and higher administrative burden as predicted in Hypothesis 3? We do not find a significant difference at the 5% level when comparing Charity 3 (60:10:30) and Charity 4 (60:30:10) which both devote 60% of donations to program expenses (5.85 vs 5.64, p = 0.0691). Comparing Charities 2, 5, and 6 that all devote 80% of the donations to program expenses shows that, as predicted, donations to Charity 2 (80:10:10) are higher than to Charity 5 (80:2:18) (6.89 vs 6.53, p = 0.0013) and donations to Charity 6 (80:18:2) are higher than to Charity 5 (6.76 vs 6.53, p = 0.0453). Hypothesis 3 would also predict that donations to Charity 6 should have been higher than to Charity 2, however we find the opposite effect though it is not significant (6.76 vs 6.89, p = 0.2376). Since we tested Hypotheses 3 with four different *t*-tests, we also conservatively adjust the threshold level of statistical significance from 0.05 to 0.05/4 = 0.0125 using the Bonferroni correction. This correction implies that only the difference between Charity 2 and Charity 5 is significant. Hence, we find at best weak evidence for overhead costs and administrative burden having different effects on charitable giving.<sup>20</sup>

#### 4.1.4 Subsidizing administrative burden

Finally, we study the effect of a government subsidy intended to alleviate charities' administrative burden. We compare Charity 4 (60:30:10) with Charity 7 (80:10\*:10), where the government subsidy lowers administrative burden from 30% to 10% thus increasing the amount the charity spends on its core programs from 60% to 80%. As hypothesized,

<sup>&</sup>lt;sup>19</sup>In Figure A2 in the Appendix, we show that the results are robust when making between-subject comparisons of donations using only the first time Charities 2-4 were shown. Subjects donate more to Charity 2 than Charity 3 (6.56 vs 5.95, p = 0.0016) and to Charity 2 than Charity 4 (6.56 vs 5.97, p = 0.0023).

<sup>&</sup>lt;sup>20</sup>When making between-subject comparisons of donations using only the first time Charities 3 and 4 were shown, donations to Charity 3 and Charity 4 are not significantly different (5.95 vs 5.97, p = 0.8976). See Figure A2 in the Appendix.

donations to Charity 7 are higher than to Charity 4 (6.92 vs 5.85, p < 0.0001). Moreover, there is no significant difference between donations to Charity 2 (80:10:10) and Charity 7 (6.89 vs 6.92, p = 0.7799), which indicates that the subsidy restores donations to the level donated to Charity 2. This result is consistent with Gneezy et al. (2014) who find that while high overheads reduce giving, if the donor is told that someone else is covering the overhead, giving is restored to a higher level since the donor gets the "warm glow" that their dollar is the one making the difference. We show that a similar effect is present when part of the administrative burden is subsidized by the government. Donors do not mind that the charity spends a lot of resources on complying with regulations, as long as core programs do not suffer. These results thus support Hypotheses 4a and 4b.

#### 4.1.5 Regression results

The regression results presented in Table 3 provide further and more detailed support for the above patterns.<sup>21</sup> Model (1) in columns 1-2 presents the tests of Hypothesis 1. The results show that providing information about the split of non-program expenses does not have a significant effect on donations at the 5% level, this finding is robust to including demographic and other controls.<sup>22</sup> This is consistent with the result of the *t*-test above which indicates that additional information does not make a difference to charitable giving when spending on core programs is unchanged. The regression results also show the importance of spending on program expenses: a 1% increase in spending on core programs generates approximately an extra 0.05 EUR, which is a considerable increase out of a 10 EUR endowment. We control for Subsidy to reflect that the coefficient should indicate the difference between Charity 1 and the average of Charities 2, 5, and 6 (rather than the average of Charities 2, 5, 6, and 7).

Model (2), in columns 3-4 of Table 3, tests Hypothesis 2a and 2b. The models estimate

<sup>&</sup>lt;sup>21</sup>In this section, we focus on presenting the results of the tests of the pre-registered hypotheses. We present the full regression table with all control variables in Appendix Table A1. The results show, for example, that males donate less than females, which is in line with previous literature (e.g., Wiepking and Bekkers, 2012). Moreover, altruism, importance of the role charities play, and trust in charities influence donation decisions positively. Our results are also similar when controlling for the order in which charities are shown, see Appendix Table A2.

<sup>&</sup>lt;sup>22</sup>The drop in the number of observations is due to the 113 subjects who preferred not to state their income. As shown in Appendix Table A3, our results are also robust to excluding these 113 subjects.

	Moo	del 1	Model 2		Moo	del 3	Moo	Model 5	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Info	0.086* (0.048)	0.065 (0.047)							
Program	0.049 <sup>***</sup> (0.003)	0.048*** (0.003)			0.055 <sup>***</sup> (0.003)	0.054 <sup>***</sup> (0.003)			
AdminBurden			-0.043 <sup>***</sup> (0.003)	-0.042 <sup>***</sup> (0.003)	0.012 <sup>***</sup> (0.003)	0.012 <sup>***</sup> (0.003)			
Overhead			-0.055*** (0.003)	-0.054 <sup>***</sup> (0.003)					
Subsidy	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)			
WCharity=2							-0.030 (0.058)	-0.042 (0.051)	
WCharity=4							-1.070*** (0.076)	-1.042*** (0.067)	
BCharity=3									-0.506** (0.044)
BCharity=4									-0.499 <sup>**</sup> (0.042)
BCharity=5									-0.066 (0.049)
BCharity=6									-0.046 (0.048)
Constant	2.712 <sup>***</sup> (0.212)	1.161 (0.957)	7.706*** (0.072)	6.043*** (0.939)	2.214 <sup>***</sup> (0.250)	0.650 (0.971)	6.916*** (0.038)	5.200 <sup>***</sup> (0.974)	
No. obs	7224	6433	6192	5514	6192	5514	3096	2757	919
No. subjects	1,032	919	1,032	919	1,032	919	1,032	919	919
R-sq	0.771	0.144	0.774	0.148	0.774	0.148	0.828	0.165	NT
Individual FE	Yes	No	Yes	No	Yes	No	Yes No	No	No Vaa
Demographics Other controls	No No	Yes Yes	No No	Yes Yes	No No	Yes Yes	No No	Yes Yes	Yes Yes

#### Table 3: Regression results of amount donated and likelihood to donate

Notes: Columns (1-8) show OLS regressions with the amount donated in EUR as outcome. Info is a dummy variable which equals 1 if the split of non-program expenses is specified (Charities 2 to 7) and o otherwise. Program is the percentage of donation spent on program expenses. AdminBurden is the percentage of donation spent on administrative burden. Overhead is the percentage of donation spent on overhead expenses, this value equals 100-Program-AdminBurden. Subsidy is the percentage of donation that would have gone to administrative burden but is now subsidised, this value equals 20 in the presence of a subsidy (Charity 7) and o otherwise. WCharity=2 (or 4) is a dummy variable which equals 1 if the decision to donate concerns Charity 2 (or 4). Column (9) shows marginal effects from a logistic regression with the likelihood to donate to the alternative charity as outcome. Coefficients give the predicted probability of choosing the indicated charity, BCharity, compared to choosing Charity 2, the baseline treatment. Demographic variables include age, gender, region fixed-effects, education, income, and political views. Other controls include trust, altruism, views on charities' transparency, impact and role, trust in charities, awareness of regulations and past scandals in the charity sector, past donations and regular donations, attention checks and experiment duration. Robust standard errors are clustered at the individual level and shown in parentheses. Significance levels indicated \*p < 0.10, \*\* p < 0.05, \*\*\*p < 0.01.

the impact of an increase in spending on overheads at the expense of program costs (keeping administrative burden constant) as well as the impact of an increase in spending on administrative burden at the expense of program costs (keeping overhead constant). The results show that a 1% increase in spending on overheads reduces donation by around 0.055 EUR, consistent with the finding above, which provides support for Hypothesis 2a. The same regression models also show a significant negative effect of an increase in spending on administrative burden at the expense of program cost, providing further support for Hypothesis 2b about "administrative burden aversion". A 1% increase in AdminBurden reduces donation by around 0.043 EUR. These effect sizes suggest that the aversion to administrative burden is smaller in magnitude than overhead aversion.

