



Modelling charitable donations to an unexpected natural disaster: Evidence from the U.S. Panel Study of Income Dynamics

Sarah Brown^a, Mark N. Harris^b, Karl Taylor^{a,*}

^a Department of Economics, University of Sheffield, United Kingdom

^b Department of Econometrics and Quantitative Modelling, Curtin University, Australia

ARTICLE INFO

Article history:

Received 30 November 2010

Received in revised form 26 July 2012

Accepted 14 August 2012

Available online 29 August 2012

JEL classification:

D19

H24

H41

H31

Keywords:

Charity

Donations

System tobit

Tobit

ABSTRACT

Using household-level data, we explore the relationship between donations to the victims of the 2004 Indian Ocean tsunami disaster and other charitable donations. The empirical evidence suggests that donations specifically for the victims of the tsunami are positively associated with the amount previously donated to other charitable causes. This relationship exists when we decompose overall charitable donations into different types of philanthropy, with charitable contributions to caring and needy organisations having the largest positive association with donations to the victims of the tsunami. Furthermore, when we explore the impact of donations to the victims of the tsunami on future donations to charity, there is evidence of a positive relationship with the largest association with donations to caring and needy organisations. Hence, there is no evidence to suggest that unplanned spending on donations to an unforeseen natural disaster diverts future expenditure away from donations to other charitable causes.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction and background

A plethora of empirical and theoretical studies exist in the economics literature exploring why individuals make contributions to charity, with much of the existing research focusing on charitable donations in the U.S. (see, for example, Andreoni, 2006). Given the economic significance of such donations and government intervention via tax regulation, such interest is not surprising. Recent figures from *Giving U.S.A. 2011*, for example, estimate total charitable contributions in the U.S. in 2010 at \$290.89 billion, indicating a 2.1 percent growth compared to 2009 adjusting for inflation.¹

Over the last four decades, the literature on the economics of charity has focused on the decision to donate at the individual or household level, with much attention paid to the impact of tax deductibility on such decisions related to charitable giving and the associated price and income effects. The empirical analysis of charitable donations has been influenced by methodological advances with respect to econometric techniques as well as increased availability and quality of data. Andreoni (2006) presents a comprehensive survey of the influences on charitable donations established in the existing literature. For example, Auten et al. (2002) find that income is an important determinant of donor responsiveness, whilst, according to Glenday et al. (1986), donations are expected to vary over the lifecycle increasing with age. In a similar vein, Schokkaert (2006) finds that older and more educated individuals tend to give more. In general, the findings from existing

* Corresponding author. Tel.: +44 (0) 114 222 3420.

E-mail address: k.b.taylor@sheffield.ac.uk (K. Taylor).

¹ The figure relates to total charitable contributions from U.S. individuals, corporations and foundations and includes both cash and in-kind donations.

studies suggest that married households, households with dependent children, households with a female head and religious households are all expected to give more in absolute terms.

Our focus lies in exploring the influences on charitable donations at the household, i.e. donor, level. As stated by Schokkaert (2006), who presents a comprehensive survey of the empirical literature on charitable giving, much of the existing research at the donor level focuses on total contributions made to charity without distinguishing between different recipient causes. In our empirical analysis, we aim to explore the relationship between donations specifically related to an unexpected adverse shock in the form of a natural disaster and donations to other charitable causes. Specifically, we focus on donations to the victims of the 2004 Indian Ocean tsunami. As stated by Athukorala and Resosudarmo (2005, p. 1), who analyse the immediate economic impact of the tsunami and disaster management in its immediate aftermath, ‘with a death toll of about 350 thousand, the Indian Ocean tsunami . . . is by far the worst natural disaster of that kind in the recorded human history.’

Brown and Minty (2008), who find that media coverage of disasters has a large impact on donations to relief agencies, cite five reasons for the high level of donations to U.S. charities for the tsunami disaster relief (estimated at \$1.6 billion in private donations). Firstly, the time of year coincided with a holiday period which may have increased the ‘warm glow’ associated with charitable giving; secondly, South East Asia has been an increasingly popular destination for U.S. tourists; thirdly, tax incentives in the U.S. motivate charitable giving and the tsunami occurred just before the deadline (31st December) for 2004 tax deductions and, furthermore, the Tsunami Disaster Aid Tax Relief Act extended the deadline to 31st January 2005; fourthly, the provision for online giving was extensive; and, finally, there was extensive media coverage.

