Regional Differences in the Labour Market Response to Volunteers*

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One of the many reasons why individuals may volunteer is to enhance employment prospects. Students volunteer in order to bolster their résumés (e.g. Dicken and Blomberg 1988); stay-at-home mothers volunteer when trying to re-enter the labour force (e.g. Mueller 1975); business people volunteer to further their job prospects (e.g. Saloner 1985). Underlying these examples is the presumption that the act of volunteering will improve labour-market outcomes. Indeed, the notion that volunteering enhances employment has basically joined the ranks of well-known fact in the western world. Until recently, however, the relationship between volunteering and the paid labour market had not been empirically investigated. The first paper to test the extent to which the labour market may reward volunteers over and above their non-volunteering counterparts was Day and Devlin (1998), which found that volunteers earned a premium of about 6% of annual earnings. Using an improved data set, Devlin (2000) confirmed these earlier findings.

Using a recent data set, Devlin (2000) determined that, on average, volunteers earn more than 4% higher earnings in comparison to their non-volunteering counterparts. To establish this figure, various earnings equations were estimated which included, among the usual determinants of earnings, dummy variables.

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1. More specifically, when Devlin (2000) replicated Day and Devlin (1998), it finds essentially the same premium earned by volunteers. However, Devlin (2000) used a better data set and hence richer econometric techniques, and found the volunteering premium to be about 4%.
denoting the individual's region of residence. Moreover, the decision to volunteer was frequently found to be influenced by region of residence. It would appear that the region in which an individual resides can affect both the decision to volunteer, and the labour-market impact of volunteering. Two questions naturally arise: what are the regional differences in the labour market responses to volunteering? And, why should the region in which an individual resides matter? The first question is an empirical one, and is addressed in this paper using the recent National Survey of Giving, Volunteering and Participating (1997). The second question, concerning why the region of residence should matter, is in many ways a much more profound question -- and is certainly one that has motivated much of the work on regional issues in Canada. While we offer several reasons why region may matter when it comes to the payoff to volunteering, we cannot determine definitely the answer to this question.

At least three explanations exist as to why volunteers may earn more on the paid labour market in comparison to non-volunteers. Volunteers can acquire skills that are valued by the labour market, leading volunteers to have higher earnings compared to non-volunteers. Thus, for instance, volunteering at a club, has often been associated with beneficial networking.

From the point of view of this study, it is important to ascertain whether regional differences exist in the three mechanisms which link the labour market and volunteering. The first mechanism, the acquisition of skills, is relatively straightforward: volunteers acquire skills which are then rewarded on the labour market. Clearly, however, while these skills are presumably portable -- the skills acquired in Newfoundland could be brought to British Columbia -- it is also the case that the different regions in Canada have quite diverse labour markets, and hence the labour market could be rewarding these skills differently. Note that it is the labour market itself which would result in different volunteering premia across regions, premia which would dissipate if the individual were willing to relocate.

The fact that the individual volunteers may emit a signal to potential employers regarding some desirable trait of the individual. It seems reasonable to suppose that this signal may transcend regional boundaries. Once again, however, reliance upon such a signal may depend upon local labour market conditions. For instance, in a loose labour market with few jobs and many candidates, the volunteering signal may be a useful mechanism for landing a position. In a tight market, with fewer job candidates than jobs, the volunteering signal may not be very valuable.

The last mechanism tying the labour market to volunteering is networking. Some volunteers may have access to useful networks that enhance employment opportunities. Networking may be beneficial in large urbanised settings where having an ‘inside’ contact becomes more valuable. Smaller communities, where everyone knows everyone anyway, may not be as conducive to networking arrangements. In addition, networking may be useful in tight labour markets where it plays a ‘matching’ role; in looser labour markets in urbanised areas, networking may also be a means of differentiating oneself from the crowd.

Thus, it seems clear that the impact of volunteering on labour-market returns is a function of the mechanism through which the labour market rewards volunteers, and the labour market itself. Since regional disparities across regional (and arguably provincial) labour markets is a characteristic feature of the Canadian landscape, it seems quite reasonable to suppose that regional differences exist in how the labour market responds to the act of volunteering.

