

# **Charitable Giving, Immigrants and Ethnicities**

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## **Abstract**

This paper analyzes the relationship between ethnic immigrant groups and charitable giving of both money and time using the Canadian Survey of Giving Volunteering and Participating (CSGVP) data sets. Both probit and Tobit models are used for running the regressions. I find that there is a relationship between ethnic groups and giving, and this relationship has been quite consistent over the past ten years. I find that various ethnic groups have different impacts on giving, depending on their length of time in Canada. Both immigrant and ethnicity have a negative effect on the giving of money in some cases, but not for all groups or all samples. However the impact of being an ethnic on volunteering is almost always negative. I find evidence to suggest that giving behaviour of long-term immigrants becomes closer to that of Canadian born.

Key words: charitable giving, donation, volunteering, ethnicity, and immigrant

## **I. Introduction**

Over the last few decades, charitable giving has become increasingly more important in all economies. It helps to finance a host of services, and plays a significant role in the redistribution of social benefits. For instance, in the United States, it has been estimated that charitable giving is equivalent to about 1.67% of GDP, in the United Kingdom 0.73% followed closely by Canada at 0.72% (Andreoni, 2013, p.5). According to the most recent Canadian surveys in 2010, the total amount of charitable contribution was \$10.6 billion with 84% of Canadians over 15 years of age having donated money to charities (Turcotte, 2012).

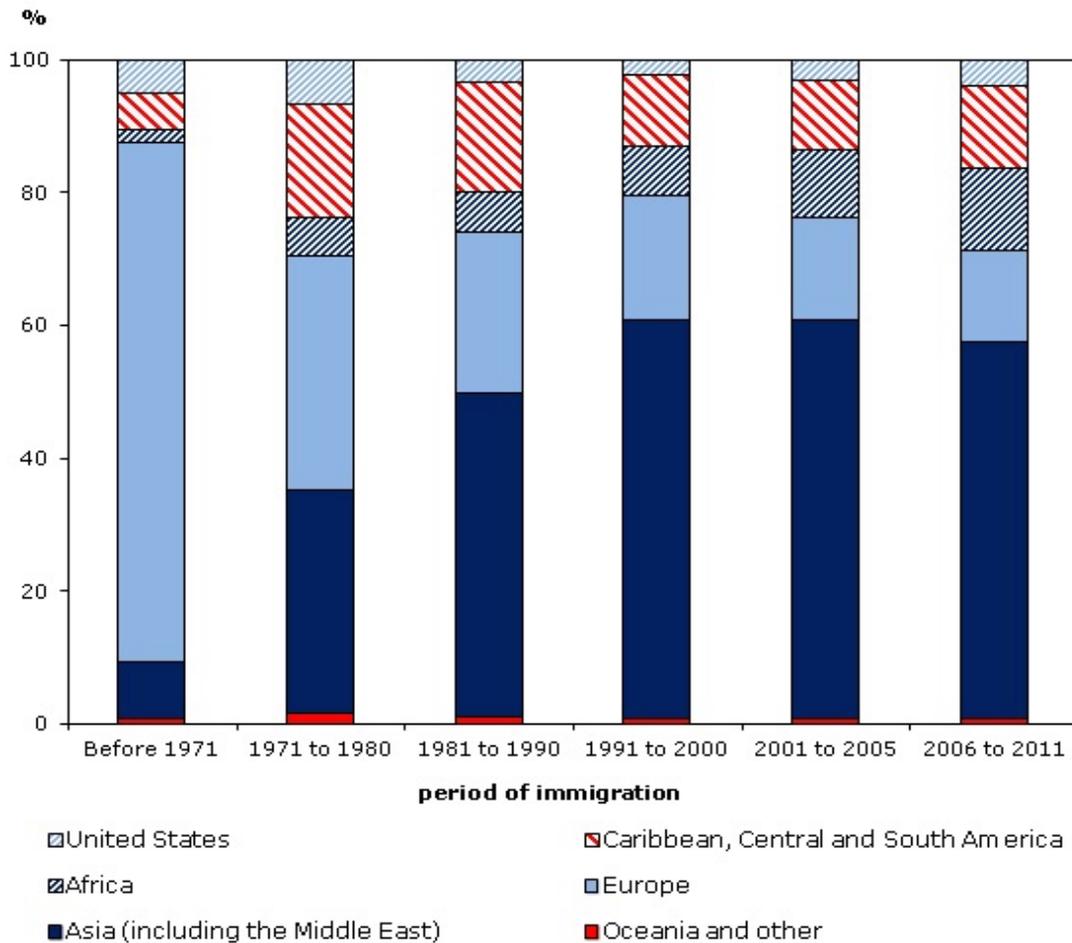
Therefore, charitable giving for the purpose of this paper is defined as giving money or volunteering time to a charitable or non-profit organization to benefit others beyond one's family. Money donations and volunteering through informal channels (such as giving money to someone on the street, helping neighbours or friends in cooking or gardening, etc.) are not included in my study.

Given the high participation rate of individuals in giving to charities, and the importance of charitable services to individuals, understanding more about why individuals give to charities is fruitful. There have been many papers published in this area, most of them focusing on who likes to give and what motivates people to do so (Andreoni 1989, 1990 & 2006; Bekkers & Wiepking, 2010, 2011, & 2012). To date, several factors such as religion, income, altruism, tax-deductible policies, have all been identified to be important determinants of making donations. But only a few papers have considered the role of ethnicity in affecting charitable behaviour. Okten et. al (2005) and Andreoni et. al (2011) have demonstrated that a negative relationship exists between ethnic diversity and charitable giving, suggesting that heterogeneous communities (one aspect of social capital) has a dampening effect on giving.

Canada is a country of immigrants. We cannot analyze ethnicities alone without also considering immigration: it is clear that the pattern of the origins of immigrants to

Canada has changed dramatically over the years. There are many people with different ethnicities who have immigrated from all over the world. Based on the 2006 Canadian Census, immigrants from more than 200 countries have arrived in Canada up to date. Chart 1 below depicts the birth regions of immigrants by the periods of immigration. From this chart we can see that over 70% of immigrants came from two regions since the 1970s – Europe and Asia. Before the 1970s, Europeans make up the most immigrants to Canada. But since 1970s, the origin countries of immigrants are mostly from Asia.

**Chart 1: Region of birth of immigrants by period of immigration, Canada, 2011**



**Note:** 'Oceania and other' includes immigrants born in Oceania, in Canada, in Saint Pierre and Miquelon and responses not included elsewhere, such as 'born at sea.'

**Source:** Statistics Canada, National Household Survey, 2011.

To date, little work has been done on the role that the ethnic origin of immigrants (or, indeed, the ethnic origins of the Canadian born) has on private philanthropy. The existing literature usually does not look at ethnicity and immigration status together, which is the first objective of my study. Since most of the other papers just address the relationship between immigrants and Canadian-born residents, my paper will combine the ethnicity factor with the years since immigration information together to try to gain a better understanding of this relationship. This idea is motivated by the finding in the literature that the length of years since immigration has positive effect on giving behaviours; the longer the immigrant is in the host country, the more likely that they become assimilated into local culture (Osili & Du, 2005).

If there is a link between ethnicity and immigration and giving, is this relationship different for gifts of money or time? To date, most papers discuss the relationship between ethnicity and charitable giving with respect to money donations only, and little work has been done on understanding of how hours of volunteering differ with ethnicities among immigrants. The second objective is to look at both donations of money and of time to see if ethnicity and immigrant status affects them.

Finally, I am the first to employ the Canadian Surveys of Giving, Volunteering and Participating (2003, 2007 and 2010) data sets to address these questions. I examine each survey separately in order to compare consistency by year, and then pool the data together in order to enlarge the sample size in order to obtain sufficient information to look more carefully at the role played by ethnicity.

Based on the existing literature, there are two basic questions posed in this paper:

***Question 1:*** Do individuals with different ethnic origins give differently when it comes to money or time donations to charitable organizations? And,

***Question 2:*** Does the relationship between ethnicity and giving change with the length of time the individual has been in Canada?

The rest of the paper is organized as follows: Section II reviews the existing literature, indicating the main findings published so far. Section III discusses the empirical methodology employed. Section IV explains the details of the data sets used for the empirical analysis, and also discusses the dependent variables and independent variables. Section V interprets the regression results from the probit and Tobit models, and also briefly discusses the shortfalls in the analysis. Section VI provides the conclusion that indeed ethnicity matters for giving time and money; specifically that ethnic Asians behave differently than ethnic Europeans or those categorized in the “other” group.

## **II. Existing Literature**

Charitable giving is a topic discussed by many scholars and researchers. A large number of papers on philanthropy and charitable giving have been published. Most of the earlier papers were focused on the factors that affect charitable donations (e.g. Clotfelter, 1985; Brown and Lankford, 1992; Andreoni 1989, 1990, 2006; Apinunmahakul and Devlin, 2008). Bekkers and Wiepking (2010) give a comprehensive literature review on the factors affecting charitable giving. They identify eight mechanisms affecting charitable giving by reviewing more than 500 articles, which are: the awareness of need; solicitation; costs and benefits associated with donating; altruism; reputation to the donor; psychological benefits; values endorsed by donors; and the perception of making a difference. Beckers and Wiepking’s literature reviews further indicated seven predictors of charitable giving: religion, education, age, socialization, gender, family composition and income (Bekkers & Wiepking, 2011 & 2012). Many papers by Andreoni (1989, 1990, 2006, 2011) have modeled other important influences, such as warm glow<sup>1</sup> (Andreoni, 1990), and have empirically examined factors like ethnic diversity on giving (Andreoni, 2011), whose findings will be introduced further at later of this section.

Ethnicity has been mentioned to be one of the potential factors that influence giving to charities (Garner and Wagner 1991; Tananbaum 1997). Joseph (1995) suggests that

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<sup>1</sup> Warm Glow was raised by Andreoni in 1989 & 1990 as a motivation for giving.

immigrants bring specific philanthropic traditions from their homelands. This may be one of the reasons why ethnicity influences charitable behaviours.

