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Philanthropic Behaviour of Quebecers

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Abstract

On average, residents of Quebec give less money and volunteer less time than those residing in all other provinces. This paper empirically examines and compares the giving and volunteering behaviour of Quebecers to that of other Canadians, with the aim of addressing why this difference may exist. We employ the most recent General Social Survey - Giving Volunteering and Participation (GSS GVP 2013) data set and Tobit procedures and find that Quebecers give less money partially because their average endowments of two important determinants, religiosity and household income, are low. Once demographic and socio-economic characteristics are controlled for, Quebecers cash donations are comparable to Ontarians and those in Atlantic Canada, and exceed those of residents of British Columbia; Quebecers are similar to others when it comes to volunteering for religious organizations, but they volunteer significantly less than others for secular ones.

Key words: charitable giving, volunteering, religious donations, secular contributions, Quebec.

1. Introduction

Residents of Quebec donate the lowest amount of money to charity and volunteer the least amount of hours, when compared to residents of all other provinces and territories in Canada. This conclusion is reached when data from annual taxation returns are compiled (LeRoy et al., 2006; Harischandra et al., 2007; Gainer et al., 2008, 2009 and 2010; Gabler et al., 2011 and 2012; Lasby, 2011; MacIntyre et al, 2013; Lammam et al, 2014), and when comparisons are made using self-reported data from Statistics Canada surveys spanning the last three decades or so (e.g., Kitchen and Dalton, 1990; Turcotte, 2015). And, Quebecers give less even though the tax breaks associated with monetary donations are much higher in Quebec than in the rest of Canada. Inevitably, the availability of new data on giving, leads the popular media to highlight the lack of generosity of Quebecers – to wit, the piece in Montreal’s *La Presse* published upon the release of Statistics Canada’s General Social Survey data in 2015.¹ That Quebecers are less philanthropic than other Canadians has taken on the status of “well known fact”; remarkably, no one has investigated empirically why this may be the case.

A number of empirical papers have focused on different aspects of philanthropic behaviour in Canada, most adding regional variables to their regression equations (Hwang, Grabb and Curtis, 2005; Perks and Haan, 2010; Andreoni et al, 2011; etc.); some of them even conduct estimations by province or region separately (Kitchen and Dalton, 1990; Kitchen, 1992; Apinunmahakul and Devlin, 2004 and 2008; Apinunmahakul, Barham and Devlin, 2009; Hossain and Lamb, 2012 and 2015). The goal of our paper is to focus on the charitable behaviour of people residing in Quebec with the view to improving our understanding as to

why their average gifts are consistently lower than those in other regions of Canada.

We employ the most recent cross-sectional survey data, the 2013 General Social Survey - Giving Volunteering and Participation (GSS GVP), released in 2015. We find that once account is taken of the main determinants of gifts of time and money, Quebecers are no different than Ontarians and those in the Atlantic Provinces when it comes to cash donations, but they persistently volunteer fewer hours than all other residents. Two important factors influencing philanthropy are religiosity and household income, of which Quebecers are poorly endowed. If residents of Quebec were the most religious of all provinces and had the highest income of all provinces, this would increase their ranking of cash donations from tenth to seventh place, but would not help to boost their ranking of volunteer hours. So, the answer to the question as to why Quebecers give less than everyone else, is partially because they tend to be less religious and in the bottom slice of the income distribution. But this does not explain it all.

2. Data and Descriptive Statistics

The General Social Survey - Giving, Volunteering and Participation (GSS-GVP, 2013) solicited responses from a representative sample of Canadian residents from September to December, 2013.² It replaces the Canadian Survey of Giving, Volunteering and Participation (CSGVP) and covers questions concerning volunteer activities, charitable donations and participation in other activities during the last twelve months, as well as demographic and socioeconomic characteristics from 14,714 individuals, aged 15 years and

older living in the ten provinces of Canada (we eliminate residents of the three territories because of lack of information). One big advantage of the GSS-GVP data set over its predecessor is that it links respondents to their Canada Revenue Agency income tax data, hence providing accurate information on incomes. After eliminating 15 respondents with negative gross household incomes, we are left with a usable sample of 14,699.

We begin by presenting a brief overview of giving patterns based on the earlier CSGVP (2004, 2007 & 2010) surveys as well as the GSS (2013). A useful starting point is the recent Statistics Canada portrait of giving over the period 2004-2013 (Turcotte, 2015). Two tables are reproduced from this report, and presented here as tables 1 and 2: the first four columns of table 1 provides the percentage of the Canadian population that volunteered by year, followed by the average number of hours volunteered by year. Table 2 provides the percentage of individuals who gave money and the average value of their gifts. These two tables use all the information in the surveys, weighted by the population weights provided by Statistics Canada; the averages are conditional on having given (time or money). From table 1 we see clearly that Quebecers are the least likely of all other Canadian residents to volunteer: 32% of those residing in that province in 2013 volunteered, down from a high of 37% in both 2007 and 2010. By contrast, 44% of Ontarians volunteered in 2013, down from 50% in 2004. The highest rate of volunteering is found in Saskatchewan, at 56%. Aside from in 2007, Quebecers also volunteer fewer hours than residents of all other provinces: 123 hours in 2013 as opposed to a high of 181 hours for those residing in Nova Scotia.

The pattern of giving money to charity is a bit different. From table 2 we see that Quebecers are not at all at the bottom of the pile when it comes to their participation in charitable giving, but are in last place when it comes to the average amount donated. Averaged over givers, Quebecers donate substantially fewer dollars to charity when compared to residents of all other provinces. Indeed, the differences in these average amounts are remarkable: in 2013, Quebecers gave \$264 on average, whereas the next lowest amount was given by New Brunswickers at \$345; residents of Alberta topped the charts with an average gift of \$863. Of course, looking at simple averages is not enough. Multivariable regression analyses allow us to see the extent to which such large disparities can be explained with reference to the characteristics of donors in each province.

