ANSERJ
Canadian Journal of Nonprofit and Social Economy Research
Revue canadienne de recherche sur les OBSL et l'économie sociale

Vol. 8, No 1
Autumn / Automne, 2017
pp. 20 – 39

Are Quebeckers Really Stingier Than Other Canadians? An Empirical Analysis of Philanthropy in Canada and How Québec Compares to Other Provinces

Rose Anne Devlin
University of Ottawa
Wenzhuo Zhao
University of Ottawa

ABSTRACT
Residents of Québec typically give less money and volunteer less time compared to residents of all other provinces. This article employs the most recent General Social Survey: Giving, Volunteering and Participating (2013) data set and Tobit procedures and finds that Quebeckers give less money largely because of smaller endowments of two important determinants, religiosity and household income. Once demographic and socioeconomic characteristics are controlled, Quebeckers' financial donations are comparable to those of residents of Ontario and Atlantic Canada and exceed those of residents of British Columbia. Quebeckers moreover are similar to others when it comes to volunteering for religious organizations, but they volunteer significantly less than others for secular organizations, which cannot be explained in this article.

RÉSUMÉ
Typiquement, les résidents du Québec donnent moins d'argent et consacrent moins de temps au bénévolat que les résidents des autres provinces. Cet article, en recourant aux données provenant de la dernière « Enquête sociale générale : dons, bénévolat et participation, 2013 » et au modèle Tobit, conclut que les Québécois donnent moins d'argent en grande partie parce qu'ils ont des lacunes dans deux domaines importants, à savoir la religiosité et le revenu du ménage. Cependant, après un contrôle des caractéristiques démographiques et socioéconomiques, on constate que les dons de la part des Québécois sont au fait comparables à ceux des résidents de l'Ontario et des provinces de l'Atlantique et supérieures à ceux des résidents de la Colombie-Britannique. D'autre part, les Québécois sont comparables aux résidents des autres provinces pour ce qui est du bénévolat dans les organismes religieux, mais ils font beaucoup moins de bénévolat dans les organismes séculaires, fait que cet article ne parvient pas à expliquer.

KEYWORDS / MOTS CLÉS: Charitable giving; Volunteering; Religious donations; Secular contributions; Québec / Dons de charité; Bénévolat; Dons religieux; Contributions séculaires; Québec

INTRODUCTION

Residents of Québec donate the least money to charity and volunteer the fewest 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 (Gabler, Lammam, & Veldhuis, 2011; Gabler, Palacios, & Lammam, 2012; Gainer, Lammam, & Veldhuis, 2008, 2009, 2010; Harischandra, Palacios, & Veldhuis, 2007; Lasby, 2011; LeRoy & Palacios, 2006; MacIntyre & Lammam, 2013;), and when comparisons are made using self-reported data from Statistics Canada surveys spanning the last three decades or so (e.g., Kitchen & Dalton, 1990; Skinner & Rosenberg, 2011; Turcotte, 2015). And, Quebeckers donate less even though the tax breaks associated with monetary donations are much higher in Québec 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 Quebeckers—to wit, a piece in Montreal's *La Presse* published upon the release of Statistics Canada's General Social Survey data in 2015 (La Presse Canadienne, 2015). That Quebeckers 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 articles have focused on different aspects of philanthropic behaviour in Canada, most adding regional variables to their regression equations (e.g., Andreoni, Payne, Smith, & Karp, 2011; Hwang, Grabb, & Curtis, 2005; Perks & Haan, 2010); some of them even conduct estimations by province or region separately (Apinunmahakul, Barham, & Devlin, 2009; Apinunmahakul & Devlin, 2004, 2008; Hossain & Lamb, 2012, 2015; Kitchen, 1992; Kitchen & Dalton, 1990). The goal of this article is to examine the charitable behaviour of people residing in Québec with the view to improving understanding of why their average gifts are consistently lower than those in other regions of Canada.

The study uses the most recent cross-sectional survey data, the 2013 General Social Survey – Giving Volunteering and Participation (GSS GVP), released in 2015. Once the main determinants of gifts of time and money are taken into account, Quebeckers 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 of the main factors influencing philanthropy are religiosity and household income, with which Quebeckers are poorly endowed. If residents of Québec were as religious as those residing in the most religious of all provinces and had the highest income of all provinces, it would increase their ranking of predicted cash donations from tenth to seventh place, but would not help to boost their ranking of volunteer hours. So, the answer to the question of why Quebeckers 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.

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.[1] 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 (residents of the three territories were eliminated 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, a usable sample of 14,699 remains.