Model (3), in columns 5-6 of Table 3, tests Hypothesis 3. While identical to Model (2), this specification more clearly shows the impact of an increase in spending on administrative burden at the expense of overhead spending as we include program expenses but omit overhead as predictors. The results show that donors give slightly more if charities spend more on administrative burden and less on overheads. A 1% increase in spending on administrative burden at the expense of overhead increases donation by around 0.012 EUR, providing some support for Hypothesis 3. This is in line with the coefficients from Model (2) where the negative coefficients for Overhead were greater than those for AdminBurden. Some donors may partly "forgive" charities spending less on program expenses if they must spend on reporting and compliance. However, we note that, albeit significant, this effect is quite small.

To test Hypothesis 4a and 4b, we compare donations to Charity 4 with donations to Charity 7 (to test H4a) as well as compare donations to Charity 2 with donations to Charity 7 (to test H4b). Model (4) presents these tests with a categorical variable indicating Charity 2, 4, or 7 and we set Charity 7 as the base. The results show that donations to Charity 4 are significantly lower than to Charity 7, but there is no difference between Charity 2 and Charity 7 indicating that the subsidy fully compensates for the decrease in program expenses due to administrative burden.

#### 4.2 Choosing one charity over another

We proceed to present results from the between-subject part of the experiment which studies the likelihood of donating to one charity rather than to another. Recall that each subject faced a choice between Charity 1 (80:20) and one of Charities 2-6 (as above) to donate 100 EUR to. Figure 4b shows the proportions donating to the Charities 2-6 instead of Charity 1. The figure shows that participants chose Charities 3 and 4 (which use 60% of donations for program expenses) less frequently compared to all other charities (which use 80% of donations for program expenses). For example, 70.1% chose Charity 2 over Charity 1, but only 21.3% and 22.2%, respectively, chose Charity 3 and 4 over Charity 1. These differences are significant (p < 0.0001 for both comparisons). The results are similar using Charity 5 or 6 in place of Charity 2. We do not find any significant differences when comparing charities 2, 5, and 6.

The results of the logistic regression specified in Model (5) are shown in column 9 of Table 3. They show that subjects are less likely to donate to Charities 3 and 4 by 50 percentage points than to Charity 2. By contrast, we do not detect an effect for Charities 5 and 6. The results are similar when using any other charity as the baseline treatment: donations to Charity 3 or 4 are significantly lower than to any of Charities 2, 5 and 6. These results suggest that program expenses are key for deciding whom to give to (in addition to the decision about how much to give examined above). However, we do not find that differences in the split of non-program expenses between overhead costs and administrative burden influence the decisions about whom to give to.

The design of our between-subject experiment additionally allows us to test the effect of communicating how non-program costs are split, *after* subjects were made aware of the distinction between overheads and administrative burden.<sup>23</sup> If information about the split of non-program expenses did not matter, as was found to be the case in the dictator games above, we should expect that subjects' choices between Charity 1 (80:20) and Charity 2 (80:10:10) are random and the proportion choosing Charity 2 should not be significantly different from 50%. However, tests of proportion reveal that significant majorities prefer

<sup>&</sup>lt;sup>23</sup>While the analyses presented in this paragraph were not pre-registered, we believe they offer important insights.

Charities 2 (70%), 5 (64%), and 6 (64%) over Charity 1 (p < 0.0001, p = 0.0002, p = 0.0001 respectively). Hence, donors who are aware that some non-program costs are unavoidable prefer giving to charities that specify the split of non-program costs into avoidable and unavoidable categories. However, this information is secondary to how much charities spend on program costs: fewer donors give to Charities 3 (21.26%, p < 0.0001) and 4 (22.22%, p < 0.0001), which have 60% spending on program expenses, than to Charity 1 which has 80% spending on program expenses.

## 5 Conclusion

This paper investigates how donors perceive charities' unavoidable non-program expenses, which we term administrative burden, as compared to other non-program expenses that are avoidable. Traditionally, both types of non-program expenses have been lumped into the same category and given the name "overhead costs." Recent studies have documented donors' aversion to give to charities spending a high portion of donation on these costs (e.g., Gneezy et al., 2014). We study whether the unavoidable nature of compliance-related costs, due to government regulations, makes them seen as more justifiable in donors' eyes and thus whether it may help charities to communicate how much of their non-program spending is due to unavoidable administrative burden.

Our results show that donors dislike paying for charities' unavoidable administrative expenses almost as much as they dislike paying for overhead expenses (if these expenses lower program spending). Hence, while giving information about administrative expenses may not increase donation, it is not expected to reduce donation either. Conditional on spending the same amount on program expenses, however, we find that donors have a weak preference for administrative burden over other avoidable overheads. Finally, we show that government subsidies that help alleviate charities' administrative burden can reduce donors' aversion to give to charities with high administrative expenses. Our findings contribute to the existing literature on overhead aversion (e.g., Gneezy et al., 2014; Portillo and Stinn, 2018) by showing that aversion to administrative burden matters just as much as overhead aversion. Donors want their donation to make a difference

and administrative burden subtracts from the "warm glow" of giving just as much as overheads do.

Our findings have a number of implications. First, it might be worthwhile for charities to communicate to potential donors about how much they spend to comply with administrative requirements separately from other avoidable overhead costs. While our dictator games result does not suggest that this will lead to a change in the intensive margin (the amount that existing donors give), the result of our between-subject experiment suggests that donors, once they are aware of the distinction, prefer giving to charities with a specified split of non-program expenses. Second, our results suggest that there are potential unintended consequences of well-meant regulations that aim to increase accountability, transparency, and trust in charities. If these regulations increase the administrative burden through additional compliance requirements, thus reducing spending on core programs, charities will be penalised as donors give less. Our results point to the role government may play in alleviating administrative burden.

## References

- Andreoni, J. (1988). Privately provided public goods in a large economy: The limits of altruism. *Journal of Public Economics*, 35(1):57–73.
- Andreoni, J. (1990). Impure altruism and donations to public goods: A theory of warmglow giving. *Economic Journal*, 100(401):464–477.
- Burden, B. C., Canon, D. T., Mayer, K. R., and Moynihan, D. P. (2012). The effect of administrative burden on bureaucratic perception of policies: Evidence from election administration. *Public Administration Review*, 72(5):741–751.
- Butera, L. and Horn, J. (2020). "Give less but give smart": Experimental evidence on the effects of public information about quality on giving. *Journal of Economic Behavior & Organization*, 171:59–76.
- Caviola, L., Faulmüller, N., Everett, J. A. C., Savulescu, J., and Kahane, G. (2014). The evaluability bias in charitable giving: Saving administration costs or saving lives? *Judgment and Decision Making*, 9(4):303–316.
- Charles, C., Sloan, M. F., and Schubert, P. (2020). If someone else pays for overhead, do donors still care? *The American Review of Public Administration*, 50(4–5):415–427.
- Cordery, C. and Deguchi, M. (2018). Charity registration and reporting: A crossjurisdictional and theoretical analysis of regulatory impact. *Public Management Review*, 20(9):1332–1352.
- Cordery, C., Sim, D., and van Zijl, T. (2017). Differentiated regulation: The case of charities. *Accounting & Finance*, 57(1):131–164.
- Coupet, J. and Berrett, J. L. (2019). Toward a valid approach to nonprofit efficiency measurement. *Nonprofit Management and Leadership*, 29(3):299–320.
- Dang, C. T. and Owens, T. (2020). Does transparency come at the cost of charitable services? Evidence from investigating British charities. *Journal of Economic Behavior & Organization*, 172:314–343.

