

# The Completion Effect in Charitable Crowdfunding

Nichole Argo, David Klinowski, Tamar Krishnamurti, and Sarah Smith<sup>†</sup>

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## Abstract

We analyze data from two charitable crowdfunding platforms and find that donors make significantly larger donations, more frequently, and at a faster pace, in order to personally reach fundraising targets. This ‘completion effect’ occurs even when the target is of no consequence for provision, and even within donors who make multiple contributions on a platform. While the majority of donors follow suggested gift amounts at other points of the campaign, they deviate upwards in order to personally reach targets. A simple theoretical model describes how a completion effect can be sustained in equilibrium by uncertainty about the recipient’s ability to reach the goal, or by a private benefit to the donor from personally completing campaigns. The empirical results point to the latter as a key mechanism.

**Keywords:** charitable giving, crowdfunding, threshold public goods

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<sup>†</sup>Corresponding author: David Klinowski <dklinowski@gmail.com>. Argo: Department of Engineering and Public Policy, Carnegie Mellon University. Klinowski: Santiago Centre for Experimental Social Sciences, University of Oxford (Nuffield College) and Universidad de Santiago de Chile. Krishnamurti: Department of Medicine, University of Pittsburgh. Smith: Department of Economics, University of Bristol. We thank Benevolent and JustGiving for sharing the data that made this project possible. Argo, Klinowski, and Krishnamurti gratefully acknowledge funding from the Science of Philanthropy Initiative.

## 1. Introduction

Crowdfunding is the practice of financing a project by raising many small amounts of money from a large number of people, typically via the Internet.<sup>1</sup> Projects differ widely, from art initiatives to technological gadgets to humanitarian causes. What funders may get in return also varies. Some crowdfunding markets are lending-based, where backers make loans and expect an interest return. Some are equity-based, where funders are investors who receive equity stakes on the venture or shares of future profits. Others are reward-based, where funders obtain benefits such as early access to a product or special acknowledgements. Finally, there is charitable crowdfunding, where backers are donors who receive no material reward (Mollick, 2014; Belleflamme, Omrani, and Peitz, 2015).

Crowdfunding has become an increasingly popular alternative to regular financing (Burtch, Ghose, and Wattal, 2013), as online technologies now allow millions of users to interact and collaborate with one another instantaneously at virtually no cost. Crowdfunded projects raised 6.1 billion USD in 2013, 16.2 billion USD in 2014, and 34.4 billion USD in 2015 worldwide (Massolution, 2015). Despite this growth, crowdfunding is a relatively recent and developing phenomenon, with research only beginning to examine behavior of creators, funders, and hosting platforms.<sup>2</sup>

In this paper we examine supply-side behavior in two distinct charitable crowdfunding platforms: Benevolent and JustGiving. Benevolent <[www.benevolent.net](http://www.benevolent.net)> is a US-based market where funders donate money to low-income individuals living in the US,<sup>3</sup> to help them finance specific goals. The goals typically involve purchases intended to improve the recipient's education,

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<sup>1</sup> Oxford English Dictionary, s.v. "crowdfunding." Retrieved online 25 September 2015.

<sup>2</sup> Work on charitable crowdfunding includes Wash (2013) and Meer (2014) on DonorsChoose.org, and Smith, Windmijer, and Wright (2015) and Raihani and Smith (2015) on JustGiving.

<sup>3</sup> Since the time of this study, Benevolent has expanded to serve recipients outside the US as well.

employment, health, or housing conditions, such as buying tools for work, books or a computer for school, or furniture for newly-acquired housing. Recipients set a fundraising target, and Benevolent operates a provision-point mechanism, where the target must be raised within 90 days, or else the recipient receives no money and Benevolent transfers any partial funds to a different project of its choosing. On the other hand, JustGiving <[www.justgiving.com](http://www.justgiving.com)>, is a UK-based market where donors give directly to charities or to individuals fundraising on behalf of charities and other organizations in the UK. Typical recipients are local hospitals, schools, or community centers. Fundraising campaigns may also be set up to support individuals directly, such as victims of natural disasters or individuals in need of medical treatment. Fundraisers may choose to set a fundraising target, and can keep their campaign on the platform indefinitely as long as they pay a monthly fee to JustGiving. Any funds raised on the page go to the recipient, independently of whether funds fall short of or exceed the target (if a target was set).

Despite differences in their fundraising mechanisms, both platforms exhibit a robust and sizable pattern, that we document in this paper and call the *completion effect*: donors contribute significantly more money in order to reach the exact fundraising target, and they make these donations significantly more frequently than donations that reach any other given fraction of the target. Our results suggest that the effect is different from “goal gradient helping,” that is, a gradual increase in contribution size and donation propensity as funds accumulate (Cryder, Loewenstein, and Seltman, 2013).<sup>4</sup> Neither does the effect appear to be driven by donor uncertainty about the recipient’s ability to reach its target, or by a subset of donors who dedicate themselves to completing projects (i.e., a “completer” type). Our evidence points to an inherent donor preference for personally completing projects, whereby donors derive a private benefit from hitting the

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<sup>4</sup> Support to crowdfunding projects tends to increase in size and frequency as funds accumulate (Zhang and Liu, 2012; Burch, Ghose, and Wattal, 2013; and Agrawal, Catalini, and Goldfarb, 2015).

fundraising target, possibly due to an enhanced feeling of impact over the recipient, or a preference for achieving goals more generally. As part of the completion effect, we also observe donors deviating upward from default amounts in order to reach the targets. Moreover, when data on timing of donations is available, we find in addition that donors make completion donations significantly faster than donations at any other point of the fundraising campaign.

We note that Wash (2013) has previously reported similar findings in another charitable crowdfunding platform, <DonorsChoose.org>. Wash shows that donations that complete a project are significantly larger than other donations, and that donors who complete are more likely to return to the platform to donate again. Here, our contribution is in documenting results in two additional platforms that employ different provision mechanisms, and in exploring the potential motivations behind the completion effect. In a simple theoretical model, we show at least two ways in which a completion effect can be sustained in equilibrium. First, if there is large enough uncertainty about the recipient's ability to fundraise successfully, donors may give larger amounts to personally reach the target and resolve the uncertainty. Second, if donors care about personally making a difference on the recipient, then donors who have an added sense of impact by personally completing a project may naturally give larger amounts in order to personally reach the target, even when there is little uncertainty that the recipient will in any case fundraise successfully. Our empirical results, as mentioned above, gives support to this second explanation.

Our findings contribute to the understanding of what motivates giving in general (Vesterlund, 2006) and in crowdfunding platforms in particular. A completion effect is consistent with the theory of impact philanthropy (Duncan, 2004), in which donors derive a private benefit if their donation 'makes a difference.' One source of this sense of making a difference may be the opportunity to personally complete someone's campaign, even if the target is irrelevant for

provision. Thus, having a target may be beneficial in a way that is currently underappreciated in the literature on public goods provision. Indeed, the opportunity to personally complete a campaign appears to be a powerful incentive, when compared to other factors that we are able to observe in the data. By performing content analysis of the text and images that make up requests on Benevolent (the only platform for which we can link data to campaign web pages), we find that demand-side factors such as references to a crisis or a difficult circumstance for the recipient (e.g., incarceration, physical or mental disability, and substance abuse) do not correlate with gift size or speed of donations to a campaign. Neither do physically attractive male or female recipients receive faster or larger gifts.<sup>5</sup> We find that days in which Benevolent offered a 1:1 contribution match are associated with faster-paced donations, but also with *smaller* donations than average.<sup>6</sup> In a possible link to religiosity, we also find that donations in Benevolent are larger on Sundays than on any other day, but Sundays are not correlated with speed of donations to a campaign.<sup>7</sup> Unlike any of these factors, the opportunity to complete someone's campaign is associated with an increase in both the gift size and the speed of donations.

Below, Section 2 provides an overview of Benevolent and JustGiving, Section 3 describes the data, Section 4 presents our empirical results, Section 5 presents a simple theoretical model of mechanisms that can give rise to a completion effect, and Section 6 closes with a discussion.

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<sup>5</sup> Landry et al. (2006) find that physically attractive female (but not male) solicitors receive larger donations in a door-to-door fundraising experiment, while Soetevent (2011) find a positive effect of attractiveness for both male and female solicitors.

<sup>6</sup> Chen, Li, and MacKie-Mason (2006) find no effect of matching contributions on gift size in an online fundraising experiment. Karlan and List (2007) find no effect of matching contributions on gift size (conditional on giving) in a direct mail solicitation experiment. Huck and Rasul (2011) find that a linear match partially crowds out donations given to the charity (excluding the match) in a direct mail solicitation experiment.

<sup>7</sup> Bekkers and Wiepking (2011) review numerous studies that find a positive link between charitable giving and religious involvement.

## **2. Overview of the crowdfunding platforms**

### ***2.1. Benevolent***

Benevolent is a US-based online platform where low-income individuals solicit donations to purchase one-time, specific items. Typical items requested on the site include uniforms or tools needed for a new job, books or computers for school, and healthcare items such as eyeglasses, dentures, or wheelchairs.

For a request to be posted on Benevolent's website, a validating organization must first certify the recipient and the request. Validating organizations are social work organizations or other nonprofits that have partnered with Benevolent in advance. In addition to validating the recipients, these organizations serve as intermediaries between Benevolent and the recipients. Recipients start the request process by contacting a validating organization, which approves the request and posts it on Benevolent's website. If the request raises its goal, Benevolent sends the funds to the organization, which then makes the purchase for the recipient. This ensures the money is used for its intended purpose.