The GSS-GVP (2013) data set provides a rich array of variables to include in an empirical model of giving. If individuals did not respond to questions of interest, we coded them as “missing” and included these missing variables as well. Table 3 defines all of the variables used in the analysis. The means of these variables by province are contained in table 4, weighted by the personal weights provided by Statistics Canada. We first draw attention to the average gifts of money and time revealed in the first six rows of table 4: these averages differ from those presented in tables 1 and 2 because they average over all respondents and not just the givers, as was the case in Turcotte (2015). From table 4 we see that, on average, Quebecers donated \$213 to charity in 2013: in table 2, this amount was reported as \$264, but the former is averaged over all 14,699 respondents whereas the latter only takes account of givers. Irrespective of how these averages are calculated, Quebec is in last place when it

comes to giving money and to giving time. We wondered whether this tendency would change if we separated the sample into gifts to secular and religious organizations. The second two rows of table 4 present average donations of money to religious and to non-religious groups: clearly religious giving is much lower in Quebec than elsewhere; average gifts to secular charities are low, but now Quebecers share last place with residents of New Brunswick.

In terms of time volunteered, Quebecers fare badly even when the data are grouped into religious and non-religious organizations, as presented in rows 5 and 6 of table 4. Looking first at average hours volunteered across row 4, Quebecers hold last place at 40 hours on average a year, distantly followed by Newfoundlanders at 71 hours a year. This distribution is a bit tighter when we look at non-religious volunteer hours, where Quebec, again in last place at 37 hours a year on average; while a bit closer to the 59 hours a year by Newfoundlanders, they remain substantially lower. The type of organization, religious or secular, clearly affects the average amount of time and money donated.

Looking at the other average values of the variables used in our regression analyses, we find quite a bit of similarity across provinces, with a few notable exceptions. Albertans are the youngest of the sample, with an average age of 43, as compared to the Canadian average of 46 years of age. Residents of British Columbia have the highest proportion of respondents with at least a Bachelor's degree (27%), while those in Newfoundland and Labrador hold last place with 17%. Not surprising, individuals in Quebec are the least religious, with 10% of

this sample reporting that they attended a place of workshop at least once a week as opposed to a national average of 16%. Significantly fewer Quebecers report doing informal volunteer activities: 76% as opposed to a national average of 80%. Large urban-rural differences exist across provinces: Ontario is the least rural at 13% of the sampled population, as opposed to 56% in Canada's smallest province, Prince Edward Island, and over 40% across all Atlantic Provinces.

Finally, it is interesting to examine the "tax price" of the first dollar given to charity across the ten provinces. We use the donation tax credit rates applicable in 2013 to obtain the tax price of donations, or the "price" associated with the (first) dollar donated. In the Canadian tax system, tax filers who report donations to qualified (registered with the Canada Revenue Agency) charities receive a 15% Federal tax credit for the first \$200 donated and a 29% Federal tax credit for amounts exceeding \$200. In addition, each provincial jurisdiction gives a tax incentive, either as another tax credit (as is the case in Quebec which gives a provincial tax credit on donations of 20%) or as a tax deduction on provincial income tax payable. The marginal tax credit rate associated with the first \$200 of donations is readily available by province and are reported in table 5.³ The tax price of donations is the "price" accorded the first dollar donated and is calculated as one minus the tax credit rate (this price is reported for each province in the last line of table 4). Residents of Quebec have the lowest tax price of all jurisdictions.

3. Methodology

We employ two main empirical strategies: first, we estimate models of giving either in cash or of time, and second, we use the estimated coefficients from these models to see what happens if the average characteristics of respondents change. Specifically, we examine what happens if individuals in Quebec were endowed with a different set of characteristics to determine the extent to which their relative generosity is related to these characteristics.

The appropriate empirical model is a censored one which takes account of the fact that many individuals do not give money and or time to charity. A Tobit model is a good choice under these circumstances, where the empirical problem can be expressed as (Wooldridge, 2013, p. 597):

$$Y_i = \begin{cases} Y_i^* & \text{if } Y_i^* > 0 \\ 0 & \text{if } Y_i^* \leq 0 \end{cases}$$

$$Y_i^* = \alpha_i + \mathbf{X}_i\boldsymbol{\beta} + \varepsilon_i, \quad \varepsilon_i \sim N(0, \sigma^2)$$

Y_i^* is a latent (unobserved) variable; Y_i is an observed variable indicating the amount of dollars (or hours) given to charitable causes in one year, by individual i ; \mathbf{X}_i is a vector of explanatory variables reflecting individual, household, and community characteristics. A normal error term with zero mean and variance of σ^2 is assumed.

All continuous dependent and independent variables in the regression are transformed by the natural logarithm; as is standard practice, a small constant (in our case of 1) is added to all variables prior to this transformation to deal with the fact that the logarithm of zero does not exist. The two main models estimated are:

$$\ln G_i = \alpha_i + \mathbf{X}_i^g \boldsymbol{\beta} + \varepsilon_i \quad (1)$$

$$\ln V_i = \gamma_i + \mathbf{X}_i^v \boldsymbol{\phi} + \mu_i \quad (2)$$

where, G_i represents dollars given to charity, and V_i are hours donated. The difference between \mathbf{X}_i^g and \mathbf{X}_i^v is that the latter includes an additional variable indicating whether the individual donated time to help someone informally (i.e., not through an organization).

A rich literature exists on religiosity and giving: sometimes religious denominations are included as independent variables (e.g., Bekkers & Schuyt, 2008; Hill & Vaidyanathan, 2011); other times, the data are parsed by a measure of religiosity or religious giving, and these define dependent variables (e.g., Felstein, 1975; Kitchen, 1992; James & Sharpe, 2007; Wiepking, 2007; Bekkers & Schuyt, 2008). In addition to estimating (1) and (2) using the entire sample, we split the sample into religious giving (time and money) and non-religious (secular) giving.

Based on the estimated coefficients from the models, we are able to calculate predicted average contributions of time and money based on a given reference group, and average characteristics. Provinces are ranked from largest to smallest in terms of predicted average giving. We can then alter the characteristics to see the extent to which this affects the ranking of the predicted average giving levels (again, of time and money).

