

**The Patterns of Inter-Provincial
Migration in Canada 1982-95:
Evidence from Longitudinal Tax-Based Data**

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Abstract

This paper presents the results of an empirical analysis of the patterns of inter-provincial migration 1982-95 using the recently available Longitudinal Administrative Database ("LAD"). Rates of out-migration have been generally inversely related to a province's population size, strongly related to age, and somewhat greater for men than women, while movements have tended to be towards provinces which have been nearby, large, or further west. Net migration rates generally conform to expectations, but there is perhaps greater variability in these trends than might have been expected, and a few clear surprises. Overall, there was a slight downward trend in migration rates over time.

Résumé

Le présent article présente les résultats d'une analyse empirique de la migration interprovinciale de 1982 à 1995, d'après la Base de données administratives longitudinales rendue publique récemment. Les taux de migration de sortie sont en général inversement proportionnels à la taille de la population provinciale; ils sont fortement liés à l'âge et légèrement supérieurs chez les hommes – les mouvements tendant à s'effectuant à destination des grandes provinces limitrophes ou des régions de l'Ouest. Les taux d'immigration nette sont en général conformes aux attentes, mais présentent toutefois un degré de variabilité et réservent quelques surprises. Dans l'ensemble, les taux de migration semblaient avoir décliné au fil du temps.

Key Words: Inter-provincial mobility, migration, regional economies.

Introduction

Inter-provincial migration is an interesting and important issue for many reasons. First, inter-provincial migration affects the size and composition of the population of each province, thus comprising a fundamental element of the demographic, social, and cultural make-up of the nation as a whole and its regional parts. Regarding labour markets, migration embodies important skill flows and thus has significant consequences for economic performance, and is also often associated with substantial changes in individuals' earnings levels, with this dynamic in turn comprising an important determinant of the flows which occur. Third, migration is related to a variety of more specific human resource issues, including those concerning public investments in the nation's human capital such as the formal education systems and various training programmes, since the benefits associated with those investments typically move with the individual. A fourth set of issues concerns the country's social programmes, which need to ensure the portability of benefits for movers and be responsive to the particular needs of each region, while at the same time minimising the incentives to move simply in order to maximise programme benefits (*e.g.*, to profit from provincial differences in social assistance and/or unemployment insurance) and encouraging movements which would be preferred (*e.g.*, workers leaving depressed markets to go where their employment opportunities are better). Fifth, inter-provincial migration is related to various regulatory issues, including those pertaining to professional licensing and other potential barriers to the free flow of workers and their families. Finally, inter-provincial mobility is a central component of our very sense of nationhood, as these movements represent some of the important benefits of belonging to, and freely moving across, a single political-economic-social entity.

Given these interesting and important aspects of the topic, it is not surprising that there is by now a sizeable accumulation of research on inter-provincial migration. Most relevant to this paper is the work on gross outflows, gross inflows, net flows, and the specific province-to-province patterns of these movements, a literature which includes Anderson [1966], Courchene [1974], Grant and Vanderkamp [1976], Lin [1995], Osberg, Gordon and Lin [1994], Robinson and Tomes [1982], Stone [1969], Vachon and Vaillancourt [1998], Vanderkamp and Grant [1988], and Winer and Gauthier [1982].¹

The contribution of this paper is to report the results of an empirical analysis of inter-provincial migration from 1982 to 1995 based on the recently available Longitudinal Administrative Database ("LAD") which has been constructed by Statistics Canada from individuals' tax files. More specifically, the paper first provides a portrait of the general extent and specific directions of inter-provincial migration over shorter and longer periods, and then analyses the rates of aggregate out-migration, in-migration, and net migration by province broken down by age and sex on an annual basis over the period.

The paper should thus complement previous studies in terms of providing new evidence from an alternative data source on the general extent and direction of inter-provincial migration, while the LAD's size (ten percent of the population) allows for detailed age-sex breakdowns at the provincial level for even the smallest provinces, and its annual basis obviously provides for a much more continuous profile of migration patterns than the inter-census snapshots which underlie the bulk of the existing literature.² The LAD samples used in the analysis are – within the limits mentioned below – generally representative of the non-student adult population (men and women) aged 20-54, meaning that the results should be generalisable to the relevant underlying Canadian adult population.