Methodology and Data Set

The basic econometric model entails estimating earnings equations for two types of individuals, those who volunteer and those who do not, in order to see what factors affect the earnings of each group, and in order to estimate any earnings differential which may arise between the two groups. We thus estimate two standard, human-capital, earnings equations, one for volunteers and the other for non-volunteers, as expressed in (1) and (2):

\[
\ln W_{vl} = X_{vl} \beta_v + \epsilon_{vl} \tag{1}
\]

\[
\ln W_{nl} = X_{nl} \beta_n + \epsilon_{nl} \tag{2}
\]

where \(X_j\) is a vector of individual i's characteristics (including the stock of human capital) and \(\epsilon_j\) represents a normally distributed random component, \(j=v,n\). The subscript v indicates that the individual is a volunteer, while n indicates a non-volunteer.

In addition to separating the sample according to whether or not the individual volunteers, we also separate the sample according to region of residence in order to focus on the regional dimension of the problem. To ensure that the sample is sufficiently large, Canada is separated into its five well-known regions:

2. It is commonplace in the labour-economics literature to estimate earnings equations like (1) and (2). Just as our sample is separated into those who volunteer and those who do not, the labour literature is replete with examples where the sample is split into two different types of workers -- e.g. union and non-union workers (Lee 1978), male and females (Miller 1987), ethnicity and race (Carliner 1976).
British Columbia, the Prairies (Alberta, Saskatchewan and Manitoba), Ontario, Quebec and the Atlantic region (New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador). Equations (1) and (2) are estimated for each of these five regions in order to generate estimates of the earnings differentials that exist across the country between volunteers and non-volunteers.

The problem with the model as depicted in (1) and (2), which has been discussed in detail in Devlin (2000), is that volunteers may not be drawn randomly from the population -- volunteers, for instance, may have a higher earning capacity because they have a greater stock of some unmeasurable ability, introducing a selectivity bias into the earnings equations. Thus, a Heckman (1979) two-stage procedure is used in which the inverse Mill's ratio is calculated from a probit estimation of the decision to volunteer, and introduced into the earnings equations. The statistical significance of the estimated coefficient on the inverse Mill's ratio (often called the selectivity correction) thus tells us if any selectivity bias is present, with its sign telling us the direction of this bias. These corrected earnings equations can then used to estimate the earnings differential associated with volunteering.

The probit equation that generates the inverse Mill's ratio is a reduced-form probit equation because the actual earnings differential which presumably influences the probability of volunteering does not enter this equation directly. Instead, equations (1) and (2) are inserted into the probit equation, thus rendering it a reduced-form expression.

With the estimated coefficients on the selectivity-corrected earnings equations, we can determine the estimated earnings differential associated with volunteering. This estimated earnings differential can then be included as a variable in a second probit equation -- a structural probit model -- to determine whether the expected earnings differential affects the probability of volunteering. In other words, to the extent that the expected earnings differential is a measure of the economic benefits associated with volunteering, we can determine if these benefits actually motivate individuals to engage in this sort of activity.

The econometric model, therefore, entails three steps: estimating a reduced-form probit of the probability of volunteering, estimating selectivity-corrected earnings equations, and then estimating a structural probit model of volunteering which includes the estimated earnings differential from volunteering. This three-step model has been applied to several problems in the labour literature (e.g. Borjas and Rosen 1980; Simpson and Sproule 1998; Devlin 2000).

The Survey of Giving, Volunteering and Participating (SGVP) recently released by Statistics Canada provides an ideal source of data on various aspects of an individual's philanthropic activities. This survey was undertaken in 1997 and covers the activities of individuals in the November 1996 to October 1997 period. It is the most complete survey of its kind, containing responses from some 18,301 individuals who are representative of the Canadian population at large. Because this study is interested in the labour-market responses to volunteering, the sample is restricted to those individuals who are employed on either a part-time or full-time basis at the time of the survey. Further restricting the sample to individuals who responded to questions of interest, resulted in a sub-sample of 9,945 individuals; the labour-market response to volunteers in this sub-sample followed the assumptions of the analysis in Devlin (2000) and lead to the conclusion that volunteers earn about 4% higher incomes than do non-volunteers. In this paper, we continue to use this sub-sample to estimate any regional differences in this labour-market response.

It is important to note that volunteers are over-represented in the SGVP data set because of the particular sampling technique used. As a result, it is necessary to use the sample weights accompanying this survey in order to adjust for the fact that each observation is relative to the Canadian population at large. Thus, all of the estimation procedures undertaken in this analysis take account of sample weights.