First is 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 from 2004 to 2013 (Turcotte, 2015). Two tables (Table 1 and Table 2) are reproduced from this report. The first four columns of Table 1 provide 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 according to the population weights provided by Statistics Canada; the averages are conditional on having given (time or money). From Table 1 it is clear that Quebeckers are the least likely of all Canadian residents to volunteer: 32 percent of those residing in that province in 2013 volunteered, down from a high of 37 percent in both 2007 and 2010. By contrast, 44 percent of Ontarians volunteered in 2013, down from 50 percent in 2004. The highest rate of volunteering is found in Saskatchewan, at 56 percent. Aside from 2007, Quebeckers also volunteer fewer hours than residents of all other provinces: 123 hours in 2013 in comparison to a high of 181 hours for those residing in Nova Scotia.

Table 1: The percentage of respondents (CSGVP and GSS surveys) who volunteered, and average hours volunteered (conditional on volunteering)

	2013	2010	2007	2004	2013	2010	2007	2004
	percentage				hours			
Canada	**44**	**47**	**46**	**45**	**154**	**156**	**166**	**168†**
Newfoundland & 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
Québec	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: 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 & 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
Québec	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: Turcotte, 2015, p. 16

The pattern of giving money to charity is a bit different. From Table 2 it is apparent that Quebeckers are not at the bottom of the pile when it comes to participation in charitable giving, but are in last place when it comes to the average amount donated. Averaged over givers, Quebeckers 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, Quebeckers 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 reveals 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. In order to keep the sample as large as possible, individuals who did not respond to questions of interest were coded as "missing" (the variable name is preceded by an "M") and included in the analysis. Table 3 defines all of the variables used in the analysis. The means of these variables in each province are contained in Table 4 and weighted by the personal weights provided by Statistics Canada.

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 religious organizations)
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

(Table 3, continued)

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 3 years; =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
hhsize	Number of persons in the respondent's household
hhincome	Total before-tax household income
QC	=1, from Québec; =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 Table 5

Table 4: Weighted averages of variables, by province and for Canada

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
hhsize	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

Note: Obs. = 14,699

Of course, averages may mask heterogeneity across groups, but they are a good starting point. The average gifts of money and time revealed in the first six rows of Table 4 differ from those presented in Table 1 and Table 2 because Table 4 presents the averages for all respondents and not just the givers, while Martin Turcotte (2015) averaged over the givers. From Table 4 we see that, on average, Quebeckers donated $213 to charity in 2013 ($264, if averaged over givers only, from Table 2). Irrespective of how these averages are calculated, Québec is in last place when it comes to giving money and giving time. But would this tendency change if the sample were separated 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 Québec than elsewhere; average gifts to secular charities are low, but in this case Quebeckers share last place with residents of New Brunswick.

In terms of time volunteered, Quebeckers continue to be in last place 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, Quebeckers hold last place at 40 hours on average per year, distantly followed by Newfoundlanders at 71 hours per year. This distribution is a bit tighter in the case of non-religious volunteer hours, where Québec is again in last place at 37 hours a year on average, although a bit closer to the 59 hours a year by Newfoundlanders. 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 the regression analyses, there is quite a bit of similarity across provinces, with a few notable exceptions. Albertans are the youngest of the sample, with a mean age of 43, as compared to the Canadian average of 46 years of age. In regards to education, 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 percent. Not surprisingly, individuals in Québec are the least religious, with 10 percent of this sample reporting that they attended a place of workshop at least once a week, as opposed to a national average of 16 percent. Significantly fewer Quebeckers report doing informal volunteer activities: 76 percent as opposed to a national average of 80 percent. Large urban-rural differences exist across provinces: Ontario is the least rural at 13 percent of the sampled population, as opposed to 56 percent in Canada's smallest province, Prince Edward Island, and over 40 percent across all the Atlantic provinces.

Finally, it is interesting to examine the "tax price" of the first dollar given to charity across the ten provinces. Normally in empirical analyses of philanthropy a measure of the "price" of donating is included. This measure takes into account if tax benefits accompany a cash donation—if there are no tax benefits, then the "price" of a one dollar donation is one dollar. In the Canadian tax system, tax filers who report donations to qualified charities (registered with the Canada Revenue Agency) receive a 15 percent federal tax credit for the first $200 donated and a 29 percent federal tax credit for amounts exceeding $200. This means that the first dollar given to charity yields a 15 cent tax credit and hence "costs" the donor 85 cents. However, in the Canadian tax system, not only does the individual receive a federal tax credit for giving, he or she also receives a provincial tax credit (or tax deduction, depending upon the province in question). Québec is the most generous jurisdiction in this regard, applying a tax credit of 20 percent to donations. If one lives in Québec, therefore, the first dollar donated generates a tax credit of 15 cents from the federal government and an additional 20 percent (or 17 cent) credit on the remaining 85 cents from the provincial government. The one dollar donation thus "costs" the individual an out-of-pocket amount of 68 cents—referred to as the "tax price" of the one dollar donation. In this case, the effective "marginal tax rate" for the first dollar donated is $0.32.[2] The larger the tax credit (or deduction), the smaller the tax price, and vice versa.