Is there a relationship between ethnicity and charitable giving, controlling for all of the regular demographic and individual characteristics that normally influence giving?

Several research papers discuss the differences in the giving behaviour of ethnic majorities and minorities, and these papers generally find that minority ethnicities are less likely to donate than majority ones. For instance, it has been shown that minority ethnicities in the United States, such as Hispanics and African Americans, are less involved in social philanthropy activities than non-Hispanic whites (Hodgkinson and Weitzman 1996). Mata and McRae (2000) found that average donations from foreign-born donors increase along with the length of residency in Canada, possibly because of the theory on philanthropy traditions (Joseph, 1995). According to the Independent Sector's Giving and Volunteering report for 2001 in the United States, 90.3% of Whites made charitable contributions, while the percentage for Blacks is 80.6%, Hispanics is 85.2%, and other ethnic groups are 77.6% (O'Herlihy et al., 2002).

According to Osili and Du (2005), immigrants from the Middle East, Africa, and South America were found to be less likely to contribute to charities than European immigrants, who are less likely to contribute to charitable giving than immigrants from Central America and Mexico. They concluded (p.98) that "Immigrants from ethnic traditions and countries with less similar philanthropic institutions (to the United States) may have lower participation rates in formal philanthropy compared to immigrants from countries with similar philanthropic institutions, other things being equal." This finding may be explained by Deb et al. (2010) who found that parental behaviour on giving has a positive influence on the actions of their next generations. Yörük (2010) also found through their US data, that females and whites are more likely to donate when asked, in comparison to males, Blacks and Hispanics. Finally, Devlin and Rowlands (2014) found that immigrants were more likely to give overseas to international causes, *ceteris paribus*, when compared to non-immigrants.

Significant differences in the amounts donated across the ethnic majorities and minorities have also been found. Thomas (2012) found that minority donors contribute more money on average than majority donors. The minority may be a little less likely to donate to charities, however, when they do, they prefer to donate a larger amount and are also less likely to spend time on volunteering than the Canadian-born donors. Also, the longer their stay in Canada, the larger the amount given especially when their household income increases, and also they would give to a broader range of charities compared to newer immigrants, who are usually expected to donate more to religious causes.

Ethnic diversity in the community has also been found to have effects on charitable giving. Okten and Osili (2005) discovered that ethnic diversity has a negative effect on donations to charities by using US data on philanthropic behaviour. They also further analyzed the reasons for the negative effect, and found that this was caused by inter-household considerations in the form of altruism towards immigrants' own ethnic community, transaction costs of organizing and diverse of preferences. Andreoni et al. (2011) analyzed the relationship between diversity in local neighborhoods, in terms of ethnicity and religion, on contributions to charities. They found that "a 10 percentage point increase in ethnic diversity reduces donations by 14%, and a 10 percentage point increase in religious diversity reduces donations by 10%" (Andreoni et al., 2011 p.1). In that paper, they created an "ethnic fragmentation index" which reflected the probability that any two randomly-selected individuals in a given community belonged to different ethnic group: they show that the more fragmented the community, the lower the amount of money given, *ceteris paribus*. Interestingly, when looking at ethnic diversity on workplace charitable giving, Leslie et al. (2013, p.49) find that although ethnic minorities donate less money to workplace charities than others, "... the percentage of minorities in a work unit is positively related to workplace charity, particularly among minorities."

Those papers which examine ethnicity and giving, all arrive at the same conclusion- that ethnicity seems to matter when it comes to explaining charitable giving. In this paper, I am trying to go a little further and see whether ethnicity and being an immigrant (as opposed to ethnicity and being born in Canada) also matters.

### III. Methodology

This paper will attempt to fill the gap in the current literature by focusing specifically on how ethnic groups together with Canadian born or time since immigration (specifically whether the individual is a new or old immigrant) affect charitable giving of either money or time. To do this, I estimate the following basic equation:

$$D_i = \alpha + \beta X_i + \gamma E_i + \varepsilon_i \quad (1)$$

Where  $D_i$  represents either the amount of donations (in money or time) made by individual  $i$  during a year, or it may be a dichotomous variable, with the value 1 if a donations occurred and zero otherwise;  $X_i$  is a vector of independent variables representing the donor's characteristics, like income, sex, age, household size, whether with children under 18, education, marital status, regions of residence, tax-price of income and religions;  $E_i$  denotes information about ethnic immigrants group (detailed in Section IV);  $\alpha$  is a vector of the constant terms, which represents the estimated coefficient of the charitable donations by the reference group;  $\beta$  and  $\gamma$  are the vectors of parameters to be estimated, and  $\varepsilon_i$  is the error term.

I estimate the coefficients of equation (1) by using two regression procedures: a probit (for modeling the decisions to give or to volunteer), and a Tobit model which takes into account both the decision and the donation amounts (of time or money).

The probit model is the appropriate approach for estimating the impact of each independent variable on the decision to donate money or time. This model essentially estimates the following:

$$p_i \equiv P_r (D_i = 1|X_i, E_i) = \phi(\alpha + \beta X_i + \gamma E_i + \varepsilon_i) \quad (2)$$

Where  $p_i$  is the probability that an individual donates (either time or money) to a charitable organization.  $D_i$  is the dependent dummy variable for decisions on donating money (denoted as “giver”) or time (denoted as “volunteer”), which equals to 1 if the individual is donor or volunteer, 0 otherwise.

To take account of the fact that a number of individuals do not donate either time or money, and hence that the dependent variable is censored at zero, I employ the Tobit model to estimate the impact of each independent variable on the amount donated. The Tobit model is deliberately applied in cases where the dependent variable is censored or unobserved for many individuals in the samples. It can deal with the potential inconsistency of estimated coefficients due to the heteroskedasticity of disturbances arising from the concentration of a large number of observations with zero value (Cameron & Trivedi, 2010). This model can be expressed as:

$$D_i = \begin{cases} D_i^* = \alpha + \beta X_i + \gamma E_i + \varepsilon_i, & D_i^* > 0 \\ \text{Left - censored,} & D_i^* \leq 0 \end{cases} \quad (3)$$

Where  $D_i$  is the status of giving amounts or volunteering hours.  $D_i^*$  is the decision on making donations on money or time.  $X_i$  is the vector of variables on personal characteristics.  $E_i$  is a vector of variables denoting ethnicity and immigrant status.

#### **IV. Description of data and variables**

The confidential files for the Canadian Surveys of Giving, Volunteering and Participating (CSGVP 2004, 2007, 2010) were used for the empirical analysis and were accessed through the Statistic Canada Research Data Centres from the University of Ottawa (Carleton, Ottawa, Outaouais RDC - COOLRDC) and York University (YORKRDC, a branch of Toronto Region RDC) . The CSGVP is a series of surveys conducted and collected by Statistics Canada, using a sample of households determined by a random digit dialing technique whereby interviews were conducted by phone to a randomly selected member of the household (Hossain & Lamb, 2012). These surveys provide data

on giving and volunteering in Canada every three years. The CSGVP data sets provide information on, among other things, the country or region of origin of individuals and the length of time that individuals have resided in Canada. This information is used to examine the ethnicity effect on the decision of donation or volunteering, as well as on the amounts donated and the hours volunteered.

The initial CSGVP2004 consists of 22,164 observations, CSGVP2007 has 21,827 observations and CSGVP2010 has 15,482 observations. Since my focus is on the respondents' ethnicity as well as how long they have since immigrated to Canada, I dropped the observations if the respondent indicated "not stated" for either ethnic group or years since immigration. Therefore 2,168 (2,086 of missing ethnicity status plus 82 of missing information on years since immigration), 2,028 (1,951 of missing ethnicity status plus 77 of missing information on years since immigration) and 1,640 (1,579 of missing ethnicity status plus 61 of missing information on years since immigration) observations have been excluded from my final used data sets for 2004, 2007 & 2010 respectively. The final sample sizes that I used for regressions are 19,996 observations (2004), 19,799 observations (2007) and 13,842 (2010), with a total pooled sample size of 53,637 observations.

Separate regression analyses for each sample year have been undertaken, as well as a specification that pools together the three years. The same variables will be used for all regressions in all data sets. The samples are weighted by the sample weights provided in each year by Statistics Canada.

Based on the data sets of CSGVP (2004, 2007 & 2010) and the basic equation (1), the dependent variables ( $D_i$ ) and independent variables (included in the  $X_i$  and  $E_i$  vectors) have been identified. The definitions of all the variables used in the regressions are presented in Table 1.

In order to determine more meaningful regression results and diminish the skewness and kurtosis of the variables, all continuous dependent and independent variables are

transformed by taking a natural logarithm (Cameron & Trivedi, 2010). To keep the values of the log variables for amounts donated and hours volunteered, I purposely assign the value “1” to each of the observations as non-giver or non-volunteer. As such, the log value will be set equal to “0”, and will be automatically left-censored by the Tobit model, and the results for uncensored observations will not be affected (Cameron & Trivedi, 2010).

Ontario, Quebec and British Columbia are three provinces that have the most respondents, together comprising more than 75% of the total sample. In addition to these three provinces, I have grouped the rest of the provinces on a regional base as: The Atlantic, Prairies, and Territories regions (details are included in Table 1). Initially, I tried to include all of the provinces and territories individually into the regressions, but they were found to be highly correlated with the variable reflecting the tax-price of donations. In the end six regional variables were used, which are: Atlantic, ON, Prairies, QC, BC, and Territories. Thus both regional variable and tax prices variable are presented in the regression equation at the same time.

