

# Why Are Canadians Reluctant to Leave Their Province?

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## **Abstract**

*This article investigates the puzzle of Canadian interprovincial migration. Despite the opportunities afforded by a large country like Canada, the proportion of residents moving to a new province has been in steep decline since the 1970s. A body of literature suggests that federal redistribution explains the limited incentives of residents to move across provinces, by equalizing the quality of services throughout the country. However, most of the available evidence relies on migration trends observed after the fact. This article introduces an original survey asking Canadian respondents squarely whether they have ever considered leaving their province. The findings support the idea that satisfaction with provincial services refrains intra-country migration. Moreover, I show that views about the federation matter to explain attitudes toward migration. Canadians favorable to centralization, who tend to be younger and more educated, are more likely to consider moving to another province.*

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## **Why Are Canadians Reluctant to Leave Their Province?**

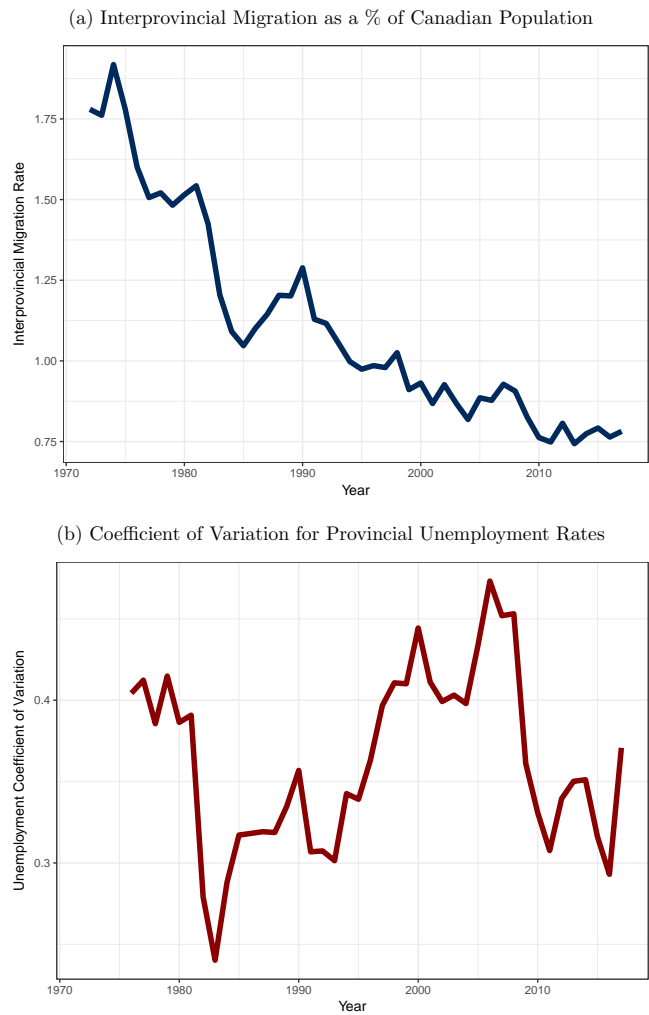
Canada's social contract hinges in large part on the adequacy of its federal system, and the political history of the country has been punctuated by efforts toward the reconciliation of regional differences. A key institutional component of Canadian federalism is the equalization program implemented in 1957, and the federal transfers that appeared during the following decade, which aim at normalizing the capacity of provincial governments to offer public services. This change coincides with the beginning of a sharp and sustained decline in interprovincial migration rates since 1970. As Figure 1(a) illustrates, the annual number of interprovincial migrants dwindled from roughly 1.75 percent of the total Canadian population in the 1970s, to about 0.75 percent in the current decade. Whether this decline in labor mobility happened by design, as a consequence of federal redistribution, is the crux of an enduring debate in the study of Canada. A body of research has argued that institutional disincentives to migrate prevent the natural adjustment mechanisms needed to resolve persistent inequalities between provinces (Day and Winer 2012). Some Atlantic provinces, for instance, have unemployment rates nearly twice as large as the Canadian average.<sup>1</sup> In fact, but for periods of economic recession, the discrepancies in provincial unemployment rates have remained roughly the same as they were in the 1970s (Figure 1(b)). In other words, labor mobility between provinces has declined dramatically, but regional inequalities in employment prevail.

What explains the reluctance of Canadians to move between provinces? This study is a rare attempt to examine the puzzle using survey data. While there is a sizable body of research on the topic, most-if not all-of the empirical literature has relied upon data measuring realized patterns of migration. We know about the actions of Canadians after the fact, yet we have little evidence on what people actually think. Rarely have Canadians been asked whether they considered moving to a different province, and why they choose not to. To address this gap, the present paper relies on a special survey of 1,523 English-speaking Canadians conducted in 2016, which includes new questions designed to measure respondents' views about interprovincial migration and their current province of residence. I consider three central hypotheses. First, building upon fiscal federalism theory, I examine whether satisfaction with provincial taxation and services affects the decision to move. This amounts to testing the enduring claim that federal transfer programs designed to standardize public services across provinces influence the rates of internal migration. Second, I consider a new hypothesis about views of the federation, by examining whether people who support centralization are more likely to consider moving

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<sup>1</sup>Based on Statistics Canada's Table 14-10-0090, "Labour force characteristics by province, territory and economic region, annual." For 2016, the unemployment rate was 13.7 percent in Newfoundland, 10.3 percent in Prince Edward Island, 9.5 percent in New Brunswick, and 8.3 percent in Nova Scotia, compared to the Canadian rate of 7 percent. See Table A1 in the Appendix for a complete list. Accessible at <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410009001>. Retrieved on July 31, 2019.

Figure 1: Interprovincial migration rate and unemployment inequality in Canada (1972–2017).



