Can simple prompts increase bequest giving? Field evidence from a legal call centre[1]

Michael Sanders
Harvard Kennedy School
Behavioural Insights Team

Sarah Smith[2]
University of Bristol

November 2015

Abstract

We report the findings of a field study demonstrating the importance of non-pecuniary mechanisms for bequest giving. We show that a prompt to leave money to charity that includes social/emotional factors made during the will-making process increases by 50 per cent the proportion of wills that include a charitable bequest. In terms of magnitude, we show that this is one-third of the effect of a 40% estates tax at the threshold. We find little response to either prompts or tax-price changes among people with children indicating that, for many, leaving money to their children appears to preclude leaving money to charity.

Key words: charitable giving; charitable bequests; prompts; social norms
JEL codes: D64, H24, H41

[1] We would like to thank Remember a Charity and The Co-operative Legal Services for facilitating the trial. Funding for Sanders was provided by the ESRC and the Cabinet Office through the Capacity Building Cluster on the Economic Impact of the Third Sector. Thanks to the editor and two anonymous referees, Peter Backus, Michael Price and Mark Wilhelm for useful discussions.
[2] Corresponding author: Department of Economics, 12 Priory Road, Bristol, BS8 1TN. sarah.smith@bristol.ac.uk

1. Introduction

Donations through bequests form a major component of charitable income. In the US, bequests account for nearly 8 per cent of charities' voluntary income, while in the UK, the figure is higher at around 20 per cent. In spite of the importance of bequest giving, however, it has received relatively little attention, compared to other forms of giving. Moreover, the existing literature on bequest giving has primarily focused on the effect of wealth and estate taxation (Auten and Joulfaian, 1996; Joulfaian, 2000; Bajika et al, 2003), while a number of recent studies of *intra vivos* giving have demonstrated the potential role of non-pecuniary factors, including social pressure (Carman, 2004; Andreoni et al, 2011; della Vigna et al, 2012), social norms (Frey and Meier, 2004; Shang and Croson, 2009; Smith et al, 2014) and personal solicitations (Meer and Rosen, 2011; Scharf and Smith, 2014; Castillo et al, 2015). To date, however, few studies have considered the influence of such non-pecuniary factors on bequest giving.

In this paper we report the findings from a unique field experiment in which prompts to leave money to charity were introduced into the will-making process at a legal call centre where clients ring up to make a will over the phone. We test the effectiveness of these prompts on the probability that people make provision for leaving money to charity in their will. The prompts included both a *weak ask* in which clients are simply asked whether they want to leave money to charity and a *strong ask* which introduces additional social and emotional factors to the ask. We find that the strong ask resulted in a sizeable increase in the proportion of people leaving money to charity in their will relative to the weak ask.

Our study makes a number of contributions to the existing literature. First, we extend the scope of recent studies on the effect of non-standard mechanisms to consider a type of giving that has not been previously studied in this way and we demonstrate that non-pecuniary factors are important in bequest giving. Comparing the strong ask to the weak ask, we show that the additional social and emotional factors result in a 50 per cent increase in the proportion of people who make provision to leave money to charity in their will. Charitable bequests represent an important setting to study the effect of these types of mechanisms because of the

sizeable sums of money involved (the typical gift in our sample is the just over £12,000 = approx. $19,000). Increasing bequests has potential practical significance for the charity sector.

Second, we add to a small number of papers that compare the effect of non-pecuniary mechanisms with that of standard economic incentives (see for example Ferraro and Price, 2013). This is particularly important for bequest giving in the context of ongoing debates in the US and UK about reforming, or even abolishing, estates taxation, which would have implications for the price of charitable bequests because of their tax-exempt status. We use a regression discontinuity design to estimate the effect of estates taxation on bequest giving, exploiting the single £325,000 (= $500,000) inheritance tax threshold in the UK. We find that the tax threshold is associated with a sizeable and significant increase in the proportion of people making provision for a charitable bequest; our estimates indicate that the magnitude of the effect of the strong ask (relative to the weak ask) is equivalent to one-third of the effect of a 40% estates tax at the threshold.

Finally, our study offers more general insights into bequest giving. We show that individuals without children are more responsive to both non-pecuniary and price mechanisms than those with children. Indeed, we find no evidence of any significant effect of either type of mechanism on the probability of people with children making provision for a charitable bequest. This may not be surprising given that people with children have other obvious beneficiaries; however our results indicate that charitable bequests are seen by many as an alternative to leaving money to children ("charity or children"), rather than there being a choice to allocate money to both.

The trial involved 2,664 customers to a legal call centre who phoned to arrange a will. Will-writers (lawyers) were randomly assigned to two treatments that prompted the callers to leave money to charity. The first treatment is a "weak ask" where callers are simply asked whether they have thought about leaving money to charity. The second treatment is a "strong ask" in which the lawyer additionally suggests that leaving money is a social norm and prompts the will-maker to think about a cause that they feel passionate about. This introduces further social and emotional factors into the ask that might affect donations.

Comparing the strong ask to the weak ask, we are able to exploit the random allocation of the two treatments across lawyers to say something about the effect of the additional social and emotional factors on bequest giving. With only eight lawyers, there may be a concern over the conventional approach to clustering standard errors (Wooldridge, 2003) and we present results using alternative approaches suggested by the literature as a robustness check. Across all specifications the strong ask is associated with a significant and sizeable increase in the proportion making provision to leave a bequest (roughly equivalent to the baseline level of bequest giving), indicating the importance of social and emotional factors for decisions to leave money to charity and the effectiveness of seemingly small changes to the way an ask is made.

Of course, many lawyers may not currently make any ask during the will-making process. A public commitment by the firm to mention charitable giving to all their clients meant that there was no possibility of randomly selecting a no-ask control group during the treatment period. However, we are able to compare bequest giving during the treatment period to prior levels of bequest giving during an earlier, baseline period, and we can control for lawyer fixed effects, client characteristics and month of sale. We show that the level of giving is significantly and substantially higher during the treatment period; more than double the proportion of people make provision to leave money to charity in their will during the treatment period (with an ask) compared to baseline (with no ask). Although the non-random allocation of clients to baseline and treatment periods means that we cannot give this a strict causal interpretation, we find it plausible evidence that making an ask does not reduce the proportion making a bequest.

The structure of the rest of this paper is as follows. The next section discusses the potential effects of estate tax and non-pecuniary factors on bequest giving. Section 3 presents the design of our study and our sample. Section 4 summarizes the main results on the effects of the ask treatments, while section 5 presents estimates of the effects of estate taxation. Section 6 concludes.