Benevolent's recipients can only make one request at a time, and their request cannot exceed 1,600 USD.<sup>8</sup> The request stays active on the website for 90 days, or until it reaches its target, whichever happens first. If the target is not reached by day 90, the request expires; it is taken off the website, and the recipient receives no money. In this case, any partial funds raised are shifted by Benevolent to another recipient with a similar request, as determined by Benevolent.

Benevolent's fundraising success rate is exceptionally high during the period of study: 94 percent of campaigns obtain full funding. On average, campaigns receive their first donation just

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<sup>8</sup> Near the end of the period of study, Benevolent lowered this limit to 700 USD. Nevertheless, in practice, requested amounts rarely get close to the original cap, as more than 99 percent of campaigns request an amount smaller than 900 USD.

under 14 days after being posted, and reach their target 37 days before their expiration date. Benevolent strongly promotes a personal connection between donors and recipients. On its website, it stresses that donors “can step into the story of a person striving to reach important goals,” and lists as one of its organizational values a belief that “when we truly see one another, empathy trumps misperception.” Correspondingly, most requests on the website include a picture of the recipient, text describing the recipient’s need for funds, and a video in which the recipient narrates his or her circumstances and goals related to the request. Donors, in turn, are allowed to accompany their gifts with written messages for the recipient. We find this point noteworthy because, by making donations more personal, Benevolent may have stimulated in the donors a desire to have a direct impact on the recipient, and this motivation, we argue, may play a central role driving the completion effect.

Before submitting a donation to a given campaign, donors see a list of suggested donation amounts.<sup>9</sup> Donors may select an amount from this list, or enter any other value. As we describe in Section 4, we exploit this feature to examine whether the rate of compliance with the suggestions changes in response to the opportunity to complete a project. Figure 1 presents a screenshot of a request page on Benevolent, which includes information on the target amount, number of donations and amount raised so far, days remaining to expiration, information about the recipient and the validating organization, and a dropdown list of suggested donation amounts.

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<sup>9</sup> Prior to December 2013, suggested amounts were 5, 10, 25, 50, and 100 USD, and the default was 25 USD. In an effort to increase donation amounts, Benevolent changed the suggestion on December 2013 to 10, 20, 35, 50, 100, and 200 USD, and set the default to 35 USD.

## ***2.2. JustGiving***

JustGiving is UK's biggest charitable fundraising platform. In this site, individuals participate in fundraising events (such as sporting events) on behalf of charities, and invite sponsorship donations. Unlike Benevolent, the solicitee is not the recipient of the money. The recipients are registered charities, such as hospitals, schools, and cultural centers. These charities must register with JustGiving and pay a monthly fee in order to receive money from the campaigns (for more details on the platform see Payne, Scharf, and Smith, 2017).

As with Benevolent, personal relationships are important to the fundraising. But the way in which they matter is different on JustGiving: individual fundraisers exploit their existing social networks (friends, family, and colleagues) to raise donations for charity. Donors give because they care about the fundraiser and the cause the fundraiser is raising money for, but not because the fundraiser is in need (Scharf and Smith, 2017; see also Castillo, Petrie, and Wardell, 2017 for other work on online fundraising via friends networks).

Fundraisers may decide to set a target (85 percent of pages set one). In most cases, targets are purely notional: they are not linked to specific needs or items to be purchased. Neither are the targets binding, as charities receive any funds raised even if the target is not reached. This implies that the completion donation does not have any greater impact for provision than any other donation. We take advantage of this difference between JustGiving and Benevolent in terms of the provision function to explore possible motivations behind the completion effect. Finally, campaigns have no set time to expiration JustGiving, as pages can remain active on the platform indefinitely, as long as the recipient charity remains a member of the platform. As in Benevolent, donors see a list of suggested amounts during payment: 10, 20, 30, 50, and 100 GBP. Figure 2

shows an example page in JustGiving, and Table 1 contrasts key features across Benevolent and JustGiving.

### **3. Data and sample construction**

#### ***3.1. Benevolent***

We obtained data on all donations made on Benevolent between November 2011 and June 2014, via restricted agreement with Benevolent. In the analysis, we restrict the sample to donations to successfully-funded projects (97 percent of the sample). These were 3,410 donations made by 1,631 different donors to 407 recipients, totaling 191,251.23 USD. Each donation is time-stamped (on a scale of seconds) and linked to their donor and recipient via individual identifiers. Each observation includes the amount requested by the fundraiser, the date and time the request is posted on the platform, and the size of the donation. The average fundraising target is 540 USD, and the average donation size is 56.09 USD.

Benevolent also provided us with demographic and other information that recipients self-report to the validating organizations when applying for their requests to be posted on the platform. This information includes gender, race, ZIP code of residence, personal and household income level, and status as veteran, senior, homeless, immigrant, disabled, and criminal ex-offender. The vast majority of recipients are urban poor.

Independently, we also employed content analysis of the campaign pages. We analyzed the text describing the recipient's needs and goals to identify the type of request (education, employment, healthcare, home repair, household, technology, and transportation). We also identified whether the text made reference to previous incarceration, history of substance abuse, homelessness, physical or mental disability, having children, religion, or employment status, and

whether they were in receipt of government assistance. Since each recipient employs their own framing of their situation in these texts, we assessed whether they framed their situation as a crisis, how they projected their ability to resolve the crisis, and whether their message included gratitude. Finally, evaluating the campaign pictures, we rated the recipient's physical attractiveness and the effort they put into their physical appearance.<sup>10</sup>

Benevolent data contained little information about the donors, and none directly gathered by Benevolent. Benevolent contracted an external marketing organization that provided information on age, gender, household income, level of education, and occupation of the donors based on their email addresses. This information was only available for a non-random subset of donors, and could not be independently verified. Thus, we use these data only at specific instances in the analysis, and interpret the results more cautiously at those points.

### ***3.2. JustGiving***

For JustGiving, we obtained data on all donations to campaigns that set and reach a fundraising target. These are 510,786 donations made by 441,504 different donors to 23,622 recipients, totaling 19,527,350 USD.<sup>11</sup> We are able to track donors and campaigns via individual identifiers. While we have no timing of donation information, we do observe the chronological order of donations within a campaign, which allows us to identify the completion donation. The average fundraising target is 652.46 USD, and the average donation size is 38.23 USD.

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<sup>10</sup> The analysis of the text and pictures was done individually and separately by four research assistants. For some fundraising campaigns, the recipient's attractiveness and effort put into their appearance could not be assessed, as Benevolent intentionally blurred the recipient's picture to protect their identity.

<sup>11</sup> To help comparisons across platforms, we present JustGiving amounts in USD rather than GBP (unless noted otherwise), at the mid-2014 conversion rate of 1 GBP = 1.68 USD.

The data also includes information about the gender of the fundraiser, and the type of activity involved in the fundraising (running, cycling, walking, or other). Regarding donors, we have gender information only for individuals who disclose it at the moment of registering on the platform (73 percent of the sample). Table 2 presents summary statistics of the data.

## **4. Results**

### ***4.1. Size of completion donations***

To begin exploring donation behavior within the fundraising campaigns, we first compute the cumulative percentage of the recipient's goal reached by each donation. For example, suppose a campaign has a fundraising target of 400 USD. A donation of size  $X$  that brings the cumulative total raised for the campaign to 200 USD would be reaching a cumulative percentage of 50 percent of the target. We examine the average donation size across cumulative percentages. A completion effect implies that donations that reach exactly 100 cumulative percent will be distinctly larger than donations that reach other cumulative percentages.

Figure 3a plots the results for Benevolent, and Figure 3b for JustGiving. Note that the range of percentages stops at 100 percent for Benevolent, as campaigns in this platform terminate once they reach their goal. For JustGiving, on the other hand, the range of percentages extends beyond 100 percent, as projects in this platform can continue to raise funds pass their goal. We see for both panels that the average donation size trends upward as the cumulative percentage of the goal reached increases, due to the mechanical effect that larger donations tend to reach larger cumulative percentages of the goal. Yet, at 100 percent of the target we see a clear upward discontinuity for both Benevolent and JustGiving. This discontinuity suggests that donors

deliberately increase the amount they donate in order to reach exactly the recipient’s target, with no such discontinuous behavior at other stages of the fundraising campaign.

To estimate the effect of completion on donation size more precisely, we conduct regression analysis. We estimate the donation size from linear regressions, separately for Benevolent and JustGiving, controlling for observed and unobserved recipient heterogeneity by considering recipient fixed effects. In particular, we estimate the equation

$$g_{in} = \alpha + \beta D_{in} + \mathbf{z}'_{in} \boldsymbol{\delta} + \eta_i + u_{in}$$

where  $g_{in}$  is the size in USD of the  $n^{\text{th}}$  donation to recipient  $i$ ,  $D_{in}$  is an indicator of whether the donation is a completion donation (i.e., reaches exactly 100 cumulative percent of  $i$ ’s goal),  $\mathbf{z}_{in}$  is a vector of donation-specific controls,  $\eta_i$  are recipient fixed effects, and  $u_{in}$  is an idiosyncratic error term. We estimate this equation separately for Benevolent and JustGiving, controlling for the donor’s gender,<sup>12</sup> and whether the donation is the first one made to a recipient. For Benevolent, we also control for whether the donation occurred during a 1:1 match campaign, which Benevolent offered during certain times, and for month-year effects (we have no information on date and time of donations for JustGiving). We consider several specifications: (i) a *Baseline* specification without controls, (ii) a *Baseline Controls* specification that includes the controls described previously, (iii) a *Narrow Window* specification that restricts the sample to completion donations and the four preceding donations for each recipient, and (iv) a *Repeat Donors* specification that restricts the sample to observations from donors who make multiple donations on the platform, at least one of which is a completion donation, and at least one of which is not. The purpose of (iii) is to begin examining whether the completion effect is due to donors attempting to resolve

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<sup>12</sup> For Benevolent, we obtain donor gender information from an independent agency based on email addresses. For JustGiving, donors may disclose their gender during registration on the platform. In both cases, gender may be male, female, or missing, and we include all three values in the analysis.

completion uncertainty. That is, if a donor is unsure that her intended recipient will reach the goal, she may give a larger amount in order to reach the goal herself and ensure completion (we explore the role of uncertainty in more detail in the next subsection). The purpose of (iv) is to examine whether the completion effect is driven by a “type” of donor who dedicates herself to completing projects.

