# To Give Or Not To Give:
# How Selfishness, Altruism, and Social Pressure Shape Charitable Giving Decisions

**SREYPHEA CHHEANG**
**LAPS/ECON4089**
**York University**

## Abstract

I explore the effects of selfishness social pressure, and altruism on charitable giving decisions by using proxy variables: tax credits for selfishness; income, age, and education for social pressure; and religious participation and volunteer activities for altruism, respectively. Because OLS procedures suffer from biased estimates, the Heckman techniques are implemented instead. Results indicate that individuals behave selfishly, when it comes to charitable tax. Individuals tend to donate more as their income, education, and age increase. However, they behave more altruistically, when they are engage in religious practices and volunteer work.

## Literature Review

- Individual`s income, education, social pressure and tax policy have a significant impact on charitable decisions.
- Turcotte (2015), Andreoni (2006), Lists (2011), James and Sharpe (2007): individual`s income distribution causes a U-shaped pattern
- Brown (2005): college education affects giving decision due to social status and social networking
- Andreoni & Roa (2001): two way communication manifests as altruism
- Vigna et.al., (2009): social pressure reduces welfare as it occurs a social cost
- Andreoni (1990): cutting tax on altruistic but increasing tax on less altruistic to raise the contributions
- Hossain & Lamb (2015), Kitchen (1992), Kitchen & Dalton (1990): tax deduction is effectiveness, based on Canadian data

## Research Question

1. How selfishness, altruism, and social pressure shape the charitable giving decisions?
2. Which factors have the most effects on motivation for charitable contributions and their amounts?

## Data

- Canadian general social survey 2013 data
- Data: cross-sectional and micro data
- Respondents age 15 and up, by phone call interview
- Total of 14,714 observations, in ten provinces

## Methodology

- Heckman selection model: Two steps and Ordered probit to control the biases arise from unobserved and choice variables
- Using binary input with 0 or 1
- Treating all the missing values as the true 0 values

## Econometrics Model

Model 1. Heckman two-step model

$$AD = \begin{cases} \delta' Z + \varepsilon, & if\ DS = \gamma' X + \mu > 0 \\ 0, & otherwise \end{cases}$$

- AD: natural log of the amount of donation
- DS: the amount of donation status of the respondent
- Z: the vector of variables determined the decision
- $\delta$ and $\gamma$: the vectors of estimated parameters
- $\varepsilon$ and:$\mu$: the vectors of random error terms, assume iid

## Econometrics Model

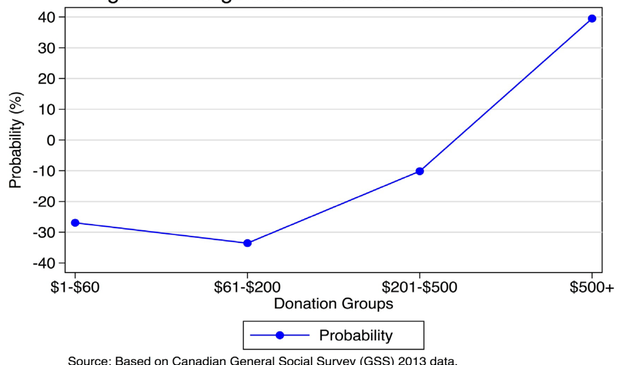
Model 2. Heckman ordered probit model

$$DC^* = \beta' Z + \epsilon,$$
$$DC = \begin{cases} 1, & if\ DC^* > 0 \\ 0, & if\ DC^* \le 0 \end{cases}$$

- DC*: the continuous unobserved the level of donation
- DC: the category of level of donation that respondent is unknown
- $\epsilon$ : the vector of random error term, assume iid
- $\beta$: the vector of estimated parameters

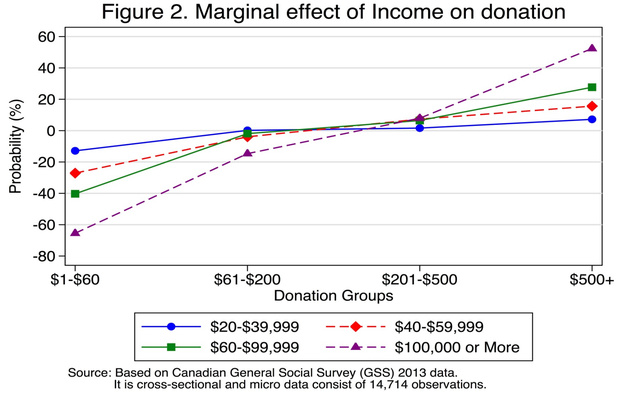
## Result

Figure 1. Marginal effect of Tax credit on donation



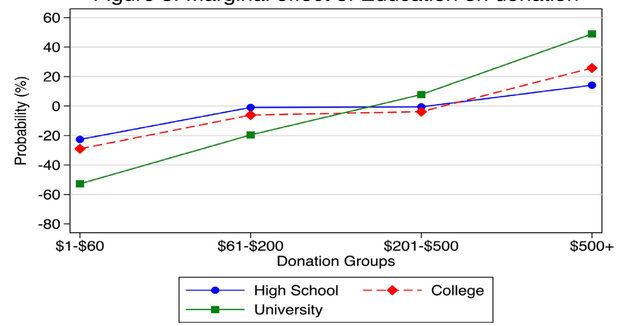

Source: Based on Canadian General Social Survey (GSS) 2013 data.
It is cross-sectional and micro data consist of 14,714 observations.

Figure 2. Marginal effect of Income on donation



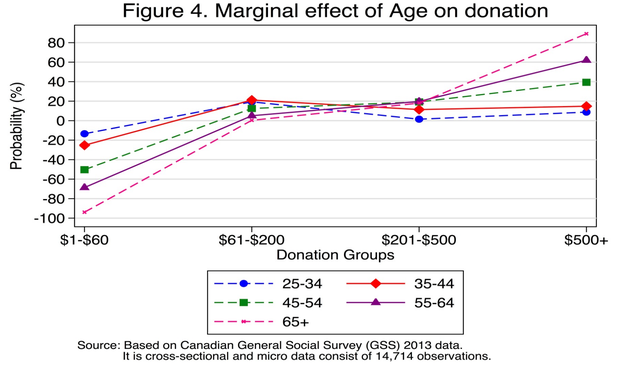

Source: Based on Canadian General Social Survey (GSS) 2013 data.
It is cross-sectional and micro data consist of 14,714 observations.

Figure 3. Marginal effect of Education on donation




Source: Based on Canadian General Social Survey (GSS) 2013 data.
It is cross-sectional and micro data consist of 14,714 observations.

Figure 4. Marginal effect of Age on donation




Source: Based on Canadian General Social Survey (GSS) 2013 data.
It is cross-sectional and micro data consist of 14,714 observations.

- 47% donation is based on tax credit reason
- Income levels 2, 3, 4, are likely to donate 17%, 38%, 52%, and 86%, respectively
- Education levels, religious and volunteer participation have positive relationship with decision making

## Conclusion

- Selfishness has the most influence on the charitable decisions and on the amount of contributions.
- Social pressure has the second most impact on charitable decision making, but has less significant impact on the amount donated
- Altruism has the least effect on giving decisions and the level of contributions