2. Background

The focus of the existing economic literature on charitable bequests has been on responses to estate taxation. Bequest giving is typically modelled as a problem of how to allocate terminal wealth (Joulfaian, 2000), ignoring the possible trade-off between giving while alive and giving at death.[3] Both charitable and other bequests increase in total wealth, while a higher estates tax also increases charitable bequests, if they are tax-exempt, relative to other bequests. Studies such as Auten and Joulfaian (1996), Joulfaian (2000) and Bakija (2003) use tax authority data and exploit cross-state and cross-time variation to estimate price elasticities of bequest giving of between -1.7 and -2.5. We exploit the inheritance tax threshold in the UK to obtain a regression discontinuity estimate of the effect of estates tax. We focus on the extensive margin, but, like previous studies, we also find a substantial response.

The main contribution of our paper, however, is to consider the effect of non-financial mechanisms on charitable bequests. There is little direct evidence on this in the existing literature, although a number of studies point to the importance of social norms more generally in relation to bequests. For example, Auten and Joulfaian (1996) find no significant impact of child income on charitable bequests, indicating that parents have a strong preference to leave their assets to their children. Wilhelm (1996) also finds that the allocation of bequests across children is not sensitive to their relative incomes and suggests that there is likely to be norms about the fairness of bequests.

There is considerable evidence on the effect of non-standard factors in relation to *intra vivos* donations. Particularly relevant to this paper are recent studies on the effect of being asked to give to charity. Yörük (2009) and Meer and Rosen (2011), show that simply being asked increases the likelihood of donating. One possibility is that an ask makes giving more salient; another is that it may also introduce an additional moral payoff to making a donation (List and Levitt, 2007; Ferraro and Price, 2013). For example, Andreoni and Rao (2011) emphasize that an ask can

[3] Watson (1984) presents a life-cycle model in which donors choose between spending, donations, bequests and charitable bequests, showing that the share of terminal wealth allocated to charitable bequests depends only on the estate tax and that a change in the estate tax will have no substitution effects over the life cycle.

heighten empathy, while Andreoni et al (2011) and Della Vigna et al (2012) provide evidence on people's desire to avoid saying no.

This additional moral payoff is arguably less relevant in the case of the "weak ask" treatment in our study where individuals are simply asked if they want to leave money to charity in their will with no additional social or emotional prompts. The setting in our study is also relatively neutral, compared to previous studies. The lawyer is an independent third party, differing to previous studies which have shown effects from being asked by a charity fundraiser (Yörük, 2009; Della Vigna, 2012) or a fundraiser who is personally connected to the donor (Meer, 2011; Scharf and Smith, 2014). The ask is also done in private with no audience, differing to previous studies which have shown effects from being asked in a workplace setting observed by colleagues (Carman, 2004) and from being asked in front of friends (Castillo et al, 2015). One possible moral payoff in our setting is suggested by Batson (1997) who argues that people may donate in order to alleviate a negative emotional state, which in this case is thinking about dying. Nevertheless, we think it is plausible that the main role of the weak ask is to make charitable bequests salient.

The strong ask in our study introduces a social norm and an emotional prompt, both of which are likely to change the perceived moral payoff to making a charitable bequest. Frey and Meier (2004), Shang and Croson (2009) and Smith et al (2014) provide evidence that social information (about what other people are giving) can affect both how many and how much people give in relation to regular donations. Such social information has also been found to have an effect in other settings, including tax compliance (Hallsworth et al, 2014) and employment choices (Coffman et al, 2014). In the context of donations, the emotional connection to charity recipients (Small and Loewenstein, 2003, Grant et al, 2007) as well as the donor's emotional state (Lerner, Small and Loewenstein, 2004; Zak et al 2007) have also been shown to be important.

Within the strong ask treatment, we cannot disentangle the effect of providing a social norm from the effect of the emotional prompt;[4] we therefore interpret our

[4] Ideally, we would have liked to separate the two types of prompt; combining them was pragmatic in order to have a prompt that the legal firm was comfortable with.

results as showing the powerful effect of additional social and emotional factors in the context of charitable bequests. In the next section we describe the set up in more detail before estimating the effects of the ask treatments.

3. The set up

The experiment was conducted in a legal call centre run by the Co-operative Legal Services (CLS), a national law firm. The firm is relatively small in the will-writing market, our sample consists of 2,664 wills written over the period 1st January 2012 – 15th January 2013 out of an estimated annual total of 1.8 million wills nationwide (Legal Services Consumer Panel, 2011). Table 1 presents summary statistics on the customers in our sample. The median age is 58[5] and median wealth is £234,500 (= approx. $364,000);[6] this is younger and less wealthy than would be a sample drawn from estate tax data (the threshold for UK inheritance tax is £325,000 = approx. $500,000). In terms of asset values, our sample is more broadly comparable with the sample of all estates that go through probate, studied by Atkinson et al, 2009, which includes most estates with any wealth. Median wealth in the Atkinson sample is £146,000, mean wealth is £221,000; these are lower than average wealth levels in our sample, but apply to an older age group.

The will-making process is done at the call centre in two stages. During the initial call, which is not with a lawyer, customers are asked a series of questions to ascertain roughly their needs (do they have children or elderly relatives, what is the size of the estate, etc.). Charity is not mentioned during this call. At the end of this first call, a second call is booked if the customer wishes to continue with making a will and at this stage, the clients are assigned to a lawyer. Unlike many legal settings where there may be an existing personal relationship between clients and their lawyers, this call centre environment is relatively impersonal and clients are

[5] Meer and Rosen (2013) have shown that donation behaviour changes as people approach (known) death, however, as indicated by the median age, most wills are made many years in advance of this.
[6] Note that information on wealth is captured at the time of will-writing and is entered manually by the lawyers. For reasons of confidentiality, there is no information on any bequests other than those made to charitable causes. Wealth is not recorded for all wills; the extent to which it is recorded varies significantly across lawyers and in our regression analysis we control for missing wealth information. We also test the sensitivity of our results to excluding lawyers with very high levels of missing wealth information.

randomly allocated to lawyers. This is reflected in the balanced client characteristics across the two treatment groups, shown in Table 1, panel c.

Between the first and second call, participants are sent a pack of information by the firm, confirming the time and date of their call, and the contact details of the customer. The pack also contains information about legal aspects of writing a will, and a guide to things to consider, including making a donation to charity. At the arranged time of the second call, the assigned lawyer calls the customer and takes him/her through the will-writing process. This process is governed by a script, which lawyers progress through in order. Amounts to be left to different individuals, causes, and any conditions, are entered into a database which populates the relevant sections of the will. Our treatments, involving changes to the script, are introduced during this second call, after the customer has been asked about the bequests they want to make to family and friends. Note that the lawyers were aware that they were testing variations in their usual script, but they were told not to talk to each other about the variations and they did not know that all the variations related to charitable bequests.

Because of a public commitment by the firm to mention charity to all customers, we were unable to generate a randomly-selected control group with no prompts. From a practical point of view, however, it is useful to have some evidence on the effect of the strong/weak asks relative to no. We can compare bequests made during the treatment period (15th September 2012 to 15th January 2013) to bequests in wills written by the same lawyers over an earlier, baseline period (1st January 2012 to 14th September 2012). As shown in Table 1, panel b, there are differences in client characteristics between the two periods and we control for demographics, including age, children, marital status and wealth, as well as including lawyer fixed effects. The non-random allocation means that we cannot give these findings a strict causal interpretation, but we find strongly suggestive evidence that the strong/weak asks do not reduce bequest giving.

