

# Transactions Costs and Inertia in Charitable Giving



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# Motivation



- “Never say I’ll go tomorrow. When you get a chance to go fishing, go. If you wait until tomorrow, tomorrow will drag into next week and next week will drag into next month and next month into next year and some day it will be too late.”

# Motivation



- “Never say I’ll **donate** tomorrow. When you get a chance to **donate**, **do**. If you wait until tomorrow, tomorrow will drag into next week and next week will drag into next month and next month into next year and some day it will be too late.”
  - This is what we mean by “inertia”: people have the best intentions of donating to charity, but never get around to doing so

# Motivation



- Our conjecture is that inertia is most likely to exist in the presence of transactions costs, and when
  - (1) Donations do **not** have to be made immediately (often they don't in everyday life)
  - (2) Requests to donate (solicitations) are received when people are busy (the opportunity cost of time is high), as is often the case in everyday life

# What We Do (Very Briefly)



- We use a Dictator Game in the lab, creating an environment that involves transaction costs and inertia, to test the following hypotheses:
  - (1) Transaction costs will reduce donations
  - (2) Transaction costs will have a greater effect if the solicitation is received when the opportunity cost of time is higher
  - (3) Not being able to make donations immediately will reduce donations due to inertia (and possibly due to higher effective transaction costs)
- Our method allows us to observe the opportunity cost of time when the solicitation is received

# Study One Method

## Baseline (Standard Dictator Game)



- Students at the University of Canterbury were invited to take part in a survey, at the New Zealand Experimental Economics Lab (NZEEL), for which they were paid \$20
  - One \$10 note
  - One \$5 note
  - Two \$2 coins
  - One \$1 coin
- Subjects were seated at cubicles, so their actions could not be seen by other subjects, or by the experimenters
- After receiving their payment, subjects were invited to donate some or all of their payment to World Vision (and told the researchers would double any donation they made)

# Baseline (Continued)



- Subjects chose a blue envelope which contained a transfer form to indicate how much, if anything, they wanted to donate
- Subjects asked to complete the transfer form and place it, and any money they wished to donate, in the blue envelope
- Subjects asked one at a time to come to the back of the lab and complete a receipt form, then to leave the lab and place the blue envelope (whether it contained any money or not) in a box outside the lab
  - This ensures a double-blind protocol
- **NOTE:**
  - No transaction cost
  - No potential for inertia

# One Hour Treatment (1H)



- Introduces a transaction cost (donations to be placed in a secure box a 5-minute walk away), with donations able to be made any time in the next hour
  - The blue envelope contained a map showing the location of the secure box
  - As the lab session was advertised as lasting for 1 hour, but actually finished after 35-40 minutes, we know that subjects had no previous plans for the next 15-20 minutes (i.e. the opportunity cost of time is low)
  - This treatment is analagous to the everyday life situation of receiving a solicitation when you are **not** busy
  - There is a transaction cost, but minimal scope for inertia

# One Day Treatment (1D)



- **Same as 1H, but have 25 hours to donate**
  - As in 1D the OC of time is low when the solicitation is received
  - This treatment includes both a transaction cost and the potential for inertia

# Next Day Treatment (ND)



- The same transaction cost, but donations can only be made the next day (so the opportunity cost of time is likely higher as the donation cannot be made during planned lab time)
  - Effective transaction cost (nominal transaction cost interacted with OC of time) likely to be higher as cannot donate at a time when subjects have time on their hands
  - Higher potential for inertia than in other treatments, as donation cannot be made immediately

# Next Day All Week Treatment (NDW)



- Same as ND, but donations can be made any time from the next day for the rest of the week
  - Greater potential for inertia, but effective transaction cost no higher
  - NOTE: As will be explained later, although we had planned to run this treatment, we didn't actually implement it in Study One

# Table 1: Summary of Effects



	<b>Nominal Transaction Cost</b>	<b>OC Time (when request received)</b>	<b>Effective Transaction Cost</b>	<b>Inertia</b>
Baseline (B)	Zero	n/a	Zero	Zero
1 Hour (1H)	Yes	Low	Yes	Extremely low
1 Day (1D)	Yes	Low	Yes	Yes
Next Day (ND)	Yes	Infinite	Higher than 1D and 1H	Higher than 1D
Next Day all Week (NDW)	Yes	Infinite	No higher than in ND	Higher than ND