Notes: The coefficient of variation for provincial rates of unemployment is computed as the standard deviation divided by the mean. Larger values indicate more discrepancies between provinces. Sources: a) Statistics Canada. 2018. *Table 17-10-0021-01: Estimates of the components of interprovincial migration, annual*. Ottawa: Government of Canada. b) Statistics Canada. 2018. *Table 14-10-0018-01: Labour force characteristics by sex and detailed age group, annual*. Ottawa: Government of Canada.

across provinces. Third, I test a classical hypothesis of migration theory, which posits that job market incentives drive mobility.

The survey data bring forth a new source of evidence to document the reasons behind the low rates of interprovincial migration observed today in Canada. In particular, I find that satisfaction with provincial services (such as health care and education) reduces the incentives of Canadians to move. This factor appears more robust than satisfaction with tax rates and perceptions of job market opportunities. Since core provincial services are tied to federal redistribution through conditional block transfers, this finding brings supportive evidence to the idea that federal redistribution in Canada may contribute to dissuading mobility. Moreover, the findings show that respondents' political views about the Canadian federation influence the probability of considering migration. Specifically, Canadians who cling to the view that the federal government should have more power are also more likely to move across provinces. People holding such attitudes tend to be younger and more educated. This suggests that the new generations of Canadians, less attached to provincial autonomy, are the most likely group of population to reverse the trend of declining mobility.

The article starts by reviewing theoretical explanations for the migration decision. Such theories have served to inform the survey design and will help to derive testable hypotheses. The following section introduces the data and reports sample statistics that should be relevant to scholars interested in Canadian studies. In particular, I discuss the evaluations that Canadians make of their province and their positions on the centralization/decentralization debate. The third section analyzes the data using multivariate models, and tests the central hypotheses about the causes of interprovincial migration. A last section concludes with a discussion of the findings and their implications for the study of the Canadian federation.

## Theoretical Considerations

As hinted in the previous section, federations that equalize conditions across their territory may impede mobility. The policy instruments used for redistribution in Canada comprise both conditional block transfers (for health, education, and social services) and an equalization program, and both were established progressively since the late 1950s. This last feature is not specific to Canada: with the notable exception of the United States, most federations use some form of equalization scheme (see Bird and Tarasov 2004; Watts 2008; Lecours and Béland 2010). The reasons behind these federal transfer programs can be traced to the early American literature on public finance. Simply put, in Musgrave's (1959) influential theory, the central government is in a better position to handle macroeconomic stability and oversee redistribution, whereas sub-national authorities should allocate services to the population.<sup>2</sup> This three-function model has remained a reference for practitioners and the Canadian political system reflects these precepts to a large extent. By having the federal level taking charge of redistribution, the objective is to prevent undesirable population movements from the poor to the affluent regions, and the exodus of the wealthy. This argument is laid out in Buchanan (1950) and Oates (1968), and its influence on the Canadian equalization program is discussed further in Boadway and Hayashi (2004).

Interestingly, a challenge to Musgrave's theory of public finance came from one of his own students, who emphasized the benefits of internal migration for federations (Tiebout 1956). Tiebout's influential paper was first and foremost an argument for decentralization, but is probably remembered for its focus on mobility. The *voting with the feet argument* predicts that in a decentralized federation, people will maximize their satisfaction by moving to a sub-national polity that corresponds to their own policy ideal. In fact, little attention had initially been paid to the incongruity between this argument and the fact that federations aim to limit such movements in the first place. In the words of Buchanan (1950, 589),

“[a]n individual should have the assurance that wherever [he/she] should desire to reside in the nation, the overall fiscal treatment which [he/she] receives will be approximately the same.”

Tiebout later recognized that income inequalities complicated his model (which could cause an exodus of the rich), and conceded that interventions from a higher level of government would be necessary (Tiebout 1961, 92–95). His model was later scrutinized and amended (Bewley 1981; Conley and Konishi 2002), but it remains an influential theory in the social sciences. Ironically, one of the most popular models of federalism extols the benefits of policy-induced mobility, which federal redistribution is designed to prevent. Other theorists after

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<sup>2</sup>Note that Musgrave (1961) also distinguished between two types of federal redistribution, one directed at sub-national governments and one at individuals. In practice, the former is more common, although the federal government also handles the employment insurance program in Canada.

Tiebout also stressed the benefits of decentralization (e.g. Oates 1972), but the view that federal governments should handle redistribution has remained prevalent in the field.

An unresolved question in this literature is whether federal transfer programs in Canada lead to an optimal level of intra-country migration. By leveling the offer of services across provinces, these programs should eliminate inefficient forms of migration, leaving only the natural mobility resulting from job market conditions. In theory, Boadway and Flatters (1982) have shown that equalization programs can lead to an efficient equilibrium. Yet, a long string of studies has expressed concerns that federal transfers in Canada may actually curtail population movements to levels below what would be needed to resolve enduring economic inequalities. This conclusion, usually called the transfer dependency thesis, started with empirical studies by Courchene (Courchene 1970; Courchene 1981) and has been discussed under various scenarios since then (Winer and Gauthier 1982; Mills, Percy, and Wilson 1982; Day 1992; Day and Winer 2012; Newbold 2008). In a recent study, Albouy (2012) estimates that the lack of interprovincial migration has left provinces in the Atlantic and the Prairies with a population 31 percent too high. The thesis has also been challenged over the years (Lin 1995; Kaestner, Kaushal, and Van Ryzin 2003; Bakhshi et al. 2009). Most of the existing research, however, makes use of empirical data on observed migration patterns. The present study is one of the first to ask Canadians directly about interprovincial migration.

Building upon this literature on federalism, I formulate a first hypothesis to be tested with the survey data: *the better the evaluation of policy (specifically, taxes and provincial services) relative to other provinces, the less likely Canadians consider interprovincial migration*. I propose to distinguish between perceptions toward taxation levels on the one hand, and provincial services on the other hand. The latter include large budgetary components such as health, education, and social assistance. This hypothesis captures not only the Tiebout mechanism—whereby Canadians who view better opportunities outside their province are likely to vote with the feet—but also the consequence of equalization transfers, which are designed to constrain mobility through normalization of the fiscal and policy mix.