The tax-price of donations is calculated as one minus the marginal tax rate for the first dollar donated, which, as argued by Clotfelter (1985), is the appropriate measure that avoids endogeneity problems associated with the tax rate and amount donated in a system when charitable donations are tax deductible. In Canada, however, individuals receive a tax credit of a certain amount (which varies by province) for the first \$200 donated, and this amount is increased for donations over \$200 (increased across the board at the federal level, not at the provincial level). Looking at the marginal tax benefit associated with the first \$200 donated is still the appropriate approach to take in the Canadian system because it there is no relationship between the first dollar donated and the amount credited (Clotfelter, 1985; Apinunmahakul et. al, 2009). Table 2 presents the tax rates for calculation for these tax-prices for the three years of my data set, where the tax-price equals one minus the marginal tax rate.

The weighted means of all of the dependent and independent variables are presented in Table 3, for the three separate survey years and the pooled data set of all three-years. Based on the yearly survey and pooled data set, one sees that close to 85% of respondents donate money; many fewer volunteer time: about 47% of the sample contributed at least one hour volunteering in the given year. The average amount donated is about \$370 per person per year, and the hours volunteered is about 80 hours per year per person.

Males comprise almost half of the observations, as expected. The respondents' educational levels are more concentrated at diploma and university degree levels. Slightly more than half of the respondents are married (52%). The most responses are from residents of Ontario, with 38% of the sample. Catholic and Christian account for about 70% of the sample, and 83% of respondents are born in Canada (out of which 47% has European ethnicity, 1% has Asian ethnicity, and 35% has other ethnicities). Across the three years examined, the percentage of givers and volunteers is quite stable.

Before turning to the results, it is important to spend some time clarifying the main variables of interest. Essentially, I focus on two key elements: whether or not the individual is an immigrant, and the ethnic group to which the individual belongs. As far as being an immigrant is concerned, the surveys provide information on whether the individual is an immigrant and whether he or she immigrated fewer than 10 years ago, or ten or more years ago. I define new immigrant as someone in the former category and old immigrant as someone belonging to the latter category. Dividing them by whether they had immigrated more than or fewer than 10 years ago allows us to see how the length of time since immigrating affects giving. As far as ethnicity is concerned, the survey provides information on 24 possible ethnic groups, including most Western European countries (including Scotland, England, Wales, France, Germany, Italy and so forth), and Asian countries (China, Philippine and East Indian countries). Please notice that Canadian is identified as an ethnicity in CSGVP, and according to the data provided in Chart 1, the majority of immigrants were from European countries before 1970s. We think that most of the respondents who indicated Canadian as ethnicity are those who immigrated from European countries a long time ago; therefore Canadians are classified

as European ethnic group in my paper. All ethnicities represented and the percentage of respondents in each ethnic group, are provided in Table 4. All of these 24 groups are collapsed into three main classes: European<sup>2</sup>, Asian<sup>3</sup> and Others<sup>4</sup>.

I create nine different groups based on whether the individual is a new immigrant, an old immigrant or Canadian born, interacted with one of the three ethnic groups to which the individual belongs (note that Canadian born individuals with European backgrounds are in the European group, and those with Aboriginal backgrounds are in the Other group). In the empirical regressions, Canadian-born\*European is the reference group.

Immigrants from Asian countries such as China, Philippines and India, have different cultures and traditions as compared to those from Europe, for instance. New immigrants, therefore, from Asian cultures are likely to be very different compared to Canadian-born individuals. As time elapses, the longer their stay in the migrated country, the more they are influenced by the local residents (Osili and Du, 2005; Thomas, 2012). In order to examine more carefully this possibility, and since Asians form a significant proportion of recent immigrants, I had initially planned to run separate regressions into a couple of sub-samples, when the sample is split into the new Asian immigrants group, old Asian immigrants group and Canadian born Asians. But considering the resulting sizes of these sub-samples, (there are only 1,029 Asians immigrants in the data set, and out of these, only 321 are new immigrants who immigrated to Canada less than 10 years ago, 708 respondents immigrated to Canada 10 or more years ago), I had to give up this idea.

## **V. Empirical Results**

The constant term represents the reference group of the regression. This group consists of respondents who reside in Ontario, have no religion, are female, are not married, have less than high school education, and are Canadian-born European ethnicity. The predicted

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<sup>2</sup> "European" includes ethnic group stated as Canadian, Dutch, English, French, German, Irish, Italian, Norwegian, Polish, Portuguese, Russian, Ukrainian, Scottish, Welsh, multiple origin: British, or mult: Cdn & French.

<sup>3</sup> "Asian" includes ethnic group stated as Chinese, East Indian, or Filipino.

<sup>4</sup> "Others" includes ethnic group stated as Inuit/Eskimo, Jewish, Métis, North American Indian, or Other.

probability that the reference individual engages in philanthropy (giving either money or time) is also reported at the end of the tables that report the probit results.

### **V.1 Using the probit model to estimate the probability of contributing money or time to charitable organizations**

For all of the probit model results, I report marginal effects which reflect the partial derivatives of the regression function for each explanatory variables. These derivatives are evaluated at the sample means for continuous variables, and reflect a change from 0 to 1 for discrete variables. Table 5 and presents the marginal effects of each independent variable on the probability that the individual donates money, and Table 6 presents these effects for the probability that the individual volunteer's time. The samples are weighted by the Statistics Canada weights, and robust standard errors are calculated to correct for any potential heteroskedasticity in the error structure of the regressions.

From Table 5 on the decision of donors to give money, I found that household income has a positive effect on the probability of donating money, and the effect is statistically significant. One percentage increase in household income will increase the probability of money donation by 3.4% in 2003, 4.5% in 2007, 2.8% in 2010 and 3.5% for the pooled data. This finding is consistent with those reported by others in the literature (e.g. Banks and Tanner, 1999).

All survey cycles reveal a negative impact on the decision to give if the individual is male. If the reference individual were to become male, it will decrease the probability of donating by 0.04 points in 2004 (reflecting a 4.7% decrease in the predicted probability of donating), 0.05 points down in 2007 (reflecting a 5.5% decrease in the predicted probability of donating), 0.04 point down in 2010 (reflecting a 4.5% decrease in the predicted probability of donating), and 0.04 point down in the pooled data set (reflecting a 4.9% decrease in the predicted probability of donating). This finding is similar to that found females are more likely to donate than males by Reed and Selbee (2002) and Feldman (2007).

However, the estimated coefficients on age and age squared (in natural log) are not significant for the decision to donate money as shown by my results. Other research has also found the likelihood of giving increases with age (Apinunmahakul & Devlin, 2004; Banks & Tanner, 1999), but this result has not been universally found (Rooney et. al, 2001; Feldman, 2007).

Unlike what has been found elsewhere in the literature my results illustrate that household size does not have a clear effect (Okten et al., 2005; Apinunmahakul et al., 2006). Although the estimated effects of household size are negative, the estimated coefficient is not always significant: it is for 2007 and the pooled data, but it is not for 2004 and 2010. However, the presence of children under 18 years of age has a positive impact on the probability of donating money in all data sets. So having children under 18 years of age has a significant positive effect on the likelihood of donating. This result is consistent with findings elsewhere (Turcotte, 2012).

Estimated coefficients for education levels are always statistically significant. When compared to the reference group of less than high school education, the higher the level of education the higher the likelihood that the individual donates. For example, if the reference person were to have a diploma, then she would increase the likelihood of giving by 0.08 points in 2004 (reflecting a 9.3% increase in the predicted probability of donating), by 0.09 points in 2007, 2010 and pooled samples (reflecting a 10.1% increase in the predicted probability of donating). This is in line with literature (Banks & Tanner, 1999; Apinunmahakul & Devlin, 2004).

Married (and common law) respondents are more likely to give when compared to those who are unmarried. If the reference individual were to become married, the probability of making a donation will go up by 0.05 points in 2004 (reflecting a 6% increase in the predicted probability of donating), up by 0.06 points in 2007 (reflecting a 6.4% increase in the predicted probability of donating), up by 0.05 points in 2010 (reflecting a 6% increase in the predicted probability of donating) and up by 0.05 points in the pooled data

set (reflecting a 6.2% increase in the predicted probability of donating). This is supported by other papers in the literature (Apinunmahakul & Devlin, 2004).

Respondents in Ontario have a higher likelihood to donate money relative to those in all other regions. The tax-price of donations suggests a negative effect as expected. The results indicate the tax-price of donation has a statistically high significance in 2004 and the pooled data sets, but not in 2007 and 2010. A one percent increase in the tax-price of donating will decrease the probability of giving by 2 percent in 2004, and 1.4 percent in the pooled data set, but not in 2007 and 2010. This is in line with the literature (i.e. Vaidyanathan et. al, 2011).

Those reporting being associated with a religion are more likely to donate relative to those who do not. The results indicate a significant and positive effect associated with being Catholic, Christian and Islam, in line with the literature which reports that religious individuals are more likely to make donations, especially to religious organizations (Vaidyanathan et. al, 2011). Turcotte (2012) found that people who are more religiously active (e.g. those who attend religious meetings or services at least once a week) are more inclined to donate and, on average, they make larger donations, which is consistent with the results reported below.

This paper is particularly interested in the impact of belonging to an ethnic group and immigrant status, on different aspects of giving. From Table 5 one sees that being a member of an immigrant ethnic group does not appear to affect the likelihood of giving, except for the new European immigrant group and the “Other” immigrant group. But if we compare the impact of being a new European immigrant in 2007 to that of the Canadian born European-ethnicity person, we find that it would have a very large impact on the probability of donating, decreasing it by 0.2 points in 2007 (reflecting a 28.1% decrease in the predicted probability of donating for the reference group) and by 0.2 points in the pooled data set (reflecting a 22.9% decrease in the predicted probability of donating).

The marginal effects of being a new Asian immigrant or an old Asian immigrant are statistically insignificant except for in the 2010 data set: in 2010, if the individual were to be a new Asian immigrant, this would increase the likelihood of donating by 0.06 points (reflecting a 7% increase of the predicted probability of donating). This is an interesting and unexpected finding. One possibility is that the new Asian immigrant group is picking up on the fact that over 50% of the so called “economic immigrants” in 2010 were from Asia, and that about two-thirds of all immigrants now fall into this category.<sup>5</sup>

I am also finding that Asian-Canadian born individuals are less likely to donate money relative to the reference Canadian-born European group, but this effect is statistically significant only for the pooled samples. For that sample, I find that if the reference individual were to become a Canadian born Asian, it would reduce the likelihood of giving by 0.05 points (reflecting a 6.3% decrease in the predicted probability of donating).