Regional Variations in the Characteristics of Volunteers

To date, very little work has been done on regional differences in volunteering in Canada. The Statistics Canada "Nonprofit Sector Knowledge Base Project" is resulting in a number of research projects on various topics, including regional variations in volunteering. Reed and Selbee (1999) author one report which examines the profiles of so-called active volunteers -- i.e. those who volunteer at least 66 hours annually -- and finds that volunteering does appear to vary on a regional basis. Indeed, one of the interesting findings of that paper is that the characteristics of active volunteers differ quite dramatically across regions: "...there is no single distinctive pattern of traits in the active volunteer; rather, volunteers are distinctive in different ways and to different degrees in different regions of the country and in different kinds of communities." (Reed and Selbee 1999: 9). Two papers have analysed regional variations in charitable donations (Kitchen and Dalton 1990; Jones 1999) and have reached the same conclusion, namely that variations do appear to exist and be significant. But overall, the work in this particular area is very sparse.

Before turning to the econometric results, it is instructive to look at the pattern of regional variation that exists in our particular sub-sample of employed individuals from the SGVP. Table 1 presents the average characteristics of

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3. Data are not available for the Canadian territories.
4. A brief description of the probit model and how to interpret its coefficients is contained in the appendix to this paper.
5. The Heckman two-stage procedure to deal with the fact that a particular group of workers may not be randomly drawn from the population, has been used extensively in the labour-economics literature (e.g. Robinson and Tomes 1984; Miller 1987).
6. Details of this data set are available in Statistics Canada (1998). How this data set compares to the earlier VAS survey is discussed in Devlin (2000).
### TABLE 1: Average Characteristics of Volunteers and Non-Volunteers by Region (Sample of Employed Individuals - 9,945 Observations)

<table>
<thead>
<tr>
<th>Variables</th>
<th>CANADA</th>
<th>BC</th>
<th>PRAIRIES</th>
<th>ONTARIO</th>
<th>QUEBEC</th>
<th>ATLANTIC</th>
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<td>0.32</td>
<td>0.31</td>
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<td>0.14</td>
<td>0.14</td>
<td>0.10</td>
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<td>0.22</td>
<td>0.13</td>
<td>0.22</td>
<td>0.10</td>
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<td>0.52</td>
<td>0.57</td>
<td>0.47</td>
<td>0.54</td>
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</table>

*Weighted Participation Rate: 35% 65% 36% 64% 45% 55% 35% 65% 30% 70% 41% 59%*
hours relative to non-volunteers -- a pattern that persists across all five regions. Except for in Quebec, relatively more females volunteer than males, ranging from 56% in British Columbia and the Atlantic region to 47% in Quebec. The non-volunteers are comprised mostly of men, except in the Atlantic region where only 49% of non-volunteers are male. Most volunteers and non-volunteers are married; however, relatively more volunteers are married in comparison to the non-volunteer group. Another interesting point to note is that, on average, volunteers have more children relative to non-volunteers, and these children tend to be aged six to twelve years.

Volunteers are more highly educated in comparison to non-volunteers; indeed, about one-quarter of all volunteers have a university education in comparison to 13% of non-volunteers. The regional variation in educational levels diminishes as the level of education increases: for instance, 24% of volunteers in Quebec and the Atlantic regions have high school education while this figure is 32% in the Prairies. The range is much tighter -- 22% to 25% -- for volunteers with university education.

There is a significant degree of regional variation in the population density of the areas in which respondents lived. In Ontario, 59% of volunteers live in a CITY (defined as an urban centre with a population greater than 100,000) while 64% of non-volunteers live in a CITY; in the Atlantic region only 30% of volunteers and 27% of non-volunteers live in a centre with a population great than 100,000. Naturally, this sort of variation reflects the population density of the different regions.

Finally, it is useful to note the participation rates reported in the last row of Table 1. These rates are calculated using sample weights so as to reflect accurately the proportion of the population that is volunteering. Just over one-third of employed Canadians volunteer. The participation rates in British Columbia and Ontario mirror the Canadian average. By contrast, more people in the Prairies and Atlantic Canada volunteer compared to the average Canadian, while fewer people in Quebec participate in voluntary activities. We return to these figures in our discussion of regional differences in earnings due to volunteering.