### **Regionalism, Centralization, and the Decision to Move**

One factor has been overlooked by scholars in explaining the decision to move or not to move across the country: political views about the federation. The division of powers between levels of government has been an issue of contention in Canadian politics, and whether people have a strong political attachment to their province should realistically influence their likelihood of being movers. The country has a hard-fought tradition of provincial autonomy, which has led to a rich literature on regionalism in Canada (see Simeon and Elkins 1974; Elkins and Simeon 1980; Gidengil et al. 1999; Henderson 2004; Stevenson 2009; Cochrane and Perrella 2012). The case of Quebec is well known, but the role of provincial attachment in Canada goes beyond this cultural divide. By design, this study focuses on the English-speaking portion of Canada, which allows to distinguish between attitudes about the provincial-federal dimension and the French-English cleavage (the “Quebec Question”). The goal here is to examine whether political views on the provincial-federal divide also influence the decision to relocate across Canada.

How Canadians view the relationship between provinces and the federal government remains an open question. Scholars and politicians usually accept the preponderant role of provinces as the new order of things. Canada ranks among the most decentralized countries in the world in terms of a number of indicators, for instance the proportion of public expenditures administered by sub-national governments and the level of regional authority (see Rodden 2004; Hooghe et al. 2016). Even compared to a decentralized federation like the United States, Canada markedly differs when comparing the relative size of sub-national governments. According to OECD indicators, the federal level accounted for only 32 percent of consolidated expenditures in Canada, compared to 52 percent for the United States.<sup>3</sup>

This empowerment of provinces appears to have nurtured a strong sense of regional identity among Canadians. The interesting question is whether Canadians also perceive their province as the most relevant political community, or if they hold centralizing views. Recent evidence suggests that Canadians are more trustful of their local government than they are of the federal (Kincaid and Cole 2010). However, depending on the phrasing of the questions used, survey respondents appear at best ambivalent about the centralization/decentralization debate (Cutler and Mendelsohn 2001) and more likely to identify as “Canadians first” (Mendelsohn 2002). In

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<sup>3</sup>Data retrieved from the OECD Fiscal Decentralisation Database, on March 23, 2018 (<http://www.oecd.org/tax/federalism/fiscal-decentralisation-database.htm>).

short, despite the strong trend toward provincial autonomy, many Canadians appear to hold a conflicting sense of political identity.

I expect these views about the federation to influence the prospects of interprovincial migration. It stands to reason that citizens who feel firmly rooted in their region, those who “think provincially”, should be less inclined to venture across the country. Conversely, Canadians who cling to the idea of a centralized Canada should feel free from such psychological barriers. As a result, the second hypothesis that I propose to test in this paper is that *individuals should be more likely to consider moving across the country, the more they espouse centralizing views about Canada.*

## Migration Theory

A number of additional factors motivating the decision to migrate have been singled out in the existing Canadian literature, and I account for them in the analysis to follow. Among these factors, age, unemployment, language, and the province of origin often resurface as the most significant (Laber and Chase 1971; Mills, Percy, and Wilson 1982; Robinson and Tomes 1982; Vanderkamp 1982; Liaw 1990; Newbold and Liaw 1994; Newbold 1996a; Newbold 1996b; Benarroch and Grant 2004; Finnie 2004; Liaw and Qi 2004; Basu and Rajbhandary 2006; Coulombe 2006; Ferguson et al. 2007; Bernard, Finnie, and St-Jean 2008; Dion and Coulombe 2008). Similar findings stem from the literature in the United States and other developed countries (see Greenwood 1997; Cebula 2005; Cebula and Alexander 2006; Partridge et al. 2012). Again, the existing body of literature relies mostly on observable characteristics derived from public databases, without asking the principals about their actual motivations for moving to another province. The survey data used in this paper will provide this new perspective, while accounting for the role of variables found to affect the migration decision in these other studies, for instance basic socio-demographic characteristics like age, gender, income, and education.

The fact that economic considerations such as the employment status are associated with migration patterns is particularly relevant for the study of Canadian institutions. Employment insurance is another key redistributive program handled by the federal government in Canada, one that can have the consequence of limiting economic incentives to leave one’s province after losing work. General theories of *international* migration are consistent with such causal explanations based on cost-benefit calculations. The lack of job opportunities or the existence of better wages in foreign nations are stressed as key variables motivating the decision to emigrate (see Massey et al. 1993; Borjas 1994). Under such a view, migrants choose a location that optimize their income. In the Canadian context, this has led to a number of studies focusing on the returns to migration (Newbold and Liaw 1994; Newbold 1996a; Robinson and Tomes 1982).

This question matters not only to understand the reasons pushing people to leave one region, but also because the resulting migration patterns may have economic consequences on the regions or provinces involved. For instance, previous research suggests that interprovincial migration may augment disparities in skill labor across provinces, since low-skilled individuals are less likely to move than skilled workers (Coulombe 2006; Coulombe and Tremblay 2009). International immigration was also found to reinforce the existing mix of industries within provinces, and the technological gap dividing regions (Rheault 2015). Understanding why people move, or choose not to, can help decision-makers forecast the development of regional economies within Canada.

On the other hand, economic considerations fall short of explaining all variation in migration patterns, and scholars have also accounted for the role of connections between people (see Massey and España 1987; Boyd 1989; Massey et al. 1993; Rumbaut 1997; Pedersen, Pytlikova, and Smith 2008; Epstein 2008). Familial obligations are normally viewed as a barrier to emigration (Mincer 1978). For most people, moving implies leaving relatives behind, and possibly a network of friends that represented a source of social capital. Existing policy is built to account for this social nature of migration; for instance, family reunification represents a major class of international immigrants admitted to Canada. Network effects, whereby migrants from specific cultural groups or areas tend to follow each other to the same locations, have become a mainstream explanation of migration patterns, and is viewed as a means to reduce the costs of emigration (see Massey and España 1987; Massey et al. 1993). Accounting for the structure of networks as a cause of interprovincial migration is an interesting endeavor, yet one that falls beyond the scope of this paper. However, the idea that familial considerations may affect the decision to move was considered when designing a survey question for this study, and I discuss it at the end of the empirical section.