All new immigrants belonging to the “other” category (reflecting Aboriginal peoples, individuals from Africa, South America, and other countries listed in Table 4) are always less likely to donate money relative to the reference Canadian-born European ethnic individuals. If the reference individual were to become a new other immigrant, the marginal effect would fall by 0.07 points in 2004 (reflecting a 7.7% decrease in the predicted probability of donating), fall by 0.09 points in 2007 (reflecting a 10% decrease in the predicted probability), by 0.09 points in 2010 (reflecting a 10.7% decrease in the predicted probability), and by 0.08 points in the pooled data set (reflecting a 9.1% decrease in the predicted probability of donating for the reference group). It is difficult to say exactly what is going on here, but it is clear that individuals in the “other” group are likely to belong to a minority (non-white ethnic group, other than Asian), and are likely to be less economically well-off. Even though I am controlling for income, there may be other economic factors associated with belonging to this group that income alone does not reflect (like hours of work, fragile labour-market affiliation, and so on).

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<sup>5</sup> See: Citizenship and Immigration Canada, Statistics Canada. (2012).

Old immigrants belonging to the other category also have a negative impact on the likelihood of donating, but this time only for the 2010 and pooled samples. In this case, if our reference person was an immigrant for more than 10 years and came from one of the “other” countries, then she would be 10.6% less likely to donate in 2010, and 5.9% less likely in the full sample. This provides some support for my second hypothesis, namely that immigrants become closer to Canadian born over time, but it is not conclusive because of the imprecise estimates for most of my years.

Turning now to the factors influencing the likelihood that the individual will donate time, Table 6 provides the marginal effects associated with the various regressors on the probability of volunteering. Like I found for money donations, household income has a positive and statistically significant impact on the probability of volunteering. This is in line with the literature (e.g. Wilson, 2000).

Males are less likely to volunteer relative to females. If the reference individual were to become a male, it will decrease the marginal effect by 0.04 points in all data sets (reflecting a decrease of 9.7% in 2004; 9.5% in 2007; 8% in 2010; and 9% in pooled samples in the predicted probability of volunteering). The results are quite consistent among the three years and the pooled data. This is in line with findings elsewhere in the literature (Turcotte, 2012).

The marginal effect of age is negative, revealing that as age increases, individuals are less likely to volunteer. A one percent increase in age will decrease the probability on volunteering by 1.77% in 2004, by 2.47% in 2007, by 1.82% in 2010 and by 2.02% in the pooled sample. Again, this finding is in line with the literature elsewhere that finds that young people prefer to perform a volunteering job, while older people may have less spare time, and would prefer to donate more money than time (Banks & Tanner, 1999; Apinunmahakul & Devlin, 2008).

The household size does not seem matter the probability of volunteering from my result in Table 6, except a positive effect in 2004. This is not quite in line with the finding in the

literature - Researchers have found that the size of the household has a positive impact on volunteering – the more children in the family, the more opportunities exist to volunteer (Carroll et al., 2006; Pharoah and Tanner, 1997). Brown and Lankford (1992) find that family size has a positive impact on volunteering for women but not for men.

As found elsewhere in the literature, the presence of children under 18 years of age in the household has a very large and positive impact on volunteering (e.g., Auten & Rudney, 1990; Banks & Tanner, 1999). If the reference individual were to have children, as opposed to no children, this would increase her probability of volunteering by 0.1 points in 2004 (reflecting a 22.7% increase in predicted probability of volunteering), by 0.15 points in 2007 (reflecting a 32.4% increase in predicted probability of volunteering), by 0.1 points in 2010 (reflecting a 20.2% increase in predicted probability of volunteering), by 0.12 points in pooled samples (reflecting a 24.9% increase in predicted probability of volunteering). Finding from US study also found parental volunteering to be related to the likelihood of donating (Feldman, 2007).

Like with giving money, the education level of individuals has a significant and positive effect on volunteering. My results show that individuals with university degrees have a much higher probability of volunteering than those with lower educational levels. For example, if the reference individual were to have a university degree, rather than less than high school, this would increase the probability of volunteering by about 0.3 points in all data sets – reflecting an over 60% increase in predicted probability of volunteering. This is supported by the findings from the literature that level of education is the most consistent predictor of volunteering, having a university degree is virtually always associated with more volunteering (McPherson & Rotolo 1996; Sundeen & Raskoff 1994).

Married people are much more likely to volunteer than their non-married counterparts (for the reference individual): up by 0.04 points in 2004 (reflecting a 9.3% increase in the predicted probability of volunteering), up 0.08 points in 2007 (reflecting a 17.4% increase in the predicted probability of volunteering), up 0.04 points in 2010 (reflecting a 9.1%

increase in the predicted probability of volunteering), and up 0.06 points in the pooled data set (reflecting a 11.9% increase in the predicted probability of volunteering). This result has been found in the literature (Sundeen, 1990; Feldman, 2007).

The regions of residence do not really matter when it comes to the probability of volunteering, except for individuals residing in Quebec, who are much less likely to volunteer. A reference individual were to become residing in Quebec will decrease the marginal effect on volunteering by 0.21 points in 2004 (reflecting a 45% decrease in predicted probability of volunteering), by 0.25 points in 2007 (reflecting a 54% decrease in predicted probability of volunteering), by 0.22 points in 2010 (reflecting a 46% decrease in predicted probability of volunteering), and by 0.13 points in pooled sample (reflecting a 27% decrease in predicted probability of volunteering). The fact that residents in Quebec are less likely to volunteer (and to give), *ceteris paribus*, has been noted in the literature (e.g., Thomas, 2012).

Affiliations with a religious group may affect volunteering. Catholics and Christians have a positive marginal impact on volunteering, relative to those with no religion. For example, if the reference individual were to become to a Christian, the marginal effect on volunteering will be pushed up by 0.12 points in 2004 (reflecting a 26.1% increase in the predicted probability of volunteering), by 0.09 points in 2007 (reflecting a 20.2% increase in the predicted probability of volunteering), by 0.1 points in 2010 (reflecting a 21.7% increase in the predicted probability of volunteering) and by 0.1 points in the pooled samples (reflecting a 22.6% increase in the predicted probability of volunteering). But affiliation with other religions does not seem to play much of a role when it comes to the likelihood of volunteering.

Turning now to the important question of ethnicity and immigration status, I find that these do affect the probability of volunteering. Belonging to an ethnic immigrant group affects the likelihood of volunteering, which is what we are expecting to see. We see that new immigrants from Europe are less likely to volunteer relative to Canadian born Europeans, but if they remain in Canada for longer than 10 years, this negative effect

becomes smaller. This suggests that their behaviours become more like the Canadian born over time. If the reference individual were to be a new European immigrant, the probability of volunteering would fall by 0.18 points in 2004 (reflecting a 38% decrease in the predicted probability of volunteering), by 0.13 points in 2007 (reflecting a 28% decrease in the predicted probability of volunteering), by 0.21 points in 2010 (reflecting a 45% decrease in the predicted probability of volunteering), and 0.18 points down in the pooled samples (reflecting a 38% decrease in the predicted probability of volunteering). However, if the reference person were to become an old European immigrant, it would have an effect on for the 2010 sample, and it would decrease the probability of volunteering by 0.06 points (or 11.6%).

The marginal effects on charitable giving from belonging to an Asian immigrant group are significant. The results reveal that if the reference individual were to belong to the new Asian immigrant group, rather than the Canadian-born European group, the probability of volunteering would dramatically fall, by 0.19, 0.24, 0.2, 0.21 points across the three survey years plus the pooled sample, reflecting huge decreases of 41%, 51%, 43% and 45% respectively in the predicted probabilities of volunteering. Even if the reference individual were to become an old Asian immigrant, the marginal impact on the likelihood of volunteering will also be very large, implying a drop of 0.17 points in 2004 (a 37% decrease in the predicted probability of volunteering), of 0.19 points in 2007 (reflecting a 42% decrease in the predicted probability of volunteering), of 0.18 points in 2010 (reflecting a 37% decrease in the predicted probability of volunteering), and of 0.18 points in the pooled sample (reflecting a 45% decrease in the predicted probability of volunteering). The effect of belonging to the Asian ethnic group on volunteering is clearly very large, and is likely to reflect many cultural differences between Asians and those of other ethnicities.

Even Canadian-born Asians behave differently than Canadian-born Europeans. If the reference individual were to become a Canadian born Asian, the likelihood of volunteering would fall by 0.1 points in 2004 (reflecting a 23.1% decrease in the predicted probability of volunteering), by 0.1 points in 2007 (reflecting a 23.9% decrease

in the predicted probability of volunteering), and by 0.1 points in the pooled data set (reflecting a 21.6% decrease in the predicted probability of volunteering). Oddly, there does not seem to be any statistical effect in the 2010 data set. The fact that being a long term Asian immigrant has a smaller impact on volunteering than being a new Asian immigrant does suggest that there is some assimilation over time. But, that even Canadian-born Asians are less likely to volunteer suggests that cultural traditions remain over time. Moreover, it may well be the case that Asians help other Asians or others informally, which is not captured in my data sets.

The effects of belonging to the “other” ethnic groups are also negative, except for the new immigrants in 2004, which shows no statistical effect. However, if the reference individual were to become a Canadian born “other” ethnic individual, the probability that she would volunteer would actually increase in a couple of cases: up by 0.03 points in 2004 (reflecting a 6.6% increase in the predicted probability of volunteering), and by 0.02 points in the pooled sample (reflecting a 4.2% increase in the predicted probability of volunteering), no statistical effects are revealed in the 2007 and 2010 data sets.