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. The marginal tax (credit) rates associated with the first $200 of donations by province is readily available (Boat Harbour Investments Ltd., 2002–2017a) and reported in Table 5. Notice that all of the variation in this tax price is generated by provincial differences in the tax treatment of donations.

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: Boat Harbour Investments Ltd, 2002–2017a

METHODOLOGY

We employ two main empirical strategies: first, we estimate models of giving either of money or of time, and second, we use the estimated coefficients from these models to see what happens if the characteristics of respondents change. Specifically, we examine what happens if individuals in Québec 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 that takes into account 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):

$$Y_i = Y_i^* \text{ if } Y_i^* > 0;\ 0 \text{ if } Y_i^* \leq 0$$

$$Y_i^* = \beta_i + X_i\beta + \varepsilon_i,\ \varepsilon_i \sim N(0, \sigma^2)$$

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; 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 (1, in this case) 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:

(1) $\ln G_i = \beta_i + X_i^g \beta + \varepsilon_i$

(2) $\ln V_i = \beta_i + X_i^v \beta + \varepsilon_i$

where G_i represents dollars given to charity, and V_i are hours donated. The difference between X_i^g and 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., Bekkers & Schuyt, 2008; Felstein, 1975; James & Sharpe, 2007; Kitchen, 1992; Wiepking, 2007). In addition to estimating models (1) and (2) using the entire sample, we split the sample into religious giving (time and money) and non-religious (secular) giving of time and money as well.

Based on the estimated coefficients from the models, it is possible to calculate predicted contributions of time and money based on a given reference group, endowed with a given set of characteristics (usually average characteristics). Provinces are ranked from largest to smallest in terms of predicted giving. These characteristics can then be altered to see the extent to which this affects the ranking of the predicted giving levels (again, of time and money).

RESULTS

Table 6 reports the estimated coefficients from the Tobit procedure and the attendant *t*-statistics 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 (i.e., observations with a value of zero) 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, denotes the standard error of the regression.

Table 6: Tobit regression results (giving money)

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: single**	0.402	4.39	0.450	2.11	0.443	4.50
Mms		-3.288	-1.75	-28.455	n/a	-3.048	-1.55
diploma	**ref: HighSchool**	0.708	8.85	0.617	3.32	0.805	9.26
BA		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: nonrel**	1.812	20.43	6.992	46.83	0.305	3.00
Mrel		0.212	0.75	-0.628	-0.93	0.273	0.89
immig≤10	**ref: immig10+**	-0.508	-2.49	-0.022	-0.05	-0.746	-3.21
bornCA		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: commu10**	-0.291	-2.39	-0.694	-2.45	-0.190	-1.45
commu35		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
lnhhsize		-0.371	-3.02	0.551	1.98	-0.653	-4.87
lntaxprice		6.731	1.12	14.662	1.12	9.973	1.55
QC	**ref: ON**	0.518	0.51	2.485	1.12	1.162	1.06
BC		-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	

Note: Obs. = 14,699

Table 7: Tobit regression results (volunteering time)

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: single**	0.321	2.11	0.565	1.91	0.228	1.40
Mms		-3.324	-1.63	-25.377	n/a	-3.338	-1.53
diploma	**ref: HighSchool**	0.892	6.21	0.452	1.5	1.000	6.51
BA		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: nonrel**	2.037	14.48	8.378	38.4	0.431	2.69
Mrel		-0.203	-0.37	-1.191	-1.23	-0.133	-0.23
immig≤10	**ref: immig10+**	-0.939	-2.65	-1.308	-1.63	-1.047	-2.76
bornCA		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: noinformal**	2.007	12.8	2.401	6.44	2.028	12.16
Minformal		3.763	8.07	2.671	2.99	3.994	8.04
commu3	**ref: commu10**	-0.520	-2.40	-0.550	-1.16	-0.574	-2.50
commu35		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
lnhhsize		-0.184	-0.95	0.398	1.00	-0.150	-0.72
lntaxprice		-13.823	-1.37	-10.862	-0.50	-13.192	-1.21
QC	**ref: ON**	-3.523	-2.05	-3.819	-1.02	-3.316	-1.79
BC		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	