Table 3 indicates the percentage of volunteers in each region that volunteer for twelve different categories of organisations. In all regions, most individuals volunteer for cultural groups (including recreation), followed by social service organisations. The pattern in Quebec is different than elsewhere: the difference between participation in cultural and social service organisations is much smaller in that province compared to the other regions, and the third organisation, in terms of participation rate, is health groups in Quebec whereas for all other regions it is religious groups. In fact, there is an enormous difference in the participation rate of volunteers for religious groups in Quebec relative to the other regions. Overall, the pattern of volunteering is remarkably similar across the remaining four regions.

Four points are useful to keep in mind. First, a good deal of variation is displayed in the characteristics of volunteers across the five regions in Canada; second, remarkable similarities exists in the relative differences between volunteers and non-volunteers within each of the regions; third, some interesting regional variation occurs in volunteer participation rates; and, lastly, the pattern of volunteering for different organisations is quite similar in all regions except Quebec. While raw data are useful for establishing patterns, they cannot help identify which factors affect, for instance, the decision to volunteer and by how much. We now turn to the econometric analysis of both the decision to volunteer and the earnings of volunteers and non-volunteers, on a regional basis.

**Econometric Results**

As discussed previously, the econometric analysis of this problem has three separate components: a reduced-form probit model of the decision to volunteer, selectivity-corrected earnings equations for volunteers and for non-volunteers, and a structural probit model that takes account of the expected earnings differential. It thus seems sensible to discuss the decision to volunteer first before turning to the importance question of how regional labour markets respond to volunteering.

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7. Note that individuals may volunteer for more than one type of organisation, hence the columns do not sum to 100.
The Decision to Volunteer

The probit model includes all of the standard characteristics which are thought to influence the decision to volunteer, plus a few extra variables that are reported in the SGVP. The variables may be broadly categorised into three groups: personal, family and labour market. The personal characteristics include sex, age, marital status, educational level, whether or not the individual donates money to charities (GIVE), whether or not the individual classifies him- or herself as 'religious' (REL), and whether or not the survey interview was conducted in English or French (ENG). We also include as explanatory variables in the probit model variables that denote if the individual is a recent immigrant of less than four years (NEWLAND), a medium-term immigrant of four to eight years (MEDLAND), or a long-term immigrant of over eight years (OLDLAND). A final personal characteristic is the individual’s tenure in his or her current residence: NEWRES is the reference group and denotes individuals who have been in their current residence for less than one year, MEDRES denotes those who have lived for one to five years in their current residence, and OLDRES denotes all others. These variables are included to capture the impact of community attachment, an important indicator of social capital, on volunteering.

Family characteristics include the number of individuals in the household (HHSIZE), and the number of children under six years of age (OWNK05), six to twelve years of age (OWNK0612), thirteen to seventeen years of age (OWNK18PL). Labour market characteristics are important because we are estimating a reduced-form probit model that takes account of the fact that the expected earnings differential may influence the decision to volunteer. To this end, we include the occupation of the individual as represented by eighteen different classifications (services are the reference group).

Table 4 reports the reduced-form probit estimates for each of the five Canadian regions. The number of qualitative inter-regional differences that emerge among the various explanatory variables is actually quite remarkable. For instance, being male has a positive impact on the decision to volunteer in Atlantic Canada and Quebec, but is statistically insignificant elsewhere. Being married has a negative influence in Ontario (at the 10% level of significance) and Quebec, a positive influence (at 10%) in the Prairies, and has no influence in the Atlantic provinces or in British Columbia. The impact of educational level is somewhat less pronounced in Quebec relative to the other regions, while the presence of older children seems to have a mixed impact across all of the regions.