The main focus of our analysis, however, is on the effect of the strong ask relative to the weak ask, which was subject to random assignment. Randomization was done at

the lawyer level across eight lawyers[7] for ease of implementation. Table 2 summarizes the distribution of the wills across the lawyers and the three different conditions (baseline, weak ask, strong ask). As shown in Table 1, panel c, the characteristics of clients in the weak ask and strong ask groups are balanced, including the baseline level of bequest giving. There may be a concern that there are unobservable characteristics of the lawyers that vary across the groups (Heckman, 1998). We lack additional information on the lawyers' characteristics that would allow us to test for this explicitly but we are reassured by the fact that the baseline level of bequests is not significantly different across the clients of the two groups.

The precise nature of the treatments was as follows:

Treatment 1: Weak ask

All participants in this treatment group were asked whether they would like to donate money to charity in their will. The script instructed the lawyers to say:

"Now that you've looked after your family and friends, I'd like to talk you about charity. Would you like to leave a charitable gift in your will?"

Treatment 2: Strong ask

Participants in this treatment were also asked whether they would like to make a donation to charity in their will. However, the wording of the ask was changed to contain both a weak social norm message, suggesting that leaving a gift is common, and an emotive prompt asking the respondent to think about charitable causes that they are passionate about, so that the script read:

"Now that you've looked after your family and friends, I'd like to talk to you about charity. Many of our customers like to leave a gift to charity in their will. Are there any charitable causes that you're passionate about?"

In both of the treatment conditions the lawyer was instructed to move to the next section of the script (non-financial contingencies) if customers interrupted to indicate that they did not want to give a gift to charity. Adherence to the script was monitored by the firm over the course of the trial by means of a 5% sample of calls

[7] We dropped a ninth lawyer who only wrote seven wills.

recorded for quality purposes. In all cases of the weak ask, those who had the opportunity to do so (i.e. all those who were not interrupted), adhered to the control script. In the strong ask treatment, adherence was 100% for the line "are there any charitable causes you're passionate about" section of the script, but in three cases the "many of our customers like to leave a gift to charity in their will" section was omitted. Feedback from lawyers suggest that this was driven by a belief that the word "many" could be misinterpreted by customers as "most".

4. Estimation of treatment effects

Our data consist of an indicator for whether or not the client made a charitable bequest, the value of the charitable bequest (collected during the treatment period only) and a limited set of information on client characteristics, summarized in Table 1. We do not have any information on other bequests (eg to children or other beneficiaries), nor do we have information on *intra vivos* giving.

Our main outcome variable is the probability of making provision for a charitable bequest. Figure 1 summarizes the proportion of people making this provision in each of the three conditions – the baseline period, and the two ask treatments. In the baseline condition, customers were not asked if they wanted to leave money to charity in their will but a sizeable proportion (5.7%) nevertheless chose to do so.

Compared to baseline, the weak ask and the strong ask are associated with significantly higher levels of bequest giving (11.8% and 16.5% respectively), but, given the non-experimental introduction of the two ask treatments, these differences from baseline do not have a direct causal interpretation. Because the weak ask and the strong ask were randomly assigned, we can be more confident that the difference across the two treatments shows a causal effect of the additional social and emotional prompts relative to the weak ask. Below, we show the results of different estimates to deal with the relatively small number of clusters in our sample.

Weak ask versus strong ask

We estimate the following linear probability model on the sample of wills written during the treatment period:

$$D_{ij} = \alpha + \beta Strong_j + \gamma X_i + u_{ij}$$

where D_{ij} is a binary indicator for whether individual *i* allocated to lawyer *j* makes a charitable bequest, *Strong* is an indicator for receiving the strong ask treatment (compared to the weak ask) and *X* is a vector of characteristics. We cluster the standard errors at the lawyer level. Because of concerns about the relatively small number of clusters (Wooldridge, 2003) we additionally implement a between-groups estimator, using lawyer averages as the dependent variable. We also follow the approach suggested by Donald and Lang (2007), first regressing the dependent variable on a full set of group indicators (with no constant), together with control variables and then using the coefficients on the group indicators as the dependent variable in a second-stage regression on the treatment indicator.

The results are shown in Table 3. Across all specifications, we find a sizeable, positive effect of the strong ask relative to the weak ask on the probability of leaving a bequest. The effect size is substantial – relative to the weak ask, the strong ask increases by 50 per cent the proportion making a charitable bequest in their will, roughly equivalent again to the baseline level of giving. Column 3 includes additional controls showing that bequest giving is lower among married people (compared to single) and for people with children (compared to those without). Unlike previous studies, we find no effect of wealth on the probability of leaving a bequest which may reflect selection into writing a will.

Figure 2 provides further analysis at the lawyer level, comparing levels of giving for each lawyer during the baseline and treatment periods. This provides some insight into why the strong ask is effective relative to the weak ask. The strong ask is associated with a significantly higher level of giving in the treatment period (relative to baseline) for all four lawyers allocated to this treatment, while the weak ask is associated with significantly higher giving in the treatment period (relative to baseline) for only one of the four lawyers. This suggests that the strong ask may be more consistently effective than the weak ask.

Heterogeneous treatment effects

We explore whether the effect of the additional social and emotional prompts in the strong ask (relative to the weak ask) varies by the presence of children. We split the sample in this way since the response to prompts to leave money to charity may depend on people's preferences for other bequests – and some groups may be more or less responsive than others. Our results support this. Among the weak ask group, the proportion making a bequest is higher among childless people than among those with children (0.258 compared to 0.068). The effect of the strong ask is to widen this gap. In Table 4 we report the results from regressions in which we interact an indicator for the strong ask treatment with indicators for the presence/ absence of children. The results show no significant effect of the strong ask treatment relative to the weak ask among people with children. By contrast, there is a sizeable effect among people without children and an increase in the proportion making provision for a bequest by around 20 percentage points.

Intensive margin response

We also investigate the intensive margin response to the strong ask. To do this, we need to deal with the way in which bequest size is specified in wills. Although some people make a pecuniary gift, i.e. the bequest is a specific amount of money left to charity, the majority of bequests are residuary gifts, i.e. a percentage share of the total estate or of the residual estate once all other bequests have been taken care of. In our study, 252 people report that they will make a charitable bequest in the two treatments. Not all values have been captured in our data, but 73 make a pecuniary gift and 121 a residuary gift, of which 116 are a percentage of the residual estate. For residuary gifts which are made out of the full estate, we estimate the amount of the bequest as the specified percentage of the person's current wealth. For residuary gifts which are made out of the residual estate, we assume that this residual estate is half the person's current wealth value. We test the sensitivity of our results to this assumption. Under our main assumption, the value of specific gifts (mean = £26,053, median = £2,000) is less than the value of residuary gifts (mean = £112,369, median = £37,250) but this is in line with previous studies (Atkinson et al, 2009).