# Conjectures and Hypotheses



- **Conjecture 1:** Introducing a transaction cost will lower donations  
Hypothesis 1:  $B > 1H$  (and all other treatments)
- **Conjecture 2:** Giving more time to donate (but keeping the opportunity cost of time low when the request is received) introduces inertia  
Hypothesis 2:  $1H > 1D$
- **Conjecture 3:** The potential for inertia (and the effective transaction cost) will be higher if the request is received when the opportunity cost of time is high  
Hypothesis 3:  $ND < 1D$
- **Conjecture 4:** If the opportunity cost of time is low when the request is received, most subjects who wish to donate will do so promptly  
Hypothesis 4: In  $1D$  the majority of donations will be made promptly

# Results

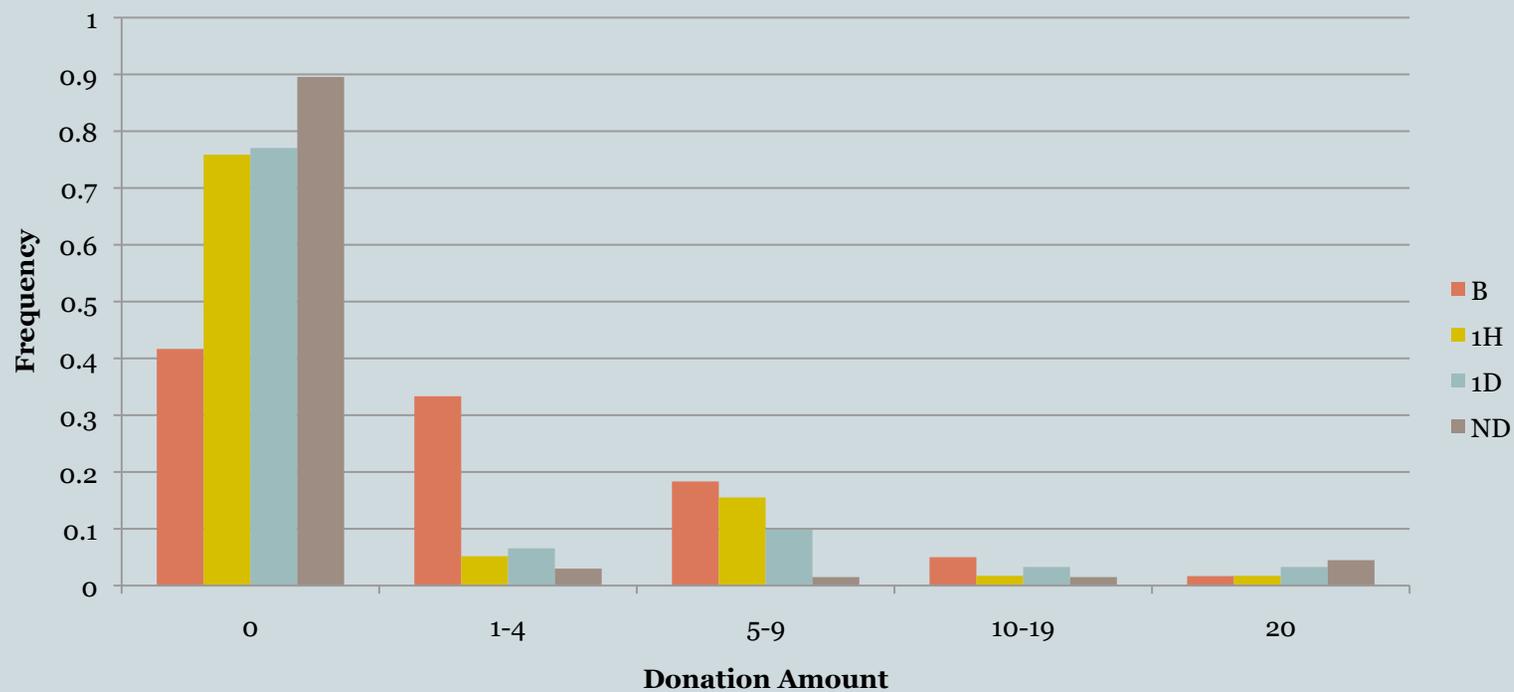


**Table 2: Summary Statistics for Each Treatment**

<b>Treatment</b>	<b>Baseline (B)</b>	<b>One Hour (1H)</b>	<b>One Day (1H)</b>	<b>Next Day (ND)</b>
Number obs	60	58	61	67
Numbers +ve donations	35 (58.3%)	14 (24.1%)	14 (23%)	7 (10.4%)
Mean donation	2.48	1.43	1.72	1.20
Median donation	2	0	0	0
St Dev	3.52	3.41	5.33	4.37