## **V.2 Using the Tobit model to estimate coefficients of the independent variable to the donation amounts and volunteer hours (in natural logarithms)**

The Tobit model results are presented in Table 7 and Table 8. The Tobit model coefficients indicate the impact of a given determinant on giving money or time. The coefficients can be interpreted as the combination of a) the change in giving amount (natural logarithm) of those above the limit, weighted by the probability of being a donor (giver or volunteer) and b) the change in the probability of being a donor, weighted by the expected value of giving amount (money or time) if above (stata.com website).

Table 7 presents the results from the Tobit regression where dependent variables are the natural logarithms of the amount of money donated to charitable organizations, for each year as well as the pooled samples. There are 2,264 observations that are left-censored

(have a zero value) in 2004, 2,235 left-censored in 2007, and 1,702 left-censored in 2010. The pooled data set thus has 6,201 observations which are left-censored.

Household income is shown to have positive effect at the 1% significance level on the amount donated. This reveals that an individual would tend to donate more when their income is higher, which is consistent with the findings of many studies (e.g. Steinberg, 1990; Auten, Sieg, and Clotfelter, 2002). A 1% increase in income will increase donations by 0.5% (if they are willing to donate) in 2004, 0.6% more in 2007, 0.4% in 2010, and 0.5% in the pooled data set. This is in line with literature (e.g., Turcotte, 2012).

Males donate less than females, and the negative effect is statistically significant. If the reference individual were to be male, it will decrease the amount donated by 0.3% in all data years and the pooled data. The results show quite consistent during all these data sets. And this is in line with the literature (e.g., Yen, 2002; Carman; 2006)

Age and age squared do not have a statistically significant effect on the amount donated, similar to my finding of their effects on the decision to give money. This is a bit different than most papers in the literature, which indicates that the average and median amounts of annual giving tend to increase with age (Turcotte, 2012).

In contrast to my probit results, household size has a significant effect on the amount of money donated, and the effect is negative. But having children under 18 years of age has positive effect on the amount of giving at 1% of significant level. This is in line with findings elsewhere (Turcotte, 2012).

As expected, education levels have statistically significant and positive effects in all samples: the higher the education level, the larger its impact on giving. If the reference individual were to have a high school education, the logarithm of the donation amount would increase by 0.7 in 2004, 0.6 in 2007, 0.5 in 2010 and 0.6 in the pooled data set which is large relative to the average logarithm of giving amount of about 4 across all the samples (see Table 4 for the precise amounts). Similarly, as education increases, we find

larger increases in the amounts donated, even after controlling for income. This result is consistent with those elsewhere (e.g., Apinunmahakul and Devlin, 2008).

Married individuals are willing to contribute more money when compared to the non-married reference group. This result is sensible insofar as households with two adults typically have higher income than those with just one, and often giving decisions are made jointly. Unfortunately, the data sets do not permit me to take account of this important effect.

As found in most papers that look at the Canadian situation, the region of residence plays an important role in determining the likelihood of donating and the amount of money donated. In Table 7 I find that individuals residing in Quebec, British Columbia, the Prairies, the Atlantic Provinces and Territories, all donate less than those residing in Ontario, *ceteris paribus*.

As expected, and as is generally the case, the tax-price of donations has a negative effect on the amount donated. However, this result is statistically significant only in 2004 and the pooled samples.

Individuals with religions such as Christian and Catholic are more likely to donate more money relative to those with no religions. The coefficients on Jewish and Islam are also positive but only significant for 2004, 2007 and the pooled data set for Jewish, and 2004 and the pooled data set for Muslims. The existing literature is mostly focused on whether or not the respondents are religious, without indicating their particular affiliation. Typically, individuals who are religious give more to charity (Apinunmahakul & Devlin, 2004; Eckel & Grossman, 2005; Feldman, 2007).

When we look at the estimated coefficients on the various indicators for ethnic immigrant groups, we still observe that immigrants tend to give less than Canadian born, but that old immigrants (in Canada for at least 10 years) are closer to the Canadian born than the more recent immigrants. In particular, I am finding that new European immigrants are

across the board giving less money than Canadian-born European individuals; except for in 2010, the same can be said of the new Asian immigrant; and except for in 2003, new “other” immigrants also give less relative to my reference group. Interestingly, the “other” Canadian-born group is shown to give more money than the reference group in the earliest sample and in the pooled sample. However, because Aboriginal people, who are clearly not immigrants, are included in “other” ethnic group, the results may be bias. Future research into the behaviour of this group would be useful. Overall, it is clear that ethnicity and immigration matters.

My results are not consistent with the findings by Mata and McRae (2000), who found that foreign-born donate more money than Canadian born. The reason why they found this result may be because of their small sample size (fewer than 2,000 foreign-born).

Table 8 presents the Tobit regression results where dependent variables are the natural logarithms of the hours volunteered. There are 7,273 observations in 2004, 7,133 in 2007, 6,118 in 2010, totally 20,524 observations has been left-censored, who are those who do not wish to volunteer. There are 12,723, 12,666, 7,724, total 33,113 observations left as uncensored for the Tobit regression.

Household income reveals a positive effect on hours volunteered. This is supported by Menchik & Weisbrod (1987), who find that there is positive relationship between hours of volunteering and income from all sources. A one percent increase in income will increase the logarithm of volunteer hours by 0.367 in 2004, 0.473 in 2007, 0.348 in 2010, and 0.393 in the pooled samples (the average logarithm hours volunteered is 1.9). If the reference individual were to become a male, the logarithm of volunteer hours would fall by 0.4 points in 2004, 0.3 points in 2007, 2010 and the pooled samples. This is line with literature (Pharoah & Tanner, 1997; Carroll et al., 2006). Yet, some researcher got an opposite conclusion, e.g. Freeman (1997) finds the relationship between wage income and volunteering is negative, by looking at hours volunteered among those who volunteer.

Age and age squared have significant effects on hours volunteered. The logarithm of age has a negative impact on hours volunteered, with older people volunteering fewer hours than the younger group (Feldman, 2007). This makes sense unless one is considering retired individuals who often volunteer quite a bit. For instance, Volunteer Canada (2001) reports that elderly people who do volunteer consistently contribute the largest number of hours.

Household size has positive effect on the number of hours volunteered in the 2004, 2010 and pooled samples, but not in 2007. The presence of children under 18 years old has a positive effect on hours volunteered. If the reference individual were to have children under 18, the hours volunteered would increase by 0.8 points in 2004, by 1.2 points in 2007, by 0.7 points in 2010 and by 0.9 points in pooled samples. This is in line with literature which indicates that children affect parental behaviour (Feldman, 2007).

Educational levels are all statistically significant influences on the amount volunteered. I also find that individuals volunteer more hours as education increases, *ceteris paribus*. For example, if the reference individual were to become a university degree holder, it would increase volunteering hours by a huge amount – about 3 units across all samples. Given that the average logarithm of hours volunteered is 1.9, this increase is well over 100%.

Being married has significant positive effect as usual. If the reference individual becomes a married person, the logarithm of hours volunteered increases by 0.4 in 2004, by 0.7 in 2007, by 0.3 in 2010 and by 0.5 in the pooled samples. Regions of residence do not seem to matter, except, again, for those residing in Quebec who volunteer fewer hours than everyone else.

As found before when looking at money donations, belonging to the Catholic or Christian religions has a positive effect on the number of hours volunteered. But membership in other religions does not seem to matter. The existing literature also indicates that

religious people in general donate more time than non-religious people (Apinunmahakul et al., 2009).

Belonging to almost all of the ethnic immigrant groups (except for old European immigrants) has a statistically significant and negative impact on volunteer time. If the reference individual were to become a new European immigrant, the logarithm of volunteer hours would fall dramatically by 1.6 in 2004, by 2.1 in 2010 and by 1.5 in the pooled sample (no effect in 2007). The long-term European immigrants behave very similarly to the Canadian-born Europeans (again consistent with the idea that immigrants become assimilated over time).

Once again, I find that Asians devote fewer hours to volunteering relative to our reference group. And once again, this effect becomes smaller with the time since immigration. If the reference individual were to become a new Asian immigrant, the negative effect on the logarithm of hours volunteered would be 2.1 in 2004, 2.3 in 2007, 2.6 in 2010 and 2 in the pooled sample. These numbers are still large when we look at the old Asian immigrant group, but they are smaller than was found for the new Asian immigrant group, consistent with some degree of assimilation. Even Canadian-born Asians devote fewer hours to volunteering than their Canadian-born European counterparts – but again, this group is becoming closer to the European group.

Those belonging to the “other” ethnic group volunteer fewer hours relative to our reference group. But this time, there is no clear pattern when we compare those who belong to the new immigrant group with those belonging to the old one. So I am unable to conclude for this case that these immigrants are becoming like the Canadian born over time. Once again this suggests that better data are required in order to understand the link between these ethnicities and private philanthropy in Canada.

## **VI. Conclusion and future work**

This paper has undertaken an empirical analysis of the decisions to give both time and money, as well as the amount donated and the hours volunteered using three large Canadian cross-sectional data sets. I wanted to make two contributions to the literature. First, I was the first to look at both ethnicity and immigrant status (in particular, whether the individual had immigrated to Canada fewer than or more than 10 years) and their link to private philanthropic decisions. My hypothesis was that the longer an individual was in Canada, the more likely that he or she would behave like a Canadian born. Indeed, I find that this is somewhat the case. Individuals who are in Canada for a long time become closer in behaviour to Canadians, but they do not completely assimilate. My findings suggest that there are still important differences across ethnicities: ethnic Asians who are Canadian born do not always behave like Canadians who are ethnically European, for instance. I wanted to look at this question because the people who are immigrating to Canada in recent decades are quite different ethnically from those who arrived a few decades ago. This suggested that immigrants were not a homogenous group, and hence their behaviour when it came to giving time and money to charities was not likely to be homogenous either.

Overall, I was able to confirm that indeed ethnicity matters for giving time and money. Ethnic Asians behave differently than ethnic Europeans, or those categorized in the “other” group. This was the case for both giving money and giving time.