Note: Obs. = 14,699

Prices and income

Normally, one expects the amount of cash donated to vary with the tax price of donations. From Table 6, it is clear that the estimated coefficients on tax price are not statistically significant. This can be explained by the fact that there is not much variation in this tax-price variable (which is further dampened by the logarithmic specification), and corroborates the findings in Amornat Apinunmahakul and Rose Anne Devlin's (2008) "Social Networks and Private Philanthropy." However, these findings are at odds with those in Harry Kitchen and Richard Dalton's (1990) "Determinants of Charitable Donations by Families in Canada: A Regional Analysis" and Kitchen's (1992) "Determinants of Charitable Donations in Canada: A Comparison Over Time," which find that contributions decline with the tax price of giving.

We also included tax price in the model of volunteer time. The sign of the estimated coefficient on this variable is a simple way of looking at whether volunteering and donations are (gross) complements or substitutes to individuals. A negative estimated coefficient means that, as the price of a cash donation increases, volunteering falls—suggesting that volunteering and cash donations are moving in the same direction and hence are complementary to each other. But, the estimated coefficients on tax price in all three specifications reported in Table 7 are statistically insignificant, and hence fail to reveal a clear relationship between tax price and volunteering.

However, while tax price has no statistical effect on giving, household income does. As expected with "normal" goods, household income has a positive impact on cash donations. This result corroborates much of the literature (e.g., Auten, Sieg, & Clotfelter, 2002; Gittell & Tebaldi, 2006; Hood, Martin, & Osberg, 1977; Hossain & Lamb, 2015). A one percent increase in household income results in a 0.64 percent increase in donations in general (see Table 6). It is interesting to see that household income has a much higher impact on secular giving (column 3) than on religious giving: religious gifts increase by 0.21 percent in response to a one percent increase in household income, whereas secular ones increase by 0.79 percent.

Volunteer hours are also affected by household income, as is well established in the literature (even in earlier studies, such as one by Paul Menchik and Burton Weisbod [1987]). A one percent increase in household income results in a 0.41 percent increase in volunteer hours, *ceteris paribus*. But this time, volunteering for religious organizations is not responsive to household income; all of the effect of household income is on volunteer hours for secular organizations.

Demographics: Age, education, gender, marital status, and household composition

The positive estimated coefficient on "lnage" and the negative estimated coefficient on "lnagesq" in the total giving equation reported in Table 6, column 1, suggest that giving cash increases with age at a decreasing rate. This corresponds to most other studies of giving (e.g., Auten et al., 2002). Once again, however, religious giving is different than secular giving. In this case, giving falls with age but the positive impact of age squared tempers this fall: as individuals become older, they give relatively more to religious organizations. When it comes to time volunteered, this falls with age (at a decreasing rate)—age does not have a statistically significant impact on religious volunteer hours, only on secular hours.

The impact of education conforms to expectations (e.g., Brown & Lankford, 1992; Gittell & Tebaldi, 2006; Hossain & Lamb, 2015; Rajan, Pink, & Dow, 2008). Total giving increases with educational level (the estimated coefficient on the dummy variable denoting a university degree [BA] is always higher than that indicating a postsecondary diploma, and both are positive relative to the high school-educated reference group).

This pattern repeats when it comes to time volunteered: individuals with a higher level of education give more time to charities, *ceteris paribus*.

Gender matters when it comes to philanthropy. From Table 6, it is clear that females donate more money than males to charities across the board, although the significance level is relatively small for religious giving (as found by Hossain & Lamb, 2015). In general, females give 20 percent more than their male counterparts—the transformation $(e^{\beta}-1)*100$ where β is the estimated coefficient is required to interpret the estimated coefficients from dummy variables because of the logarithmic specification—this percentage is even higher with religious gifts (26 %) although in that case, it is statistically weak; and female gifts to secular organizations are 27 percent more than their male counterparts. However, looking at the results reported in Table 7 on hours volunteered, it is apparent that the gender of the respondent does not matter statistically for total and secular volunteering; but females volunteer some 65 percent more hours than males for religious organizations.

As found elsewhere, being married has a significantly positive effect on the amount of money donated, again corroborating existing studies (e.g., James & Sharpe, 2007). The impact of being married does not matter much across religious and secular giving. In examining volunteer hours, however, being married has a stronger impact on religious volunteering than on secular volunteering.