Some interesting regional differences arise in the relationship between being an immigrant and deciding to volunteer. The pattern established in Devlin (2000) for Canada as a whole was that being an immigrant has a negative impact on volunteering, but this effect diminishes with time. In the regional analysis, this pattern emerges exactly for British Columbia and is weakly consistent with the results in Ontario. Elsewhere, being an immigrant is largely an insignificant determinant of the decision to volunteer, except in the Prairies where being a medium-term immigrant (4-8 years) appears to have a negative impact on this decision. In many ways, these regional differences are not surprising -- most immigrants currently land in British Columbia or Ontario; the result for the Prairies may arise because the individual landed elsewhere in Canada but moved later on to the Prairies where he or she needed time to develop the knowledge required to be a formal volunteer.
Another Canada-wide pattern reported in Devlin (2000) relates to the impact of years of residence in the same dwelling on volunteering. In every specification of the sub-sample, it was always the case that residence of less than five years did not affect the decision to volunteer, whereas residence of five years or more had a positive and significant impact on this decision. The effect of tenure on the decision to volunteer, however, does appear to differ across regions: the results in the Atlantic region, the Prairies and Quebec broadly support the established pattern; however, tenure has no impact at all in British Columbia and, rather surprisingly, in Ontario being a medium-term resident has a weakly negative impact on volunteering (at the 10% level of significance) relative to being a new resident (of less than one year). Furthermore, residing five years or more in the same dwelling has no impact on the decision to volunteer in Canada's most populous province. One can only speculate as to what is going on in Ontario. It is clear from Table 1 that, in Ontario, more individuals live in a CITY (an area with a population of 100,000 or more) than elsewhere. People are often more mobile within a city than they are, say, in a rural area: apartment dwellers can easily move from a one-bedroom apartment to a larger one in the same area. Technically, therefore, they could be classified as a 'new' resident because they have only recently moved into their current dwelling, but they could, in fact, be established residents in the same community. As a consequence, the distinction between each classification of resident, and the presumed relationship between tenure in one dwelling and tenure in the same community, may be blurred.

It is interesting to note that the impact of age on the decision to volunteer differs quite markedly across the regions. Age does not appear to matter in the Atlantic provinces or in British Columbia; by contrast, it has a negative impact in the Prairies and Quebec, and a weakly positive one in Ontario. Finally, in all regions, if an individual donates money to charity then he or she is more likely to become a volunteer, suggesting that donating money and time are complementary activities.

In order to ascertain how the expected earnings differential may affect the decision to volunteer, estimates of this differential were computed from the earnings equation and then included in a structural probit analysis of the decision to volunteer. By and large, the results from the structural model accord with the results already presented from the reduced-form model. Table 5 reports the results from the structural probit model. For each region, the estimated coefficients are reported, as well as their t-ratios and the marginal effect of the given variable on the probability of volunteering.

The variable of particular interest, however, is the impact of the differential itself (EARNNDIF). In all cases, the estimated coefficient for EARNNDIF is positive and statistically significant indicating that the differential attributable to volunteering does indeed matter in the decision to volunteer -- however, its impact

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8. Apinumthakul and Devlin (2001) investigate this question using a more sophisticated analysis that allows volunteer time and financial donations to be determined simultaneously.

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<table>
<thead>
<tr>
<th>Variable</th>
<th>ONTARIO</th>
<th>MONTREAL</th>
<th>PRINSEBAY</th>
<th>ALBANIA</th>
<th>VOLUNTEERING</th>
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<td>0.046</td>
<td>0.015</td>
<td>0.007</td>
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</tr>
</tbody>
</table>
varies substantially across regions. Interpreting the marginal effects for the earnings differential is rather complicated because the differential is in logarithms. For instance, in Atlantic Canada, if the difference in earnings between volunteers and non-volunteers were to increase by 10% (about $1,800), this would increase the probability of an individual deciding to volunteer by 0.07% to 0.10 or 0.7%. In Quebec, the response to a 10% increase in the earnings differential in level terms (as opposed to logarithms) would elicit a much smaller response -- a 0.3% increase in the probability of volunteering.

The Labour Market Response to Volunteers

We are now in a position to assess how the labour market treats volunteers in relation to non-volunteers. To this end, separate earnings equations are determined for each group by region; these equations are estimated using a weighted least squares procedure corrected for sample selection. Any selection bias associated with the choice of whether or not to volunteer is taken into account by the inclusion of the inverse Mill’s ratio computed from the reduced-form probits previously estimated.

In order to present the results in a manner conducive to inter-regional comparisons, we report all of the earnings equations for volunteers by region in Table 6, and all of the non-volunteers earnings equations in Table 7. The only drawback with this presentation is that one needs to consult both tables in order to compare across volunteers and non-volunteers; however, it does facilitate inter-regional comparisons, the principal focus of this paper.