The second contribution of this paper was to look at not only the effects of ethnic immigrants group on money donations, but also on their hours volunteered. This paper studies the influence of ethnicity and length of immigration on both money and hour donations. And I do find differences between the giving patterns between money and time. I find, for instance, that age has more effects on volunteering time than money. I also find that being an immigrant and identifying as belonging to an ethnic group both have a

negative impact on giving: the negative effect diminishes with the years since immigration.

One limitation of my analysis is, of course, that it is based on information about formal giving and volunteering, and completely ignores informal giving. It may well be that Asians and those belonging to our “other” group, do a lot more informal activities amongst themselves which are not being picked up in the data.

While the CSGVP data sets are very good and provide us with a rich variety of variables, they do have some important drawbacks. One drawback was that I did not know from where the group of “other” immigrants came, and that would have been useful given that that group behaved quite differently than the other groups identified. It would be very useful to have data that follow the same individuals over time, as my results are based on a series of cross-sectional samples.

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**Table 1: Variable Names and Descriptions**

<b>Dependent Variables</b>	<b>Description</b>
giver	Dummy variable: 1 if made any money donation in the past 12 months, 0 otherwise
givingamount	Amount of giving made in the past 12 months
lngivamt	Amount of giving made in the past 12 months ( <i>in logarithms</i> )
volunteer	Dummy variable: 1 if is formal volunteer in the past 12 months, 0 otherwise
volhour	Hours volunteered in the past 12 months
lnvolhour	Hours volunteered in the past 12 months ( <i>in logarithms</i> )
<b>Independent Variables</b>	<b>Description</b>
lnincome	Total household income, before taxes and deductions, from all sources in the past 12 months ( <i>in logarithms</i> )
male	Dummy variable: 1 if is male, 0 otherwise
age	Age of respondents
lnage	Respondent's age ( <i>in logarithms</i> )
lnagesq	lnage squared
lnhhsz	Number of household members ( <i>in logarithms</i> )
child18	Dummy variable: 1 if has child/children under 18 years old, 0 otherwise
lesshigh	Dummy variable: 1 if has educated less than high school, 0 otherwise ( <i>reference group</i> )
highsch	Dummy variable: 1 if graduated from high school, 0 otherwise
postsec	Dummy variable: 1 if some post-secondary, 0 otherwise
diploma	Dummy variable: 1 if holds post-secondary diploma, 0 otherwise
unidegree	Dummy variable: 1 if holds university degrees, 0 otherwise
noedustat	Dummy variable: 1 if no education level stated, 0 otherwise
marr	Dummy variable: 1 if marital status is married or in common-law, 0 otherwise
Atlantic	Dummy variable: 1 if lives in Saskatchewan, Alberta & Manitoba, 0 otherwise
ON	Dummy variable: 1 if lives in Ontario, <i>reference group</i>
QC	Dummy variable: 1 if lives in Quebec, 0 otherwise
Prairies	Dummy variable: 1 if lives in Nova Scotia, New Brunswick, Newfoundland and Labrador & Prince Edward Island, 0 otherwise
BC	Dummy variable: 1 if lives in British Columbia, 0 otherwise
Territories	Dummy variable: 1 if lives in Northwest Territories, Yukon & Nunavut, 0 otherwise
ln taxp	Tax-price of donations ( <i>in logarithms</i> )
norelig	Dummy variable: 1 if has no religion, <i>reference group</i>
Catholic	Dummy variable: 1 if is Catholic, 0 otherwise

Christian	Dummy variable: 1 if is Christian (including Protestant, Eastern Orthodox or Jehovah's Witnesses), 0 otherwise
Jewish	Dummy variable: 1 if is Jewish, 0 otherwise
Islam	Dummy variable: 1 if is Muslim, 0 otherwise
Othrelig	Dummy variable: 1 if is Buddhist, Hindu, Sikh, or other religions, 0 otherwise
relignotstat	Dummy variable: 1 if religion is not stated, 0 otherwise
EuroNI	Dummy variable: 1 if is European immigrant of less than 10 years in Canada (=European*newimg), 0 otherwise
EuroOI	Dummy variable: 1 if is European immigrant of 10 years or longer in Canada (=European*oldimg), 0 otherwise
EuroCanaborn	Dummy variable: 1 if is born in Canada with European ethnicity (=European*Canaborn), 0 otherwise, <b>reference group</b>
AsianNI	Dummy variable: 1 if is Asian immigrant of less than 10 years in Canada (=Asian*newimg), 0 otherwise
AsianOI	Dummy variable: 1 if is Asian immigrant of 10 years or longer in Canada (=Asian*oldimg), 0 otherwise
AsianCanaborn	Dummy variable: 1 if is born in Canada with Asian ethnicity (=Asian*Canaborn), 0 otherwise
OtherNI	Dummy variable: 1 if is Other Ethnicity immigrant of less than 10 years in Canada (=OtherEth*newimg), 0 otherwise
OtherOI	Dummy variable: 1 if is Other Ethnicity immigrant of 10 years or longer in Canada (=OtherEth*oldimg), 0 otherwise
OtherCanaborn	Dummy variable: 1 if is born in Canada with Other ethnicity (=OtherEth*Canaborn)

**Table 2: Tax-Price of Donations in Canada**

Province	Marginal Tax Rate		
	2004	2007	2010
NL	26.57%	24.64%	22.70%
PE	25.80%	24.80%	24.80%
NS	24.79%	23.79%	23.79%
NB	25.68%	25.12%	24.30%
QC	29.36%	28.53%	28.53%
ON	22.05%	21.05%	20.05%
MB	26.90%	25.90%	25.80%
SK	27.00%	26.00%	26.00%
AB	26.00%	25.00%	25.00%
BC	22.05%	20.70%	20.06%
YT	23.04%	22.04%	22.04%
NT	23.20%	20.90%	20.90%
NU	20.00%	19.00%	19.00%

Source of the tax rates: TaxTips.ca (Canadian Tax and Financial Information)

**Tax-price of Donations = 1- Marginal Tax Rate**

**Table 3: Means of Dependent and Independent Variables (weighted)**

VARIABLES	2004 Mean	2007 Mean	2010 Mean	Pooled Mean
giver	0.87	0.85	0.85	0.85
givingamount (\$)	359	376	377	371
Ingivamt	4.12	4.05	4.05	4.07
volunteer	0.47	0.47	0.48	0.48
volhour (hr)	80.09	78.33	75.52	77.92
Involhour	1.92	1.88	1.88	1.89
income (\$)	66,094	72,489	80,954	73,362
lnincome	10.79	10.87	10.97	10.88
male	0.49	0.50	0.49	0.50
age	43.54	43.87	45.00	44.16
lnage	3.68	3.69	3.72	3.70
lnagesq	13.76	13.81	14.00	13.86
hhsz	2.90	2.98	3.00	2.96
lnhhsz	0.94	0.97	0.98	0.97
child18	0.38	0.39	0.38	0.38
lesshigh	0.18	0.18	0.17	0.18
highsch	0.18	0.18	0.15	0.17
postsec	0.07	0.07	0.08	0.08
diploma	0.34	0.35	0.35	0.34
unidegree	0.22	0.22	0.25	0.23
noedustat	0.01	0.01	0.01	0.01
marr	0.52	0.51	0.53	0.52
Atlantic	0.07	0.07	0.07	0.07
ON	0.39	0.38	0.38	0.38

QC	0.23	0.24	0.24	0.24
Prairies	0.17	0.17	0.18	0.17
BC	0.14	0.14	0.13	0.14
Territories	0.003	0.003	0.003	0.003
Intaxprice	-0.28	-0.27	-0.27	-0.27
norelig	0.21	0.22	0.24	0.22
Catholic	0.40	0.39	0.39	0.39
Christian	0.32	0.31	0.28	0.30
Jewish	0.01	0.01	0.01	0.01
Islam	0.02	0.02	0.02	0.02
Othrelig	0.03	0.03	0.03	0.03
relignotstat	0.02	0.02	0.02	0.02
EuroNI	0.01	0.01	0.01	0.01
EuroOI	0.05	0.05	0.04	0.05
EuroCanaborn	0.47	0.48	0.55	0.50
AsianNI	0.01	0.01	0.01	0.01
AsianOI	0.02	0.03	0.03	0.03
AsianCanaborn	0.01	0.01	0.01	0.01
OtherNI	0.02	0.03	0.03	0.03
OtherOI	0.06	0.05	0.06	0.06
OtherCanaborn	0.35	0.34	0.26	0.31
Observations	19,996	19,799	13,842	53,637

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**Table 4: Percentage of Ethnic Groups in each CSGVP and in Pooled Samples**

<b>Ethnic/Cultural Group</b>	<b>2004</b>	<b>2007</b>	<b>2010</b>	<b>Pooled</b>	<b>References (Census 2006)</b>
Canadian	9.72%	11.65%	10.13%	10.54%	31.38%
Chinese	1.36%	1.20%	1.09%	1.23%	6.20%
Dutch(Netherlands)	1.30%	1.34%	1.12%	1.27%	1.66%
East Indian	0.60%	0.69%	0.61%	0.64%	4.26%
English	9.48%	9.62%	9.85%	9.63%	7.46%
French	8.94%	9.21%	7.16%	8.58%	6.72%
German	3.23%	3.03%	2.98%	3.10%	3.66%
Inuit/Eskimo	0.98%	1.02%	2.64%	1.42%	0.22%
Irish	3.82%	3.56%	3.77%	3.71%	2.68%
Italian	1.20%	0.97%	1.15%	1.10%	4.05%
Jewish*	0.28%	0.32%	0.26%	0.29%	0.73%
Métis	0.44%	0.45%	0.50%	0.46%	0.42%
North American Indian	1.60%	1.64%	2.03%	1.73%	2.80%
Norwegian	0.42%	0.35%	0.39%	0.39%	0.24%
Filipino	0.40%	0.47%	0.74%	0.52%	1.75%
Polish	0.63%	0.70%	0.61%	0.65%	1.47%
Portuguese	0.39%	0.36%	0.28%	0.35%	1.43%
Russian	0.34%	0.34%	0.30%	0.33%	0.54%
Ukrainian	1.69%	1.56%	1.38%	1.56%	1.64%
Scottish	5.31%	5.05%	5.23%	5.19%	3.10%
Welsh	0.21%	0.22%	0.25%	0.23%	0.15%
Multiple: British	0.97%	0.89%	7.63%	2.68%	N/A
Mult: Cdn & French	0.59%	0.82%	2.95%	1.28%	N/A
Other	36.69%	35.61%	26.74%	33.70%	N/A
Not Stated	9.41%	8.94%	10.20%	9.44%	N/A
Total	100.00%	100.00%	100.00%	100.00%	N/A

Data Source: CSGVP2004, CSGVP2007 & CSGVP2010 through RDC.