- Dufwenberg, M. and Kirchsteiger, G. (2004). A theory of sequential reciprocity. *Games and Economic Behavior*, 47(2):268–298.
- Engel, C. (2011). Dictator games: A meta study. *Experimental Economics*, 14(4):583–610.
- Exley, C. L. (2019). Using charity performance metrics as an excuse not to give. *Management Science*, 66(2):553–563.
- Falk, A. (2007). Gift exchange in the field. *Econometrica*, 75(5):1501–1511.
- Falk, A., Becker, A., Dohmen, T., Enke, B., Huffman, D., and Sunde, U. (2018). Global evidence on economic preferences. *The Quarterly Journal of Economics*, 133(4):1645–1692.
- Gneezy, U., Keenan, E. A., and Gneezy, A. (2014). Avoiding overhead aversion in charity. *Science*, 346(6209):632–635.
- Gregory, A. G. and Howard, D. (2009). The nonprofit starvation cycle. *Stanford Social Innovation Review*, 7(4):49–53.
- Heinrich, C. J. (2016). The bite of administrative burden: A theoretical and empirical investigation. *Journal of Public Administration Research and Theory*, 26(3):403–420.
- Herd, P. and Moynihan, D. P. (2019). *Administrative Burden: Policymaking by Other Means*. Russell Sage Foundation, 1st edition.
- Hyndman, N. and McKillop, D. (2018). Public services and charities: Accounting, accountability and governance at a time of change. *The British Accounting Review*, 50(2):143–148.
- Jasper, C. R. and Samek, A. S. (2014). Increasing charitable giving in the developed world. *Oxford Review of Economic Policy*, 30(4):680–696.
- Karlan, D. and Wood, D. H. (2017). The effect of effectiveness: Donor response to aid effectiveness in a direct mail fundraising experiment. *Journal of Behavioral and Experimental Economics*, 66:1–8.

- Keiser, L. R. and Miller, S. M. (2020). Does administrative burden influence public support for government programs? Evidence from a survey experiment. *Public Administration Review*, 80(1):137–150.
- Krishnan, R., Yetman, M. H., and Yetman, R. J. (2006). Expense misreporting in nonprofit organizations. *The Accounting Review*, 81(2):399–420.
- Landry, C. E., Lange, A., List, J. A., Price, M. K., and Rupp, N. G. (2010). Is a donor in hand better than two in the bush? Evidence from a natural field experiment. *American Economic Review*, 100(3):958–83.
- MacAskill, W. (2015). *Doing Good Better: Effective Altruism and a Radical New Way to Make a Difference*. Guardian Faber Publishing, 1st edition.
- McGregor-Lowndes, M. and Ryan, C. (2009). Reducing the compliance burden of nonprofit organisations: Cutting red tape. *Australian Journal of Public Administration*, 68(1):21–38.
- Meer, J. (2014). Effects of the price of charitable giving: Evidence from an online crowdfunding platform. *Journal of Economic Behavior & Organization*, 103:113–124.
- Metzger, L. and Günther, I. (2019). Making an impact? The relevance of information on aid effectiveness for charitable giving. A laboratory experiment. *Journal of Development Economics*, 136:18–33.
- Moynihan, D., Herd, P., and Harvey, H. (2015). Administrative burden: Learning, psychological, and compliance costs in citizen-state interactions. *Journal of Public Administration Research and Theory*, 25(1):43–69.
- Park, Y. J. and Matkin, D. S. (2020). The demise of the overhead myth: Administrative capacity and financial sustainability in nonprofit nursing homes. *Public Administration Review*.
- Portillo, J. E. and Stinn, J. (2018). Overhead aversion: Do some types of overhead matter more than others? *Journal of Behavioral and Experimental Economics*, 72:40–50.

- Rabin, M. (1993). Incorporating fairness into game theory and economics. *American Economic Review*, pages 1281–1302.
- Schubert, P. and Boenigk, S. (2019). The nonprofit starvation cycle: Empirical evidence from a German context. *Nonprofit and Voluntary Sector Quarterly*, 48(3):467–491.
- Shahab, S. and Lades, L. K. (2020). Sludge and transaction costs. UCD Geary Institute Discussion Paper 2020/07.
- Soman, D. (2020). Sludge: A very short introduction. Available at: https://www.rotman.utoronto.ca/-/media/Files/Programs-and-Areas/BEAR/White-Papers/BEARxBIOrg-Sludge-Introduction.pdf.
- Sunstein, C. R. (2020). Sludge audits. *Behavioural Public Policy*, page 1–20.
- Thaler, R. H. (2018). Nudge, not sludge. Science, 361(6401):431-431.
- Tian, Y., Hung, C., and Frumkin, P. (2020). Breaking the nonprofit starvation cycle? An experimental test. *Journal of Behavioral Public Administration*, 3(1).
- Wiepking, P. and Bekkers, R. (2012). Who gives? A literature review of predictors of charitable giving. part two: Gender, family composition and income. *Voluntary Sector Review*, 3(2):217–245.

# Appendices

# A Appendix figures

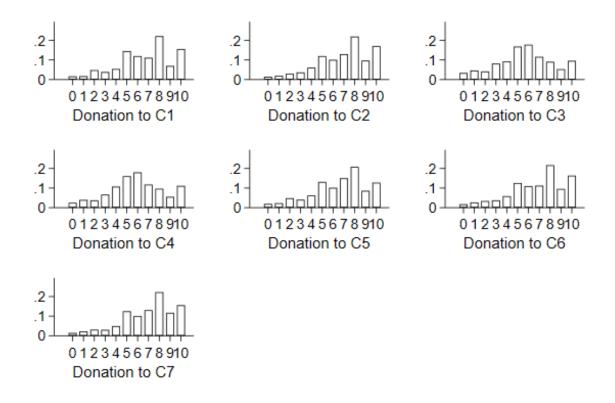
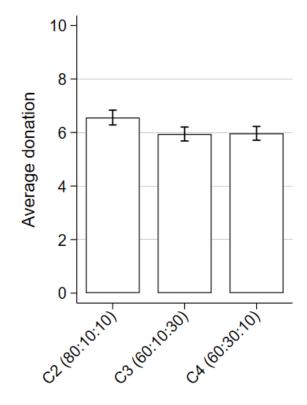


Figure A1: Distribution of donations to Charities 1-7



Notes: Bars indicate 95% confidence intervals.