The presence of children in the household has a mostly positive impact on giving, with a couple of exceptions. Children aged 13 to 17 have no impact on giving money, irrespective of whether the organization is religious or secular. The presence of children aged 6 to 12 does not statistically affect religious giving; the presence of children under the age of six has a weak effect on secular giving. People who have children under the age of six, however, give more money to religious charities when compared to those with children in any other age group. Finally, when it comes to household size, the number of individuals in the household is negatively correlated with total and secular giving, but positively with religious giving.

Respondents with children under the age of six volunteer fewer hours when compared to all others—this result seems sensible given the time constraints associated with caring for younger children (it also may help to explain why individuals with young children tend to donate more money to charities—it may be due to a substitution of cash for time). By contrast, those with children aged 6 to 12 or 13 to 17 volunteer more hours to secular organizations in comparison to others. Again, this seems sensible given the proliferation of children's activities in these age groups that often require parental time contributions (e.g., sports teams, music recitals, and so on). In contrast to the findings with respect to cash donations, the number of individuals in the household has no impact on volunteering once other factors are taken into account.

The role of religion

This section highlights where gifts of time and money to religious organizations differ from those to secular ones. But in addition to the effects arising from the type of organization to which individuals direct their gifts, the religiosity of individuals themselves has also been shown to affect giving (e.g., Berger, 2006). Here, a strict definition of "religious" is employed, 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 of religion on giving and volunteering. We wondered if the fact that fewer individuals in Québec are religious, in the sense of the aforementioned definition, could help illuminate their giving behaviour. For instance, Table 4 reveals that, on average, 10 percent of Quebeckers attend a place of worship at least once a week, compared to 17 percent of Ontarians and 23 percent of those residing in Prince Edward Island.[3]

Looking at the estimated coefficient on the "religious" dummy variable, it is clear that those attending religious activities at least once a week are more generous than their non-religious counterparts, across the board. Not only do they give substantially more money to religious organizations (as fully expected) but they give more to secular ones as well: a religious individual donates 36 percent more money 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 (e.g., Hossain & Lamb, 2015; Turcotte, 2012). Table 7 shows that religious respondents are also more likely to volunteer more hours to organizations across the board when compared to others. The impact of being religious on religious volunteering is much larger than it is on secular volunteering, which, again, makes sense.

Immigrants and Canadian born individuals

Whenever immigrant status is taken into account, it usually matters when it comes to giving money (e.g., Amankwaa & Devlin, 2016) or volunteering (e.g., Handy & Greenspan, 2009). Generally speaking, Canadian born individuals tend to volunteer more and give more money when compared to immigrant-born residents—although this is not uniformly the case. For instance, a recent study shows that immigrants tend to give more money internationally when compared to their Canadian born counterparts (Amankwaa & Devlin, 2017).

The length of time since immigrating is likely to matter when it comes to formal philanthropy—one reason being that longer-term immigrants have more experience with Canadian society and institutions, relative to more recent ones. Differentiating between those immigrants who have been in the country for up to ten years, and those who have been here for more than ten years, the results confirm that newer immigrants behave differently than longer-term ones. When it comes to total giving, Table 6 reveals that "new" immigrants give 60 percent less than longer-term immigrants (the reference group). But care has to be taken not to conclude that newer immigrants are less generous than others, as this group often remits substantial amounts of money to family "back home" (e.g., Rowlands & Unheim, 2012); the data set used here does not capture this amount. The estimated coefficient on the variable denoting Canadian born is positive, indicating that they give more than longer-term immigrants, but it is statistically weak.

When giving to religious and secular organizations by immigrants is examined, the story becomes nuanced. Newer immigrants are indistinguishable from longer-term ones when it comes to religious giving, whereas Canadian-born residents give substantially less to these organizations than the immigrant born. The findings on total giving, therefore, are being driven by secular giving: new immigrants give less and the Canadian born give more both relative to longer-term immigrants, *ceteris paribus*.

A final point to note with respect to money donations is that those individuals who did not respond to the question about whether or not they were an immigrant (coded with an "M" before the variable name—"Mimm") gave less in general, and specifically less to religious organizations, relative to long-term immigrants. This implies that it is important to include these missing observations in the regression analysis.

Canadian born individuals are more likely to volunteer in general relative to longer-term immigrants (Table 7); newer immigrants are less likely to volunteer compared to their longer-term counterparts. When we look at the types of organizations to which individuals give their time, we see that the results from volunteering in general (column 1 of Table 7) are again driven by secular organizations. For religious organizations, newer immigrants tend to volunteer less than longer-term ones, but Canadian born individuals are indistinguishable from longer-term immigrants. Femida Handy and Itay Greenspan (2009) find that recent (less than ten years)

immigrants donate fewer volunteer hours than their longer-term counterparts, but this difference is not statistically significant.