We estimate the treatment effect of the strong ask on the estimated value of bequest using a Heckman selection model (Heckman, 1979). This allows for the fact that the strong ask may affect the selection of people leaving a bequest. We assume that the presence of children affects the probability that people make a bequest but not the amount that they decide to leave.

Our results, reported in Table 5, confirm the positive effect of the strong ask on participation. We report the marginal effects for ease of interpretation. There is some evidence of a positive effect on the conditional value of bequests (i.e. E(Y | X, Y > 0)), but this is sensitive to assumptions on the value of the residual estate and is only statistically significant when the residual estate is assumed to be equal to 50% current wealth. Nevertheless, we take this as strong evidence that the strong ask does not reduce the value of bequests and, because of the positive participation effect, the overall effect of the strong ask on the value of bequests (i.e. E(Y | X)) is positive.

Baseline/ treatment period comparison

Finally, we present evidence on giving during the treatment period (pooling over the two ask treatments) relative to baseline. As discussed, we cannot give this a causal interpretation because of the non-random allocation of the treatment. Nevertheless, this analysis provides suggestive evidence of the positive effect of asking for a donation in line with previous studies (Yörük, 2009 and Meer and Rosen, 2011).

We estimate the following linear probability model:

$$D_{ijt} = \alpha + \beta T_t + \gamma' X_i + \varphi_j + u_{ijt}$$

where D_{ijt} is a binary indicator for whether individual *i* allocated to lawyer *j* at time *t* makes a charitable bequest, T_t is an indicator for writing a will during the treatment period and X_i is a vector of client characteristics. ϕ_j is a set of lawyer fixed effects.

The concern is that unobserved time-varying factors may have affected bequest giving during the treatment period, even in the absence of the ask treatments. To try to address this, we look for evidence of underlying trends in bequest giving. The date of the second interview (i.e. when the will is actually written) is not recorded in our data, but we have information on month of sale (i.e. when the client paid for the

will). Note that the sale date could be before the will is written if the client pays upfront or after.

Figure 3 plots the proportion of people making a bequest, by month of sale, and also the proportion of all clients that received one of the ask treatments for the month. The figure indicates an increase in bequests associated with the introduction of the treatment, without any obvious, prior upward trend. It also shows that for most sale months there are both baseline and treatment observations, allowing us to control additionally for month of sale (as a set of binary indicators) in the regression analysis.

Table 6 reports regression results analysing bequest giving in baseline and treatment periods. The results in columns (1) – (4) show that the probability of making a charitable bequest is significantly higher during the treatment period and that this is robust to a number of controls. Focusing on the results in column (5) with full controls, including month of sale, bequest giving is 8.1 percentage points higher (i.e. nearly one and a half times greater) in the treatment period compared to baseline. Although this result does not have a strict causal interpretation because of the non-random allocation of treatments relative to baseline, it strongly indicates that simple prompts can be effective.

5. Pricing the effect of non-pecuniary factors

Our results indicate that social/emotional prompts have a sizeable effect on leaving a charitable bequest. How does this compare with the effect of financial incentives which have also been shown to be effective? This is particularly relevant to ongoing debates in the UK and US about reducing the burden of estates tax, which would increase the tax price of charitable bequests. In the UK, inheritance tax is payable at 40 per cent on the value of estates over £325,000, but charitable bequests are tax-exempt, lowering the price of leaving money to charity compared to other potential beneficiaries. To explore this further, we exploit the tax threshold to obtain an estimate of the tax-price effect using a regression discontinuity (RD) design and compare this to the estimated effect of the strong ask.

We follow a standard regression discontinuity design and estimate an equation of the following form:

$$D_{ij} = \alpha + \beta I(W_i \geq 325{,}000) + f(W_i) + \varphi_j + u_{ij}$$

As before, D_{ij} is a binary indicator if individual *i* allocated to lawyer *j* makes a charitable bequest. *I* is an indicator equal to one if the individual reports wealth above the inheritance tax threshold. We estimate this for a series of windows around the threshold ($\pm$£20,000; $\pm$£30,000; $\pm$£40,000; $\pm$£50,000). We also present results with no controls for wealth and including a linear wealth term; higher-order terms are insignificant within the relatively narrow windows around the threshold that we look at.

There are at least two issues with this approach that could potentially limit our ability to identify a clean tax-price effect. First, we observe current wealth rather than wealth at death, which determines tax liability. Second, married couples can bequeath wealth tax-free to their spouses and pass on their inheritance tax allowance but we have no information on whether wealth is measured at the individual or household level. Our identification strategy is therefore a "fuzzy" RD design, since not all individuals just below the threshold will be exempt from inheritance tax and not individuals just above the threshold will be liable.

In spite of these potential issues, which would tend to dampen any estimates, we nevertheless find a significant tax-price effect on the probability of leaving a charitable bequest.

Figure 4 (panel a) provides preliminary, graphic evidence indicating a discrete change in the probability of making a charitable bequest at the threshold. The identifying assumption is that participants with wealth just below/ above the £325,000 threshold are identical apart from their rate of inheritance tax. Table 7 (panel a) reports p-values for tests of equality of key characteristics for those on either side of the threshold, confirming that this is the case. We also show in Figure 4 (panel b) that the distribution is continuous through the threshold, i.e. there is no evidence of any "bunching" in the distribution just below the threshold.

Regression results are reported in Table 7. Focusing on the simplest specification ($\pm$£20,000 with no additional controls for wealth), we find that estates tax eligibility increases the proportion of people leaving money to charity by 14.5 percentage

points (see Table 7, panel a). This effect is statistically significant at the 10 per cent level. The estimated magnitude is roughly two – three times the magnitude of the estimated effect of the strong ask. Given that we focus on the extensive margin, our findings are not directly comparable with elasticity estimates from the US studies, but they are consistent in finding a strong response to estate taxation. Results using alternative specifications tell a consistent story.

As a further robustness check, we report results using a placebo estate tax threshold which is £50,000 lower than the actual one (i.e. £275,000) and also one which is £50,000 higher (i.e. £375,000). We find no significant effects associated with either of these thresholds (Table 7, panels b and c), strengthening the plausibility of our results using the true threshold.[8]

Finally, we test whether the tax-price effect differs across people with and without children. As with the effect of the ask treatments, we find a stronger response to the inheritance tax threshold among people without children (Table 7, panel d). Although the estimated tax-price effect is positive among those with children, it is not statistically significant. By contrast, we find sizeable and statistically significant effects among people without children. As before, our interpretation is that people with children have relatively stronger preferences for other bequests, making it harder to induce a response among this group.