Figure A2: Average donations to Charities 2-4 when shown first

## **B** Appendix tables

	Model 1	Model 2	Model 3	Model 4	Model g
	(1)	(2)	(3)	(4)	(5)
Info	0.065				
	(0.047)				
Program	0.048***		0.054***		
	(0.003)		(0.003)		
AdminBurden		<b>-</b> 0.042 <sup>***</sup>	0.012***		
		(0.003)	(0.003)		
Overhead		-0.054***			
		(0.003)			
Subsidy	0.010***	$0.010^{***}$	0.010***		
	(0.002)	(0.002)	(0.002)		
WCharity=2				-0.042	
				(0.051)	
WCharity=4				-1.042***	
				(0.067)	
BCharity=3					-0.506**
					(0.044)
BCharity=4					-0.499**
					(0.042)
BCharity=5					-0.066
					(0.049)
BCharity=6					-0.046
					(0.048)
Age	0.003	0.002	0.002	0.004	-0.003**
	(0.005)	(0.005)	(0.005)	(0.005)	(0.001)
Male	-0.501***	-0.474***	-0.474***	-0.565***	-0.001
	(0.147)	(0.147)	(0.147)	(0.149)	(0.031)
Connaught and Ulster	0.522***	0.507***	0.507***	0.504***	-0.084**
	(0.191)	(0.191)	(0.191)	(0.194)	(0.042)
Munster	0.272	0.256	0.256	0.306	-0.045

Table A1: Regression results of amount donated and likelihood to donate including all controls

	(0.192)	(0.193)	(0.193)	(0.199)	(0.039)
Rest of Leinster	0.248	0.245	0.245	0.216	-0.115***
	(0.186)	(0.186)	(0.186)	(0.188)	(0.039)
College degree	0.109	0.114	0.114	0.142	-0.067**
	(0.171)	(0.171)	(0.171)	(0.172)	(0.034)
Log income	0.138	0.134	0.134	0.123	0.002
	(0.101)	(0.101)	(0.101)	(0.105)	(0.021)
Individual responsible	-0.066	-0.072	-0.072	-0.087	0.010
	(0.074)	(0.074)	(0.074)	(0.075)	(0.015)
Redistribution taxes	0.121	0.128*	0.128*	0.106	0.002
	(0.076)	(0.076)	(0.076)	(0.077)	(0.014)
Redistribution charities	-0.005	-0.002	-0.002	-0.019	-0.031*
	(0.082)	(0.082)	(0.082)	(0.085)	(0.016)
GPS trust	0.028	0.040	0.040	0.001	0.030*
	(0.084)	(0.084)	(0.084)	(0.084)	(0.017)
GPS altruism	0.283***	0.272***	0.272***	0.305***	0.056***
	(0.086)	(0.087)	(0.087)	(0.087)	(0.018)
Charity transparency	0.049	0.053	0.053	0.066	-0.010
	(0.094)	(0.095)	(0.095)	(0.097)	(0.021)
Charity impact	-0.013	-0.038	-0.038	-0.038	-0.004
	(0.087)	(0.087)	(0.087)	(0.088)	(0.019)
Charity role	0.237***	0.243***	0.243***	0.233**	0.011
	(0.091)	(0.091)	(0.091)	(0.094)	(0.019)
Trust in charities	0.316***	0.321***	0.321***	0.348***	-0.006
	(0.098)	(0.098)	(0.098)	(0.099)	(0.019)
Awareness regulations	0.050	0.044	0.044	0.031	-0.001
	(0.077)	(0.078)	(0.078)	(0.078)	(0.017)
Awareness scandals	0.220	0.203	0.203	0.255	0.016
	(0.161)	(0.161)	(0.161)	(0.163)	(0.034)
Past donation	0.404	0.441	0.441	0.495*	-0.069
	(0.281)	(0.283)	(0.283)	(0.292)	(0.051)
Regular donation	-0.001	-0.011	-0.011	-0.014	-0.013
	(0.144)	(0.144)	(0.144)	(0.147)	(0.033)
Attention checks	-0.015	-0.019	-0.019	0.011	0.002
	(0.090)	(0.090)	(0.090)	(0.093)	(0.019)
Duration	0.001	$0.001^{*}$	$0.001^{*}$	0.001**	0.000

	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)
Constant	1.161	6.043***	0.650	5.200***	
	(0.957)	(0.939)	(0.971)	(0.974)	
No. obs	6433	5514	5514	2757	919
No. subjects	919	919	919	919	919
R-sq	0.144	0.148	0.148	0.165	

Notes: Columns (1-4) show OLS regressions with the amount donated in EUR as outcome. Info is a dummy variable which equals 1 if the split of non-program expenses is specified (Charities 2 to 7) and 0 otherwise. Program is the percentage of donation spent on program expenses. AdminBurden is the percentage of donation spent on administrative burden. Overhead is the percentage of donation spent on overhead expenses, this value equals 100-Program-AdminBurden. Subsidy is the percentage of donation that would have gone to administrative burden but is now subsidised, this value equals 20 in the presence of a subsidy (Charity 7) and 0 otherwise. WCharity=2 (or 4) is a dummy variable which equals 1 if the decision to donate concerns Charity 2 (or 4). Column (5) shows marginal effects from a logistic regression with the likelihood to donate to the alternative charity as outcome. Coefficients give the predicted probability of choosing the indicated charity, BCharity, compared to choosing Charity 2, the baseline treatment. Robust standard errors are clustered at the individual level and shown in parentheses. Significance levels indicated \*p < 0.10, \*\* p < 0.05, \*\*\*p < 0.01.

	Mod	del 1	Mod	del 2	Mod	del 3	Mod	del 4
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Info	0.086*	0.065						
Program	(0.048) 0.049*** (0.003)	(0.047) 0.048*** (0.003)			0.055 <sup>***</sup> (0.003)	0.054 <sup>***</sup> (0.003)		
AdminBurden	( )/	( )/	-0.043 <sup>***</sup> (0.003)	-0.042 <sup>***</sup> (0.003)	0.012 <sup>***</sup> (0.003)	0.012 <sup>***</sup> (0.003)		
Overhead			-0.055*** (0.003)	-0.054*** (0.003)	(****)	(0.00)		
Subsidy	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)		
WCharity=2	(0000-)	(0000-)	(0000_)	(0000_)	(0.00-)	(0.00-)	-0.030 (0.058)	-0.042 (0.051)
WCharity=4							-1.070 <sup>***</sup> (0.076)	-1.042*** (0.067)
C2 C3 C4 C6 C5		0.016 (0.344)		0.014 (0.344)		0.014 (0.344)	(0.070)	0.017 (0.350)
C2 C4 C3 C5 C6		0.315		0.342		0.342		0.272
C2 C4 C3 C6 C5		(0.337) 0.012		(0.339) 0.043		(0.339) 0.043		(0.348) -0.017
C3 C2 C4 C5 C6		(0.364) 0.498		(0.366) 0.531*		(0.366) 0.531*		(0.363) 0.439
C3 C2 C4 C6 C5		(0.317) 0.242		(0.318) 0.325		(0.318) 0.325		(0.318) 0.239
C3 C4 C2 C5 C6		(0.330) 0.144		(0.329) 0.164		(0.329) 0.164		(0.335) 0.148
C3 C4 C2 C6 C5		(0.345) 0.206		(0.348) 0.234		(0.348) 0.234		(0.347) 0.235
C4 C2 C3 C5 C6		(0.330) 0.040		(0.333) 0.037		(0.333) 0.037		(0.338) 0.189
C4 C2 C3 C6 C5		(0.308) 0.416		(0.310) 0.448		(0.310) 0.448		(0.315) 0.498
C4 C3 C2 C5 C6		(0.345) 0.187		(0.345) 0.273		(0.345) 0.273		(0.351) 0.317
C4 C3 C2 C6 C5		(0.347) 0.221		(0.347) 0.307		(0.347) 0.307		(0.345) 0.312
Constant	2.712***	(0.325) 1.044	7.706***	(0.326) 5.898***	2.214***	(0.326) 0.505	6.916***	(0.331) 5.050***
No. obs	(0.212)	(0.985)	(0.072) 6192	(0.969)	(0.250) 6192	(1.000)	(0.038)	(1.003)
No. subjects	7224 1,032	6433 919	1,032	5514 919	1,032	5514 919	3096 1,032	2757 919
R-sq	0.771	0.148	0.774	0.152	0.774	0.152	0.828	0.168
Individual FE	Yes	No	Yes	No	Yes	No	Yes	No
Demographics	No	Yes	No	Yes	No	Yes	No	Yes
Other controls	No	Yes	No	Yes	No	Yes	No	Yes