4. Results

Table 6 reports the estimated coefficients from the Tobit procedure and the t-statistic based on robust standard errors, for total cash donations and for donations to religious and secular organizations; table 7 presents the same for volunteer time. In all cases the data are weighted by Statistics Canada person-weights. The number of left-censored observations is equivalent to respondents who are non-donors or non-volunteers, and is reported at the end of the tables. The intercept term reflects the average relative outcome of the reference group, made up of single males, who are non-religious, non-informal volunteers, who have acquired no more than a high school degree; they immigrated to Canada before 2003, lived in their community for more than 10 years, come from a non-rural area, have no children, and reside in Ontario. Sigma, reported at the end of the table, reflects the standard error of the regression.

Beginning first with gifts of money, we see from column (1) of table 6 that most of the independent variables have a statistically significant association with the amount donated. The main exception to this statement is tax-price: the price of a donation does not have a statistically significant impact on the amount donated once account is taken of the other influences. Normally, one expects tax price to be negatively related to donations. But, given that the only variation in tax-price is inter-provincial, this may explain the lack of statistical significance. In other Canadian studies, Kitchen and Dalton (1990) and Kitchen (1992) find that contributions decline with the tax price of giving; Apinunmahakul and Devlin (2008) find no statistically significant relationship between dollar giving and tax price.

As found elsewhere, we see in table 6 that females donate more money than males to charities across the board, although the significance level is relatively small for religious giving (e.g., Hossain and Lamb, 2015). In general, females give 20% more than their male counterparts (determined using the transformation $(e^{\beta}-1)*100$ where β is the estimated coefficient);⁴ this percentage is even higher when we look at religious gifts (26%) and gifts to secular organizations (27%). Giving in general and secular giving increase with the age of the respondent, but at a decreasing rate. This pattern is reversed when we look at religious giving which declines initially with age, then rises.

Marriage has a significantly positive effect on the amount of money donated, again corroborating existing studies (e.g., James and Sharpe, 2007). The level of education is significantly and positively correlated with monetary contributions (e.g., Brown and Lankford, 1992; Gittell and Tebaldi, 2006; Rajan, Pink and Dow, 2008; Hossain and Lamb, 2015).

We employ a strict definition of “religious”, namely that the respondent attends a place of worship at least once a week, in order to examine whether a close affiliation with a place of worship helps us to understand better the influences on giving and volunteering. We wondered if the fact that fewer individuals in Quebec are religious, in this sense, could help illuminate their giving behaviour. It is clear that those attending religious activities at least once a week are more generous than their non-religious counterparts. Not only do they give substantially more to religious organizations (as fully expected) but they give more to secular

ones as well: a religious individual gives 36% more to secular charities than does a non-religious individual, *ceteris paribus*. This positive relationship between religiosity and monetary amount donated is widely documented in the literature (Turcotte, 2012; Hossain and Lamb, 2015; etc.).

Compared with immigrants, Canada-born people give significantly more money in general, and to secular charities, but less to religious organizations. There is not much difference between new immigrants (10 or fewer years in Canada) and old ones (more than 10 years) when it comes to religious giving. Otherwise, new immigrants give less in general, and less to secular organizations relative to longer-term immigrants. Those who are Canadian born give less to religious organizations and more to secular ones relative to immigrants of more than 10 years.

The length of time living in the community influences some philanthropic activities. Total giving and giving to religious organizations increase with length of time; living in the community 3 to 5 years has the same effect as living 10 or more years (the reference group). Secular giving does not seem to be affected much by time in community: this result makes sense insofar as giving money to charity is typically not contingent on the charity being in the neighbourhood. Respondents residing in rural areas tend to give more money, especially to religious groups, where they give about almost thrice as much as to secular organizations. James and Sharpe (2007) and Apinunmahakul and Devlin (2008), and others, have found that people living in the city contribute less money to charities than their rural counterparts.

People who have children less than six years of age give more money to religious charities than any other group. Older children are also associated with giving more to secular charities. The number of individuals in the household is negatively correlated with total and secular giving, but positively with religious giving.

We confirm that household income has a positive impact on cash donations (e.g., Martin, Hood and Osberg, 1977; Auten, Sieg and Clotfelter, 2002; Gittell and Tebaldi, 2006; Hossain and Lamb, 2015). A one percent increase in household income has a 0.64% increase in donations in general. Religious gifts are much less responsive to income when compared to secular ones. Religious gifts increase by 0.21% in response to a one percent increase in household income, whereas secular ones increase by 0.79%.

Individuals who did not respond to the question about immigrant status gave less in general, and specifically to religious organizations relative to long-term immigrants. And those with missing information on the length of time an individual resided in their community were associated with higher gifts to religious organizations.

Turning to the results reported in table 7 on hours volunteered, a few differences from cash donations are notable. Firstly, the gender of the respondent does not matter for total and secular volunteering, it is only for the religious group do females volunteer more than males; females volunteer some 65% more hours than males, *ceteris paribus*. Age only matters for

total and secular volunteering, but not for religious. Married individuals volunteer more for religious organizations than do singles. Education matters when it comes to volunteering; however, having a university degree has a much larger impact on secular volunteering than on religious volunteering.

As expected, our religious respondents are more likely to volunteer more hours to organizations across the board. This link is orders of magnitude stronger when it comes to volunteering for religious organizations relative to secular ones. Native-born individuals are more likely to volunteer in general, and to volunteer for secular organizations relative to immigrants; new immigrants (up to ten years) donate less than their old immigrant counterparts across the board. Old immigrants and native borns are similar when it comes to religious volunteering. Handy and Greenspan (2009) find that recent immigrants donate fewer volunteer hours than their old counterparts, but this difference is not statistically significant.