# Figure 1: Frequency of Different Levels of Donations



# Results



Table 4: Significance Tests For Differences Across Treatments (p-values in parentheses)

Data	Mann Whitney	Fisher's Exact Test for Proportions of +ve donations
B v 1H	-3.15 (0.002)	(0.000)
B v 1D	-3.25 (0.001)	(0.000)
B v ND	-5.20 (0.000)	(0.000)
1H v 1D	-0.10 (0.920)	(1.000)
1H v 1ND	-1.91 (0.056)	(0.055)
1D v ND	-1.82 (0.070)	(0.093)

# Key Results



- (1) Transaction costs matter ( $B > 1H$ )
  - E.g. They are \$2.48 in B and \$1.43 in 1H (a difference of 42 percent)
  - The number of small donations is significantly higher in B than in all other treatments
- (2) There is no evidence of inertia when more time is given to donate, but the opportunity cost of time (when the request is received) remains low ( $1H = 1D$ )
  - Caveat: it could also be that the nominal transaction cost is lower in 1D than 1H (so any inertia effect is cancelled by the higher transaction cost)
- (3) Transaction costs have a bigger impact when the solicitation is received at a time when the donation cannot be made immediately ( $ND < 1D$ )
  - Average donations fall from \$1.72 in 1D to \$1.20 in ND (p-value = 0.070)
  - These differences could be due to the effective transaction cost being higher (as the opportunity cost of time is higher) or to inertia

# Key Results (Continued)



- (4) Given the option of donating promptly most subjects choose to donate promptly
  - In 1D 14 subjects gave a positive amount
    - ✦ 12 donated the same day
    - ✦ 2 donated the following day
  - This is consistent with the notion that most subjects perceived the opportunity cost of time as being low immediately following the lab session

# Study Two: ND v NDW



- **Differences in Protocols With Study One**
  - Subjects were recruited to take no more than 30 minutes to take part in a decision-making task and paid \$10
    - ✦ Having been paid their \$10, subjects were given an envelope containing another \$10 as a windfall gain, and asked if they would like to donate any of it to World Vision
  - They were told World Vision would use this money to immunise children

# Study Two: Results



Treatment	ND	NDW
N	82	87
Mean donation	2.37	2.00
Number +ve donations	26	23
% +ve donations	31.7%	26.4%
Mean donation (conditional on donating)	7.47	7.56



- In the NDW treatment, of the 23 donations:
  - 13 were made the next day (Day 1)
  - 3 on Day 2
  - 2 on Day 3
  - 1 on Day 4
  - 5 on Day 5
- Donations are lower when people are given more time to donate, but this difference is statistically insignificant

# Policy Implications



- Introducing a small transaction cost reduces donations, but largely due to a reduction in small donations
  - If the charity faces a significant marginal transaction cost of processing donations, a lower number of small donations may not be a bad thing
  - If the charity faces a low marginal transaction cost of processing donations, they should seek to minimise the transaction costs to donors
    - ✦ Street collections are an example of a fund-raising method where the transactions costs to both the charity and potential donor are low

# Conclusions



- Introducing a relatively small transaction cost reduces donations
  - This effect is greater when the opportunity cost of time is high when the request is received
    - ✦ This could be due to inertia, or to the higher effective transaction cost
- We found no evidence of a statistically significant inertia effect

# Table 3: Small and Large Donations

Treatment	Baseline (B)	One Hour (1H)	One Day (1D)	Next Day (ND)
Number of obs	60	58	61	67
Number small donations (\$1-\$4)	20 (33.3%)	3 (5.2%)	4 (6.6%)	2 (3.0%)
\$ value small donations	41	6	10	4.5
\$ value/N	0.68	0.10	0.16	0.07
Number large donations (\$5 +)	15 (25.0%)	11 (19.0%)	10 (16.4%)	5 (7.5%)
\$ value large donations	108	77	95	75
\$ value/N	1.80	1.32	1.56	1.12
Mean donation	2.48	1.43	1.72	1.20