Table A2: Regression results of amount donated controling for order

Notes: Columns (1-8) show OLS regressions with the amount donated in EUR as outcome. Info is a dummy variable which equals 1 if the split of non-program expenses is specified (Charities 2 to 7) and 0 otherwise. Program is the percentage of donation spent on program expenses. AdminBurden is the percentage of donation spent on administrative burden. Overhead is the percentage of donation spent on overhead expenses, this value equals 100-Program-AdminBurden. Subsidy is the percentage of donation that would have gone to administrative burden but is now subsidised, this value equals 20 in the presence of a subsidy (Charity 7) and 0 otherwise. WCharity=2 (or 4) is a dummy variable which equals 1 if the decision to donate concerns Charity 2 (or 4). Demographic variables include age, gender, region fixed-effects, education, income, and political views. Other controls include trust, altruism, views on charities' transparency, impact and role, trust in charities, awareness of regulations and past scandals in the charity sector, past donations and regular donations, attention checks, experiment duration and the order the charities are shown. Robust standard errors are clustered at the individual level and shown in parentheses. Significance levels indicated \*p < 0.10, \*\* p < 0.05, \*\*\*p < 0.01.

	Model 1	Model 2	Model 3	Model 4
	(1)	(2)	(3)	(4)
Info	0.065 (0.051)			
Program	0.048*** (0.003)		0.054 <sup>***</sup> (0.003)	
AdminBurden		-0.042*** (0.003)	0.012 <sup>***</sup> (0.003)	
Overhead		-0.054*** (0.003)		
Subsidy	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	0.010 <sup>***</sup> (0.002)	
WCharity=2				-0.042 (0.062)
WCharity=4				-1.042 <sup>***</sup> (0.082)
Constant	2.801*** (0.226)	7.657*** (0.076)	2.264*** (0.270)	6.893*** (0.041)
No. obs	6433	5514	5514	2757
No. subjects	919	919	919	919
R-sq	0.769	0.770	0.770	0.827
Individual FE	Yes	Yes	Yes	Yes
Demographics	No	No	No	No
Other controls	No	No	No	No

Table A3: Regression results of amount donated excluding subjects with missing income

Notes: Columns (1-4) show OLS regressions with the amount donated in EUR as outcome. Info is a dummy variable which equals 1 if the split of non-program expenses is specified (Charities 2 to 7) and 0 otherwise. Program is the percentage of donation spent on program expenses. AdminBurden is the percentage of donation spent on administrative burden. Overhead is the percentage of donation spent on overhead expenses, this value equals 100-Program-AdminBurden. Subsidy is the percentage of donation that would have gone to administrative burden but is now subsidised, this value equals 20 in the presence of a subsidy (Charity 7) and 0 otherwise. WCharity=2 (or 4) is a dummy variable which equals 1 if the decision to donate concerns Charity 2 (or 4). Demographic variables include age, gender, region fixed-effects, education, income, and political views. Other controls include trust, altruism, views on charities' transparency, impact and role, trust in charities, awareness of regulations and past scandals in the charity sector, past donations and regular donations, attention checks, experiment duration and the order the charities are shown. Robust standard errors are clustered at the individual level and shown in parentheses. Significance levels indicated \*p < 0.10, \*\* p < 0.05, \*\*\*p < 0.01.

	Mo	del 1	Model 2		Model 3		Moo	Model 5	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Info	0.097 (0.060)	0.064 (0.059)							
Program	0.061*** (0.004)	0.060*** (0.003)			0.070 <sup>***</sup> (0.004)	0.070 <sup>***</sup> (0.004)			
AdminBurden			-0.052 <sup>***</sup> (0.004)	-0.050 <sup>***</sup> (0.004)	0.018*** (0.004)	0.020 <sup>***</sup> (0.004)			
Overhead			-0.070*** (0.004)	-0.070 <sup>***</sup> (0.004)					
Subsidy	0.013 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.003)	0.013 <sup>***</sup> (0.003)			
WCharity=2							-0.099 (0.074)	-0.102 (0.067)	
WCharity=4							-1.318*** (0.099)	-1.293 <sup>***</sup> (0.088)	
BCharity=3									-0.654** (0.052)
BCharity=4									-0.617** (0.051)
BCharity=5									-0.121* (0.062)
BCharity=6									-0.111* (0.058)
Constant	1.858*** (0.281)	0.493 (1.158)	8.056*** (0.097)	6.676*** (1.126)	1.042*** (0.326)	-0.311 (1.176)	7.092*** (0.049)	5.540*** (1.160)	
No. obs	4025	3563	3450	3054	3450	3054	1725	1527	509
No. subjects	575	509	575	509	575	509	575	509	509
R-sq	0.774	0.173	0.776	0.182	0.776	0.182	0.832	0.192	
Individual FE	Yes	No	Yes	No	Yes	No	Yes	No	No
Demographics	No	Yes	No	Yes	No	Yes	No	Yes	Yes
Other controls	No	Yes	No	Yes	No	Yes	No	Yes	Yes

Table A4: Regression results of amount donated and likelihood to donate for those with three correct attention checks

Notes: Columns (1-8) show OLS regressions with the amount donated in EUR as outcome. Info is a dummy variable which equals 1 if the split of non-program expenses is specified (Charities 2 to 7) and o otherwise. Program is the percentage of donation spent on program expenses. AdminBurden is the percentage of donation spent on administrative burden. Overhead is the percentage of donation spent on overhead expenses, this value equals 100-Program-AdminBurden. Subsidy is the percentage of donation that would have gone to administrative burden but is now subsidised, this value equals 20 in the presence of a subsidy (Charity 7) and o otherwise. WCharity=2 (or 4) is a dummy variable which equals 1 if the decision to donate concerns Charity 2 (or 4). Column (9) shows marginal effects from a logistic regression with the likelihood to donate to the alternative charity as outcome. Coefficients give the predicted probability of choosing the indicated charity, BCharity, compared to choosing Charity 2, the baseline treatment. Demographic variables include age, gender, region fixed-effects, education, income, and political views. Other controls include trust, altruism, views on charities' transparency, impact and role, trust in charities, awareness of regulations and past scandals in the charity sector, past donations and regular donations, attention checks, experiment duration and the order the charities are shown. Robust standard errors are clustered at the individual level and shown in parentheses. Significance levels indicated \**p* < 0.10, \*\* *p* < 0.05, \*\*\**p* < 0.01.

## C Full survey

Begins on next page.

#### **Full Survey**

(Texts in italics are not shown to the subject. Horizontal lines indicate page breaks.)

#### Welcome!

This study is conducted by researchers at University College Dublin and has been given ethical approval by the university's ethics committee. You must be at least 18 years of age to participate in this study. You are not allowed to participate in this study more than once. If you have any questions regarding this study, please email margaret.samahita@ucd.ie.