Results appear in Table 3. We focus first on Benevolent, on the left panel. Under the *Baseline* specification, we estimate that completion donations are on average 85.58 USD ( $p < 0.001$ ) larger than other donations, or, equivalently, 173 percent larger. Including the controls decreases the effect to 78.27 USD ( $p < 0.001$ ), equivalent to a 74 percent increase. The *Narrow Window* specification continues to find a completion effect, of 72.55 USD ( $p < 0.001$ ), equivalent to an increase of 39 percent relative to other donations. This suggests that the effect is not due to donors making larger donations in order to resolve completion uncertainty. Finally, the *Repeat Donors* specification also finds a significant effect, of 28.07 USD ( $p = 0.036$ ), equivalent to an increase of 141 percent relative to other donations made by the same donors, which suggests that the effect is not due to a “completion type,” since donors who give multiple times, including both completion and non-completion donations, still tend to increase their gifts in order to complete.

We find similar effects for JustGiving, although smaller in absolute and relative magnitude. Without controls, we estimate that donations that reach exactly 100 cumulative percent of the goal are on average 12.28 USD ( $p < 0.001$ ) larger than other donations, or 32 percent larger. Including the controls, the estimated effect is 12.15 USD ( $p < 0.001$ ), equivalent to an increase of 29 percent. The *Narrow Window* specification finds an effect of 31.56 USD ( $p < 0.001$ ), or a 58 percent increase. Finally, as in Benevolent, the effect does not seem to be driven by a type of donor who

only completes projects, since the *Repeat Donors* specification continues to estimate an effect of 7.80 USD ( $p=0.001$ ), equivalent to a 16 percent increase.

Thus, we observe a robust pattern in which donations that reach 100 cumulative percent of the fundraising goal tend to be larger than donations that reach any other cumulative fraction of the goal. The result is not due to a mechanical effect,<sup>13</sup> nor does it appear to be driven by uncertainty about whether the goal will be reached, or driven by a few donors who systematically look to complete projects. Rather, it appears that donors change their behavior by contributing more than they would normally, in order to personally reach the fundraising goal. In the next sections, we explore this effect and the potential driving mechanisms in more detail.

#### ***4.2. Compliance with suggested amounts***

At the payment sites in both platforms, donors can select a gift size from a list of suggested amounts, or can enter any other value. We exploit this feature to obtain additional evidence on whether donors change their behavior in order to personally hit fundraising goals. To do this, we examine the rate at which donations equal a suggested amount. If this rate is significantly lower for completion donations than for other donations it would indicate, in combination with the previous finding that completion donations tend to be larger on average than other donations, that donors disregard suggestions and purposely make larger gifts in order to reach the target.

Figure 4 plots the distribution of donation sizes. We restrict the sample to donations less than or equal to the largest suggested amount (200 USD for Benevolent and 100 GBP for

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<sup>13</sup> By mechanical effect we mean that larger donations are more likely to reach any given fraction of the goal, including 100 percent. To prevent this from driving our result, we define completion donations as those that reach exactly 100 cumulative percent of the goal (rather than those that reach *or exceed* 100 cumulative percent), and compare the size of these donations to donations that reach all other cumulative percentages of the goal.

JustGiving). For Benevolent, we observe that opening donations (initial donations to any given recipient) equal a suggested amount 88 percent of the time, and donations that are neither opening nor completion donations equal a suggested amount 86 percent of the time. But for completion donations, the mass spreads over to values larger than most suggestions, and the rate at which donations equal a suggested amount is only 26 percent. One may argue that a drop in the compliance rate is expected, simply because as funds accumulate, the remaining amount needed to reach the goal is likely to be a value different from a suggested amount, thus the completion donation will depart from the suggested values. However, as we found earlier, completion donations are *larger* on average than other donations, suggesting that the mechanism behind the result is that donors *increase* their gifts relative to what they normally would contribute in order to reach the exact target.

Additional evidence for this mechanism comes from results on JustGiving. On this platform, it would be more surprising to see a drop in the rate of compliance with suggested amounts for donations that reach the target, since the target is not linked to a specific item to be purchased, and the target is not a threshold for provision. Yet, we find a similar (though smaller) drop in the compliance rate. In JustGiving, donations preceding the completion donation equal a suggested amount 75 percent of the time, and donations that come after the completion donation equal a suggested amount 74 percent of the time. Completion donations equal a suggested amount 70 percent of the time. This is a smaller effect than that for Benevolent, but a measurable effect.

To estimate the effect precisely, we conduct regressions similar to those in Table 3, but change the outcome of interest to an indicator of whether the donation equals a suggested amount. Results appear in Table 4. For Benevolent, we estimate a drop in the compliance rate of 63 percentage points ( $p < 0.001$ ) with the *Baseline Controls* specification, of 64 percentage points

( $p < 0.001$ ) with the *Narrow Window* specification, and of 47 percentage points ( $p < 0.001$ ) restricting the sample to *Repeat Donors*. As a robustness test, in *Baseline Controls (2)* we replicate the *Baseline Controls* specification but instead of examining the effect on the compliance rate for completion donations, we examine the effect on this rate for donations that reach 50 cumulative percent of the goal. We find no significant change in the compliance rate for these donations, supporting the idea that donors disregard suggestions specifically in order to complete projects. For JustGiving, we estimate a similar but smaller drop, of 7 percentage points ( $p < 0.001$ ) under the *Baseline Controls* specification, and 8 percentage points ( $p < 0.001$ ) under both the *Narrow Window* and *Repeat Donors* specifications. Donations that reach exactly 50 cumulative percent of the goal are on average 4 percentage points ( $p < 0.001$ ) *more* likely than other donations to equal a suggested amount. Thus, even when the target is of no consequence for provision, donors appear to have a preference for hitting the target that leads them to be more likely to ignore suggested amounts and to increase their gift size in order to personally reach the target.

#### ***4.3. Likelihood of completion***

Another pattern one might expect to see if donors have a preference for making completion donations is for these donations to be more frequent than donations that reach any other cumulative percentage of the fundraising goal. If we observe this in Benevolent, it may indeed be the result of a preference for completion, but it may also be the necessary result of the provision mechanism in Benevolent. This is because a completion donation is always observed for a successful campaign in Benevolent, since the campaign terminates when it reaches its goal. On the other hand, completion donations need not be observed in JustGiving, since in this platform the provision of the project and the continuation of the campaign do not depend on funds reaching the target.

Observing frequent completion donations in JustGiving would be a cleaner sign of a donor preference for making completion donations.

To explore this, in Figure 5 we plot the observed frequency of donations as a function of the cumulative percentage of the goal reached. For Benevolent, we observe completion donations 8 percent of the time, while we observe donations that reach other given cumulative percentages no more than 2 percent of the time. As previously mentioned, it is unclear whether this four-fold discontinuity reflects a preference for completion, a mechanical effect of Benevolent's provision function, or both. Results from JustGiving suggest a role for a preference for completion. In this platform, we observe completion donations 1.9 percent of the time, a value 67 percent larger than the 1.1 percent suggested by the trend in the rest of the data. Thus, at least in JustGiving, and potentially also in Benevolent, donors appear to purposely modify the amounts they give in order to reach the target, so that they make completion donations significantly more frequently than they would without a completion preference.

#### ***4.4. Time to completion in Benevolent***

Up to now we showed that donors increase their gift size and ignore suggested amounts in order to personally reach fundraising targets. This leads completion donations to be particularly frequent in the data. While these patterns are more marked in Benevolent, they also appear in JustGiving, where the fundraising target is purely notional and irrelevant for provision. This feature of JustGiving allows us to argue that the patterns we describe are driven at least partly by a donor preference for making completion donations. Now, in this section, we take a different approach and look exclusively at data from Benevolent to build further support for this explanation.

For Benevolent only, we observe the date and time at which each donation is made, as well as the date and time at which each campaign is posted on the platform (both on a scale of milliseconds). We can therefore compute the time elapsed between any two consecutive donations to a given campaign, the time elapsed between the posting of the campaign on the platform and receipt of each donation, and the time remaining for the campaign to expire at the moment of receipt of each donation. This information allows us to test some possible explanations for the completion effect in Benevolent. If donors have no preference for making completion donations in particular, we expect completion donations to be no quicker or slower on average than other donations. If donors make completion donations that are larger and less likely to equal a suggested amount because they seek to resolve completion uncertainty, we expect projects to complete on average relatively close to their expiration date, since this is when uncertainty about the recipient's ability to reach the goal is highest. We might also expect completion donations to increase in size for completions that occur close to the expiration date. On the other hand, if the completion effect is due to an inherent donor preference for personally reaching the fundraising goal, we may expect donors to make these completion donations faster than they make any other donation, regardless of how much time remains to expiration.

We explore these explanations with regressions presented in Table 6. In the left panel, we predict the time elapsed between a donation and the preceding donation to a given campaign, using otherwise identical specifications to Tables 3 and 4. We find that completion donations occur significantly faster than other donations on average: 4.3 days faster ( $p < 0.001$ ) under the *Baseline* specification, and 2.6 days faster ( $p < 0.001$ ) under the *Baseline Controls* specification. Restricting the sample to completion donations and their four preceding donations, we continue to find completion donations to arrive 2.2 days faster ( $p < 0.001$ ) than other donations on average. And

among repeat donors, we estimate completion donations to be 4.1 days faster ( $p < 0.001$ ) than other donations. Thus, consistently, donors appear to have a preference for making completion donations, as they wait substantially less to make completion donations than they wait to make all other donations.