We find several similarities and differences across the regions with respect to the determinants of volunteer earnings (Table 6). As expected, being male has a positive influence on earnings in all regions. However, being married has no influence in the Atlantic provinces, the Prairies and Quebec, and a positive impact on earnings in all regions. However, being married has no influence in British Columbia or Ontario. The number of hours worked has the expected positive sign across all regions. The impact of level of education is rather interesting: earnings increase with educational level in Ontario, having a university degree has a positive impact on earnings in all regions except Quebec -- a result that may be partly explained by the generous child-care subsidies available in that province. The other determinants of earnings behave largely as expected. The only other difference worthy of note concerns the selectivity variable INVMILLS. In three regions, selectivity bias was detected, but Atlantic Canada and Quebec did not display any bias. For Canada as a whole, selectivity was a problem (Devlin 2000). Here, however, we see that for two regions -- the Atlantic and Quebec -- no selectivity bias is present.

We also find some notable inter-regional differences across the determinants of earnings for non-volunteers, as well as differences in comparison to the volunteer groups (Table 7). For instance, being married has a weakly positive influence in Atlantic Canada, no influence in British Columbia or Ontario, and a strong positive influence in Quebec -- a pattern that differs rather significantly from that displayed for the volunteer groups. The level of education is completely
TABLE 7 Weighted OLS Regressions: Dependent Variable = log Income, Non-Volunteers’
Earnings Equations

<table>
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<tr>
<th>Variables</th>
<th>BC</th>
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No. Obs 305 711 1074 789 561
Adj. R-square 0.4353 0.4164 0.3910 0.3621 0.3560

irrelevant in British Columbia, the Prairies and Ontario, while having a university
degree exerts a positive impact on earnings in Atlantic Canada and Quebec.
Once again, the size of the family has a negative impact on earnings everywhere
except Quebec. Finally, some inter-regional differences exist regarding selectivity
bias: no bias is found in the Atlantic region or in British Columbia for the
non-volunteers, and the estimated coefficient on INVMILLS is significant at the
10% level in Quebec.

It seems clear, therefore, that important differences across Canada’s
five regions -- differences that are not revealed when using Canada-wide data.
In order to compute the estimated earnings differentials attributable to volunteering
for each region, we employ the well-known Blinder (1973)-Oaxaca (1973)
decomposition procedure which allows one to determine whether earnings in-
crease because an individual has a higher ‘stock’ of human capital relative to
average( the stock effect), or whether earnings increase because an individual
earns a greater return to his or her average stock of human capital (the ‘return’
effect). This decomposition procedure has been extensively used in studies of
earnings gaps due to, for instance, gender (e.g. Miller 1987), and entails determining
the following:

\[ \ln W_v - \ln W = X (\hat{\beta}_v - \hat{\beta}_n) \]  

which can be rewritten as:

\[ \ln W_v - \ln W = \beta X - \bar{X}_n (\hat{\beta}_v - \hat{\beta}_n) \]  

where a bar denotes the sample mean, and a hat denotes the OLS estimate of the
coefficient. The first term on the right-hand side represents the “stock effect” and
second term the “return effect”.

Table 8 presents these two effects for each of the five regions. Note that
various effects are summed together for the sake of brevity -- hence “education”
is comprised of the impact associated with each of the four levels of education
included in the earnings equations. A positive sign means that the volunteer has
the higher stock (or return) in comparison to the non-volunteer, whereas a
negative sign means the converse. Thus, for instance, the negative sign for MALE
in the stock columns for every region but Quebec means that there are fewer
male volunteers in all provinces but Quebec relative to male non-volunteers.

Many of the differences already discussed with respect to the earnings
equations are further revealed by this decomposition procedure. Male volunteers
earn a lower return to being male in British Columbia and Ontario, and a higher
return in the other three regions. The impact of being married also differs across regions. Notice that, in all regions volunteers work fewer hours relative to non-volunteers, and in all but one region — Ontario — volunteers gain a higher return for any given hour worked relative to non-volunteers. Ontario also stands out as the only region where the return to education is higher for volunteers than non-volunteers; the 'stock' of education is higher in all regions for volunteers.