The importance of one-off appeals for disaster relief as a means to raise significant funds from relatively small contributions made by many individuals was noted in an early contribution by Sugden (1982), who cites the Cambodia famine appeal in 1980 as an example. One concern surrounding such disaster appeals relates to the possibility of donations being diverted away from existing charitable causes towards such relief funds. More recently, Eckel et al. (2007) explore the impact of Hurricane Katrina upon charitable donations within the context of an experiment conducted in a laboratory environment. Such studies are particularly interesting in the context of claims put forward by Wright (2002) that the majority of donations in the U.S. are regarded as a planned activity whereas in the UK donations tend to be more spontaneous. Hence, the novelty of our contribution to the literature on charitable giving lies in exploring the relationship between donations to a specific unexpected natural disaster, namely the 2004 Indian Ocean tsunami, and donations to other charitable causes.

In Section 2 we investigate what factors influence the level of donations to the victims of the tsunami, i.e. unplanned donations, including the role of donations to other charitable causes, i.e. planned donations. Section 3 expands the analysis to explore the relationship between different types of charitable donations and donations to the victims of the tsunami. In Section 4, we explore the effect of tsunami donations on future donations to other charitable causes.

2. Donations to the victims of the tsunami and other charitable donations

2.1. Data and methodology

We use data from the U.S. *Panel Study of Income Dynamics* (PSID), which is a panel of households ongoing since 1968 conducted at the Institute for Social Research, University of Michigan.² In the PSID waves 2001, 2003, 2005 and 2007, there are a series of detailed questions relating to giving to charity.³ Due to our focus on tsunami donations, we restrict ourselves to the 2005 PSID, which after conditioning for missing observations, yields a sample for analysis of 6590 households. Households are asked about total donations to charity over the calendar year 2004.⁴ Excluding donations specifically related to the 2004 Indian Ocean tsunami, the average total value of the amount of donations in the calendar year 2004 is \$1557 (Table 1A), with 40 percent of households not making any donations.⁵ The average amount of donations amongst households who do donate to charity is \$2577.

As a separate category, heads of household were asked to indicate the total dollar value of donations made between the end of December 2004 and the month of interview, to help the victims of the 2004 Indian Ocean tsunami (which occurred on the 26th December 2004). The average amount of these donations was \$28 (Table 1A), with 22 percent of households making such donations. The average amount of donations for the tsunami victims amongst those households who made

² One key advantage of the PSID is that it includes households which itemize charitable donations in their annual tax return as well as those who do not. In contrast, some existing studies, such as Auten et al. (2002), analyse individual tax returns collected by the U.S. Internal Revenue Service. One drawback of such data, however, relates to the fact that the sample is restricted to those tax payers who itemized deductions. Consequently, the sample potentially suffers from sample selection bias given that itemizing charitable contributions leads to a lower price of making a donation (this is discussed in detail below). Furthermore, Wilhelm (2006) explores the quality of the PSID data on charitable donations in terms of two dimensions: missing data and the amounts reported. He compares the PSID charitable donations data with data on charitable deductions from the Internal Revenue Service and finds that the reported amounts generally compare well across the data sources except above the 90th percentile. He thus confirms that the PSID data on charitable donations are of ‘high quality.’

³ The definition of a charitable organisation in the PSID includes ‘religious or non-profit organisations that help those in need or that serve and support the public interest’. It is clearly stated that the definition used does not include political contributions.

⁴ Specifically, in the PSID heads of household are asked to indicate the total dollar value of all donations made by themselves and their family where donations ‘include any gifts of money, assets or property/goods made directly to the organisation, through payroll deduction or collected by any other means on behalf of the charity.’

⁵ All monetary values are given in 2005 prices, using a CPI deflator available from the Bureau of Labor Statistics http://www.bls.gov/cpi/cpi_dr.htm#2007.

Download English Version:

<https://daneshyari.com/en/article/883873>

Download Persian Version:

<https://daneshyari.com/article/883873>

[Daneshyari.com](https://daneshyari.com)