It is also worth noting that successfully-funded campaigns on Benevolent reach their goal, on average, 33 days before their expiration date. Seventy-nine percent of these campaigns reach their goal at least one week before their expiration date. And 94 percent of all campaigns posted on Benevolent during the time of study successfully raise their goals. Due to Benevolent's remarkably high success rate, it seems unlikely that the reason why completion donations are larger in size than other donations is that donors worry about projects failing to reach their goals on time.

To explore this further, on the right panel of Table 6 we predict the donation size in Benevolent, using similar specifications to Table 3, but now adding an indicator of whether the donation occurred within the last 24 hours before the project's expiration date, as well as the interaction between this indicator and the completion donation indicator. This interaction examines whether completion donations are relatively larger when completion occurs near the expiration date, which would suggest that donors increase their contributions to finalize a project in order to resolve completion uncertainty. The interaction effect is not significant under any specification, failing to find evidence for the resolution of uncertainty as an underlying mechanism.<sup>14</sup>

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<sup>14</sup> We find a similar null interaction effect if we instead look at completions occurring within the last 2 days or 5 days before the expiration date.

#### ***4.5. Comparison to other demand-side factors in Benevolent***

To give some context to the results described above, we can compare the estimates of the completion effect to other demand-side factors that we are able to observe in the data.<sup>15</sup> For Benevolent only, we are able to link donation data to campaign web pages (see Figure 1 for an example of a campaign page). We perform content analysis of these pages, as described in Section 3, and identify whether the text made reference to previous incarceration, history of substance abuse, homelessness, physical or mental disability, having children, religious affiliation, employment status, receipt of government assistance, and gratitude for the campaign donations. We also rate the physical attractiveness of the recipient based on his or her campaign picture, on a scale from 1 to 4 (where 4 is extremely attractive). Following work on matching contributions, we also identify whether the donation was made during a 1:1 contribution match offer. And we also identify whether the donation was made on a Sunday, which may indicate religious affiliation of the donor.

In Table 7 we estimate the effect of these factors on the gift size and the speed of donations. In the *Panel* columns, we look at the effect of the donation falling on a match offer day and on a Sunday. Since these vary within campaigns, we can estimate their effects in a campaign fixed-effects model. We control in addition for the gender of the donor, month effects, and whether the donation is a completion donation or an opening donation. We estimate that donations on Sundays are 17.16 USD ( $p=0.021$ ) larger than on other days, perhaps suggesting that religious sentiment motivates larger donations. However, we find that donations are not made at a significantly different pace on Sundays than on other days. On the other hand, donations made on days in which Benevolent offered a 1:1 gift math are made at a faster pace than average, but are also smaller

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<sup>15</sup> Andreoni (2006) and Karlan and List (2007) note that the demand side of charitable fundraising is relatively understudied.

donations than average. Donations on match days are on average 11.40 USD ( $p=0.049$ ) smaller than other donations, and take on average 8.9 fewer days to arrive from the preceding donation than other donations. Thus, it is unclear whether the match offer is associated with an overall increase or decrease in revenues (and, of course, the association would not be causal since the match offer is not exogenous). Contrast these estimates to the completion effect, which is unambiguously positive. In the same model, we estimate that completion donations are on average 78.18 USD ( $p<0.001$ ) larger than other donations, and arrive 2.60 days ( $p<0.001$ ) faster than other donations.

In the *Campaign average* columns in Table 7, we look at the effect of the references made on the campaign page, the physical attractiveness of the recipient, and other characteristics of the campaign such as the amount requested and the gender of the recipient. Since these are time-invariant, a campaign fixed-effects model cannot estimate their effects. To estimate their effect on the donation size and the speed of donations while dealing with potential correlation in these variables within campaigns, we take as outcomes the average donation size for a campaign and the length of the campaign in days. Thus, we have one observation per campaign. We estimate that females receive larger donations than males on average (26.04 USD,  $p=0.012$ ), but time to complete a campaign is not associated with gender of the recipient. Physical attractiveness is not associated with larger donations or faster campaign completion for either male or female recipients. Of the references made on the campaign page, we find only three significant effects, and not necessarily in the expected direction. Making a reference to having children is associated with donations that are 17.44 USD ( $p=0.064$ ) smaller than average. Making a reference to a crisis that can be resolved is associated with completing the campaign in 11.26 ( $p=0.008$ ) fewer days than average. And making reference to gratitude is associated with completing the campaign in

9.24 ( $p=0.016$ ) more days than average. The only factor that is consistently significant is the amount requested: requesting an additional 1 USD is associated with receiving 0.07 USD ( $p=0.001$ ) more and completing the campaign in 0.07 ( $p<0.001$ ) more days. Thus, overall, we find no factor that increases both donation size and speed of donations, other than the opportunity to personally complete a campaign.

#### ***4.6. Gender-Platform Heterogeneity***

We conclude this section by documenting a significant gender-platform heterogeneity in the completion effect. We re-run regressions that estimate the donation size, following the specifications presented in Table 3, but this time showing donor's gender effects explicitly, and interacting the donor's gender with the completion indicator. For Benevolent, we obtain donor gender data from an external organization that gathers data on individuals based on their email addresses. Gender could not be determined for 10.7 percent of donors. For JustGiving, donors decide whether to disclose their gender during registration on the platform. A total of 27.1 percent of donors decide not to disclose their gender. Thus, in both platforms, gender data is missing for a nontrivial fraction of donors. Rather than attempt an imputation, we take a conservative approach and treat missing information as an extra category of the gender indicator.

Results appear in Table 8. For Benevolent, among donors for whom we can identify gender, male and female donors make larger donations when they complete a campaign than when they contribute at other stages, but the increase is significantly larger for females. We estimate that females increase their donations more than males when they complete by 45.17 USD ( $p=0.019$ ) under the *Baseline* specification, by 44.79 USD ( $p=0.020$ ) under the *Baseline Controls* specification, by 47.03 USD ( $p=0.031$ ) under the *Narrow Window* specification, and by 49.23 USD

( $p=0.070$ ) under the *Repeat Donor* specification. Estimates from the *Baseline Controls* specification are plotted in Figure 6. We see that males and females give similar amounts for non-completion donations, and both genders increase substantially their gifts when making completion donations. However, the increase is significantly larger for females.

The pattern changes for JustGiving. Among donors who disclose their gender, male and female donors make larger donations when completing a campaign than at other stages, but now the increase is significantly larger for males. We estimate a difference in the increase for females relative to males of -8.79 USD ( $p<0.001$ ) under the *Baseline* specification, -8.75 USD ( $p<0.001$ ) under the *Baseline Controls* specification, -12.05 USD ( $p=0.026$ ) under the *Narrow Window* specification, and -2.02 USD ( $p=0.758$ ) under the *Repeat Donors* specification. Figure 3 plots the results for the *Baseline Controls* specification. Males give larger non-completion donations than females on average, and both genders increase their gift size when they make completion donations. However, this increase is now significantly larger for males.

Thus, it appears that making completion donations is differentially more appealing to women on Benevolent, and to men on JustGiving. Unable to control for the various differences across platforms, we can only speculate about why we observe this. One possibility is that the difference relates to whether the goal is consequential for provision of the project, since this is a key distinction across platforms. If females care more than males about the recipient's welfare,<sup>16</sup> they may find it more appealing than males to complete a project in Benevolent, as completion in this platform has a large, discrete positive impact on the recipient. Alternatively, higher female risk aversion could also explain their relatively larger completion effect in Benevolent,<sup>17</sup> if the

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<sup>16</sup> Evidence that females are more altruistic than males is mixed; see for instance Andreoni and Vesterlund (2001), Niederle (2016), and Klinowski (2018).

<sup>17</sup> Evidence that females are more risk averse than males is also mixed, and sensitive to the environment; see Niederle (2016).

completion effect is motivated by a desire to resolve uncertainty about the recipient's ability to reach their goal. However, as seen above, there seems to be little evidence that completion uncertainty plays a role in driving donations in Benevolent.

## 5. A Simple Model of Completion

In this section, we present a simple descriptive model of how uncertainty about the recipient's ability to fundraise the goal, and an inherent donor preference for personally achieving completion, can lead in equilibrium to completion donations being larger than preceding donations. The purpose of this section is to provide theoretical support for the plausibility of these mechanisms in producing the findings reported above.

### 5.1. Basic Setup

The model is a modification of Admati and Perry (1991).  $N$  donors, indexed by  $i \in \{1, \dots, N\}$ , decide sequentially and one at a time how much to contribute toward a charitable project. In period  $t \in \{1, \dots, N\}$ , donor  $i = t$  chooses her level of contribution  $g_i$ . Contributions are fully observable. Denote the aggregate contribution up to and including period  $t$  by  $G(t) = \sum_{i=1}^t g_i$ , and define  $G_{-i}(t) = G(t) - g_i$ .<sup>18</sup>

The charitable project is carried out only if it raises the target amount  $\bar{G}$ , which is exogenous and commonly known. Donors derive utility from the project only if it gets carried out. Donor  $i$ 's utility is

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<sup>18</sup> Vesterlund (2003) and Romano and Yildirim (2005) note that this move structure incorrectly assumes that donors are unable to contribute more than once to any given campaign. However, this assumption is not too unreasonable in our case, as only 7 percent of donations in Benevolent and 9 percent of donations in JustGiving are repeated donations by the same donor to the same campaign.

$$U_i = \begin{cases} -g_i & \text{if } G(N) < \bar{G} \\ V_i - g_i & \text{if } G(N) \geq \bar{G} \end{cases}$$

where  $V_i$  is the value donor  $i$  gets if the project is carried out.<sup>19</sup> For simplicity, we assume values are common knowledge.<sup>20</sup>

## 5.2. Completion Uncertainty

We explore the role of uncertainty about the recipient's ability to reach the fundraising goal in a simple, parametric case as follows. Let there be a commonly-known probability  $p \in (0,1)$  that  $N = 2$ , and probability  $1 - p$  that  $N = 3$ . Thus, donors 1 and 2 are certain to participate in the fundraising campaign (although they may decide to give zero). With probability  $p$ , donor 2 will be the last to participate, while with probability  $1 - p$  donor 3 will be the last to participate.