Reference Data source: Canada Statistic: Ethnic origins, 2006 counts, for Canada, provinces and territories - 20% sample data

Note: \* Jewish is shown both as a religion and an ethnicity in CSGVP, which are highly correlated. In my paper, Jewish is picked up as a religion; but it is also included into the “Other” ethnic group.

**Table 5: Marginal Effects of Probit Model on Decision to Giving Money (weighted)**

VARIABLES	2004 giver	2007 giver	2010 giver	Pooled giver
lnincome	0.0340*** (0.00426)	0.0451*** (0.00496)	0.0276*** (0.00490)	0.0347*** (0.00304)
male	-0.0424*** (0.00720)	-0.0478*** (0.00855)	-0.0389*** (0.0108)	-0.0430*** (0.00531)
lnage	0.0255 (0.130)	0.0127 (0.158)	-0.147 (0.193)	-0.0424 (0.0953)
lnagesq	0.00573 (0.0182)	0.00843 (0.0220)	0.0285 (0.0267)	0.0151 (0.0133)
lnhhsiz	-0.00991 (0.00979)	-0.0384*** (0.0124)	-0.0112 (0.0157)	-0.0190** (0.00755)
child18	0.0224** (0.0100)	0.0478*** (0.0120)	0.0266* (0.0153)	0.0322*** (0.00747)
highsch	0.0429*** (0.00921)	0.0478*** (0.0112)	0.0205 (0.0164)	0.0371*** (0.00718)
postsec	0.0598*** (0.00958)	0.0592*** (0.0125)	0.0639*** (0.0139)	0.0628*** (0.00701)
diploma	0.0834*** (0.00939)	0.0885*** (0.0112)	0.0884*** (0.0137)	0.0887*** (0.00673)
unidegree	0.0984*** (0.00800)	0.108*** (0.0102)	0.121*** (0.0122)	0.110*** (0.00601)
noedustat	-0.0262 (0.0490)	-0.0600 (0.0566)	0.0468 (0.0404)	-0.00217 (0.0298)
marr	0.0538*** (0.00884)	0.0562*** (0.0103)	0.0525*** (0.0136)	0.0543*** (0.00661)
Atlantic	-0.107** (0.0429)	-0.0160 (0.0432)	-0.00118 (0.0444)	-0.0408** (0.0162)
QC	-0.374*** (0.106)	-0.147 (0.117)	-0.0959 (0.125)	-0.205*** (0.0436)
Prairies	-0.265*** (0.0673)	-0.0746 (0.0650)	-0.0668 (0.0798)	-0.133*** (0.0253)
BC	-0.0893*** (0.0149)	-0.0294** (0.0144)	-0.0250 (0.0169)	-0.0451*** (0.00900)
Territories	-0.147*** (0.0215)	-0.109*** (0.0191)	-0.129*** (0.0256)	-0.127*** (0.0120)
Intaxprice	-1.996*** (0.572)	-1.184 (0.854)	-0.834 (0.883)	-1.413*** (0.286)
Catholic	0.0662*** (0.00900)	0.0552*** (0.0106)	0.0718*** (0.0131)	0.0649*** (0.00663)
Christian	0.0727*** (0.00812)	0.0683*** (0.0104)	0.0887*** (0.0114)	0.0781*** (0.00601)
Jewish	0.0154	0.0710***	0.0202	0.0362

	(0.0346)	(0.0237)	(0.0543)	(0.0239)
Islam	0.0533***	0.0166	0.0726**	0.0489***
	(0.0186)	(0.0339)	(0.0291)	(0.0172)
Othrelig	-0.00696	-0.0217	0.0511***	0.0114
	(0.0240)	(0.0319)	(0.0196)	(0.0147)
relignotstat	0.0112	0.00845	-0.0175	0.00275
	(0.0188)	(0.0297)	(0.0371)	(0.0165)
EuroNI	-0.106	-0.246***	-0.233	-0.202***
	(0.0646)	(0.0881)	(0.146)	(0.0664)
EuroOI	-0.00441	-0.00595	-0.00193	-0.00439
	(0.0208)	(0.0227)	(0.0268)	(0.0139)
AsianNI	-0.0489	-0.0326	0.0617*	-0.00372
	(0.0475)	(0.0443)	(0.0344)	(0.0275)
AsianOI	-0.0112	0.0184	-0.0343	-0.0112
	(0.0286)	(0.0293)	(0.0376)	(0.0193)
AsianCanaborn	-0.0284	-0.0431	-0.0931	-0.0556*
	(0.0413)	(0.0453)	(0.0621)	(0.0303)
OtherNI	-0.0693*	-0.0877**	-0.0933*	-0.0801***
	(0.0392)	(0.0416)	(0.0513)	(0.0257)
OtherOI	-0.0315	-0.0312	-0.0929**	-0.0518***
	(0.0205)	(0.0242)	(0.0375)	(0.0171)
OtherCanaborn	0.0112	0.000664	0.00484	0.00537
	(0.00756)	(0.00966)	(0.0132)	(0.00592)
Observations	19,996	19,799	13,842	53,637
Predicted Probability	0.8999	0.8769	0.8741	0.8820

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 6: Marginal Effects of Probit Model on Decision to Volunteer (weighted)**

VARIABLES	2004 volunteer	2007 volunteer	2010 volunteer	Pooled volunteer
lnincome	0.0448*** (0.00723)	0.0571*** (0.00783)	0.0369*** (0.00844)	0.0457*** (0.00481)
male	-0.0459*** (0.0112)	-0.0445*** (0.0117)	-0.0385*** (0.0144)	-0.0428*** (0.00731)
lnage	-1.766*** (0.223)	-2.468*** (0.235)	-1.821*** (0.303)	-2.023*** (0.149)
lnagesq	0.229*** (0.0307)	0.325*** (0.0323)	0.234*** (0.0413)	0.263*** (0.0205)
lnhhsz	0.0320* (0.0164)	-0.0126 (0.0180)	0.0325 (0.0220)	0.0174 (0.0110)
child18	0.107*** (0.0168)	0.152*** (0.0176)	0.0968*** (0.0219)	0.118*** (0.0110)
highsch	0.108*** (0.0195)	0.108*** (0.0210)	0.0820*** (0.0268)	0.0988*** (0.0130)
postsec	0.173*** (0.0247)	0.170*** (0.0268)	0.170*** (0.0297)	0.172*** (0.0158)
diploma	0.162*** (0.0174)	0.184*** (0.0179)	0.153*** (0.0230)	0.166*** (0.0114)
unidegree	0.298*** (0.0181)	0.293*** (0.0190)	0.287*** (0.0236)	0.291*** (0.0119)
noedustat	0.00528 (0.0719)	0.124* (0.0673)	0.0892 (0.0934)	0.0766* (0.0462)
marr	0.0437*** (0.0136)	0.0816*** (0.0142)	0.0436** (0.0174)	0.0562*** (0.00885)
Atlantic	-0.0760* (0.0419)	-0.0427 (0.0529)	-0.0207 (0.0594)	-0.000583 (0.0189)
QC	-0.212*** (0.0799)	-0.253** (0.101)	-0.219* (0.124)	-0.129*** (0.0385)
Prairies	-0.0649 (0.0555)	-0.0652 (0.0694)	-0.0225 (0.0893)	0.0115 (0.0248)
BC	-0.0109 (0.0168)	0.0269 (0.0188)	0.0382* (0.0217)	0.0158 (0.0111)
Territories	-0.0225 (0.0214)	0.0223 (0.0213)	-0.0820*** (0.0252)	-0.0248** (0.0125)
Intaxprice	-0.992 (0.877)	-2.032* (1.146)	-0.989 (1.192)	-0.296 (0.386)
Catholic	0.0433*** (0.0164)	0.0254 (0.0168)	0.0461** (0.0204)	0.0385*** (0.0106)
Christian	0.123*** (0.0161)	0.0947*** (0.0173)	0.104*** (0.0204)	0.107*** (0.0106)
Jewish	-0.0425	0.0358	0.0487	0.0171

	(0.0634)	(0.0665)	(0.0899)	(0.0426)
Islam	-0.00649	0.0109	-0.101	-0.0354
	(0.0549)	(0.0545)	(0.0614)	(0.0340)
Othrelig	0.0363	-0.0387	0.0476	0.0164
	(0.0400)	(0.0420)	(0.0436)	(0.0248)
relignotstat	0.0125	0.0140	-0.0164	0.00172
	(0.0449)	(0.0437)	(0.0660)	(0.0304)
EuroNI	-0.179**	-0.133*	-0.213**	-0.179***
	(0.0758)	(0.0735)	(0.0992)	(0.0516)
EuroOI	0.0349	-0.0221	-0.0557*	-0.0165
	(0.0281)	(0.0268)	(0.0306)	(0.0166)
AsianNI	-0.194***	-0.241***	-0.204***	-0.213***
	(0.0473)	(0.0492)	(0.0683)	(0.0319)
AsianOI	-0.174***	-0.195***	-0.176***	-0.183***
	(0.0393)	(0.0398)	(0.0435)	(0.0244)
AsianCanaborn	-0.109**	-0.112*	-0.0871	-0.102***
	(0.0547)	(0.0623)	(0.0729)	(0.0378)
OtherNI	-0.0667	-0.155***	-0.121**	-0.118***
	(0.0439)	(0.0433)	(0.0490)	(0.0270)
OtherOI	-0.0983***	-0.0736***	-0.158***	-0.113***
	(0.0269)	(0.0270)	(0.0314)	(0.0168)
OtherCanaborn	0.0311**	0.00667	0.0259	0.0199**
	(0.0123)	(0.0134)	(0.0180)	(0.00833)
Observations	19,996	19,799	13,842	53,637
Predicted Probability	0.4715	0.4687	0.4783	0.4730