This paper is one in a series on the subject by the author based on the LAD data. The present piece is derived from Finnie [1998a], which also includes an analysis of the longitudinal migration patterns of individuals and the associated dynamic income profiles (see also Finnie [1999] regarding the latter). Finnie [1998b] reports the results of an econometric analysis of the individual characteristics and environmental factors which determine inter-provincial migration, while Finnie [1998c] looks at the effects of inter-provincial mobility on individuals' earnings using panel data modelling techniques.

Data³

General Characteristics of the LAD and the Migration Indicator

The Longitudinal Administrative Database ("LAD") is a ten percent representative sample of Canadian tax filers followed as individuals over time and matched into

family units on an annual basis, thereby providing individual and family-level information on incomes, taxes, and basic demographic characteristics, including province of residence (see below), in a dynamic framework. The first year of data for the LAD is 1982 and the file ran through 1995 at the time this work was initiated, thus determining the period covered by the analysis.

Individuals are selected into the LAD according to a random number generator based on Social Insurance Numbers, and are followed over time by the same device. People drop out of the LAD if they become non-filers, the principal reasons being that the individual has a sufficiently low income to no longer be required to file while choosing to forego the related tax credits and the reimbursement of any payroll taxes already paid, is out of the country, or has died. New filers (young people, immigrants, *etc.*) automatically refresh the database in the standard one-in-ten ratio.

Owing to the high rate of tax filing in Canada, the LAD's coverage of the adult population is very good. Higher income Canadians are required to file, while lower income individuals have incentives to do so in order to recover income tax and other payroll tax deductions made throughout the year and, especially since 1986, to receive various tax credits. The full sets of annual tax files from which the LAD is constructed are estimated to cover from 91 to 95 percent of the target adult population (official population estimates), with the LAD thus comparing favourably with other standard databases, including even the official Population Census, in this regard.

Furthermore, given that most individuals file tax forms every year (or are identified by other filers), attrition from the LAD is low, meaning that the LAD remains representative of the underlying population on a longitudinal basis as well as cross-sectionally. In particular, sample biases stemming from individuals being included in the database depending whether or not they have moved – the event being studied – are minimised.

Another great advantage of the LAD data is that the large number of observations available – on the order of two million per year – allows for a very detailed level of analysis, including the study of specific flows to and from even the smallest provinces, and breakdowns by age and sex within each jurisdiction.

Finally, the province of residence indicator which underlies the analysis, essentially representing where individuals were residing at year and taxes were therefore payable, is conceptually appropriate, tightly defined (including its year-end specificity), and is generally verified by Revenue Canada. An inter-provincial move is then identified as a change in the individual's tax province from one year to another.

Sample Selection and the Age Groups Employed

Individuals were included in the working samples in a given year if they were i) between 20 and 55 years of age; ii) actual tax filers or the imputed spouses of tax filers (with a SIN number to allow longitudinal tracking); iii) not full-time post-secondary students; and iv) missing none of the information required for the analysis.

The lower age cut-off was adopted to eliminate the majority of students and other young people still living at home and to generally restrict the analysis to decision making "adults" (as arbitrarily defined by the age 20 cut-off). The upper age restriction was chosen principally to reduce the attrition from the working samples in the later periods when individuals would be moving into their retirement years and starting to die in greater numbers, thus potentially introducing age-related composition effects into the longer-term mobility patterns in particular. Finally, full-time post-secondary students were excluded (based on various education-related deductions found on tax forms) on the grounds that their migration decisions are of a special type and are therefore better left to separate studies (*e.g.*, Burbidge and Finnie [1999], Day and Grafton [1998]).

The age groups employed in this analysis are "Entry" (20-24 inclusive), "Younger" (25-34 inclusive), "Prime-Younger" (35-44), and "Prime-Older" (45-54), with individuals categorised according to their ages in the first of any pair of years and then allowed to age over the relevant interval (*e.g.*, for the migration patterns over the full 1982-95 period, the "Entry" group would be 33-37 in the final year, and the "Older" group would be 58-67 at the end). These categorisations serve to split individuals into various major phases of the life cycle so that we can see the patterns of migration along this dimension.