Given the issues with estimating the tax-price effect discussed above, it may seem surprising that we obtain a sizeable and significant effect. Two factors suggest that this is a plausible finding. One is that the inheritance tax threshold is very salient in the UK, particularly around the time of the experiment because of proposals to increase the threshold/ abolish the tax altogether. The second issue, suggested to us by a lawyer at a different firm, is that, close to the threshold, even small charitable bequests might be seen as particularly attractive as a way of eliminating any estates

[8] Another potential issue is that there is rounding in the wealth data, which may be attributable to reporting by the individual or coding by the lawyer. This will also tend to reduce the extent to which we are able to identify a price effect using a regression discontinuity design. In a further robustness check we re-estimate the regression using only people with wealth values for which there are five or fewer observations. The sample size is reduced but the magnitude of the estimated price effect increases.

tax liability altogether. Thus, the local effect close to the threshold may be larger than the average treatment effect.

5. Discussion

This is the first field experiment that we are aware of to explore the effect of non-pecuniary fundraising mechanisms on charitable bequests. It sheds light on the determinants of an important component of overall donations; it also provides an opportunity to test such fundraising mechanisms in a context where people are donating considerable amounts of money to charity.

We find that non-pecuniary factors can have a sizeable effect on the probability that someone makes provision for a charitable bequest in their will. A "strong ask" that includes social and emotional prompts increases the proportion of people making provision for a charitable bequest by 50 per cent, compared to a "weak ask" that simply asks whether people have considered making a charitable bequest. Our results indicate that seemingly small changes in the wording of an ask can have sizeable effects on behaviour. This has the potential to generate sizeable sums for charities, but there are a number of possible caveats.

One caveat is that we study whether or not people make provision for a charitable bequest in their will rather than actual bequests. In general, only a small proportion of people choose to change the charitable provision in their will.[9] However, if people feel pressured into giving by an ask, as suggested by Della Vigna et al (2012), an increase in provision for bequests may be associated with an increase in later changes to wills. An early indicator of this could be satisfaction levels with the will-making process, as well as any later changes to the will itself. This would be useful to follow up in subsequent studies.

A second potential caveat is that there may be substitution with *intra vivos* giving. This is beyond the scope of this study since no information was collected on other donations, but it is also a crucially important issue for future study.

[9] Figures from Atkinson et al (2009) suggest that around 10% charitable bequests are associated with a change to a will.

The effect of the strong ask is much more powerful for people without children. This is perhaps not surprising since the opportunity cost of leaving money to charity is much lower for this group. Those with children who are not leaving money to charity have strong preferences for leaving money to their heirs; our findings suggest that many view bequest giving as a stark choice between “children or charity”. Future studies could explore whether there may be alternative prompts that could be effective in nudging those with children.

References

Andreoni, J. and Rao, J. (2011) "The power of asking: How communication affects selfishness, empathy, and altruism." *Journal of Public Economics* 95 (7), 513-520

Andreoni, J., Rao, J. and Trachtman, H. (2011) *Avoiding the ask: a field experiment on altruism, empathy, and charitable giving*. National Bureau of Economic Research working paper 17648

Atkinson, A., Backus, P. and Mickleright, J. (2009). *Charitable bequests and Wealth at death In Great Britain*, University of Southampton Working Paper A09/03

Auten, G. and Joulfaian, D. (1996). "Charitable contributions and intergenerational transfers." *Journal of Public Economics* 59 (1), 55-68

Bakija, J., Gale, W. and Slemrod, H. (2003), "Charitable bequests and taxes on inheritances and estates: Aggregate evidence from across states and time." *American Economic Review, Papers and Proceedings* 93, 366-370

Carman, K. (2004) *Social influences and the private provision of public goods: Evidence from charitable contributions in the workplace*, mimeo

Castillo, M., Petrie, R., and Wardell, C. (2015) "Friends asking friends for charity: The importance of gifts and audience", mimeo

Coffman, L., Featherstone, C. and Kessler, J. (2014) *Can social information affect what job you choose and keep?* Mimeo

DellaVigna, S., List, J. and Malmendier, U. (2012) "Testing for altruism and social pressure in charitable giving." *The Quarterly Journal of Economics* 127 (1), 1-56

Donald, S and Lang, K. (2007) "Inference with difference in differences and other panel data." *The Review of Economics and Statistics* 89 (2), 221-233

Ferraro, P. and Price, M. (2013) "Using non-pecuniary strategies to influence behaviour: Evidence from a large-scale field experiment." *The Review of Economics and Statistics* 95 (1), 65-73

Frey, B. and Meier, S. (2004) "Social comparisons and pro-social behaviour: Testing conditional cooperation in a field experiment" *The American Economic Review* 94 (5), 1717 – 1722.

Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007). "Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior." *Organizational Behavior and Human Decision Processes 103*(1), 53-67

Hallsworth, M., List, J., Metcalfe, R. and Vlaev, I. (2014) "The behavioralist as tax collector: Using natural field experiments to enhance tax compliance", NBER Working Paper 20007

Heckman, J. (1979). "Sample selection bias as a specification error." E*conometrica* 47 (1), 153–61

Heckman, J. (1998) "Detecting discrimination." *Journal of Economic Perspectives* 12 (2), 101-116

Joulfaian, D (2000) "Estate taxes and charitable bequests by the wealthy." *National Tax Journal* 53, 743-763

Legal Services Consumer Panel (2011). “Regulating will writing” online [file:///C:/Users/msanders/Dropbox/legacies/ConsumerPanel_WillwritingReport_Final.pdf] accessed on 03/03/2014

Lerner, Small, D. and Loewenstein, G. (2004). "Heart strings and purse strings carryover effects of emotions on economic decisions." *Psychological Science* 15 (5), 337-341.

Levitt, S. and List, J. (2007) “What do laboratory preferences about social preferences reveal about the real world?” *Journal of Economic Perspectives*, 21, 153–174.

Kopczuk, W. (2007) "Bequest and tax planning: Evidence from estate tax returns." *The Quarterly Journal of Economics* 122 (4), 1801-1854.

Meer, J. (2011) "Brother, can you spare a dime? Peer pressure in charitable solicitation." *Journal of Public Economics* 95 (7), 926-941.

Meer, J. and Rosen, H. S. (2011) “The ABCs of charitable solicitation.” *Journal of Public Economics 95*(5), 363-371.

Meer, J. and Rosen, H. (2013) “Donative Behavior at the End of Life.” *Journal of Economic Behavior and Organization*. 92, 192-201.

Scharf, K. and Smith, S. (2014) *Relational Warm Glow and Giving in Social Groups*, CMPO Working Paper

Shang, J. and Croson, R. (2009) “A field experiment in charitable contribution: The impact of social information on the voluntary provision of public goods.” *Economic Journal*, *119* (540), 1422-1439.

Small, D. and Loewenstein, G. (2003). "Helping a victim or helping the victim: Altruism and identifiability." *Journal of Risk and Uncertainty* 26 (1), 5-16.