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

**Table 7: Tobit Model Results on Money Donation (left-censored, weighted)**

VARIABLES	2004 model	2007 model	2010 model	Pooled model
lnincome	0.528*** (0.0523)	0.644*** (0.0503)	0.448*** (0.0606)	0.529*** (0.0355)
male	-0.295*** (0.0497)	-0.284*** (0.0577)	-0.270*** (0.0721)	-0.280*** (0.0356)
lnage	0.385 (1.027)	-0.0437 (1.191)	-0.767 (1.507)	-0.170 (0.736)
lnagesq	0.152 (0.141)	0.205 (0.163)	0.291 (0.206)	0.219** (0.101)
lnhhsz	-0.167** (0.0798)	-0.378*** (0.0957)	-0.239** (0.116)	-0.254*** (0.0574)
child18	0.190** (0.0772)	0.406*** (0.0913)	0.270** (0.112)	0.289*** (0.0554)
highsch	0.712*** (0.0998)	0.554*** (0.113)	0.472*** (0.154)	0.582*** (0.0713)
postsec	0.946*** (0.133)	0.808*** (0.143)	0.857*** (0.162)	0.873*** (0.0854)
diploma	1.066*** (0.0905)	0.995*** (0.102)	1.020*** (0.128)	1.034*** (0.0626)
unidegree	1.641*** (0.101)	1.586*** (0.115)	1.728*** (0.138)	1.652*** (0.0698)
noedustat	0.256 (0.385)	-0.397 (0.490)	0.278 (0.416)	0.0872 (0.247)
marr	0.367*** (0.0620)	0.386*** (0.0726)	0.443*** (0.0929)	0.400*** (0.0453)
Atlantic	-0.434** (0.198)	-0.217 (0.256)	-0.243 (0.278)	-0.460*** (0.0873)
QC	-1.644*** (0.407)	-1.047* (0.543)	-1.141* (0.632)	-1.631*** (0.191)
Prairies	-0.767*** (0.266)	-0.289 (0.334)	-0.292 (0.421)	-0.660*** (0.117)
BC	-0.500*** (0.0822)	-0.169* (0.0962)	-0.189* (0.114)	-0.282*** (0.0571)
Territories	-0.652*** (0.106)	-0.635*** (0.110)	-0.672*** (0.136)	-0.660*** (0.0649)
ln taxp	-7.485* (4.080)	-6.190 (5.422)	-6.046 (5.573)	-10.05*** (1.890)
Catholic	0.840*** (0.0771)	0.550*** (0.0829)	0.658*** (0.108)	0.677*** (0.0538)
Christian	1.088*** (0.0758)	1.031*** (0.0885)	1.014*** (0.104)	1.046*** (0.0534)

Jewish	0.617** (0.260)	0.756*** (0.252)	0.665 (0.471)	0.686*** (0.198)
Islam	0.864*** (0.240)	0.354 (0.297)	0.675* (0.398)	0.612*** (0.194)
Othrelig	0.457** (0.227)	0.0362 (0.272)	0.638*** (0.223)	0.372*** (0.141)
relignotstat	0.349* (0.187)	0.147 (0.260)	-0.263 (0.290)	0.108 (0.145)
EuroNI	-0.813** (0.339)	-1.304** (0.536)	-1.495* (0.814)	-1.217*** (0.370)
EuroOI	-0.0858 (0.127)	0.124 (0.134)	0.175 (0.162)	0.0808 (0.0819)
AsianNI	-0.598* (0.340)	-0.676** (0.316)	0.235 (0.285)	-0.339* (0.189)
AsianOI	-0.128 (0.207)	0.0277 (0.279)	0.0247 (0.240)	-0.0163 (0.143)
AsianCanaborn	-0.355 (0.339)	-0.504 (0.341)	-0.517 (0.435)	-0.449** (0.225)
OtherNI	-0.383 (0.247)	-0.601** (0.262)	-0.534* (0.314)	-0.494*** (0.164)
OtherOI	-0.211 (0.130)	-0.0530 (0.151)	-0.331 (0.208)	-0.199** (0.0980)
OtherCanaborn	0.146*** (0.0524)	0.0713 (0.0633)	0.0608 (0.0875)	0.0989** (0.0389)
Constant	-8.364*** (2.154)	-8.378*** (2.572)	-4.952 (3.074)	-7.885*** (1.407)
<hr/>				
sigma	2.147*** (0.0237)	2.296*** (0.0269)	2.343*** (0.0344)	2.270*** (0.0170)
<hr/>				
Observations	19,996	19,799	13,842	53,637
Left-censored Obs	2,264	2,235	1,702	6,201
Uncensored Obs	17,732	17,564	12,140	47,436

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Notes:

Left-censored observations at lngivamt<=0

**Table 8: Tobit Model Results on Volunteered Hours (left-censored, weighted)**

VARIABLES	2004 model	2007 model	2010 model	Pooled model
lnincome	0.367*** (0.0660)	0.473*** (0.0681)	0.348*** (0.0719)	0.393*** (0.0413)
male	-0.378*** (0.0970)	-0.315*** (0.0998)	-0.324*** (0.119)	-0.337*** (0.0620)
lnage	-17.66*** (1.910)	-22.79*** (1.946)	-18.00*** (2.416)	-19.51*** (1.233)
lnagesq	2.341*** (0.265)	3.048*** (0.269)	2.383*** (0.332)	2.594*** (0.170)
lnhhsz	0.300** (0.143)	-0.0242 (0.159)	0.372** (0.189)	0.216** (0.0959)
child18	0.825*** (0.146)	1.183*** (0.154)	0.680*** (0.184)	0.891*** (0.0952)
highsch	1.181*** (0.182)	1.248*** (0.191)	0.821*** (0.239)	1.083*** (0.118)
postsec	1.844*** (0.229)	1.789*** (0.235)	1.619*** (0.262)	1.764*** (0.142)
diploma	1.716*** (0.166)	1.973*** (0.167)	1.471*** (0.210)	1.725*** (0.106)
unidegree	2.984*** (0.180)	3.061*** (0.183)	2.726*** (0.223)	2.920*** (0.115)
noedustat	0.416 (0.719)	1.516** (0.671)	0.942 (0.826)	0.994** (0.437)
marr	0.392*** (0.121)	0.655*** (0.126)	0.347** (0.149)	0.464*** (0.0777)
Atlantic	-0.498 (0.363)	-0.266 (0.429)	-0.253 (0.467)	-0.0715 (0.158)
QC	-1.824** (0.742)	-2.213** (0.923)	-2.275** (1.061)	-1.489*** (0.337)
Prairies	-0.421 (0.475)	-0.512 (0.566)	-0.436 (0.697)	-0.0924 (0.206)
BC	0.0199 (0.143)	0.305* (0.159)	0.409** (0.179)	0.235** (0.0934)
Territories	-0.0790 (0.182)	0.333* (0.179)	-0.601*** (0.217)	-0.0952 (0.107)
Intaxprice	-7.154 (7.398)	-16.51* (9.192)	-10.07 (9.327)	-5.249 (3.247)
Catholic	0.410*** (0.143)	0.266* (0.143)	0.410** (0.169)	0.369*** (0.0899)
Christian	1.129*** (0.137)	1.007*** (0.144)	0.982*** (0.166)	1.045*** (0.0880)

Jewish	-0.516 (0.558)	0.306 (0.532)	0.446 (0.702)	0.125 (0.353)
Islam	0.196 (0.507)	0.192 (0.487)	-1.121* (0.586)	-0.271 (0.313)
Othrelig	0.409 (0.362)	-0.218 (0.387)	0.582 (0.378)	0.279 (0.223)
relignotstat	0.144 (0.424)	0.0576 (0.369)	0.114 (0.559)	0.0970 (0.265)
EuroNI	-1.602* (0.835)	-0.879 (0.777)	-2.054* (1.104)	-1.535*** (0.555)
EuroOI	0.302 (0.242)	-0.172 (0.238)	-0.519* (0.274)	-0.139 (0.146)
AsianNI	-2.119*** (0.525)	-2.340*** (0.635)	-1.597** (0.761)	-2.010*** (0.378)
AsianOI	-1.722*** (0.427)	-1.803*** (0.456)	-1.635*** (0.453)	-1.719*** (0.266)
AsianCanaborn	-0.938* (0.529)	-1.103** (0.546)	-0.752 (0.627)	-0.924*** (0.340)
OtherNI	-0.462 (0.407)	-1.436*** (0.427)	-0.836* (0.460)	-0.938*** (0.257)
OtherOI	-0.835*** (0.260)	-0.586** (0.252)	-1.346*** (0.311)	-0.950*** (0.162)
OtherCanaborn	0.337*** (0.104)	0.0779 (0.110)	0.221 (0.141)	0.208*** (0.0682)
Constant	24.76*** (3.879)	30.38*** (4.130)	25.37*** (4.861)	28.34*** (2.304)
sigma	4.063*** (0.0364)	4.022*** (0.0379)	3.933*** (0.0457)	4.013*** (0.0235)
Observations	19,996	19,799	13,842	53,637
Left-censored Obs	7,273	7,133	6,118	20,524
Uncensored Obs	12,723	12,666	7,724	33,113

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Notes:

Left-censored observations at Involhour<=0