In the following analysis, I will test the hypothesis that *positive evaluations of the provincial job market are*

*negatively associated with the decision to move.* If there is a cost-benefit calculation behind the emigration decision, then perceptions of better jobs, wages, and cost of living in other provinces should represent a key trigger. The survey module used for this study includes indicators measuring these perceptions. Based on previous findings from the literature, I also except age and the province of origin to explain interprovincial migration, and will account for such control variables in the empirical specifications of the next section.

## Data and Methods

To test the hypotheses laid out in the previous section, the present study relies on original survey questions tapping into respondents' views about interprovincial migration, the performance of their province, and their beliefs about federalism. These questions were included in an omnibus survey conducted in 2016, with a sample of 1,523 internet respondents. Online surveys have become common for empirical research in Canada, and they may soon become the primary method used for the Canadian Election Study (Breton et al. 2017). The survey was launched in English only. The methodology relied upon quota sampling to match the regional and age distribution of Canadians. Due to their smaller populations, Atlantic provinces were treated as one geographical unit for sampling purposes, although all respondents were queried with respect to their specific province. The analysis excludes a few respondents from the three territories.

A question of interest included in that survey asked respondents: "Have you ever considered moving to a Canadian province other than the one in which you currently reside?" This survey question represents the dependent variable in the empirical analysis that follows. The phrasing is deliberately broad—respondents are asked whether they *considered* moving, rather than if they actually moved or if they are concretely planning to. The objective is to generate a sufficient sample of positive responses and distinguish between stayers and potential movers. Proceeding otherwise would lead to under-sampling given that observed migration rates are below 1 percent. Interestingly, the new survey question has close to a 50/50 split between *movers* and *stayers*. To be accurate, about 44 percent of the sample answered yes to the query reported above, whereas 56 percent said no. From a statistical point of view, such a balanced sample is also ideal for the efficiency of estimators for binary dependent variables (see King and Zeng 2001).

Figure 2 shows sample proportions of stayers in each province. I grouped the four Atlantic provinces in this figure to simplify presentation. British Columbia (BC) and Ontario are the two provinces for which respondents are least likely to consider leaving. In the case of BC, this is consistent with realized patterns of interprovincial migration: the province has been a net recipient of intra-country migration since 2003.<sup>4</sup> In contrast, Alberta and Saskatchewan rank among the provinces with the lowest proportions of stayers. It shall be noted that the survey was conducted after both provinces had been hurt by the oil price crisis of the 2010s, which may explain in part the large proportions of respondents classified as movers. Until the beginning of the 2010s, both these provinces had enjoyed positive net migration from other parts of Canada (see note 4).

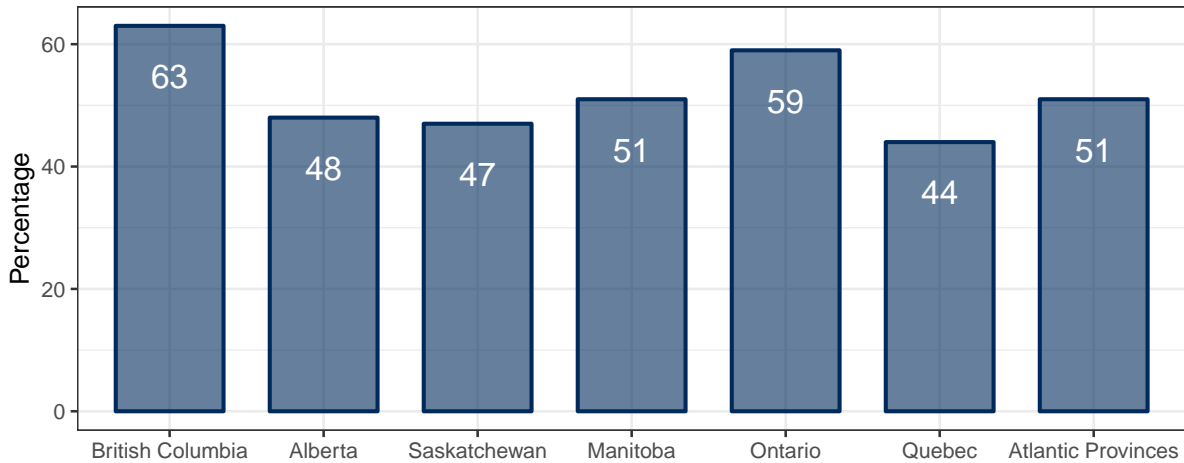
The survey also includes a battery of questions about the evaluations that Canadians made of their province. Importantly, these were asked *before* the question on mobility, which avoids priming the idea of migration and reduces concerns about reverse causation. In particular, respondents were invited to tell whether they perceived their province to perform better or worse than the rest of Canada on five key items: 1) Jobs, 2) Wages, 3) Cost of living, 4) Taxes, and 5) Services (with health care and education prompted as examples). The exact labeling of these questions appears in the Appendix to this paper.

Two points on measurement are worth emphasizing. First, by asking respondents to rate their province compared to the rest of Canada, the indicators can be viewed as relative scores, which is desirable to explain the decision to migrate. In other words, what matters is not simply whether Canadians are unsatisfied with their province, but whether they think the situation might be better elsewhere in the country. Second, studying the attitudes of Canadians requires measuring whether they perceive a difference with other provinces, not whether such a difference actually exists. As opposed to previous research relying on observed economic indicators, the benefit of survey data is that we can account for the information that people actually possess.

Table 1 shows the average responses by province on the five items. Each item is based on a five-point scale, where 1 indicates that a respondent perceives the situation to be much worse in one's province than in the

<sup>4</sup>Data on observed migration trends come from Statistics Canada's Table 17-10-0015, "Estimates of the components of interprovincial migration, by age and sex, annual." Accessible at <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710001501>. Retrieved on June 7, 2017.