This questionnaire will take about 15 minutes to complete. Your answers are anonymous; only aggregate results will be published.

It is important for us that you pay attention to the information given, and at some point in this study we will ask you a question to check whether you are paying attention.

I have read and understood the above and want to participate in this study. I will pay attention to the information given.

- Yes
- No

What is your age (in years)? \_

What is your gender?

- Male
- Female
- Other
- Prefer not to say

Which region do you live in?

- Dublin City & County
- Rest of Leinster
- Munster
- Connaught & Ulster

#### [Within-subject part]

We are interested in studying your decisions to donate money to charities depending on how the charities spend your money. You will soon be presented with 7 different Irish charities. We will not tell you the name or the purpose of the charities. All you will know is how the charities spend your money.

For each charity, we will ask you how you would split €10 between yourself and that charity. One of your decisions may actually be implemented. If implemented, this decision will determine how  $\notin 10$  are divided between yourself and the charity. At the end of the study, all participants will be entered into a lottery and several winners will be picked. You have a 1 in 10 chance of being picked as one of the winners. If you win, we will randomly pick 1 of your 7 decisions and implement it.

For example, suppose you chose to donate €4 to the charity and keep €6 to yourself.

1. We will donate €4 to an Irish charity that, as close as possible, resembles the profile you were shown

AND

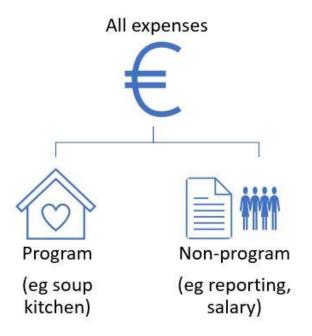
2. We will pay you  $\in 6$  via Qualtrics using your responder ID, on top of your usual participation fee.

Hence, <u>no further action</u> is required on your part and you will remain <u>anonymous</u> to the researcher.

**These payments to you and the charity are real.** The results of the lottery and proof of the donation will be available after data collection has ended and can be accessed <u>here</u>. The link will also be shown to you at the end of the experiment. **Hence, since each decision potentially involves real money, please think of your choices carefully.** 

Information about how your money is used

When you donate money to a charity, the charity can spend your money on two different types of expenses called **"Program expenses"** and **"Non-program expenses"**. The following figure illustrates this and a more detailed description of the expenses is below.



### **DETAILED DESCRIPTION**

**Program expenses** describe the programs and services the charity exists to deliver. These costs will later be shown in **GREEN**.

For example, if you donate to a charity helping the homeless, this expense category would include **meals provided for people and families affected by homelessness.** 

**Non-program expenses** describe other operational expenses that are outside of direct charitable activities. These costs will later be shown in **BLACK**.

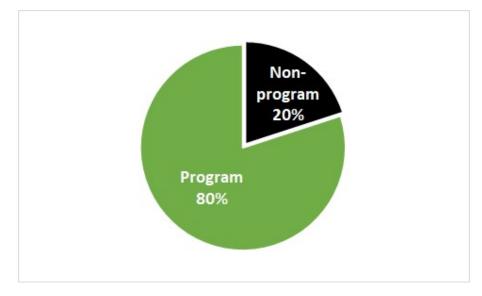
For example, this expense category would include **staff salaries and costs associated with reporting.** 

Just to see if you are paying attention: How do we call the expenses that a charity spends to deliver its services?

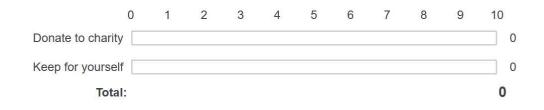
- Program expenses
- Non-program expenses

### [Charity 1]

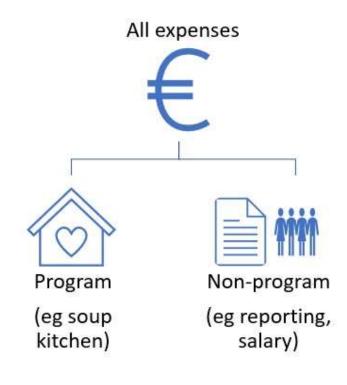
This is the first decision: Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below.



How much out of the €10 do you **donate to this charity and how much do you keep for** yourself? Remember, your decision may have real consequences.



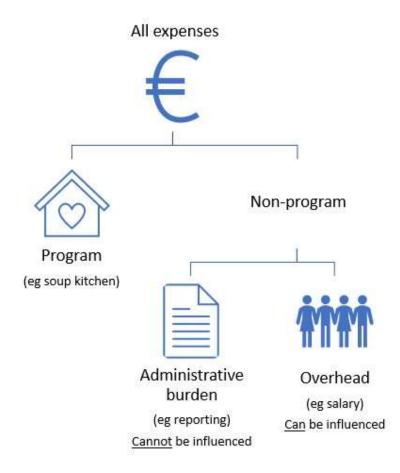
In case you forget, here is a summary of the different types of expenses:



### SUMMARY OF TYPES OF EXPENSES

- Program expenses: the programs and services the charity exists to deliver. These costs are shown in GREEN. For example, if you donate to a charity helping the homeless, this expense category would include meals provided for people and families affected by homelessness.
- Non-program expenses: other operational expenses that are outside of direct charitable activities. These costs are shown in BLACK. For example, this expense category would include staff salaries and costs associated with reporting.

**Non-program expenses** can be further split into two types: "administrative burden" and "overhead expenses".



#### **DETAILED DESCRIPTION**

**Program expenses** describe the programs and services the charity exists to deliver. These costs will later be shown in **GREEN**.

For example, if you donate to a charity helping the homeless, this expense category would include **meals provided for people and families affected by homelessness.** 

**Non-program expenses** describe other operational expenses that are outside of direct charitable activities.

For example, this expense category would include **staff salaries and costs associated with reporting.** Non-program expenses can be further split into two types:

• Administrative burden are the costs to comply with government regulation to ensure transparency and accountability. These costs are standard for the charity sector and may vary depending on the size of the charity, the sector it operates in, and government regulation. An individual charity <u>CANNOT</u> influence these costs. These costs will later be shown in **BLUE**. For example, this expense category would include costs associated with reporting to the government.

• **Overhead expenses** describe other costs that are not used to comply with government regulation (everything else). These costs vary for different charities. An individual charity <u>CAN</u> influence these costs. These costs will later be shown in **ORANGE**. For example, this expense category would include **staff salaries, fundraising, and venue rentals.** 

Just to see if you are paying attention: How do we call the expenses that a charity spends to comply with government regulations?

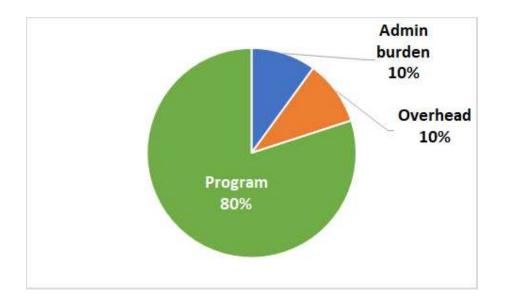
- Program expenses
- Administrative burden
- Overhead expenses

And how do we call the expenses that a charity spends on staff salaries, fundraising, and venue rentals?