Smith, S., Windmeijer, F. and Wright, E. (2015). “Peer effects in charitable giving: Evidence from the (running) field.” *Economic Journal* 125 (585), 1053 – 1071.

Watson, H (1984) “A note on the effects of taxation on charitable giving over the life cycle and beyond.” *Quarterly Journal of Economics* 99, 639-47.

Wilhelm, M. (1996) “Bequest behavior and the effect of heirs' earnings: testing the altruistic model of bequests.” *American Economic Review*

Wooldridge, J., (2003) “Cluster-sample methods in applied econometrics.” *American Economic Review* 93 (2), 133-138

Yörük, B. K. (2009). “How responsive are charitable donors to requests to give?”*Journal of Public Economics 93*(9), 1111-1117.

Zak, P., Stanton A, and Ahmadi, S. "Oxytocin increases generosity in humans." *PLoS One* 2 11 e1128

Table 1: Sample characteristics

1a. Full sample

	Mean	10th percentile	Median	90th percentile
Age	57.9	37	59	81
Married	.553			
Kids	.725			
Ln(assets)	12.17	10.82	12.37	13.24
Charitable bequest (0/1)	.057			
Size of bequest (specific)	£6,582	£200	£2,000	£15,000
Size of bequest (all)	£49,643	£500	£11,800	£125,000

Notes to table: All characteristics refer to the full sample in both baseline and treatment periods except charitable bequest (baseline only) and size of bequest (not recorded at baseline). "Specific bequests" are reported directly by clients. "All bequests" additionally include residuary gifts which are imputed based on the proportion of the full or residual estate which is bequeathed and current wealth value. Number of observations in full sample = 2,664.

1b. Balance test

Mean client characteristics across baseline and treatment periods

	Baseline period	Treatment period	p-value
Age	59.1	57.3	.003
Married	.543	.557	.476
Kids	.681	.745	.000
Ln(assets)	12.56	12.12	.011
Number of observations	897	1767	2664

Notes to table: p-value reported is for the test of equality of means across the baseline and treatment periods.

1c. Balance test

Mean client characteristics across treatment groups (weak/strong ask)

	Weak Ask	Strong ask	p-value
Baseline period			
Bequest (0/1)	.074	.051	.195
Number of observations	214	683	897
Treatment period			
Age	57.3	57.3	.934
Married	.568	.547	.364
Kids	.738	.757	.372
Ln(assets)	12.13	12.12	.971
Number of observations	871	896	1767

Notes to table: The weak ask and strong ask groups are defined by the lawyers who are allocated to the strong ask and weak ask. p-value reported is for the test of equality of means across the groups.

Table 2: Distribution of observations

		Share of observations, by condition		
Lawyer/ treatment	N	Baseline	Weak ask	Strong ask
1. Strong	639	.527	.000	.473
2. Weak	416	.151	.849	.000
3. Strong	279	.082	.000	.918
4. Weak	156	.711	.289	.000
5. Weak	234	.051	.949	.000
6. Strong	329	.827	.000	.173
7. Weak	279	.100	.900	.000
8. Strong	332	.153	.000	.846
	2664	897	871	896

Table 3: Increase in bequest giving – strong ask relative to weak ask

Dependent variable = Provision for a charitable bequest (0/1)

	(1)	(2)	(3)	(4)	(5)
	OLS	OLS + clustered SE	OLS + clustered SE	Between groups	Donald Lang
Strong ask	0.047**	0.047*	0.045*	0.063**	0.056*
	(0.017)	(0.022)	(0.023)	(0.024)	(0.025)
Ln (assets)			0.009		
			(0.006)		
Missing assets			0.063		
			(0.068)		
Married			-0.064**		
			(0.024)		
Widowed			-0.033		
			(0.033)		
Sep_div			0.011		
			(0.049)		
Child			-0.249**		
			(0.026)		
Young child			0.058**		
			(0.019)		
Age			0.048**		
			(0.010)		
Age^2			-0.006**		
			(0.002)		
Constant	0.118**	0.118**	0.195**	0.109**	0.207**
	(0.012)	(0.008)	(0.072)	(0.017)	(0.017)
Controls					Y
N	1767	1767	1767	8	8

Notes to tables: Clustering is at the lawyer level. The between groups estimator uses the lawyer mean as the dependent variable. The Donald-Lang estimator uses as the dependent variable the coefficients from regressing the dependent variable on a full set of group indicators, including additional control variables. Standard errors are reported in brackets. *p<0.10 **p<0.05.

Table 4: Strong ask treatment effect, by presence of children

Dependent variable: Provision for a charitable bequest (0/1)

	OLS + clustered SE	Between Groups	Donald Lang
Strong ask_nokid	0.238**	0.204**	0.193**
	(0.040)	(0.065)	(0.062)
Strong ask_kid	0.028	0.033	0.023
	(0.020)	(0.023)	(0.023)
Controls	Y		Y
p-value: strong_NK = strong_K			
N	1763	8	8

Notes to table: Notes to tables: Clustering is at the lawyer level. Controls are those shown in Table 3 (assets, age, marital status, children). The between groups estimator uses the lawyer mean as the dependent variable. The Donald-Lang estimator uses the coefficients from regressing the dependent variable on a full set of group indicators, including additional control variables. Standard errors are reported in brackets. **p<0.05.

Table 5: Estimated marginal effects of the strong ask treatment
Heckman selection model

Dependent variable = Ln(bequest value)

Marginal Effect	Residuary estate = 50% total wealth	Residuary estate = 25% total wealth	Residuary estate = 10% total wealth
P(Y>0 | X)	0.048**	0.048**	0.048**
	(0.020)	(0.020)	(0.020)
E(Y | X, Y>0)	0.600**	0.403	0.152
	(0.238)	(0.282)	(0.359)
E(Y | X)	0.492**	0.453**	0.404**
	(0.204)	(0.193)	(0.178)

Notes to tables: The table reports the estimated marginal effects for the strong ask treatment from a Heckman selection model estimated via maximum likelihood. A full set of controls has been included as in Table 3; it is assumed that children affect the decision whether or not to leave a bequest but not the value of the bequest. Standard errors are clustered is at the lawyer level. The value of the bequest includes both the value of specific gifts and an estimated value of residuary gifts (made either as a % of the total estate or as a % of the residual estate). The three columns correspond to different assumptions about the size of the residual estate. Standard errors are reported in brackets. **p<0.05.