Figure 2: Percentage who Never Considered Intra-Country Migration, by Province



rest of Canada, and 5 a perception that the province is doing much better. The value of 3 is the point where respondents perceive no difference between their province and the rest of Canada. If the redistributive role of federal institutions is successful, average responses should fall very close to this value. As can be seen from Table 1, apart from a few exceptions, mean values close to 3 are quite common. Deviant cases are highlighted in bold. Those numbers in bold are the only values significantly lower than 2.5 in the population, based on a *t*-test at the 95 percent confidence level. Especially with regard to provincial services, the average Canadian perceives little difference with the rest of the country. Regarding taxes, most Canadians feel that the situation is better outside their province, although this may be a “grass is greener” effect. Except for Alberta, where there is no provincial sales tax, and perhaps Saskatchewan, dissatisfaction regarding taxes appears rather generalized across the other provinces.

Table 1: Views on Provincial Performance

	Jobs	Wages	Cost of Living	Taxes	Services
British Columbia	3.2	2.8	<b>1.9</b>	2.5	2.7
Alberta	2.5	3.1	2.4	3.2	2.9
Saskatchewan	3.4	3.2	2.9	2.9	3.1
Manitoba	3.0	2.7	3.1	2.4	2.9
Ontario	3.0	3.1	<b>2.3</b>	<b>2.4</b>	2.7
Quebec	3.0	2.8	3.0	2.4	2.9
Atlantic Provinces	2.7	2.7	2.7	2.4	2.7
Observations	1,512	1,511	1,511	1,512	1,512

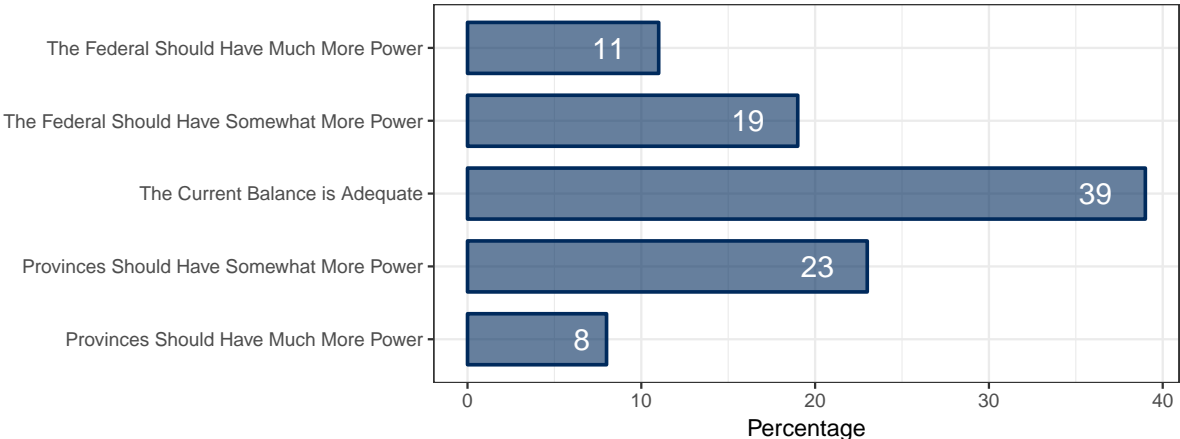
Notes: Average response for each performance item, on a range between 1 and 5, where 5 indicates that the province is perceived to do much better than the rest of Canada. The middle value of 3 indicates no perceived difference between one’s province and the rest of Canada. Bold numbers indicate that the estimated population average is lower than 2.5 or greater than 3.5 at the 95% confidence level. The data come from a survey of English-speaking Canadians conducted in 2016.

For the other survey items shown in Table 1, the average responses are rather close to the center as well. The clear outliers can be readily explained with background context about the provinces. Respondents from Ontario and BC were more likely to think that their province performs poorly in terms of the cost of living. Alberta is not far behind. This is consistent with existing data on the cost of living by province. Indeed, figures from the Survey of Household Spending for 2015 suggest that residents from these three provinces spent close to \$20,000 a year on shelter.<sup>5</sup> Elsewhere in Canada, households spent below \$15,000 a year on average (\$17,000 for Saskatchewan). The sample averages shown in Table 1 reflect these discrepancies. Another outlier concerns Albertan respondents, who were unlikely to boast the performance of their province in terms of jobs. Table A1 in the appendix provides additional comparisons of observed levels of unemployment, job vacancies, marginal taxation, and social service spending for 2016, by province.

<sup>5</sup>The data points mentioned in this paragraph come from Statistics Canada’s Table 11–10-0222 (“Household spending, Canada, regions and provinces”) and represent average expenditure per household for 2015. The data are accessible at <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110022201> and were retrieved on May 5, 2017.

Another key indicator derived from the survey measures views on the Canadian federation. Specifically, the question asks respondents if their province should have more power, whether the federal government should have more power, or if the current balance is adequate. The question is useful to identify respondents who hold strong centralizing views, as opposed to those supportive of provincial autonomy. The question labeling, which included a preamble to avoid prompting a specific option, appears in the Appendix. Figure 3 shows the percentage distribution across the sample. Roughly 30 percent lean toward either side of the centralization/decentralization dimension, and close to 40 percent find the current balance adequate. The rather large proportion in favor of more federal powers goes against the trend of decentralization, and suggests that Canadians are rather divided on this question.

Figure 3: Views on Canadian Federalism



To test the central hypotheses, my main models rely on the binary indicator introduced above, which asked respondents whether they ever considered moving to a different province. I make use of logistic regressions, appropriate for binary dependent variables. In the generalized linear model framework, this estimator can be written

$$\mathbb{E}(y) = \Lambda(\mathbf{x}'\beta)$$

where  $y$  measures whether the respondent has considered moving to a different province or not, and  $\Lambda$  is the logistic cumulative distribution function, an S-shaped curve that maps a linear combination of parameters ( $\beta$ ) and explanatory variables ( $\mathbf{x}$ ) onto a 0-1 probability that the respondent has considered moving. The estimates  $\beta$  from this model can be interpreted for sign and significance, while the estimated effect of a variable  $x$  can be illustrated by its impact on the predicted probabilities that  $y$  takes on a specific value. I also examine the determinants of preferences toward federalism using ordered logistic regressions.