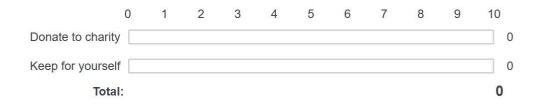
- Program expenses
- Administrative burden
- Overhead expenses

#### (Charity 2)

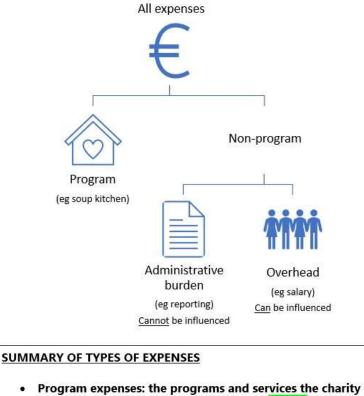
Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below



How much out of the €10 do you **donate to this charity and how much do you keep for yourself?** Remember, your decision may have real consequences.



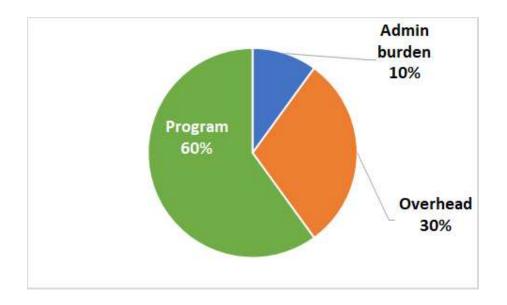
In case you forget, here is a summary of the different types of expenses: *(this reminder is presented on the same screen directly below the donation decision, and repeated after every decision in this section)* 



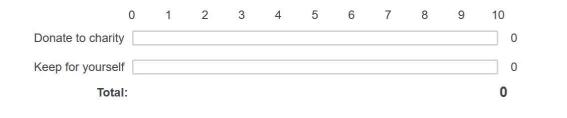
- Program expenses: the programs and services the charity exists to deliver. These costs are shown in GREEN. For example, if you donate to a charity helping the homeless, this expense category would include meals provided for people and families affected by homelessness.
- Administrative burden: costs to comply with government regulation to ensure transparency and accountability. These costs are standard for the charity sector and may vary depending on the size of the charity, the sector it operates in, and government regulation. An individual charity <u>CANNOT</u> influence these costs. These costs are shown in **BLUE**. For example, this expense category would include costs associated with reporting to the government.
- Overhead expenses: other costs that are not used to comply with government regulation (everything else). These costs vary for different charities. An individual charity <u>CAN</u> influence these costs. These costs are shown in **ORANGE**. For example, this expense category would include staff salaries, fundraising, venue rentals.

#### (Charity 3)

Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below

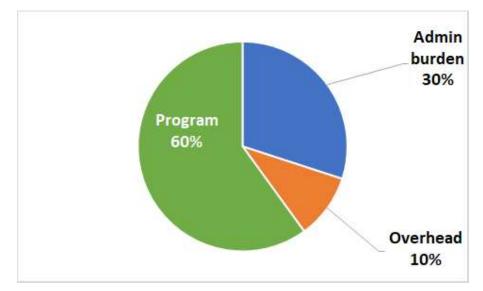


How much out of the €10 do you **donate to this charity and how much do you keep for** yourself? Remember, your decision may have real consequences.



#### (Charity 4)

Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below

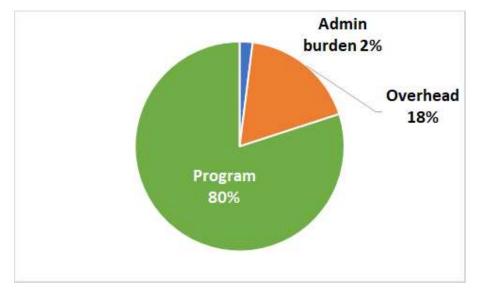


How much out of the €10 do you **donate to this charity and how much do you keep for** yourself? Remember, your decision may have real consequences.

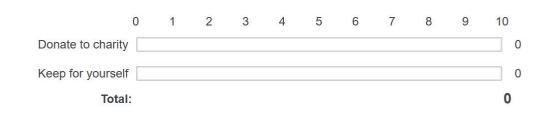


#### (Charity 5)

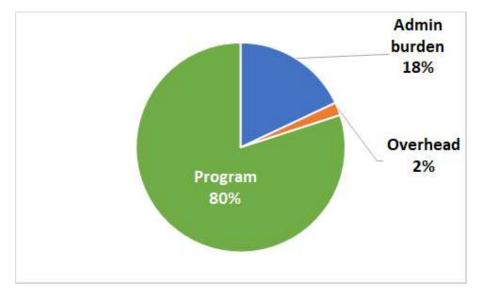
Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below



How much out of the €10 do you **donate to this charity and how much do you keep for** yourself? Remember, your decision may have real consequences.

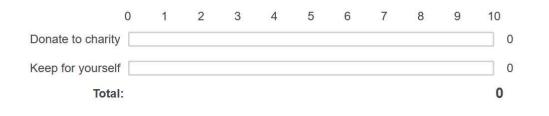






Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below

How much out of the €10 do you **donate to this charity and how much do you keep for** yourself? Remember, your decision may have real consequences.

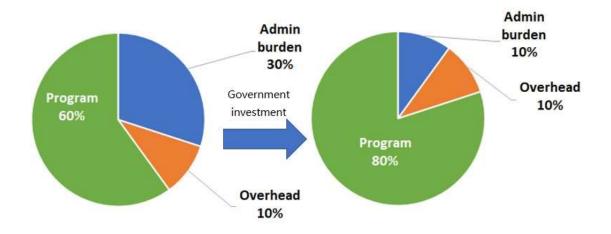


#### (Charity 7)

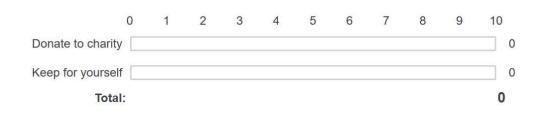
# Please pay attention to the following information, which is **NEW** and applies to the following charity.

In this final scenario, suppose the government implements a policy <u>to invest resources which</u> <u>reduce charities' administrative burden</u>. For example, the government could create a program that streamlines the charity's reporting requirements. As a result, the level of transparency and accountability is maintained, but the charity now spends **less** of each donation on **administrative burden**. Therefore, **more** of your donation will go towards **program** expenses.

Consider the following charity. Out of any donation, the percentage that goes to each type of expenses is shown below. There is a **30% administrative burden**, but due to the government investment, this is reduced to 10%. As a result, only **10% of donation will be used toward administrative burden** and **program expenses increase by 20%**.



How much out of the €10 do you **donate to this charity and how much do you keep for yourself?** Remember, your decision may have real consequences.



#### [Between-subject part]

For the next part of the study, we will ask you once to allocate  $\in 100$  to one of two charities. We will randomly choose the decision of one participant and implement it. That is, we will indeed pay out the  $\in 100$  to the chosen charity.

Your choice is whether to allocate the  $\in 100$  to "Charity A" or "Charity B". This payment is real. The results of the lottery and proof of the donation will be available after data collection has ended and can be accessed <u>here</u>. Hence, since the decision potentially involves real money, please think of your choice carefully.

(Treatment 1: Charity 1 vs Charity 2, order is randomised)

Which of these 2 charities should receive the  $\notin 100?$ 

#### **Charity A:**

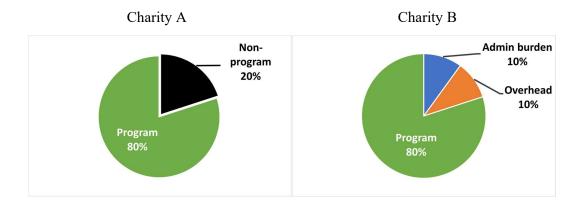
- 80% of the donation is going toward program expenses.

- 20% of the donation is going toward non-program expenses.