The length of time a person has lived in a community has better explanatory power in the volunteering equation than in giving money one, which makes sense because of the importance of proximity for volunteering. Except for volunteering affiliated with places of worship, people living in a community for fewer than three years supply less time when compared with those residing for 10 years or more. Interestingly, residents from rural areas are inclined to volunteer more than their urban counterparts, which flies in the face of the proximity argument given that fewer organizations are located in rural communities.

Something other than proximity is going on in this case – rural folk have been found consistently to give more money and to volunteer more time (e.g., see Apinunmahakul et al, 2008 and 2009).

Respondents with children aged less than six years contribute fewer hours than others, understandably given the time constraints associated with caring for younger children. By contrast, those with children aged 6 to 12 or 13 to 17 volunteer more hours in comparison with those who do not have children at these ages, possibly from participating in children's sports and recreational activities. The only exception to these findings is religious volunteering where the impact of having children on giving time is zero.

Household income is positively related to total hours volunteered and secular volunteer hours, as has been well established (even in earlier studies, like Menchik and Weisbod (1987)). The tax-price of cash donations has a negative but statistically insignificant link to volunteer time. The negative sign is consistent with a complementary relationship between giving time and money, which has been found before in the literature (e.g., Brown and Lankford, 1992), but this relationship is statistically very weak.

We also include a variable indicating whether or not the respondent undertook informal volunteering, such as helping others at their home, doing shopping for others or driving them to someplace, and found it to be strongly positively associated with volunteering. This

complementary link between informal and formal volunteering may be attributed to otherwise unobservable qualities in the individual.

Individuals who did not respond to the question about informal volunteering are associated with more hours of formal volunteering. And those who did not respond to the question about length of time in the community are also associated with more hours of total volunteering and religious volunteering, but not hours to secular organizations.

We turn now to the question as to whether Quebecers are less generous than other residents of Canada once account is taken of the factors influencing giving. We start by paying close attention to the significance and sign of the Quebec dummy variable. Table 6 reveals that keeping all the other variables constant, respondents residing in Quebec are no different from Ontarians in the amount of dollars donated to charities. Once personal, family and contextual features are taken into consideration, Quebecers donate the same amount of money as most other Canadians, and it is residents of British Columbia who stand out as giving less than others, *ceteris paribus*.

But, we see clearly from the estimated coefficient on the Quebec dummy variable reported in table 7 that residents of that province volunteer less than others when it comes to total and secular volunteering. They are, however, similar to everyone else when it comes to volunteering for religious organizations. This latter finding is interesting insofar as Quebecers are much less religious (defined as regularly attending formal places of worship) than other

Canadian; once religiosity is taken into account, they volunteer as much as everyone else to religious organizations.

The “well known fact” that Quebecers are less generous than other Canadians does not consistently hold up once we take into account the main influences on giving. To push forward our understanding of what is going on, we calculate predicted values of money donations and time volunteered using the models just estimated; these values are reported in table 8. Note that these predicted values are in logarithms (and hence can be negative), are based on a given reference group (as indicated in the table) and use sample means for the continuous variables (age, household size and income). The model predicts that residents of Quebec will give the least amount of money and of time – but, as just indicated, their last place in cash donations and religious volunteering is explained by the characteristics included in the model.

Suppose, however, we attribute to Quebecers a different average set of characteristics, does this change their predicted ranking? The two main characteristics that have a large impact on philanthropy and of which Quebecers have a relatively small endowment, are religiosity and household income. Suppose that we were to assign to Quebecers the highest average level of these two characteristics found across the ten provinces, would that affect their ranking when it comes to their predicted money donations? The answer is yes, but not by as much as one might think. In fact, if Quebecers were as religious (and even as rural) as those in Prince Edward Island, and have the same average income as Albertans, they would

increase their ranking to seventh place out of ten when it comes to their donations of money; they would reach fourth place when it comes to donations to religious organizations. But when it comes to volunteering time, there is no amount of manipulating of these characteristics that would raise individuals in Quebec from tenth place. We can adjust all of their characteristics to conform to the best case scenario in terms of being positively associated with volunteering – and Quebecers remain firmly in last place. So even with regression analysis, something else is going on.

5. Conclusions

Employing the most recent social survey data on philanthropy in Canada, this paper empirically evaluates provincial differences in the quantity of cash and hours donated given to all organizations, religious organizations and secular organizations. We are particularly interested in the giving behaviour of residents residing in Quebec, and we seek out reasons why their average donations are significantly lower than others in Canada. Our empirical analysis unveils one potential reason: Quebecers appear to be less generous than others because they are less endowed relative to other Canadians with two important characteristics: religiosity and household income. Only residents of Newfoundland and Labrador have lower average household income when compared to Quebecers, and Quebecers are much less attached to a formal place of worship than any other Canadians.

Another potential reason why Quebecers give less than others may be linked to their provincial tax system. Individuals in Quebec pay more income tax, on average, than residents

of the nine other provinces. In particular, if we look at the average taxes paid by a single-earner household with two children, as soon as earnings hit \$50,000 and above, Quebecers pay more than others. Similarly, average tax rates are the highest across the board for individuals with an income of \$50,000 or more

(<http://www.taxtips.ca/taxrates/taxcomparison/tax-comparison-2013.htm>). As a consequence, there may be an expectation that the province (the “state”) provide services directly rather than through privately-funded or volunteer-run charities. Future research could push further on this explanation and examine in more detail the types of organizations to which Quebecers direct their philanthropy.

There are limitations to this study. In the first place, we use cross-sectional data which only reflect and explain Canadians’ charitable responses in 2013. Data that tracked individuals over time would help us to elucidate better philanthropic choices. More detailed information on the services provided publicly and by charities would also help identify the extent to which the public sector crowds out the charitable one.

Undertaking a *ceteris paribus* regression analyses allow us to push further our understanding of how Quebecers fare relative to the rest of Canada when it comes to private philanthropy. They are not as “cheap” as it first appears if we were to look only at averages; but they do volunteer less than others, *ceteris paribus*, for secular organizations. We do not know why. We have offered two potential explanations, but there may be others – more and better data would help us to identify what these may be.