### Untangling the Puzzle of Interprovincial Migration

Table 2 reports the results of logistic regression models with a variety of predictors included, which I discuss in substantive terms below. The first column reports a model that predicts the intention to move using the five provincial evaluation indicators introduced earlier. Notice that each of these five indicators is left on its original, five-point scale. The second model adds a number of socio-demographic characteristics previously identified as potential determinants of migration (age, gender, ethnic group, immigrant status, income, and education). The third model includes provincial binary variables, where British Columbia is used as the reference category.

A key finding from these models is the negative and significant effect of the evaluation of provincial services on the probability of being a mover. The better a respondent evaluates their province with regard to provincial services, the less likely they are to consider moving to a different province. This finding appears robust in the last two models shown in Table 2, even after the inclusion of additional control variables measuring individual characteristics and the province of origin. The significance tests are based on statistical theory and assume random sampling. A statistically significant coefficient means that only 5 percent of the time or less would such an association in the sample be observed due to random chance. In other words, we can conclude with



Table 2: Explanations of Attitudes Toward Interprovincial Migration (Logistic Regressions)

	Dependent Variable: Considered Moving to Another Province		
Jobs	−0.217** (−0.350, −0.084)	−0.164* (−0.304, −0.024)	−0.128 (−0.277, 0.022)
Wages	0.066 (−0.083, 0.215)	0.068 (−0.088, 0.225)	0.074 (−0.087, 0.236)
Cost of Living	0.122* (0.004, 0.241)	0.123 (−0.002, 0.248)	0.083 (−0.051, 0.217)
Taxes	0.031 (−0.101, 0.163)	0.0003 (−0.140, 0.140)	−0.033 (−0.182, 0.115)
Services	−0.087 (−0.220, 0.045)	−0.175* (−0.316, −0.034)	−0.176* (−0.318, −0.035)
Pro-Centralization Views	0.166*** (0.070, 0.262)	0.175*** (0.073, 0.276)	0.190*** (0.087, 0.293)
Age		−0.025*** (−0.033, −0.018)	−0.025*** (−0.033, −0.017)
Gender		0.008 (−0.220, 0.235)	0.023 (−0.206, 0.252)
White		0.202 (−0.076, 0.479)	0.181 (−0.100, 0.461)
Born in Canada		0.238 (−0.092, 0.567)	0.231 (−0.102, 0.563)
Income		−0.010 (−0.066, 0.047)	−0.014 (−0.072, 0.043)
Education		−0.109 (−0.362, 0.143)	−0.085 (−0.338, 0.169)
Alberta			0.438 (−0.018, 0.893)
Saskatchewan			0.711* (0.083, 1.339)
Manitoba			0.398 (−0.179, 0.974)
Ontario			0.038 (−0.302, 0.377)
Quebec			0.505 (−0.077, 1.087)
Atlantic Provinces			0.119 (−0.357, 0.596)
Intercept	−0.416 (−0.867, 0.035)	0.606 (−0.142, 1.355)	0.477 (−0.323, 1.277)
Observations	1,510	1,408	1,408
Log Likelihood	−1,022.910	−929.387	−923.209

Notes: The table reports estimates from binary logistic regression models, along with their 95% confidence intervals in parentheses. The data come from a survey of English-speaking Canadians conducted in 2016.

\*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

reasonable confidence that the result regarding evaluation of provincial services can be generalized to the English-speaking population of Canada. This finding is consistent with the existence of a Tiebout mechanism whereby Canadians dissatisfied with provincial policy are most likely to leave. Put the other way around, this is also evidence in support of the transfer dependency thesis: the more federal transfers are successful at improving the satisfaction of Canadians with provincial services, the less likely they are to leave their province. Note, however, that there is no significant effect when it comes to the evaluation of provincial taxes.

A second finding of interest concerns opinions on the centralization/decentralization dimension, based on the indicator discussed earlier. There is a clear positive relationship between pro-centralization views and the probability of being a mover. In fact, this is one of the most robust results (along with the association with the age variable), in terms of the confidence with which the association can be generalized to the population of Canadians. This finding brings support to the idea that Canadians' political views about their country is an important factor in explaining interprovincial migration. Put the other way around, the results indicate that respondents who cling to the view that their province should have more power (the pro-decentralization) are less likely to consider leaving their province. I interpret Canadians holding such opinions as having a stronger sense of provincial identity, and this attitude contributes to the explanation of low levels of intra-country mobility.

Interestingly, the items measuring economic factors do not lead to significant results. Satisfaction with job opportunities in one's province appears negatively related to the probability of considering interprovincial migration, but this result is not robust to the inclusion of variables accounting for the current province of residence. In other words, the association appears to be driven by specific provinces, and is not strong enough to resurface within each province at reasonable levels of confidence. To illustrate a similar statistical phenomenon, consider the cost of living variable, which was another provincial evaluation item measuring economic incentives to migrate. In the first model, it appears positively associated with the probability of moving, which is counter-intuitive. It would suggest that better prices would induce Canadians to leave their province. But this result was an artifact caused by two provinces: BC and Ontario. In both these provinces, respondents are more likely to think that costs of living are worse than in the rest of Canada, as discussed previously. Yet, Ontarians and British Columbians are also among the least likely to consider moving. Therefore, after controlling for the province, as in the third model of Table 2, the relationship between cost of living and the intention to move disappears.

To illustrate the magnitude of some variables of interest, Figure 4 depicts the change in predicted probabilities for a change from the minimum to the maximum sample value of the predictor. To compute this impact, all other independent variables are held at their mean values. The figures are based on the second model from Table 2. As can be seen from the top-right panel of Figure 4, the impact of having centralizing views about the federation corresponds to a predicted change of about 0.15 points in the probability of considering moving to another province, all else being equal. The effect of a positive evaluation of provincial services (top-left panel) is roughly equivalent, in the opposite direction. Age exerts by far the largest effect, as illustrated in the bottom panel of Figure 4. A young 20-year-old respondent has a predicted probability of moving above 0.6, compared to less than 0.2 for the oldest respondents. This last result is consistent with previous studies on the determinants of migration.