Length of time in community, community size, and informal volunteering

The length of time that an individual has lived in a given community may influence some philanthropic activities. We are able to distinguish between those living up to three years in a community ("communu3"), three to five years ("communu35"), five to ten years ("communu510"), and greater than ten years (the reference group). When it comes to total giving, those who lived the least amount of time in a community give substantially less than those living ten or more years in the community. The same is true for the five to ten years groups. Those living the least amount of time in a community also give much less to religious organizations than to secular ones when compared to longer-term residents. This may reflect the fact that giving to religious organizations is often done directly to a place of worship in the community. The length of time in the community can reflect an individual's "attachment" to a place of worship. Giving to secular organizations, however, is not as directly linked to the physical location of the organization in the community, with the ability to give by telephone, internet, or regular mail. Finally, those with missing information on the length of time in their community were associated with higher gifts to religious organizations—again reinforcing the importance of including these missing observations in the estimation.

Not surprisingly, the length of time a person has lived in a community matters when it comes to volunteer time. Volunteering normally requires the ability to access nonprofit and charitable organizations. The biggest effect of the length of time in a community on volunteer time is found for secular organizations: new immigrants volunteer many fewer hours for secular organizations relative to their longer-term counterparts, whereas Canadian born residents volunteer many more hours relative to longer-term immigrants. These results suggest that new immigrants volunteer less than longer-term immigrants who volunteer less than Canadian born individuals. This pattern is consistent with the idea that immigrants learn about volunteering opportunities over time, but that they remain different than Canadian born individuals when it comes to volunteering. Of course, informal activities, such as helping family and friends, are not being captured and hence account is not been taken of the well-known mutual supports that are often developed within immigrant communities.

Differences were also found in the giving behaviour of rural and urban dwellers. Across the board, respondents residing in rural areas give more money than their urban counterparts. The difference between rural and urban residents is particularly stark when we look at giving to religious groups: it was found that rural folk donate about double that of urban dwellers, *ceteris paribus*. These findings corroborate those of Russell James and Deanna Sharpe (2007) and Apinunmahakul and Devlin (2008), among others, who find that people living in the city contribute less money to charities than their rural counterparts.

Interestingly, residents from rural areas also volunteer more time when compared to their urban counterparts. One might think that distance to nonprofit and charitable organizations would be greater in rural areas and hence would dampen incentives to volunteer. However, a report on volunteering in rural Ontario by Cathy Barr, Larry McKeown, Katie Davidman, David McIver, and David Lasby (2004) argues that rural communities are replete with under-financed organizations that rely on community volunteers. The results here certainly accord with this observation. A dummy variable is also added that represents whether or not the individual engaged in informal volunteering—volunteering in ways other than through a formal organization. Table 7 reveals that those who responded in the affirmative to this question are more likely to also volunteer formally: informal volunteers are more likely to spend more time in formal volunteer activities than others. This finding again conforms to the

idea that individuals predisposed to give of their time will find many ways of doing so. Notice, too, that individuals who did not respond to this question ("Minformal") also volunteer more than those who did not informally volunteer.

How do Quebeckers compare to other provinces?

This article began with the observation that Quebeckers give less money and time than residents of other provinces. Now that the problem has been analyzed by taking into account the factors influencing private philanthropy, do Quebeckers remain less generous than other residents of Canada? Analysis starts by paying close attention to the significance and sign of the Québec dummy variable. Table 6 reveals that keeping all the other influences constant, respondents residing in Québec are no different from Ontarians in the amount of dollars donated to charities. Once personal, family, and contextual features are taken into consideration, Quebeckers 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, while regression analysis can explain differences in the amounts of money donated by residents of Québec relative to others, this is not the case for volunteer hours. From Table 7, the estimated coefficient on the Québec dummy variable is negative and statistically significant when it comes to total and secular volunteering. It is statistically insignificant for religious organizations, which is interesting insofar as Quebeckers are much less religious (defined as regularly attending formal places of worship) than other Canadians; however, once religiosity is taken into account, they volunteer just as much as everyone else to religious organizations (but much less to secular ones).

The "well-known fact" that Quebeckers are less generous than other Canadians does not consistently hold up once the main influences on giving are taken into account. To understand better what is going on, predicted values of money donations and time volunteered are estimated using the models just described; 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—this can be varied to look at specific groups as well; means are used for illustrative purposes). The model predicts that residents of Québec will give the least amount of money and of time, but this result is explained by the characteristics included in the model.