Finally, assume that  $0 < V_i < \bar{G} < V_i + V_j$  for any  $i \neq j$ . This implies that no donor wants to single-handedly fund the project, but it is efficient that the project is carried out even when only two donors participate in the fundraising campaign.

In solving this game, it is helpful to consider first the degenerate cases  $p = 1$  and  $p = 0$ . In the former, two donors participate in the fundraising with certainty, and donor 2's best-response function is

$$g_2^*(g_1) = \begin{cases} 0 & \text{if } \bar{G} - g_1 > V_2 \\ \bar{G} - g_1 & \text{if } \bar{G} - g_1 \leq V_2 \end{cases}$$

That is, given donor 1's contribution, donor 2 is willing to donate enough to raise cumulative funds to 100 percent of the goal if she can do so with a donation smaller than or equal

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<sup>19</sup> This is the binary benefit function in Marx and Matthews' (2000) comparison of dynamic versus static contributions to public goods.

<sup>20</sup> Alternatively, we can allow for private values, but this complicates the model without providing much additional insight.

to her value from the project's completion. The Subgame-Perfect Nash Equilibrium (SPNE) achieves completion at  $t = 2$ , with donations  $(g_1 = \bar{G} - V_2, g_2 = V_2)$ . In this case, donor 1 uses her first-mover advantage to partially free ride on donor 2, who contributes her entire value.

In the case where  $p = 0$ , three donors participate in the fundraising with certainty, and the SPNE also achieves completion, at  $t = 3$ . Donor 1 fully free rides on donors 2 and 3, and the game at  $t = 2$  is identical to the 2-donor case. The SPNE outcome is  $(g_1 = 0, g_2 = \bar{G} - V_3, g_3 = V_3)$ .

Moving away from the degenerate cases, when  $p \in (0,1)$ , we get the interesting question of whether donor 2 completes in the SPNE. To answer this, not that, if called to participate, donor 3 follows the best-response function

$$g_3^*(G_{-3}(3)) = \begin{cases} 0 & \text{if } \bar{G} - G_{-3}(3) > V_3 \\ \bar{G} - G_{-3}(3) & \text{if } \bar{G} - G_{-3}(3) \leq V_3 \end{cases}$$

Taking this reaction function as given, donor 2 may give either  $g_2 = 0$  or  $g_2 = \bar{G} - g_1 - V_3$ , in either case not reaching the goal and leaving the project open for potential completion by donor 3. Alternatively, she may decide to complete the project by giving  $g_2 = \bar{G} - g_1$ . For donor 2 to decide to give the latter amount, it must be that  $\bar{G} - g_1 > V_2$ . Moreover, it must be that  $V_2 > V_3$  for donor 2 not to prefer to partially free ride on the potential contribution from donor 3.<sup>21</sup> If these two conditions hold, donor 2 prefers to complete the project at  $t = 2$  rather than to make a smaller donation and wait for potential completion by donor 3, only if the expected utility from

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<sup>21</sup> Donor 2's best-response function is

$$g_2^*(g_1) = \begin{cases} 0 & \text{if } \bar{G} - g_1 > V_2 \text{ and } p > \frac{V_3}{V_2} \\ \bar{G} - g_1 & \text{if } \bar{G} - g_1 \leq V_2 \text{ and } p > \frac{V_3}{V_2} \\ \bar{G} - V_3 - g_1 & \text{if } p < \frac{V_3}{V_2} \end{cases}$$

completing at  $t = 2$  exceeds the expected utility from leaving the project incomplete at  $t = 2$ .

That is, only if

$$V_2 - \bar{G} + g_1 > p \cdot (V_3 - \bar{G} + g_1) + (1 - p) \cdot (V_3 + V_2 - \bar{G} + g_1)$$

which reduces to  $p > \frac{V_3}{V_2}$ .

As this result indicates, large enough uncertainty about the arrival of a donation after  $t = 2$  leads to a completion effect: a larger contribution and completion of the project at  $t = 2$ . When  $p > \frac{V_3}{V_2}$ , the SPNE outcome is  $(g_1 = \bar{G} - V_2, g_2 = V_2, g_3 = 0)$ , whereas when  $p < \frac{V_3}{V_2}$ , the SPNE outcome is  $(g_1 = 0, g_2 = \bar{G} - V_3, g_3 = V_3)$ .

### 5.3. Private benefit from personally making a difference

As proposed by Duncan's (2004) theory of impact philanthropy, donors may care about personally making a difference on the recipient with their contributions. If donors derive a sense of making a difference by making the completion donation, the addition of this private benefit term could give rise to a completion effect in equilibrium. To illustrate this, we continue to use the setup above, but now add to the donor's utility function a term that reflects an extra benefit from personally reaching the fundraising goal. In particular, let donor  $i$ 's utility now be

$$U_i = \begin{cases} -g_i & \text{if } G(n) < \bar{G} \\ V_i - g_i & \text{if } G(n) < \bar{G} \text{ and } i \neq T \\ V_i - g_i + b_i & \text{if } G(n) < \bar{G} \text{ and } i = T \end{cases}$$

where  $b_i$  is the private benefit from personally completing the project, and  $T$  is the period at which completion is achieved.

Following the previous derivation, it can be verified that, when  $p \in (0,1)$ , the condition for observing a completion effect at  $t = 2$  becomes  $p > \frac{V_3 - b_2}{V_2}$ . Thus, a large enough private benefit

for donor 2 from personally reaching the fundraising goal can obtain a completion effect at  $t = 2$ , independently of how small  $p$  gets.

## **6. Discussion**

Worldwide donations made on charitable crowdfunding platforms grew from 406 million USD in 2010, to 4 billion USD in 2014 (Massolution, 2015). As more charities turn to the web to raise funds, it is increasingly important to understand what features of the crowdfunding environment influence donors' motivations to give. Corazzini, Cotton, and Valbonesi (2015) show that as the number of projects soliciting contributions in a market grows, coordination among participants becomes more difficult, leading to a decrease in both total donations and the number of projects successfully funded. Thus, understanding how to effectively incentivize giving is particularly crucial in the crowdfunding sector.

This paper provides evidence from two charitable crowdfunding platforms of a donor preference for personally hitting fundraising targets. The pattern is robust not only across platforms, but also within donors who make multiple gifts on a platform. Given Benevolent's exceptionally high completion rate, and given that JustGiving implements no provision-point mechanism, the completion effect in these platforms appears unlikely to be driven by uncertainty about whether the campaign will reach its target. Rather, an inherent donor preference for making completion donations seems to be at play. This preference may stem from a desire to personally make a difference on the recipient (Duncan, 2004), pride from accomplishing production goals (Gómez-Miñambres, 2012), or a motivation to reach perceived completion points more generally (Barasz et al., 2017).

Can fundraisers leverage the completion effect in order to increase donations? Obviously, one way to do so may be to set fundraising targets to begin with. But the conclusion that targets increase revenue does not follow from our results. We conjecture that they do, but to establish this would require a study exploiting exogenous variation in the existence of a target—for example, in an experiment that assigns campaigns to either having or lacking a fundraising target. The prevalence of targets in crowdfunding campaigns is perhaps also suggestive that targets help, and that practitioners understand this (although of course just because something is common practice does not mean it is effective practice). Relatedly, researchers have examined whether sequential giving raises more funds than simultaneous giving, and have shown theoretically that this is the case if a discrete “extra benefit” is realized upon completion (Marx and Matthews, 2000). This extra benefit is typically understood as an instrumental benefit derived from completion or provision of the project. For instance, Duffy, Ocks, and Vesterlund (2007) provide as an example of how this extra benefit might arise, that “contributions to the homeless may have some immediate beneficial effect, but a substantial and discrete increase in benefit from contributions may not be achieved until sufficient funds have been collected to build a homeless shelter.” Our results suggest that an additional source of extra benefit realized upon completion might be an inherent donor preference for completing projects, independent of an instrumental benefit. Thus, the presence of targets itself might help sequential fundraising dominate simultaneous fundraising, even in the absence of a provision-point or provision-jump mechanism. Also, perhaps more speculatively, our results may suggest that setting explicit fundraising milestones at different stages of the campaign, rather than having a single completion goal, might help to raise more funds. To the extent that such milestones are perceived as (or do represent meaningful) targets, they may elicit a similar, milestone-completion effect.