Notes

¹<http://www.lapresse.ca/actualites/201501/30/01-4839861-benevolat-44-des-canadiens-ont-donne-de-leur-temps-en-2013.php>

² The analysis presented in this paper was conducted at the COOL RDC which is part of the Canadian Research Data Centre Network (CRDCN). The services and activities provided by the COOL RDC are made possible by the financial or in-kind support of the SSHRC- Social Sciences and Humanities Research Council of Canada, the CIHR- Canadian Institutes of Health Research, the CFI- Canada Foundation for Innovation, Statistics Canada, Carleton University, the University of Ottawa and the Université du Québec en Outaouais. The views expressed in this paper do not necessarily represent the CRDCN's or that of its partners.

³ From: <http://www.taxtips.ca/filing/donations/tax-credit-rates-2013.htm>

⁴ Recall that the dependent variable is the natural logarithm of donations, hence the need for the transformation.

References

Andreoni, J., Payne, A., Smith, J. D., & Karp, D. (2011). Diversity and donations: The effect of religious and ethnic diversity on charitable giving (No. w17618). National Bureau of Economic Research.

Apinunmahakul, A., & Devlin, R. A. (2004). Charitable giving and charitable gambling: an empirical investigation. *National Tax Journal*, 57(1), 67-88.

Apinunmahakul, A., & Devlin, R. A. (2008). Social networks and private philanthropy. *Journal of Public Economics*, 92(1), 309-328.

Apinunmahakul, A., Barham, V., & Devlin, R. A. (2009). Charitable giving, volunteering, and the paid labor market. *Nonprofit and Voluntary Sector Quarterly*, 38(1), 77-94.

Auten, G. E., Sieg, H., & Clotfelter, C. T. (2002). Charitable giving, income, and taxes: an analysis of panel data. *American Economic Review*, 92(1), 371-382.

Bekkers, R., & Schuyt, T. (2008). And who is your neighbor? Explaining denominational differences in charitable giving and volunteering in the Netherlands. *Review of Religious Research*, 50(1), 74-96.

Brown, E., & Lankford, H. (1992). Gifts of money and gifts of time estimating the effects of tax prices and available time. *Journal of Public Economics*, 47(3), 321-341.

Feldstein, M. (1975). The income tax and charitable contributions: Part I-Aggregate and distributional effects. *National Tax Journal*, 28(1), 81-100.

Feldstein, M. (1975). The income tax and charitable contributions: Part II-The impact on religious, educational and other organizations. *National Tax Journal*, 28(2), 209-226.

Gabler, N., Lammam, C. & Veldhuis, N. (2011). Generosity in Canada and the United States: The 2011 Generosity Index. *Fraser Institute Fraser Alert*, 1-11.

Gabler, N., Palacios, M. & Lammam, C. (2012). Generosity in Canada and the United States: The 2012 Generosity Index. *Fraser Institute Fraser Alert*, 1-11.

Gainer, A., Lammam, C., & Veldhuis, N. (2008). Generosity in Canada and the United States: The 2008 Generosity Index. *Fraser Institute Fraser Alert*, 1-10.

Gainer, A., Lammam, C., & Veldhuis, N. (2009). Generosity in Canada and the United States: The 2009 Generosity Index. *Fraser Institute Fraser Alert*, 1-11.

Gainer, A., Lammam, C., & Veldhuis, N. (2010). Generosity in Canada and the United States: The 2010 Generosity Index. *Fraser Institute Fraser Alert*, 1-10.

Gittell, R., & Tebaldi, E. (2006). Charitable giving: Factors influencing giving in U.S. States. *Nonprofit and Voluntary Sector Quarterly*, 35(4), 721-736.

Handy, F., & Greenspan, I. (2009). Immigrant Volunteering A Stepping Stone to Integration?. *Nonprofit and Voluntary Sector Quarterly*, 38(6), 956-982.

Harischandra, K., Palacios, M., & Veldhuis, N. (2007). Generosity in Canada and the United States: The 2007 Generosity Index. *Fraser Institute Fraser Alert*, 1-10.

Hill, J. P., & Vaidyanathan, B. (2011). Substitution or symbiosis? Assessing the relationship between religious and secular giving. *Social forces*, 90(1), 157-180.

Hood, R. D., Martin, S. A., & Osberg, L. S. (1977). Economic determinants of individual charitable donations in Canada. *Canadian Journal of Economics*, 10(4), 653-669.

Hossain, B., & Lamb, L. (2012). Does the effectiveness of tax incentives on the decision to give charitable donations vary across donation sectors in Canada?. *Applied Economics Letters*, 19(15), 1487-1491.

Hossain, B., & Lamb, L. (2015). An assessment of the impact of tax incentives relative to socio-economic characteristics on charitable giving in Canada. *International Review of Applied Economics*, 29(1), 65-80.

Hwang, M., Grabb, E., & Curtis, J. (2005). Why get involved? Reasons for voluntary-association activity among Americans and Canadians. *Nonprofit and Voluntary Sector Quarterly*, 34(3), 387-403.

James, R. N., & Sharpe, D. L. (2007). The “sect effect” in charitable giving: distinctive realities of exclusively religious charitable givers. *American Journal of Economics and Sociology*, 66(4), 697-726.

Kitchen, H., & Dalton, R. (1990). Determinants of charitable donations by families in Canada: a regional analysis. *Applied Economics*, 22(3), 285-299.

Kitchen, H. (1992). Determinants of charitable donations in Canada: a comparison over time. *Applied Economics*, 24(7), 709-713.

Lammam, C., MacIntyre, H., & Ren, F. (2014). Generosity in Canada and the United States: The 2014 Generosity Index. *Fraser Institute Fraser Research Bulletin*, 1-14.

Lasby, D. M. (2011). Trends in individual donations: 1984-2010. *Imagine Canada Research Bulletin*, 15(1), 1-12.

LeRoy, S., & Palacios, M. (2006). Generosity in Canada and the United States: The 2006 Generosity Index. *Fraser Institute Fraser Alert*, 1-11.