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

Suppose, however, Quebeckers are conferred with a different set of characteristics, does this change their predicted ranking? The two main characteristics that have a large impact on philanthropy, and both of which Quebeckers have a relatively small endowment of, are religiosity and household income. Suppose Quebeckers had 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 Quebeckers were as religious (and even as rural) as those in Prince Edward Island, and had the same income as Albertans, they would increase their ranking to seventh place out of ten when it comes to 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 Québec from last place. Even when all of their characteristics are adjusted to conform to the best case scenario in terms of being positively associated with volunteering, Quebeckers remain firmly in last place. So even with regression analysis, something else is going on.

CONCLUSIONS

Employing the most recent social survey data on philanthropy in Canada, this article empirically evaluates provincial differences in the quantity of money and time donated to organizations in general, and then separated into religious and secular organizations. It is particularly interested in the giving behaviour of individuals residing in Québec, and seeks out reasons why their average donations are significantly lower than others in Canada. The empirical analysis unveils one potential reason: Quebeckers 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 Quebeckers, and Quebeckers are much less attached to a formal place of worship than any other Canadians.

Another potential reason why Quebeckers give less than others may be linked to a higher expectation of state involvement in addressing social issues, as an alternative to the charity model. Indeed, individuals in Québec pay more income tax, in general, than residents of the nine other provinces. Look, for example, at the taxes paid by a single-earner household with two children: as soon as earnings hit $50,000 and above, Quebeckers typically pay more than residents of all the other provinces (Boat Harbour Investments Ltd., 2002–2017b). Similarly, tax rates are the highest across the board for individuals with an income of $50,000 or more (Boat Harbour Investments Ltd., 2002–2017b). 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. Mark Skinner and Mark Rosenberg (2011) offer an argument along these lines when trying to explain the lower level of formal and informal volunteering in Québec. They suggest that Quebeckers follow "a continental model of collective responsibility than on individual philanthropy embedded in English civil law" (n.p.). Future research could push further on this explanation and examine in more detail the types of organizations to which Quebeckers direct their philanthropy. If they eschew health and welfare organizations, for instance, in favour of sports activities, this would be consistent with the idea that the state provides some services (health) but not others (sports).

There are limitations to this study. In the first place, it uses cross-sectional data that 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 by the public sector and by charities would also help identify the extent to which public sector services substitute for (or complement) those provided by the charitable sector.

Undertaking a *ceteris paribus* regression analyses helps reveal how Quebeckers fare relative to the rest of Canada when it comes to private philanthropy. They are not as "cheap" as it first appears if one looks only at averages; but they do volunteer less than others for secular organizations, and it is not clear why. This article offers two potential explanations, but there may be others. More and better data, for instance of a longitudinal nature, and a much larger study of the types of activities to which Quebeckers direct their time and money, would certainly help identify what these other explanations may be.

NOTES

1. The analysis presented in this article 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 Social Sciences and Humanities Research Council of Canada (SSHRC), the Canadian Institutes of Health Research (CIHR), the Canada Foundation for Innovation (CFI), Statistics Canada, Carleton University, the University of Ottawa, and the Université du Québec en Outaouais. The views expressed in this article do not necessarily represent the views of the CRDCN or those of its partners.

2. The tax credit calculation is slightly nuanced in Québec, as described in the source reference for Table 5. This nuance does not affect the logic of the explanation, but it does affect the exact calculation of the tax credit, which is exactly calculated as 32.525 percent rather than 32 percent.

3. The religiosity of individuals across all provinces was also examined using the earlier CSGVP (2010, 2007, & 2004) surveys to ensure that the conclusion that Quebeckers were less formally religious was not anomalous to the GSS-GVP (2013) survey. And indeed it was not. Individuals in Québec are, on average, significantly less likely to attend regularly a place of worship relative to those in any other province.

ACKNOWLEDGEMENTS

We acknowledge the financial assistance of the SSHRC, grant number: 435-2012-0489. We would like to thank two anonymous referees for their thoughtful comments.

REFERENCES

Amankwaa, B., & Devlin, R.A. (2017). Visible minorities and majority giving. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *28*(2), 510–531. doi: 10.1007/s11266-016-9747-7

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). Cambridge, MA: National Bureau of Economic Research.

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.

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.

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.