The finding that political views on federalism influence migration raises interesting questions. To help understand who are those Canadians who prefer centralization, Table 3 shows the results of ordered logistic regression models using the attitudes on federalism as the dependent variable, against a number of socio-demographic characteristics. Using inference at the 95 percent confidence level, younger Canadians with college education appear more likely to hold pro-centralization views. To illustrate this effect, the difference in the predicted probabilities of thinking that the federal government should have somewhat more or much more power is about nine percentage points, for a 20-year-old respondent compared to a 55-year-old, holding all other variables constant (changing from 0.38 to 0.27). The estimated effect of holding a college degree is of a similar order of magnitude, roughly ten percentage points, in the opposite direction. Note that the education variable is a binary indicator equaling one if the respondent holds a college degree, and zero otherwise. Men and immigrants also appear more favorable to centralization.

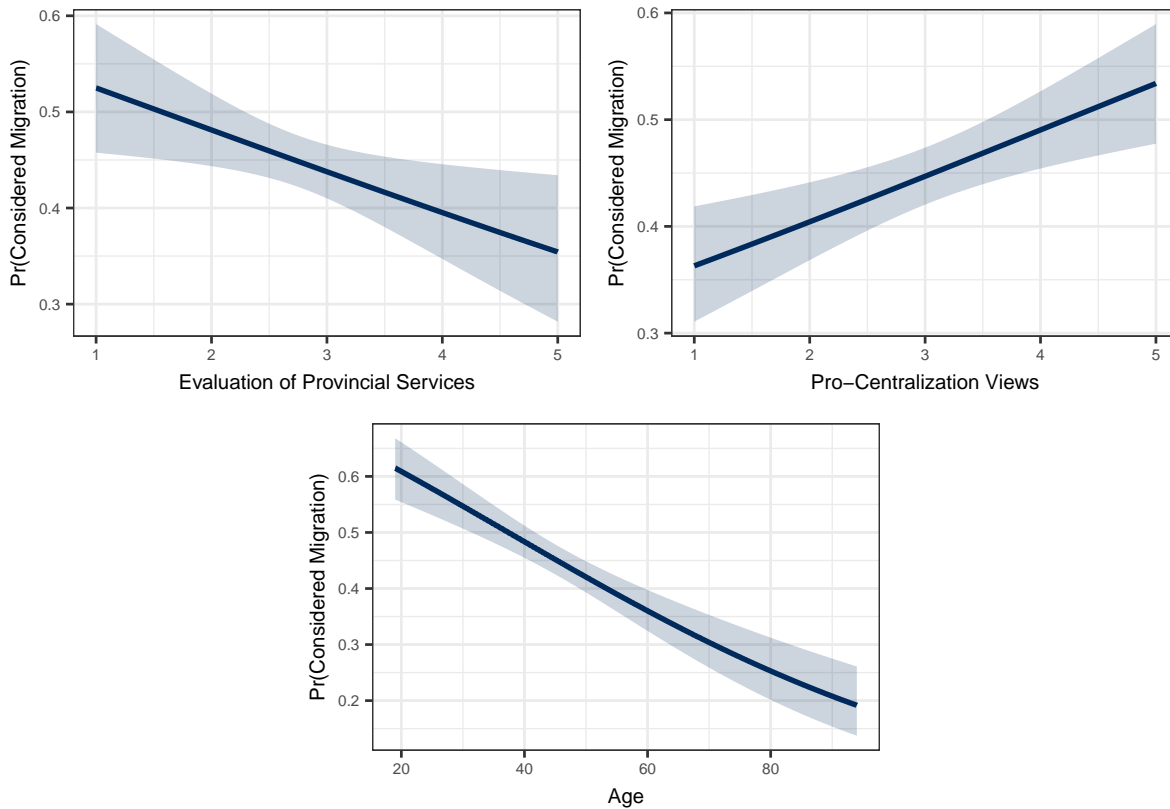
Finally, the survey data provide an opportunity to investigate self-reported reasons that would prevent Canadians from leaving their province. One of the questions asked "Which of the following factors would prevent you from moving to another province?", and allowed respondents to rank a number of items from a list, in addition to an open-ended option. Table 4 shows the distribution of percentages across the first-choice responses. These

Table 3: Predicting Attitudes on Federalism (Ordered Logistic Regressions)

Dependent Variable: Pro-Centralization Views		
Age	−0.012*** (−0.018, −0.005)	−0.009** (−0.016, −0.003)
Gender	−0.320** (−0.520, −0.120)	−0.292** (−0.492, −0.091)
White	−0.092 (−0.332, 0.148)	−0.142 (−0.383, 0.099)
Born in Canada	−0.280 (−0.566, 0.007)	−0.247 (−0.535, 0.041)
Income	0.038 (−0.011, 0.088)	0.040 (−0.010, 0.089)
Education	0.460*** (0.243, 0.678)	0.447*** (0.229, 0.666)
Alberta		−0.110 (−0.473, 0.253)
Saskatchewan		0.063 (−0.489, 0.614)
Manitoba		0.141 (−0.327, 0.610)
Ontario		0.593*** (0.312, 0.875)
Quebec		0.780** (0.289, 1.271)
Atlantic Provinces		0.598** (0.199, 0.997)
Observations	1,412	1,412

Notes: The table reports estimates from ordered logistic regression models, along with their 95% confidence interval in parentheses. Cutpoints are omitted from the output. The data come from a survey of English-speaking Canadians conducted in 2016. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Figure 4: Effect on Predicted Probabilities of Considering Migration



percentages are tabulated within each province, which means that they can be compared across rows. The three most frequent answers selected by respondents were; one, because of familial ties in their province of residence (Family); two, because they feel uncertain about employment opportunities in other provinces (Jobs), and; three, because of the costs associated with moving (Moving Cost). As can be seen, the reason identified as the most important obstacle to interprovincial migration is, by far, familial ties. This appears consistent with the stream of literature on migration suggesting that interpersonal relationships are a key factor influencing the decision to move.