MacIntyre, H., & Lammam, C. (2013). Generosity in Canada and the United States: The 2013 Generosity Index. *Fraser Institute Fraser Research Bulletin*, 1-15.

Menchik, P. L., & Weisbrod, B. A. (1987). Volunteer labor supply. *Journal of Public Economics*, 32(2), 159-183.

Perks, T., & Haan, M. (2010). Youth religious involvement and adult community participation: Do levels of youth religious involvement matter?. *Nonprofit and Voluntary Sector Quarterly*, 40(1), 107-129.

Rajan, S. S., Pink, G. H., & Dow, W. H. (2008). Sociodemographic and personality characteristics of Canadian donors contributing to international charity. *Nonprofit and Voluntary Sector Quarterly*, 38(3), 413-440.

Turcotte, M. (2012). Charitable giving by Canadians. *Canadian Social Trends*, Statistics Canada Catalogue no.11-008-X, 1-21.

Turcotte, M. (2015). Volunteering and charitable giving in Canada. *Spotlight on Canadians: results from the General social survey*, Statistics Canada Catalogue no.89-652-X2015001, 1-18. <http://www.statcan.gc.ca/pub/89-652-x/89-652-x2015001-eng.pdf>

Wiepking, P. (2007). The philanthropic poor: In search of explanations for the relative generosity of lower income households. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, 18 (4), 339-358.

Wooldridge, J.M. (2013). *Introductory Econometrics: A Modern Approach*. Mason, Ohio: South-western Cengage Learning.

Table 1: The Percentage of Respondents (CSGVP and GSS Surveys) who Volunteered, and Average Hours Volunteered (Conditional on Volunteering)

	percentage				hours			
	2013	2010	2007	2004	2013	2010	2007	2004
Canada	44	47	46	45	154	156	166	168†
Newfoundland and Labrador	46	52	46	42	151	155	176	188
Prince Edward Island	50	56	56	47	179	157	147	163
Nova Scotia	51	54	55	48	181	207	183	195
New Brunswick	41	49	48	44	180	154	175	185
Quebec	32	37	37	34	123	128	162	146
Ontario	44	48	47	50	166	164	164	162
Manitoba	52	53	54	50	155	141	159	155
Saskatchewan	56	58	59	54	139	143	147	188
Alberta	50	55	52	48	161	140	172	175
British Columbia	49	50	47	45	145	178	172†	199

Source: Taken from Turcotte (2015, p.15).

Table 2: The Percentage of Respondents (CSGVP and GSS Surveys) who Donated Money, and Average Amounts Donated (Conditional on Giving)

	2013	2010	2007	2004	2013	2010	2007	2004
	percentage				amount			
Canada	82	84	84	85	531	470	481	469
Newfoundland and Labrador	87	92	91	93	350	349	330	349
Prince Edward Island	84	91	89	93	497	504	494	459
Nova Scotia	84	88	87	90	396	389	452	444
New Brunswick	83	88	88	88	345	400	409	412
Quebec	81	85	84	83	264	219	241	207
Ontario	83	84	86	90	532	554	551	573
Manitoba	84	86	87	84	699	547	572	533
Saskatchewan	85	84	84	82	680	573	564	506
Alberta	85	84	85	79	863	593	656	586
British Columbia	78	80	79	77	704	573	557	547

Source: Taken from Turcotte (2015, p.16).

Table 3 Variable Definitions

Dependent Variables	Description
cash	Total dollars donated in the past 12 months
Rel cash	Total dollars donated to religious organizations in the past 12 months
Sec cash	Total dollars donated to secular organizations in the past 12 months (total dollars donated minus total dollars donated to religion)
hours	Total hours volunteered in the past 12 months (formal volunteering)
Rel hours	Total hours volunteered to religious organizations in the past 12 months
Sec hours	Total hours volunteered to secular organizations in the past 12 months
Independent Variables	Description
female	=1, female; =0, otherwise
age	Respondent's age
married	=1, married or living common-law; =0, otherwise
single	=1, single, separated, divorce or widowed; =0, otherwise (ref. group)
Mms	=1, missing (refusal or unknown); =0, otherwise
HighSchool	=1, high school diploma or below; =0, otherwise (ref. group)
diploma	=1, trade or non-university diploma, or university diploma below BA; =0, otherwise
BA	=1, Bachelor's degree or above; =0, otherwise
Medu	=1, missing (refusal, unknown or unstated); =0, otherwise
religious	=1, if attend place of worship at least once a week; =0, otherwise
Mrel	=1 missing (refusal, unknown or unstated); =0, otherwise
immig≤10	=1, immigrated within 10 years; =0, otherwise
immig10+	=1, immigrated more than 10 years ago; =0, otherwise (ref. group)
Mimm	=1, immigrant status missing
bornCA	=1, born in Canada; =0, otherwise
informal	=1, do informal volunteering in the past 12 months; =0, otherwise
Minformal	=1, informal volunteering not stated
commu3	=1, live in city/local community less than 3years; =0, otherwise
commu35	=1, live in city/local community for 3 to less than 5 years; =0, otherwise
commu510	=1, live in city/local community for 5 to less than 10 years; =0, otherwise
commu10	=1, live in city/local community for 10 years and over; =0, otherwise (ref. group)
Mcommu	=1, missing (refusal, unknown or unstated); =0, otherwise
rural	=1, live in rural areas; =0, otherwise
kid05	=1, household has children aged 0 to 5; =0, otherwise
kid612	=1, household has children aged 6 to 12; =0, otherwise
kid1317	=1, household has children aged 13 to 17; =0, otherwise
kid18	=1, household has children aged 18 or over;=0, otherwise
hhsiz	Number of persons in the respondent's household
hhincome	Total before-tax household income