Barr, C., McKeown, L., Davidman, K., McIver, D., & Lasby, D. (2004). *The rural charitable sector research initiative: A portrait of the nonprofit and voluntary sector in rural Ontario*. Toronto, ON: The Canadian Centre for Philanthropy. URL: http://www.imaginecanada.ca/sites/default/files/www/en/library/rural/rural_report.pdf [May 16, 2017].

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.

Berger, I.E. (2006). The influence of religion on philanthropy in Canada. *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, *17*(2), 115–132.

Boat Harbour Investments Ltd. (2002–2017a). *2013 Donation tax credit rates*. URL: http://www.taxtips.ca/filing/donations/tax-credit-rates-2013.htm [May 16, 2017].

Boat Harbour Investments Ltd. (2002–2017b). *Tax comparisons by province and territory for 2013*. URL: http://www.taxtips.ca/taxrates/taxcomparison/tax-comparison-2013.htm [May 16, 2017].

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.

Gabler, N., Lammam, C., & Veldhuis, N. (2011). Generosity in Canada and the United States: The 2011 Generosity Index. *Fraser Institute Fraser Alert*, 1–11. URL: http://www.fraserinstitute.org/sites/default/files/generosity-index-2011_0.pdf [May 16, 2017].

Gabler, N., Palacios, M., & Lammam, C. (2012). Generosity in Canada and the United States: The 2012 Generosity Index. *Fraser Institute Fraser Alert*, 1–11. URL: http://www.fraserinstitute.org/sites/default/files/generosity-index-2012.pdf [May 16, 2017].

Gainer, A., Lammam, C., & Veldhuis, N. (2008). Generosity in Canada and the United States: The 2008 Generosity Index. *Fraser Institute Fraser Alert*, 1–10. URL: http://www.fraserinstitute.org/sites/default/files/Generosity_Index_2008.pdf [May 16, 2017].

Gainer, A., Lammam, C., & Veldhuis, N. (2009). Generosity in Canada and the United States: The 2009 Generosity Index. *Fraser Institute Fraser Alert*, 1–11. URL: http://www.fraserinstitute.org/sites/default/files/Generosity-Index-2009.pdf [May 16, 2017].

Gainer, A., Lammam, C., & Veldhuis, N. (2010). Generosity in Canada and the United States: The 2010 Generosity Index. *Fraser Institute Fraser Alert*, 1–10. URL: http://www.fraserinstitute.org/studies/generosity-in-canada-and-united-states-2010-generosity-index [May 16, 2017].

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. URL: http://www.fraserinstitute.org/sites/default/files/Generosity_Index_2007.pdf [May 16, 2017].

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. (1992). Determinants of charitable donations in Canada: A comparison over time. *Applied Economics*, *24*(7), 709–713.

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

La Presse Canadienne. (2015, January 30). Bénévolat: 44% des Canadiens ont donné de leurs temps en 2013. URL: http://www.lapresse.ca/actualites/201501/30/01-4839861-benevolat-44-des-canadiens-ont-donne-de-leur-temps-en-2013.php [May 16, 2017].

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. URL: http://www.fraserinstitute.org/sites/default/files/GenerosityIndex2006.pdf [May 16, 2017].

MacIntyre, H., & Lammam, C. (2013). Generosity in Canada and the United States: The 2013 Generosity Index. *Fraser Institute Fraser Research Bulletin*, 1–15. URL: http://www.fraserinstitute.org/sites/default/files/GenerosityIndex_2013.pdf [May 16, 2017].

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.

Rowlands, D., & Unheim, P. (2012). Micro-level determinants of remittances from recent migrants to Canada. *International Migration*, *50*(4), 124–139.

Skinner, M.W., & Rosenberg, M.W. (2011). Informal and voluntary care in Canada. In C. Milligran & D. Conradson (Eds.), *Landscapes of voluntarism* (p. 304). Chicago, IL: University of Chicago Press Books. URL: http://policypress.universitypressscholarship.com/view/10.1332/policypress/9781861346322.001.0001/upso-9781861346322-chapter-6 [May 16, 2017].

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. URL: http://www.statcan.gc.ca/pub/89-652-x/89-652-x2015001-eng.pdf [May 16, 2017].

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, OH: South-western Cengage Learning.

ABOUT THE AUTHORS / LES AUTEURS

Rose Anne Devlin is full Professor in the Department of Economics at the University of Ottawa, 120 University Private, Ottawa, ON K1N 6N5. Email: radevlin@uottawa.ca .

Wenzhuo Zhao has just completed her MA in the Department of Economics at the University of Ottawa, 120 University Private, Ottawa, ON K1N 6N5. Email: wzhao049@uottawa.ca .