Table 6: Increase in bequest giving – treatment period relative to baseline period

Dependent variable = Provision for a charitable bequest (0/1)

	(1)	(2)	(3)	(4)
Treatment period (0/1)	0.085**	0.073**	0.095**	0.081**
	(0.015)	(0.014)	(0.017)	(0.017)
Constant	0.057**	0.065**	0.128**	0.156**
	(0.006)	(0.009)	(0.052)	(0.050)
Lawyer indicators		Y	Y	Y
Month of sale				Y
N	2664	2664	2664	2664
R-sq	0.016	0.008	0.077	0.087

Notes to table: Controls are included in all regressions, as in Table 3, column 3. Standard errors are reported in brackets. *p<0.10 **p<0.05

Table 7: Estimated tax-price effects – probability of making a bequest

a. Balancing tests

	Window around threshold			
	± £20,000	± £30,000	± £40,000	± £50,000
Give (0/1)				
Below	.068	.083	.080	.103
Above	.196	.180	.165	.171
p-values				
Give (0/1)	.068	.062	.055	.108
Age	.502	.295	.282	.264
Children	.196	.648	.230	.182
Married	.503	.673	.858	.987

Notes to table: p-value reported is for the test of equality of means above/below the threshold.

b. Regression results:

Dependent variable = Provision for a charitable bequest (0/1)

B1. True threshold (£325,000)

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	0.145**	0.186	0.097*	0.233*	0.080**	0.227**	0.062	0.198**
	(0.063)	(0.223)	(0.056)	(0.129)	(0.037)	(0.108)	(0.040)	(0.084)
Assets/10k		-0.021		-0.043		-0.038		-0.029
		(0.089)		(0.038)		(0.022)		(0.016)
N	100		173		220		267	

B2. Placebo 1: Threshold = £375,000

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	0.042	0.043	0.024	0.057	-0.024	0.091	-0.024	0.045
	(0.061)	(0.120)	(0.041)	(0.101)	(0.040)	(0.083)	(0.040)	(0.062)
Assets/10k		-0.000		-0.011		-0.029		-0.014
		(0.035)		(0.026)		(0.018)		(0.009)
N	130		238		321		398	

B3.Placebo 2: Threshold = £275,000

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT	-0.026	-0.185	0.006	-0.149	0.008	-0.089	0.005	-0.050
	(0.073)	(0.175)	(0.045)	(0.141)	(0.054)	(0.101)	(0.038)	(0.077)
Assets/10k		0.092		0.045		0.024		0.011
		(0.076)		(0.046)		(0.031)		(0.016)
N	59		134		167		210	

B4. True threshold (£325,000)

	± £20,000		± £30,000		± £40,000		± £50,000	
IHT_nokids	0.344**	0.347	0.287**	0.404**	0.277**	0.413**	0.216**	0.346**
	(0.090)	(0.220)	(0.065)	(0.140)	(0.044)	(0.118)	(0.046)	(0.086)
IHT_kids	0.071	0.073	0.024	0.146	0.003	0.143	0.001	0.134
	(0.067)	(0.242)	(0.059)	(0.126)	(0.039)	(0.110)	(0.045)	(0.086)
Assets/10k		-0.001		-0.038		-0.035		-0.028
		(0.094)		(0.038)		(0.022)		(0.016)
p-value								
I_NK=I_K	.027	.033	.000	.000	.000	.000	.000	.000
N	100		173		220		267	

Notes to table: All regressions include lawyer fixed effects. Standard errors, clustered at the lawyer level, are reported in brackets. *p<0.10 **p<0.05

Figure 1. Proportion leaving a charitable bequest

(mean and standard errors)

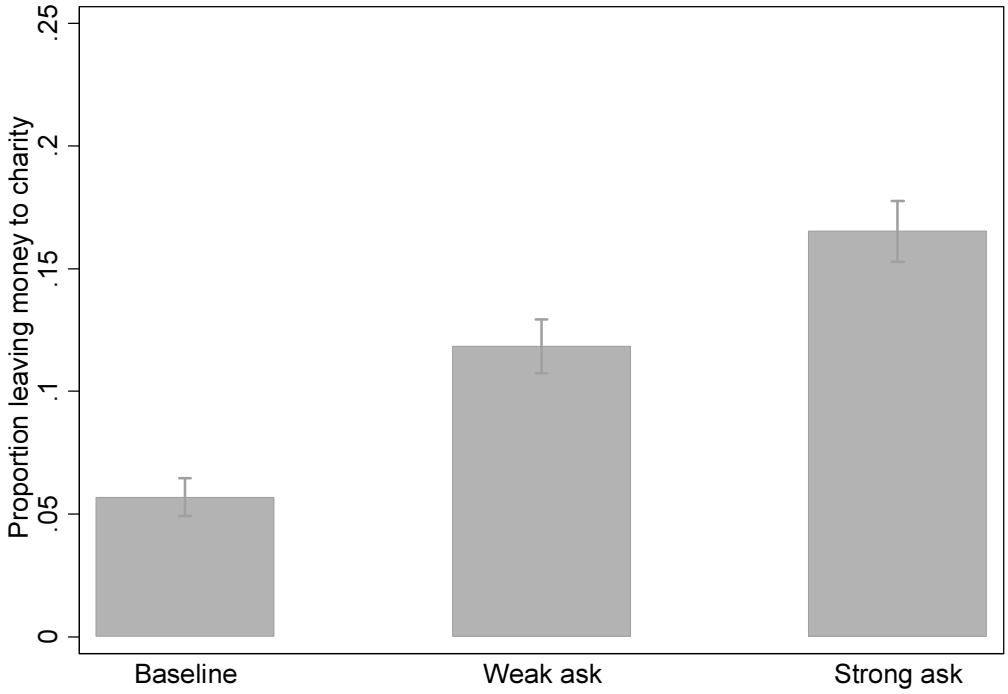


Figure 2. Proportion leaving a charitable bequest (mean and standard errors)