The main reason for undertaking this decomposition procedure is that it allows one to calculate the overall difference in expected earnings between volunteers and non-volunteers, taking into account the differences in characteristics across the two groups. The last row entitled “average effect” provides this difference in the log of earnings; these numbers are approximately equal to percentages for small changes. For Canada as a whole, the estimated differential is 4.25%; when the country is separated into its five main regions, we find considerable inter-regional variation in the differentials. They range from 12.52% in British Columbia to 1.17% in the Atlantic provinces. Quebec has the second highest labour-market return to volunteering — 6.51%; followed by Ontario (4.91%) then the Prairie provinces (3.13%). Why do regional differences exist in labour-market responses to volunteering? The following section offers some suggestions and concluding remarks.

Why Regional Differences?
Some Comments and Conclusions

One of the characteristic features of the Canadian landscape is regional diversity — in physical terms, of course, but more importantly in terms of economic well-being. Some regions in Canada are wealthier than others; and while there is some evidence to suggest that the relative differences in economic well-being may be disappearing over time, absolute differences continue to persist (Day and Coulombe 1999). A literature exists that attempts to explain these differences in terms of labour (im)mobility (e.g. Dickie and Gerking 1998), looking at inter-regional migration in response to unemployment benefits and federal government transfers (e.g. Winer and Gauthier 1982), and various other fiscal variables. In spite of many policies designed to reduce regional inequalities, they persist; migration is simply insufficient to equilibrate economic variables, like wages, across regions. Several factors can explain persistent differences in remuneration: mobility costs, production costs, government transfers, and, of course, tastes. Dickie and Gerking (1998) suggest that mobility costs play an important role in maintaining persistent wage differences across regions, especially as an individual ages: for an older person who perhaps has seniority or a locked-in pension plan, it is simply too expensive to move even for a higher-paying job.

Given that regional differences exist in several economic measures, and most notably in earnings, it is not very surprising that regional labour markets also respond differently to volunteers. Thus, even though volunteers in, say, British Columbia are paid a premium that exceeds the premium paid to volunteers in, say, the Prairies, we would not expect that this premium would be sufficient to induce workers to move west — for the same reasons that workers do not necessarily move to earn higher salaries, i.e., mobility costs and personal preferences.

Moreover, to the extent that the labour-market premium arises because of the contacts made while volunteering, this mechanism is not transferable and thus the presence of higher differentials elsewhere would not induce volunteers to move to the region with the highest premium. Someone moving to another region would have to foster a new network to enhance his or her employment opportunities in the new region.

Regional differences do not typically disappear with inter-regional migration — thus differences in labour-market responses to volunteering are also likely to persist over time. But why does the labour market treat volunteers differently across the regions? Part of the answer may lie in the fact that the characteristics of volunteers differ quite remarkably across the regions, while another part of the answer may lie in the characteristics of the labour market itself. In tight markets where employers find it difficult to recruit high-quality workers, volunteering may provide contacts through which better ‘matching’ may occur; in markets with a glut of highly-skilled workers, the role of the network may be less valuable in matching workers to jobs. Networking is simply ineffective when there is a chronic lack of employment. It is not surprising, for instance, that the earnings differential between volunteers and non-volunteers is very small in Atlantic Canada: the lack of jobs and employment opportunities serve to reduce the importance of networking through volunteering.

This paper is the first of its kind to examine the regional labour-market responses to volunteering in Canada. In some ways, its basic result is not surprising: the response to volunteering varies across regions. The largest earnings differential between volunteers and non-volunteers occurs in British Columbia (12.52%) whereas the lowest is in Atlantic Canada (1.17%). In spite of these regional differences, all individuals, irrespective of region of residence, are motivated to volunteer in anticipation of this earnings differential.

References


Appendix

The SGVP data set provides information on the characteristics of those people who volunteered during the sample period and those who did not. We can look at the decision to volunteer by estimating a model in which the dependent variable takes on the value '1' if the individual volunteered and '0' if he or she did not. If one were to use the simple ordinary least squares (OLS) approach to estimating such a model, one cannot be assured that the predictions from this model lie in the zero to one range. The probit model is designed to deal with this problem, yielding predictions that look like probabilities. This model is extensively described in Greene (1997).

The estimated coefficients in the probit model indicate the impact of the given variable on an index which determines the probability of the individual, in this case, volunteering. The relationship between each variable and this index is non-linear, hence one cannot simply interpret the estimated coefficient as indicating the impact of the variable on the probability of engaging in the activity. Hence, it is useful to present the marginal effect of each estimated coefficient which does, in fact, indicate the impact of a small change in the given variable on the probability of, in this case, volunteering.