QC	=1, from Quebec; =0, otherwise
ON	=1, from Ontario; =0, otherwise (ref. group)
BC	=1, from British Columbia ; =0, otherwise
Prairies	=1, from Alberta, Saskatchewan or Manitoba ; =0, otherwise
Atlantic	=1, from Newfoundland and Labrador, New Brunswick, Nova Scotia or Prince Edward Island; =0, otherwise
Tax-price	One minus marginal tax (credit) rate, See source table 5

Table 4: Weighted Averages of Variables, by Province and for Canada

Obs. = 14,699

Variable	Mean										
	QC	ON	BC	AB	SK	MB	NS	NB	NF	PEI	Canada
cash	213	443	549	734	576	588	332	287	306	416	437
Rel cash	73	186	232	277	258	266	156	147	154	209	179
Sec cash	140	257	318	456	318	322	176	140	152	207	258
hours	40	74	71	80	78	81	91	73	70	90	67
Rel hours	3	11	9	12	15	12	11	10	11	17	9
Sec hours	37	63	63	69	63	69	80	63	59	73	58
female	0.51	0.51	0.51	0.49	0.50	0.50	0.52	0.51	0.51	0.52	0.51
age	47	47	47	43	45	45	48	48	48	47	46
married	0.61	0.60	0.64	0.64	0.62	0.58	0.62	0.66	0.66	0.61	0.62
single	0.39	0.40	0.36	0.36	0.38	0.42	0.38	0.34	0.34	0.39	0.38
HighSchool	0.38	0.41	0.38	0.40	0.49	0.47	0.42	0.50	0.48	0.46	0.40
diploma	0.33	0.28	0.28	0.31	0.29	0.28	0.30	0.26	0.27	0.30	0.30
BA	0.23	0.26	0.27	0.22	0.19	0.20	0.22	0.20	0.17	0.19	0.24
Medu	0.05	0.06	0.08	0.07	0.04	0.05	0.06	0.04	0.08	0.04	0.06
religious	0.10	0.17	0.15	0.19	0.18	0.22	0.15	0.19	0.17	0.23	0.16
nonrel	0.83	0.77	0.77	0.73	0.77	0.73	0.80	0.76	0.75	0.72	0.78
Mrel	0.07	0.06	0.08	0.08	0.04	0.05	0.05	0.05	0.08	0.04	0.07
immig≤10	0.04	0.06	0.06	0.07	0.03	0.05	0.02	0.02	0.01	0.02	0.05
immig10+	0.06	0.16	0.19	0.11	0.03	0.08	0.02	0.02	0.01	0.03	0.12
bornCA	0.82	0.69	0.64	0.74	0.89	0.79	0.90	0.91	0.89	0.90	0.74
Mimm	0.08	0.09	0.11	0.09	0.06	0.08	0.07	0.05	0.09	0.05	0.09
informal	0.76	0.79	0.81	0.85	0.85	0.82	0.82	0.78	0.78	0.81	0.80
noinformal	0.22	0.19	0.16	0.12	0.13	0.15	0.15	0.20	0.19	0.16	0.18
Minformal	0.02	0.03	0.03	0.03	0.02	0.02	0.03	0.02	0.03	0.02	0.03
commu3	0.11	0.10	0.08	0.08	0.09	0.08	0.09	0.05	0.06	0.10	0.09

commu35	0.06	0.05	0.07	0.06	0.05	0.06	0.05	0.06	0.06	0.06	0.06
commu510	0.12	0.13	0.15	0.15	0.11	0.10	0.10	0.09	0.08	0.10	0.13
commu10	0.67	0.67	0.62	0.64	0.71	0.71	0.71	0.74	0.72	0.70	0.67
Mcommu	0.05	0.05	0.07	0.06	0.04	0.04	0.05	0.05	0.08	0.04	0.06
rural	0.18	0.13	0.14	0.14	0.30	0.23	0.43	0.49	0.43	0.56	0.17
kid05	0.12	0.11	0.11	0.16	0.12	0.10	0.10	0.12	0.09	0.11	0.12
kid612	0.11	0.12	0.13	0.14	0.13	0.11	0.11	0.10	0.11	0.11	0.12
kid1317	0.09	0.10	0.09	0.11	0.12	0.11	0.08	0.08	0.09	0.10	0.10
kid18	0.10	0.10	0.09	0.08	0.10	0.10	0.08	0.08	0.10	0.11	0.10
hhsz	2.76	3.06	2.98	3.07	3.00	3.00	2.69	2.71	2.76	2.86	2.95
hhincome	86,596	108,697	99,033	139,115	115,801	95,098	87,889	79,914	90,031	87,667	103,857
Tax-price	0.67475	0.7995	0.7994	0.75	0.74	0.742	0.7621	0.7561	0.773	0.752	0.75873

**Table 5:
2013 Marginal Tax (Credit) Rate for First Dollar Donated**

provincial and federal levels	marginal tax rate
Federal	15%
NF	22.70%
PEI	24.80%
NS	23.79%
NB	24.39%
QC	32.525%
ON	20.05%
MB	25.80%
SK	26.00%
AB	25.00%
BC	20.06%

Source: Canadian Tax and Financial Information
<http://www.taxtips.ca/filing/donations/tax-credit-rates-2013.htm>

Table 6: Tobit Regression Results (Giving Money)