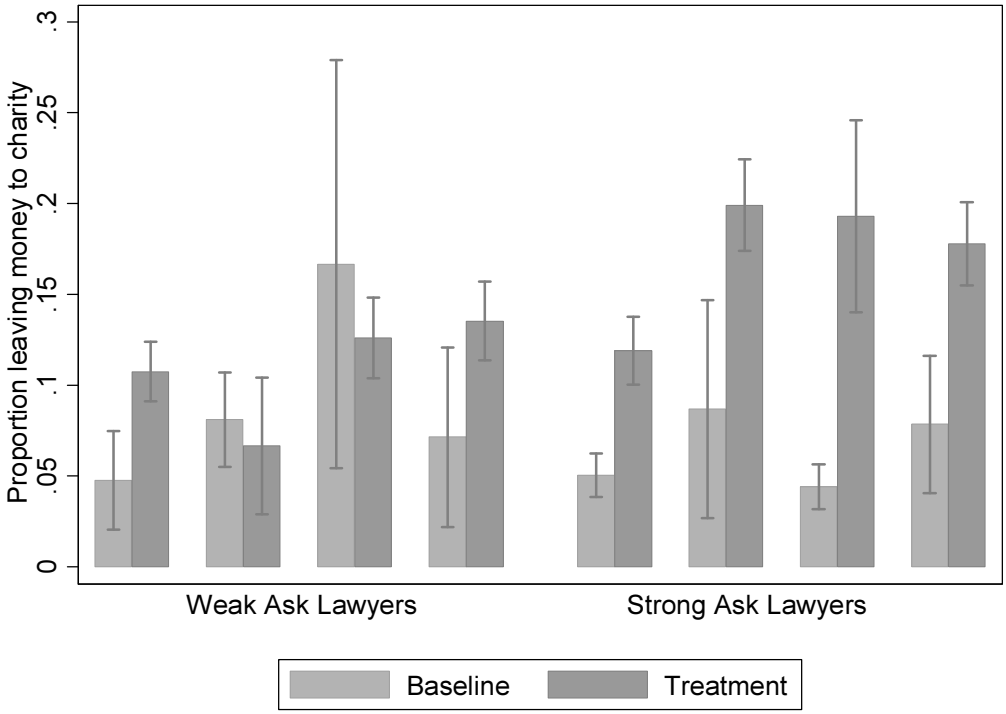
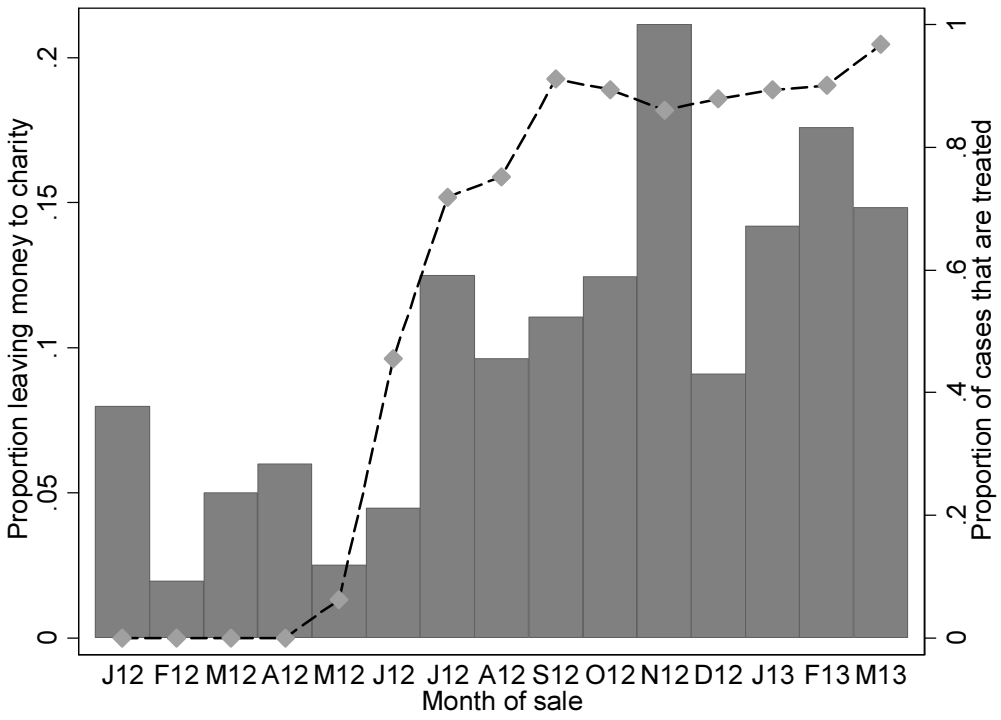


Figure 3. Proportion leaving a charitable bequest (by month of sale)



Notes to table: Month of sale refers to the month in which the customer makes a payment for the will-making service. This is not the same as month of interview; month of sale may occur before or after the interview month. The solid bars show the proportion of people making a charitable bequest, by month of sale. The dotted line shows the proportion of sales in that month that received one of the two treatments (weak ask or strong ask).

Figure 4a: Proportion leaving a charitable bequest, around the estate tax threshold

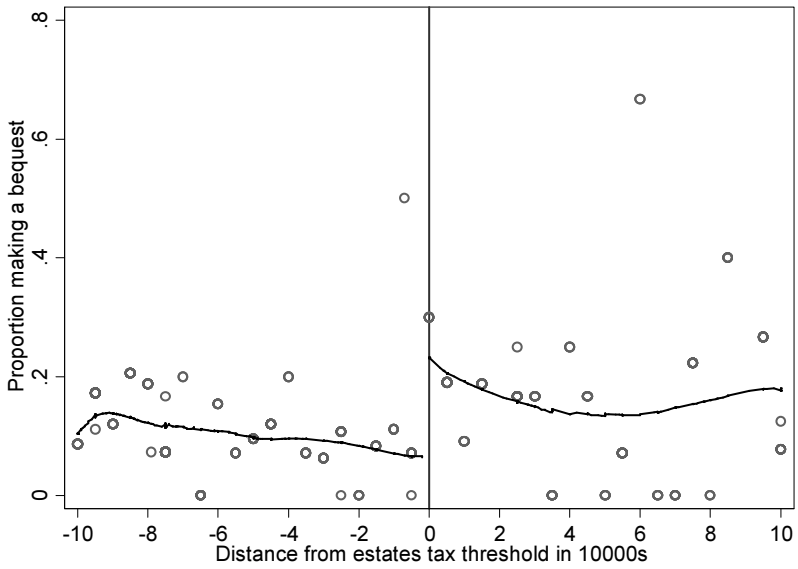
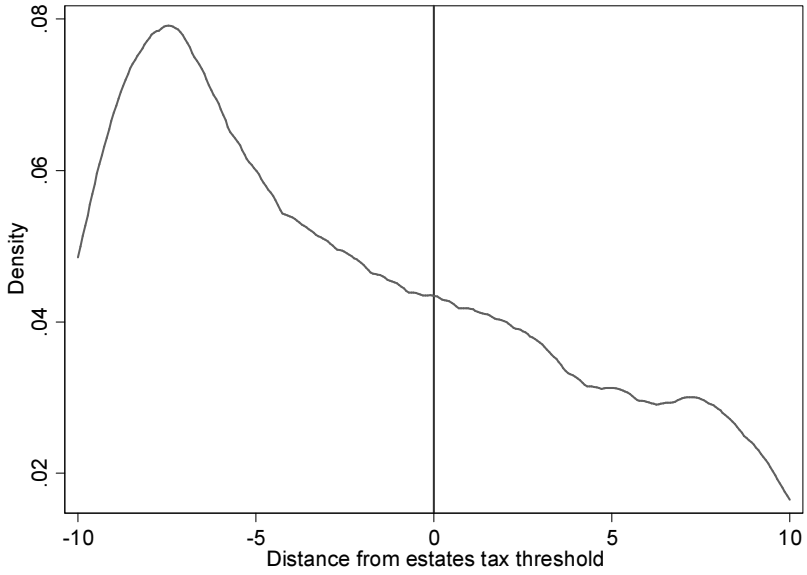


Figure 4b: Kernel density, around the estate tax threshold



Notes to table: In panel a. each circle represents the mean proportion making a charitable bequest, by £5,000 bands. The solid lines are drawn using running mean, least squares smoothing on the raw data. Panel b shows the underlying distribution density, illustrating the absence of any bunching at the estate tax threshold.