#### **Charity B:**

- 80% of the donation is going toward program expenses.

- 10% of the donation is going toward administrative burden.
- 10% of the donation is going toward overhead.



(Treatment 2: Charity 1 vs Charity 3, order is randomised) (Treatment 3: Charity 1 vs Charity 4, order is randomised) (Treatment 4: Charity 1 vs Charity 5, order is randomised) (Treatment 5: Charity 1 vs Charity 6, order is randomised)

(Post-survey questionnaire)

The following questions are about your personal views:

How important is it that a charity does its utmost to be **transparent**?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

How important is it that a charity does its utmost to be **impactful**?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

Overall, how important a role do you think charities play in society today?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

# On a scale where 0 is "Not at all" and 10 is "Completely", in general <u>how much do you</u> <u>think charities can be trusted?</u>

• Likert scale from 0 to 10 (Not at all / Completely)

Please tell us your view on government responsibility.

• Likert scale from 0 to 10 (Government should take more responsibility to ensure that everyone is provided for / People should take more responsibility to provide for themselves)

Please tell us how much you disagree or agree with the following statement. Income redistribution (from the rich to the poor) should take place through <u>the tax system.</u>

• Likert scale from 0 to 7 (Extremely disagree / Extremely agree)

Please tell us how much you disagree or agree with the following statement. Income redistribution (from the rich to the poor) should take place through <u>charitable donations.</u>

• Likert scale from 0 to 7 (Extremely disagree / Extremely agree)

Imagine the following situation: Today you unexpectedly received €1,000. How much of this amount would you donate to a good cause? (in EUR) \_\_\_\_\_

How willing are you to give to good causes without expecting anything in return?

• Likert scale from 0 to 10 (Extremely unwilling / Extremely willing)

I assume that people have only the best intentions.

• Likert scale from 0 to 10 (Extremely disagree / Extremely agree)

Have you donated money to charity in the past 3 years?

- Yes
- No

Do you regularly (at least every month) donate money to any charity?

- Yes
- No

Are you aware of the increase in regulatory and compliance requirements affecting the Irish charity sector in the past 5 years?

• Likert scale from 0 to 5 (I know nothing about it / I know a lot about it)

Are you aware of any scandal in the Irish charity sector in the past decade?

- Yes if yes, which scandal?
- No

What is the highest level of education you completed?

- Junior certificate
- Leaving certificate
- Higher certificate
- Bachelor's degree
- Master's degree
- Doctorate's degree
- Other, please specify \_\_\_\_\_
- Prefer not to say

Estimate your household's total net monthly income in EUR (including salary, pension, social security, sickness benefit).

- Less than or equal to 1000
- 1000 up to and including 2000
- 2000 up to and including 3000
- 3000 up to and including 4000
- 4000 up to and including 5000
- 5000 up to and including 6000
- 6000 up to and including 7000
- 7000 up to and including 8000
- 8000 up to and including 9000
- 9000 up to and including 10000
- Greater than 10000
- Prefer not to say

If necessary, how much money could you spend today (for a one-time emergency) without having to cut back on spending over the next 4 weeks? (in EUR)

Thank you for participating in our study, which aims to investigate decisions about charitable-giving.

As data collection is ongoing, we would like to ask you not to talk about this study with others for now. We would also like to reassure you that all the data you provided is anonymous, and will only be presented and analysed in group format.

Once data collection is complete, we will randomly pick the winners for the different lotteries. If you are picked as a winner, your decision will be implemented. The corresponding donation will be made to the charity that, as close as possible, resembles the one you are shown, and the remaining amount will be paid directly to you by Qualtrics using your responder ID in the next few weeks. In addition, you may also receive an additional bonus for participation.

The results of the lottery and proof of the donation will be available after data collection has ended and can be accessed <u>here</u>.

If you have any questions about the study, please feel free to contact Margaret Samahita (margaret.samahita@ucd.ie).

## **D Proof of donations**

Begins on next page.

## Study on Administrative Burden and Charitable-Giving

This study is now completed. Below is the list of donation by the 50 winners to the chosen charities (X:Y:Z indicate program expenses : administrative burden : overhead expenses).

Charity 1: 80:20 Charity 2: 80:10:10 Charity 3: 60:10:30 Charity 4: 60:30:10 Charity 5: 80:2:18 Charity 6: 80:18:2 Charity 7: 80:10\*:10 (\* indicates potential subsidy)

Charity	Donation
7	10
1	9
7	6
	8
6 7	10
4	3
6	8
6 4	6
7	10
4	4
4	4
4	9
4 2 7 2 7 4 3 5 3	5 5 2
2	5
3	2
7	9
2	8
7	9
4	5
3	8
5	5
3	5
6	9 8 5 8 5 5 9 7
3 3 7	7
3	5
	6
3	0

2	10
1	6
4	1
5	10
2	10
1	5
2	6
5	5

The total donation made to each charity is

Charity	Donation
1	32
2	53
3	35
4	57
5	20
6	46
7	84

In addition, Charity 6 was chosen for the second part of the study to receive 100 EUR.

The charities that match the above as closely as possible were identified using the information from https://www.irishtimes.com/news/social-affairs/charities-reveal-how-every-1-donated-is-spent-1.2482613.

Donations were transferred as shown below.

You sent a p (supporter	Sama	ritans				iyment of Oxfam Ire @oxfami	land			
Treesection ID Merchaet Esmantina supporte caregisamentar ~44 379900002 Shigang abdress Lorentra Loos but University Cohege Dubin Enversionentar Parks, Plan Eine Parks (lieffed Dubin D64 Dubin	• School of rving and	Instructions to n	13 14 GNT-01.00 wrchant ed any instructions provided any		Transaction ID Merchant Ordem Veland hends@ordemveland.org hvoice ID QuidRL210119-1628-0951 Description	19. Brist You	inaction date Jan 2021 16 28: ructions to men haven't entered			
heland					Oxfam Ireland	6168.00 EUR	4	C165.00 EUR		
Description	Unit price		Amount 629.02 EUR 629.00 EUR 629.00 EUR		Charge will appea	en your smith and	Subtolai Tolai Payment statement as 1900	ETER.00 EUR ETER.00 EUR ETER.00 EUR VL 1004AMRELAN Oorlentrefand og		
Irish Heart	Pa Funding b	Peyment ill card comment as grand and to comment water to be of (Solar) Water alth CPR	KID COLUM Skriftel - Sauter Lauter Skriftel - Support	Ways To	Give Latest Nev	Funding Source	Vite	enesso eue Durses Se	arch ${\cal O}$	DONAT
Foundation					~					ð
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Your generosity will save families from having to make impossible choices this winter.

In something as simple as a full-up fuel tank, a hot dinner, or a few schooldbooks for the kids - your gift will bring such joy and relief to a struggling parent.

Thank you so much for your kind donation of €146.00 to the Society of St. Vincent de Paul.

In this, a year filled with so much sorrow, thank you for being there for your community and for helping us get through this together.

With all my gratitude and blessings for a happy and peaceful 2021,

#### Rose McGowan National President, The Society of St Vincent de Paul

P.S. We would like to share some stories and keep you updated on how we are using your donations with a seasonal newsletter called 'SVP Stories'. If you have not already opted out you can do so anytime by contacting 01 884 8200 or fundraising@svp.ie. Thank you.

Charity Reg. No. CHY 6892/CRA 20013806

Donor Id: 530310 Donation Processed: 19/01/2021 Name: Margaret Samahita Company Name: Amount: €146.00 Donation For: National Office Conference:

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