Obs. = 14,699

Variables		Total Giving (1)		Religious Giving (2)		Secular Giving (3)	
		coefficients	t	coefficients	t	coefficients	t
female		0.185	2.93	0.229	1.58	0.239	3.49
lnage		4.035	2.57	-7.976	-2.34	5.074	2.99
lnagesq		-0.358	-1.70	1.395	3.05	-0.521	-2.28
lnhhincome		0.639	12.21	0.214	1.80	0.794	14.15
married	ref:	0.402	4.39	0.450	2.11	0.443	4.50
Mms	single	-3.288	-1.75	-28.455	n/a	-3.048	-1.55
diploma	ref:	0.708	8.85	0.617	3.32	0.805	9.26
BA	HighSchool	1.216	13.62	1.112	5.27	1.371	14.44
Medu		0.216	0.61	0.430	0.60	0.177	0.48
religious	ref:	1.812	20.43	6.992	46.83	0.305	3.00
Mrel	nonrel	0.212	0.75	-0.628	-0.93	0.273	0.89
immig≤10	ref:	-0.508	-2.49	-0.022	-0.05	-0.746	-3.21
bornCA	immig10+	0.147	1.44	-0.893	-3.98	0.409	3.46
Mimm		-0.355	-1.62	-0.765	-1.71	-0.253	-1.04
commu3	ref:	-0.291	-2.39	-0.694	-2.45	-0.190	-1.45
commu35	commu10	0.020	0.14	-0.139	-0.42	-0.102	-0.67
commu510		-0.179	-1.71	-0.494	-2.03	-0.159	-1.45
Mcommu		0.337	0.75	2.726	2.81	0.102	0.21
rural		0.279	3.88	0.819	4.61	0.223	2.81
kid05		0.254	2.35	0.890	3.50	0.187	1.56
kid612		0.300	2.93	0.321	1.31	0.360	3.22
kid1317		-0.048	-0.42	-0.073	-0.26	0.060	0.48
kid18		0.356	3.02	0.689	2.36	0.329	2.48
lnhhszise		-0.371	-3.02	0.551	1.98	-0.653	-4.87
Intaxprice		6.731	1.12	14.662	1.12	9.973	1.55
QC	ref:	0.518	0.51	2.485	1.12	1.162	1.06
BC	ON	-0.264	-2.50	-0.991	-4.13	-0.205	-1.80
Prairies		0.774	1.72	1.108	1.14	1.040	2.15
Atlantic		0.125	0.42	0.947	1.45	0.373	1.16
constant		-12.723	-3.97	6.774	0.96	-15.761	-4.53
sigma		2.447		4.734		2.613	
left-censored Obs.		2,099		9,533		2,684	
uncensored Obs.		12,600		5,166		12,015	

Table 7: Tobit Regression Results (Volunteering Time)

Obs. = 14,699

Variables		Total Volunteering (1)		Religious Volunteering (2)		Secular Volunteering (3)	
		coefficients	t	coefficients	t	coefficients	t
female		0.086	0.79	0.499	2.11	0.055	0.48
lnage		-17.848	-7.48	-7.041	-1.27	-20.461	-8.07
lnagesq		2.280	7.08	0.977	1.32	2.623	7.67
lnhhincome		0.411	4.81	0.113	0.65	0.452	4.92
married	ref:	0.321	2.11	0.565	1.91	0.228	1.40
Mms	single	-3.324	-1.63	-25.377	n/a	-3.338	-1.53
diploma	ref:	0.892	6.21	0.452	1.5	1.000	6.51
BA	HighSchool	2.163	14.24	1.167	3.61	2.363	14.67
Medu		0.062	0.10	1.446	1.50	-0.043	-0.06
religious	ref:	2.037	14.48	8.378	38.4	0.431	2.69
Mrel	nonrel	-0.203	-0.37	-1.191	-1.23	-0.133	-0.23
immig≤10	ref:	-0.939	-2.65	-1.308	-1.63	-1.047	-2.76
bornCA	immig10+	0.830	4.45	0.208	0.54	0.875	4.36
Mimm		-0.174	-0.46	-0.079	-0.10	-0.202	-0.51
informal	ref:	2.007	12.8	2.401	6.44	2.028	12.16
Minformal	noinformal	3.763	8.07	2.671	2.99	3.994	8.04
commu3	ref:	-0.520	-2.40	-0.550	-1.16	-0.574	-2.50
commu35	commu10	0.185	0.78	-0.068	-0.12	0.224	0.91
commu510		-0.043	-0.25	-0.195	-0.55	-0.044	-0.25
Mcommu		1.586	1.83	3.647	2.68	1.264	1.37
rural		0.497	3.79	0.555	2.11	0.599	4.29
kid05		-0.703	-3.56	-0.477	-1.10	-0.744	-3.60
kid612		1.391	7.55	0.033	0.08	1.575	8.17
kid1317		1.065	5.25	-0.256	-0.60	1.310	6.13
kid18		0.423	1.86	0.544	1.15	0.290	1.20
lnhhsz		-0.184	-0.95	0.398	1.00	-0.150	-0.72
Intaxprice		-13.823	-1.37	-10.862	-0.50	-13.192	-1.21
QC	ref:	-3.523	-2.05	-3.819	-1.02	-3.316	-1.79
BC	ON	0.472	2.77	-0.209	-0.62	0.551	3.07
Prairies		-0.603	-0.80	-0.133	-0.08	-0.549	-0.67
Atlantic		-0.645	-1.28	-0.401	-0.36	-0.584	-1.08
constant		22.726	4.51	-4.806	-0.41	26.865	5.02
sigma		4.001		5.380		4.217	
left-censored Obs.		6,987		13,048		7,712	
uncensored Obs.		7,712		1,651		6,987	

Table 8: Predicted Average Donations (Money and Time) by Province (in Natural Logarithms)

	Total Giving	Religious Giving	Secular Giving	Total Volunteering	Religious Volunteering	Secular Volunteering
	Ref. Group (male, single, High School, nonrel, immig10+, no informal, commu10, non-rural, no kids, lives in ON)					
QC	3.501	-2.502	3.054	-1.982	-11.306	-2.444
ON	4.280	-1.857	3.611	-0.614	-8.617	-1.285
BC	3.971	-2.897	3.366	-0.132	-8.861	-0.698
AB	4.763	-1.594	4.167	-0.020	-7.694	-0.705
SK	4.618	-1.901	4.001	0.164	-7.619	-0.495
MB	4.513	-1.659	3.790	-0.082	-7.507	-0.821
NS	4.121	-1.728	3.606	-0.370	-8.395	-0.958
NB	4.074	-1.525	3.453	-0.355	-8.106	-1.011
NF	4.225	-1.294	3.705	-0.637	-8.346	-1.270
PEI	4.150	-1.250	3.442	-0.049	-7.579	-0.761