## REFERENCES

- Admati, A. R., and Perry, M., 1991. Joint projects without commitment. *Review of Economic Studies*, 58.2:259-276.
- Agrawal, A., Catalini, C., and Goldfarb, A., 2014. Some simple economics of crowdfunding. *Innovation Policy and the Economy*, 14.1:63-97.
- Andreoni, J., 2006. Leadership giving in charitable fund-raising. *Journal of Public Economic Theory*, 8.1:1-22.
- Andreoni, J., and Vesterlund, L., 2001. Which is the fair sex: Gender differences in altruism. *Quarterly Journal of Economics*, 116.1:293-312.
- Barasz, K., John, L. K., Keenan, E. A., and Norton, M. I., 2017. Pseudo-set framing. *Journal of Experimental Psychology: General*, 146.10:1460-1477.
- Bekkers, R., and Wiepking, P., 2-11. Who gives? A literature review of predictors of charitable giving. Part One: Religion, education, age, and solicitation. *Voluntary Sector Review*, 2.3:337-365.
- Belleflamme, P., Omrani, N., and Paitz, M., 2015. The economics of crowdfunding platforms. *Information Economics and Policy*, 33:11-28.
- Burtch, G., Ghose, A., and Wattal, S., 2013. An empirical examination of the antecedents and consequences of contribution patterns in crowd-funded markets. *Information Systems Research*, 24.3:499-519.
- Castillo, M., Petrie, R., and Wardell, C., 2017. Friends asking friends for charity: The importance of gifts and audiences. *Working Paper*.
- Chen, Y., Li, X., and MacKie-Mason, J. K., 2006. Online fund-raising mechanisms. *Contributions in Economic Analysis & Policy*, 5.2.
- Corazzini, L., Cotton, C., and Valbonesi, P., 2015. Donor coordination in project funding: Evidence from a threshold public good experiment. *Journal of Public Economics*, 128:16-29.
- Cryder, C. E., Loewenstein, G., and Seltman, H., 2013. Goal gradient in helping behavior. *Journal of Experimental Social Psychology*, 49:1078-1083.
- Duffy, J., Ocks, J., and Vesterlund, L., 2007. Giving little by little: Dynamic voluntary contribution games. *Journal of Public Economics*, 91:1708-1730.
- Duncan, B., 2004. A theory of impact philanthropy. *Journal of Public Economics*, 88.9-10:2159-2180.

- Gerber, E., Hui, J., and Kuo, P., 2012. Crowdfunding: Why people are motivated to post and fund projects on crowdfunding platforms. *Proceedings of the International Workshop on Design, Influence, and Social Technologies: Techniques, Impacts, and Ethics*.
- Gómez-Miñambres, J., 2012. Motivation through goal setting. *Journal of Economic Psychology*, 33:1223-1239.
- Huck, S., and Rasul, I., 2011. Matched fundraising: Evidence from a natural field experiment. *Journal of Public Economics*, 95.5-6:351-362.
- Karlan, D., and List, J. A., 2007. Does price matter in charitable giving? Evidence from a large-scale natural field experiment. *American Economic Review*, 97.5:1774-1793.
- Klinowski, D., 2018. Gender differences in giving in the Dictator Game: The role of reluctant altruism. *Journal of the Economic Science Association*, 4.2:110-122.
- Landry, C. E., Lange, A., List, J. A., Price, M. K., and Rupp, N. G., 2006. Toward an understanding of the economics of charity: Evidence from a field experiment. *Quarterly Journal of Economics*, 121.2:747-782.
- Massolution, 2015. The crowdfunding industry report, 2015CF.
- Marx, L. M., and Matthews, A., 2000. Dynamic voluntary contribution to a public project. *Review of Economic Studies*, 67.2:327-358.
- Meer, J., 2014. Effects of the price on charitable giving: Evidence from an online crowdfunding platform. *Journal of Economic Behavior & Organization*, 103:113-124.
- Mollick, E., 2014. The dynamics of crowdfunding: An exploratory analysis. *Journal of Business Venturing*, 29.1:1-16.
- Niederle, M., 2016. Gender. In Kagel, J. H., and Roth, A. ed., *The Handbook of Experimental Economics*, vol. 2, Princeton University Press.
- Payne, A., Scharf, K., and Smith, S., 2017. Individual fundraising: the power of the personal. In Costa-i-Font, J., and Macis, M. ed., *Social Economics: Current and Emerging Avenues*, MIT Press.
- Raihani, N. J., and Smith, S., 2015. Competitive helping in online giving. *Current Biology*, 25.9:1183-1186.
- Romano, R., and Yildirim, H., 2005. On the endogeneity of Cournot-Nash and Stackelberg equilibria: Games of accumulation. *Journal of Economic Theory*, 120.1:73-107.

- Scharf, K., and Smith, S., 2016. Relational warm glow and giving in social groups. *Journal of Public Economics*, 141:1-10.
- Smith, S., Windmeijer, F., and Wright, E., 2015. Peer effects in charitable giving: Evidence from the (running) field. *Economic Journal*, 125.585:1053-1171.
- Soetevent, A. R., 2011. Payment choice, image motivation and contributions to charity: Evidence from a field experiment. *American Economic Journal: Economic Policy*, 180-205.
- Vesterlund, L., 2003. The informational value of sequential fundraising. *Journal of Public Economics*, 87.3-4:627-657.
- Vesterlund, L., 2006. Why do people give? In Steinberg, R., and Powell, E. ed., *The Nonprofit Sector*, 2<sup>nd</sup> Edition, Yale University Press.
- Wash, R., 2013. The value of completing crowdfunding projects. *Proceedings of the International Conference on Weblogs and Social Media (ICWSM)*, 13:7<sup>th</sup>.
- Zhang, J., and Liu, P., 2012. Rational herding in microloan markets. *Management Science*, 58.5:892-912.

**Table 1: Key features of the two crowdfunding platforms**

	Benevolent	JustGiving
Donors	Individuals	Individuals
Recipients	Individuals	Registered charities
Fundraisers	Recipients	Individuals on behalf of recipients
Targets	Linked to a specific need; binding for provision	Not linked to a specific need or item; not binding for provision
Campaign duration	90 days or upon completion	No limit
Suggested donation size	5, 10, 20, 25, 35, 50, 100, 200 USD	10, 20, 30, 50, 100 GBP

**Table 2:** Descriptive statistics

	Benevolent	JustGiving
Donation size (USD)	56.09 (84.99)	38.23 (97.48)
Target size (USD)	540.44 (178.84)	652.46 (877.14)
Number of donations to reach target	7.99 (5.21)	10.34 (8.60)
Number of donors	1,631	441,504
Number of campaigns	407	23,622
Amount transacted (USD)	191,251.23	19,527,350.00
Gender of donor		
Male	0.24	0.32
Female	0.63	0.41
Missing	0.13	0.27

**Notes:** Mean values, with standard deviations in parentheses. Gender of donor displays the fraction of the sample.

**Table 3:** Completion effect on donation size (in USD)

	Benevolent				JustGiving			
	Baseline	Baseline Controls	Narrow Window	Repeat Donors	Baseline	Baseline Controls	Narrow Window	Repeat Donors
Completion	85.578*** (9.369)	78.266*** (9.308)	72.551*** (9.953)	28.071** (13.335)	12.276*** (0.686)	12.152*** (0.686)	31.556*** (2.114)	7.803*** (2.321)
Constant	49.435*** (0.728)	105.58*** (20.989)	186.62*** (71.544)	19.865 (87.414)	38.033*** (0.011)	42.640*** (0.251)	54.145*** (1.040)	47.822*** (8.464)
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
N	3410	3410	1547	655	510786	510786	94078	17035

**Notes:** Marginal effects of a completion donation on the donation size. From linear regressions, separately for Benevolent and JustGiving, with campaigns as fixed effects. *Completion* indicates that the donation reached exactly 100 cumulative percent of the fundraising target. Controls for Benevolent are indicators of the donor's gender, of whether the donation occurred during a 1:1 match offered by Benevolent, and of whether the donation is the first to a campaign, and year-month effects. Controls for JustGiving include indicators of the donor's gender and of whether the donation is the first to a campaign. The *Controls* and *Baseline Controls* specifications use the full sample. The *Narrow Window* specification restricts the sample to the completion donation and the four preceding donations. The *Repeat Donors* specification restricts the sample to donations from donors who give multiple times on the platform, at least one of which is a non-completion donation and at least one of which is a completion donation. Robust standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Table 4:** Probability that the donation equals a suggested amount

	Benevolent				JustGiving			
	Baseline Controls (1)	Narrow Window	Repeat Donors	Baseline Controls (2)	Baseline Controls	Narrow Window	Repeat Donors	Baseline Controls (2)
Completion	-0.627*** (0.029)	-0.636*** (0.026)	-0.472*** (0.059)	-	-0.068*** (0.005)	-0.077*** (0.012)	-0.084*** (0.016)	-
Half-goal completion	-	-	-	0.010 (0.109)	-	-	-	0.039*** (0.005)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3410	1547	655	3410	510786	94078	17035	510786

**Notes:** Marginal effects on the probability that the donation equals a suggested donation amount. From linear regressions, separately for Benevolent and JustGiving, with campaigns as fixed effects. *Completion* indicates that the donation reached exactly 100 cumulative percent of the fundraising target, and *Half-goal completion* indicates that the donation reached exactly 50 cumulative percent of the fundraising target. Controls for Benevolent are indicators of the donor's gender, of whether the donation occurred during a 1:1 match offered by Benevolent, and of whether the donation is the first to a campaign, and year-month effects. Controls for JustGiving include indicators of the donor's gender and of whether the donation is the first to a campaign. The *Baseline Controls* specifications use the full sample. The *Narrow Window* specification restricts the sample to the completion donation and four preceding donations. The *Repeat Donors* specification restricts the sample to donations from donors who give multiple times on the platform, at least one of which is a non-completion donation and at least one of which is a completion donation. Robust standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Table 5:** Compliance rate with suggested donation amounts

Benevolent				JustGiving			
Opening	In-between	50 percent	Completion	Before	After	50 percent	Completion
88.14	86.39	84.62	26.40	75.25	74.11	77.12	70.42

**Notes:** *Opening* refers to first donations to a recipient, *In-between* refers to donations that are neither opening nor completion donations, *50 percent* refers to donations that reach exactly 50 cumulative percent of the fundraising target, *Before* refers to donations preceding the completion donation, *After* refers to donations received after the completion donation, and *Completion* refers to donations that reach exactly 100 cumulative percent of the fundraising target.