Table 4: Top Reason for Not Leaving Province

	Family	Jobs	Moving Cost	Other
British Columbia	58%	15%	13%	14%
Alberta	50%	26%	14%	10%
Saskatchewan	48%	22%	27%	3%
Manitoba	57%	11%	23%	9%
Ontario	58%	19%	14%	9%
Quebec	47%	18%	19%	16%
Atlantic Provinces	57%	17%	18%	8%

Notes: Percentages of respondents listing the factor indicated in the column headers as the first reason that would prevent them from moving to another province. The data come from a survey of English-speaking Canadians conducted in 2016 ( $n = 1,514$ ).

## Discussion

Interprovincial migration is an unresolved issue in the study of Canadian federalism. Despite enduring discrepancies in unemployment rates across provinces, the tendency of Canadians to leave their province has been in steep decline during the past decades. A body of literature on Canadian federalism suggests that this

is a consequence of the decision to prevent undesirable forms of intra-country migration, by standardizing public services across the land. The impact of waning labor movements across provinces is not trivial. It may affect the capacity of Canadian businesses to find labor, and to benefit fully from the pool of talent that a larger country would normally provide. On the other hand, removing the disincentives to interprovincial migration would pose a challenge. There is no simple solution to enjoy the full benefits of labor mobility while preserving schemes of federal redistribution, and quashing the redistributive role of the federal government would be a perilous political task, given the long history of transfer programs in Canada.

To shed light on this problem, the present study introduced a survey module with original questions designed to investigate the micro-motives behind the decision to move between provinces. To my knowledge, this is the first study to present such detailed data about the opinions of Canadians on the topic. The survey suggests that, on average, Canadians perceive little difference between conditions in their province and those in the rest of their country. In a sense, the objective of federal redistribution appears largely achieved. The most noticeable discrepancies tend to be special cases (e.g. British Columbians and Ontarians, more likely to acknowledge a gap in the cost of living) and those were not found to trigger the moving decision. However, there are some differences in perceptions of provincial performance at the individual level. The findings demonstrate that satisfaction with provincial services like health care and education are most strongly associated with the propensity of staying in one's province. This is consistent with the idea that federal transfers can indirectly refrain interprovincial migration.

The findings may lend themselves to projections regarding the future of the Canadian federation. Another key conclusion of this paper is that younger, college-educated Canadians are likely to hold different views regarding the country. This group tends to be more open to centralization, more likely to relinquish the long-fought idea of provincial autonomy. This new generation of professionals also appears to defy the usual barriers to interprovincial migration. The relationship between political identity and migration appears especially promising for future research on the topic. It makes sense to think that political identity matters when choosing a new place to live, but this idea has not been fleshed out in the academic literature. The present study has only touched the surface, but the finding that pro-centralization Canadians are more likely to leave their province, even after accounting for measures of provincial dissatisfaction, appears particularly robust. Depending on the development of political culture among younger generations, there could be strong motivations to move across provinces after all, despite the presence of institutional disincentives.

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## Appendix

Table A1: Job Market Indicators, Marginal Tax Rate and Social Spending by Province (2016)

Province	Unemployment	Job Vacancy Rate	Marginal Tax Rate	Social Spending per Capita
Alberta	8.1%	2.3%	28.93%	9,384
British Columbia	6.0	3.6	26.94	7,834
Manitoba	6.1	2.1	31.59	9,689
New Brunswick	9.5	2.4	33.77	9,306
Newfoundland and Labrador	13.4	1.7	32.54	10,269
Nova Scotia	8.3	2.3	33.96	8,909
Ontario	6.5	2.8	28.39	8,436
Prince Edward Island	10.7	2.4	32.74	8,404
Quebec	7.1	2.0	34.86	8,592
Saskatchewan	6.3	2.0	31.87	10,449

Sources: All statistics are computed for the year 2016. The following columns come from Statistics Canada: unemployment rates (Table 14-10-0090: *Labour force characteristics by province, territory and economic region, annual*), job vacancy rates (Table 14-10-0325: *Job vacancies, payroll employees, job vacancy rate, and average offered hourly wage by provinces and territories, quarterly, unadjusted for seasonality*), and social spending per capita (Table 17-10-0005: *Canadian Classification of Functions of Government (CCOFOG) by consolidated government component*). All data were retrieved on September 19, 2018. Social spending includes expenditures in health, education and social assistance. The marginal tax rate for the fiscal year 2016 combines provincial and federal taxation for an individual with an annual salary between \$45,283 and \$54,900 CAD, using data from KPMG (2016).

## Survey questions included in the module on interprovincial migration

Q. We would like to evaluate the satisfaction of Canadians regarding their province of residence. You have indicated [R's province] as your province of residence. For each of the following items, please indicate if, in your opinion, the situation in [R's province] is better or worse than in the rest of Canada.

	Much better	Somewhat better	About the same	Somewhat worse	Much worse
(a) Career or job opportunities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Salaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Cost of living	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Provincial taxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Provincial policies (e.g. health care, education)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q. Have you ever considered moving to a Canadian province other than the one in which you currently reside?

- (a) Yes
- (b) No

Q. Which of the following factors would prevent you from moving to another province? Please rank all factors that may be relevant to you, in order of importance.

- (a) Familial ties or social network
- (b) Uncertainty about employment in other provinces
- (c) Moving costs (travel costs, selling the house, etc.)
- (d) Accessibility to government transfers in my province
- (e) Language or cultural factors
- (f) Other factors

Q. Consider the division of power between the federal and provincial governments in Canada. Some people think that a federal government with more power would make government more effective. Others think that provinces with more power would be in a better position to address the needs of their residents. Which of the following statements best reflects your own opinion on that question?

- (a) The federal government should have much more power.
- (b) The federal government should have somewhat more power.
- (c) The current balance is adequate.
- (d) Provinces should have somewhat more power.
- (e) Provinces should have much more power.