**Table 6:** Time elapsed between donations, and donation size in Benevolent

	a. Time between donations (days)				b. Donation size (USD)			
	Baseline	Baseline Controls	Narrow Window	Repeat Donor	Baseline	Baseline Controls	Narrow Window	Repeat Donor
Completion	-4.252*** (0.470)	-2.607*** (0.496)	-2.241*** (0.504)	-4.057*** (0.838)	79.667*** (9.670)	72.673*** (9.718)	65.447*** (10.524)	20.460 (13.833)
Last day to expiration	-	-	-	-	42.411*** (10.679)	35.976*** (10.787)	90.168*** (25.606)	40.185 (27.927)
Completion $\times$ Last day	-	-	-	-	23.788 (32.077)	31.976 (30.835)	28.405 (30.910)	50.322 (33.364)
Constant	5.491*** (0.037)	-5.171 (3.424)	7.185 (10.288)	-15.046 (10.068)	48.035*** (0.831)	97.702*** (20.914)	54.004*** (1.057)	-3.506 (8.130)
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
N	3410	3410	1547	655	3410	3410	1547	655

**Notes:** Marginal effects of a completion donation on the time elapsed (in days) between donations in panel a, and on the donation size in panel b. From linear regressions restricting the sample to data from Benevolent, with campaigns as fixed effects. *Completion* indicates that the donation reached exactly 100 cumulative percent of the fundraising target. *Last day to expiration* is an indicator of whether the donation was made within the last 24 hours of the campaign (which lasts 90 days). Controls are indicators of the donor's gender, of whether the donation occurred during a 1:1 match offered by Benevolent, and of whether the donation is the first to a campaign, and year-month effects. The *Narrow Window* specification restricts the sample to the completion donation and four preceding donations. The *Repeat Donor* specification restricts the sample to donations from donors who give multiple times on the platform, at least one of which is a non-completion donation and at least one of which is a completion donation. Robust standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Table 7:** Donation amount and speed of donations for other demand-side factors in Benevolent

	Panel		Campaign average	
	Donation amount (USD)	Time between donations (days)	Donation amount (USD)	Time to completion (days)
Completion	78.177*** (9.329)	-2.603*** (0.495)		
Sunday	17.158** (7.379)	-0.819 (0.878)		
1:1 Match	-11.399** (5.774)	-8.913*** (1.727)		
Request size			0.074*** (0.023)	0.066*** (0.008)
Female recipient			26.039** (10.303)	3.248 (3.490)
Attractive recipient			-12.928 (22.876)	-6.746 (7.748)
Female x Attractive			-8.435 (28.034)	2.487 (9.496)
Reference to homelessness			2.762 (10.138)	5.111 (3.434)
Reference to disability			-20.868 (0.167)	-7.287 (5.107)
Reference to gov. aid			0.168 (12.151)	0.781 (4.116)
Reference to crisis			10.019 (12.407)	-11.264*** (4.459)
Reference to kids			-17.444* (9.399)	4.459 (3.183)
Reference to gratitude			-16.423 (11.317)	9.238** (3.833)
Constant	103.914*** (20.825)	-5.092 (3.406)	43.077*** (12.562)	9.710** (4.255)
N	3410	3410	375	375

**Notes:** Marginal effects from linear regressions, with campaigns as fixed effects for *Panel* columns, and OLS for *Campaign average* columns. Level of observations is individual donations for *Panel* columns, and campaign averages for *Campaign average* columns. *Completion* indicates that the donation reached 100 cumulative percent of the fundraising target. *Sunday* indicates whether the donation occurred on a Sunday. *1:1 Match* indicates whether the donation occurred on a day in which Benevolent offered a 1:1 contribution match. Additional controls for *Panel* columns are indicators of the donor's gender and of whether the donation is the first to a campaign, and year-month effects. In parentheses are robust standard errors for *Panel* columns and regular standard errors for *Campaign average* columns. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

**Table 8: Gender and size of the completion effect (USD)**

	Benevolent				JustGiving			
	Baseline	Baseline controls	Narrow window	Repeat donor	Baseline	Baseline controls	Narrow window	Repeat donor
Completion	59.087*** (12.589)	51.453*** (12.626)	72.551*** (9.953)	-1.005 (15.541)	17.495*** (1.667)	17.586*** (1.666)	38.528*** (4.713)	8.435 (5.857)
Gender								
Female	-1.136 (2.826)	-1.333 (2.850)	-2.879 (6.646)	2.186 (11.975)	-8.567*** (0.386)	-8.570*** (0.386)	-10.45*** (1.422)	-11.669 (10.354)
Missing	16.288*** (5.624)	15.212*** (5.606)	34.576*** (13.125)	107.7*** (34.810)	-4.018*** (0.439)	-4.009*** (0.439)	-5.288*** (1.877)	-34.721*** (8.944)
Completion x Female	45.172** (19.182)	44.792** (19.126)	47.030** (21.661)	49.230* (27.077)	-8.794*** (1.840)	-8.751*** (1.838)	-12.052** (5.429)	-2.203 (6.551)
Completion x Missing	70.991* (39.435)	66.362* (39.168)	51.031 (46.630)	107.356 (99.786)	-6.642*** (2.072)	-6.625*** (2.069)	-8.138 (6.225)	0.689 (6.657)
Constant	48.274*** (2.347)	111.40*** (20.823)	181.44** (71.198)	51.532 (84.563)	42.658*** (0.259)	42.559*** (0.255)	54.004*** (1.057)	47.610*** (8.130)
Controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
N	3410	3410	1547	655	510786	510786	94078	17035

**Notes:** Marginal effects of a completion donation on the donation size. From linear regressions, separately for Benevolent and JustGiving, with campaigns as fixed effects. *Completion* indicates that the donation reached exactly 100 cumulative percent of the fundraising target. Controls for Benevolent are indicators of the donor's gender, of whether the donation occurred during a 1:1 match offered by Benevolent, and of whether the donation is the first to a campaign, and year-month effects. Controls for JustGiving include indicators of the donor's gender and of whether the donation is the first to a campaign. The *Narrow Window* specification restricts the sample to the completion donation and four preceding donations. The *Repeat Donor* specification restricts the sample to donations from donors who give multiple times on the platform, at least one of which is a non-completion donation and at least one of which is a completion donation. Robust standard errors in parentheses. \*p<0.1, \*\*p<0.05, \*\*\*p<0.01.

Mary from Johnson City, TN  
**I'm a single mom going back to school. I need help paying for essential supplies.**



[Watch Mary's video](#)

I became pregnant in high school in Sierra Leone. I'm going back to school now and need help covering supplies, books, bus passes & other basics.

**My need and situation**

I was in high school during the Ebola outbreak in Freetown, Sierra Leone when I became pregnant. I gave birth last year to a bouncing baby boy. I am now working hard to graduate high school. I have been able to pay my school entrance fee, but I need help with purchasing books and school supplies that are not covered by the school.

I would like to finish high school, and from there go on to college to become a lawyer in the future. This has always been my dream.

I need help with covering my school-related expenses. These include textbooks and exercise books that are not covered by my school, essential school supplies (pens, 3-ring binders, filler paper, calculator, pencils etc.), school uniform expenses, and finally bus fare to get to and from school.

Meeting this need will help me obtain the needed school-related resources so I can continue my education and work toward a better future for myself and my baby boy.

**\$300** of \$700



**4** supporters helped so far

57 days remaining

\$35

**Validated**

This need has been validated by Sylvester from Develop Africa

121  0

**Recent supporters**

**Validated**

Validated by [Sylvester from Develop Africa](#) (What does this mean?)

Mary has been attending our Educational Lifeline Program since May 2015 - when she was 7 months pregnant. This program helps to provide a 2nd chance to young ladies who have dropped out of school due to pregnancy. Mary is bold and always ready to help and encourage other ladies who are going through a difficult time. She is hardworking academically. It would be wonderful to see her receive the help she needs.



**About Sylvester**

I am the President of Develop Africa. My work involves oversight of the organization and also managing different projects. I enjoy being able to assist people with potential who need a "hand up" out of their predicament or inability. I am passionate about helping to create opportunities that... [Read more](#)

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- [How much goes to the need?](#)
- [Are donations tax deductible?](#)
- [What if a need isn't fully funded?](#)

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[f Like](#) 4,778 people like this. Be the first of your friends.



**Figure 1:** Example of a campaign page on Benevolent



11%

£11,915

raised of £100,000 target by 170 supporters

Donate

Share

Copy



Jasper Thompson

## We're raising £100,000 to Develop Help Bristol's Homeless proposed new Spring street site

Bristol, UK Health and medical

### What is crowdfunding?

Crowdfunding is a new type of fundraising where you can raise funds for your own personal cause, even if you're not a registered charity.

The page owner is responsible for the distribution of funds raised.

### Story

Help Bristol's Homeless have a proposed new site at Spring Street, given by Bristol City Council for the next 5 years. We need your help to raise funds for the development of this site. From everything to electrical work to plumbing and building. We need your help!!!

We have applied for charity status and are currently awaiting confirmation of our charity number. We are also looking for corporate responsibility from brands and companies looking to support us. We already have support from the following companies: Ecotricity, Burgess Salmon, OVO, Oregon 3, Balfour Beatty, possibly EDF energy, Green heat, Rollo Homes, Cleverley Builders just to name a few.

Help Bristol's Homeless CIC is a non-profit, social enterprise with a mission to change the face of homelessness in Bristol.

Unlike many homeless charities, our ethos is that housing must come first, and then everything else comes after. Many complex factors can lead to homelessness, and while it is true that these issues need to be resolved to keep people off the street, we believe that the priority must be to get people into safe, stable and comfortable accommodation. From there, we can help them to improve their own lives and reach their potential.

Free clothing and food can help people to survive homelessness, but it does not provide a way out. Programmes aimed at resolving complex issues such as addiction are vital, but do not solve the day-to-day problems of being homeless.

### Supporters

170



Ellen Thompson

Dec 24, 2018

£20.00



Gary Mealing

Dec 24, 2018

RCA supporting a great cause helping people to get there lives sorted. Were a bunch of gas heads who like to help people like you bring joy to the people who need it.

£300.00



Anonymous

Dec 24, 2018

Good luck with your very worthy efforts



Paula Frances

Dec 24, 2018

£20.00



Caroline J Hunt

Dec 24, 2018

Wishing you all the best - your efforts are invaluable.

£100.00

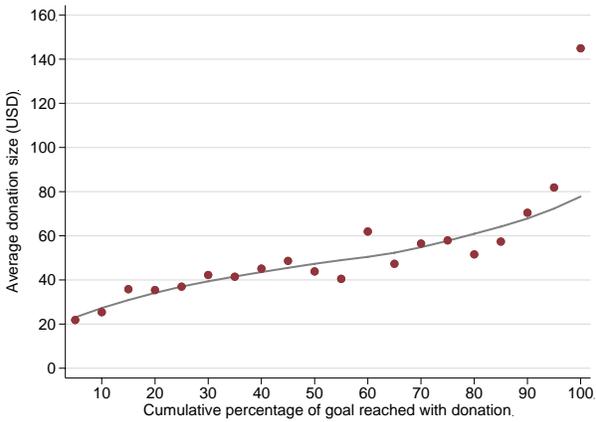


Anonymous

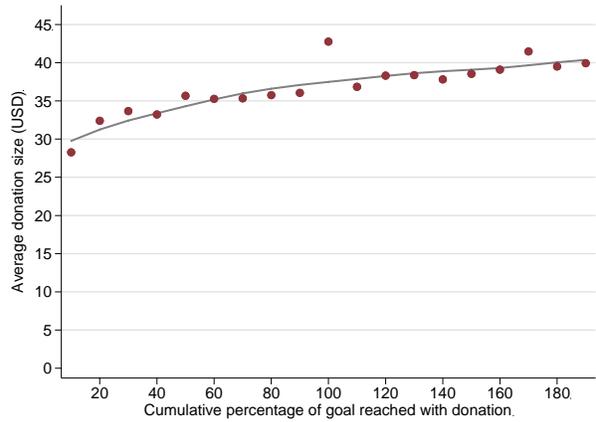
Dec 24, 2018

Figure 2: Example of a campaign page on JustGiving

**a. Benevolent**



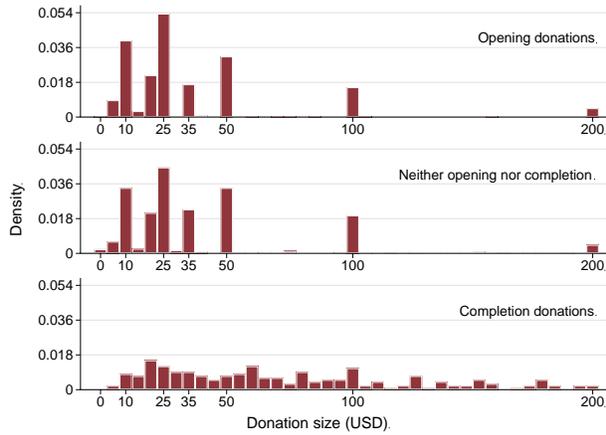
**b. JustGiving**



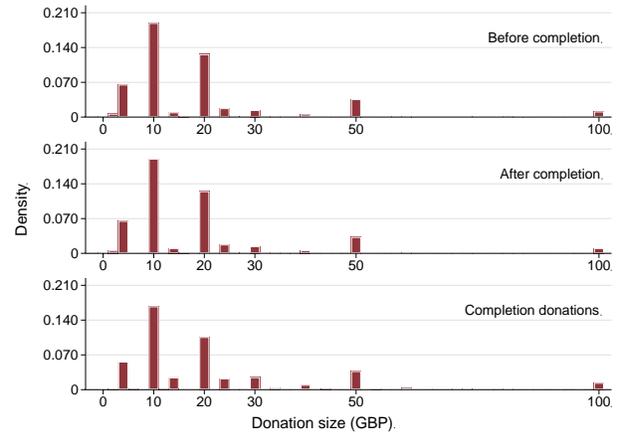
**Figure 3:** Average donation size by cumulative percentage of the goal reached

**Notes:** Percentages grouped in bins of plus/minus 2.5 percentage points for Benevolent, and plus/minus 5 percentage points for JustGiving. The line shows the lowess fit. For ease of visualization, in Panel a the lowess fit is obtained assuming a value for the 100-percent bin equal to the projection from the linear fit of all other percentage bins, rather than the actual value.

**a. Benevolent**



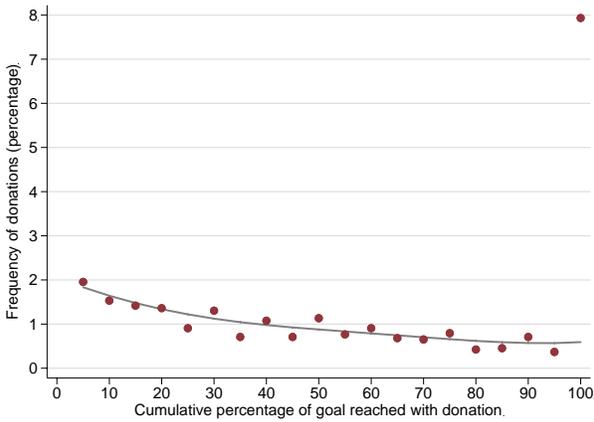
**b. JustGiving**



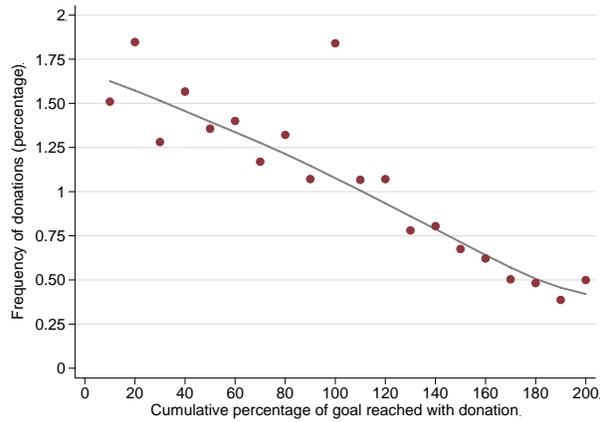
**Figure 4:** Distribution of donation sizes at different stages of the fundraising campaign

**Notes:** Sample restricted to donations equal to or smaller than the largest suggested amount (200 USD for Benevolent and 100 GBP for JustGiving). *Completion donations* are donations that reach exactly 100 cumulative percent of the fundraising target. For Benevolent, *Opening donations* are the first donation to a campaign. For JustGiving, *Before completion* refers to donations preceding the completion donation, and *After completion* refers to donations received after the completion donation.

a. Benevolent



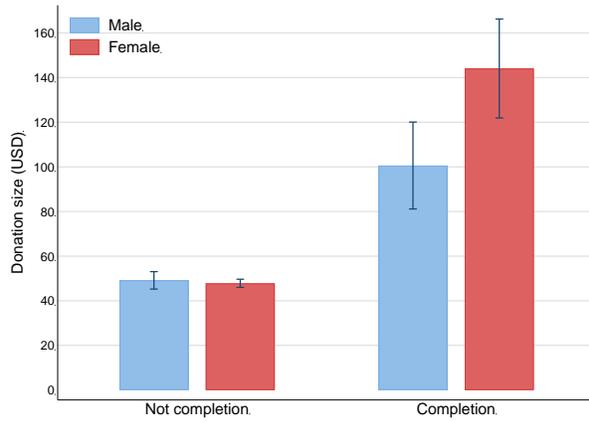
b. JustGiving



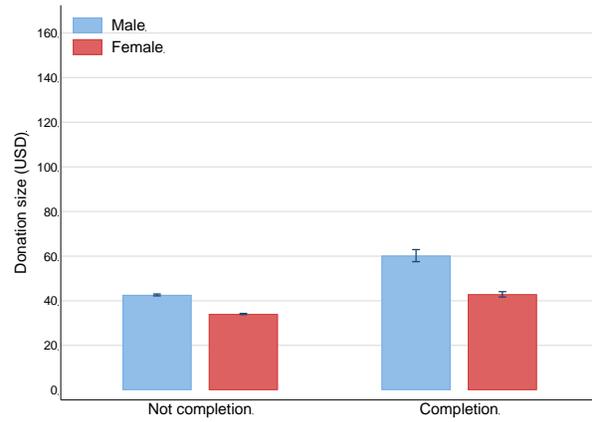
**Figure 5:** Frequency of donations by cumulative percentage of the goal reached

**Notes:** Percentages grouped in bins that collect plus/minus five percentage points of the value labeled. The line shows the lowess fit. For ease of visualization, in Panel a the lowess fit is obtained assuming a value for the 100-percent bin equal to the projection from the linear fit of all other percentage bins, rather than the observed value.

**a. Benevolent**



**b. JustGiving**



**Figure 6:** Average donation size by gender of the donor

**Notes:** *Completion* refers to donations that reach exactly 100 cumulative percent of the fundraising target, and *Not Completion* refers to all other donations. Black bars indicate 95 percent confidence intervals.