Province-to-Province Migration Patterns

The Analytical Approach and Related Data Issues

Detailed inter-provincial mobility patterns are presented in the form of transition matrices which show where the individuals living in a given province in one year were living in another year, with these distributions indicated in percentage terms. Such transition matrices are presented for one-year (1982-83), six-year (1982-88) and thirteen-year (1982-95) intervals (the latter representing the full period covered by the data), thus providing a picture of shorter and longer-term mobility patterns anchored by the common 1982 base year. Due to the denseness of the resulting tables, such detailed flows are presented only for all individuals taken together with no breakdown by sex or age. (Those more detailed results available from the author.)

These mobility patterns obviously represent “beginning-year-to-end-year” dynamics, based on where individuals were living in the first and last years of the relevant intervals (*i.e.*, 1982 to 1983, 1988, and 1995), with no account taken of any intervening movements (*e.g.*, some persons will have left but then returned to the province of origin by a later year, others will have arrived at the later province by a circuitous route). Such more complex longitudinal profiles are the focus of companion papers (Finnie [1998a, 1999]).

Individuals were included in the calculations for the years they met the sample inclusion criteria in the specific end years under consideration (*i.e.*, 1982 and 1983, 1982 and 1988, 1982 and 1995), but did not have to be present in any intervening years (*e.g.*, individuals did not need to have been in any of the intervening 1983-87 working samples to be included in the 1982-88 calculations).

Comparable calculations were performed over intervals of similar lengths coming later in the 1982-95 period covered by the data, including the most recent 1994-95 period to match the 1982-83 one-year interval, and 1989-95 to match the first six-year interval. These results are, however, quite similar to those for the years shown and are, therefore, not presented or discussed except for mention in the very few cases where they diverge significantly from the main findings. In short, the detailed inter-provincial patterns discussed below may generally be considered representative of those which occurred over the full period covered by the data.

Overall One-Year Out-Migration Rates by Province

Of course most Canadians do not change their province of residence from one year to the next. The results shown in the first panel of Table 1 indicate, however, that there was significant inter-provincial variation in the proportion of individuals who moved from the end of 1982 to the end of 1983 and that some of the rates are in fact quite high for a single twelve month period. Thus, on the one hand, over 99 percent of the individuals living in the two largest provinces, Ontario and Quebec, remained in their respective domains from 1982 to 1983 (the diagonal entries), while approximately 3 percent of the adult population represented in the working samples (tax filers aged 20-54, *etc.*) left Prince Edward Island and over 4 percent left Alberta over that same one year period – a rate more than five times that of Quebec.

In general, the rates of out-migration are inversely related to the province's size. Thus (following Ontario and Quebec) British Columbia, the third most populous province, had the next lowest rate of out-migration, while the middle-sized Atlantic and prairie provinces were generally ranked thereafter approximately according to their populations.

On the other hand, size and mobility are clearly not perfectly correlated. The most notable exception is that Alberta, the fourth largest province, had a greater percentage of its population leave than any other province, including even tiny Prince Edward Island. Less dramatically, Quebec had slightly more out-migration than did significantly larger Ontario; New Brunswick, the third smallest province, had a disproportionately low rate of out-migration (the fourth lowest); while Manitoba, the most populous of the smaller provinces, had the third-highest rate of out-migration in the country.⁴

Interestingly, then, the relatively high rates of out-migration are associated with heavily resource-based and boom-and-bust prone Alberta, which was going through a particularly severe recession (worse than elsewhere) in the early 1980s, and to a lesser degree Manitoba, while the unusually low rates are for the provinces where francophones either dominate or comprise a sizeable minority. Economic structure and cultural factors would, therefore, seem to play important roles in determining a province's rate of out-migration – within the general tendency for mobility to be related to a province's population size.

These patterns generally hold for the most recent one-year period covered by the data as well. (The detailed inter-provincial flows are, as noted above, not shown, but see Table 2a for the aggregate movements). In particular, each province's overall rate of out-migration for the later year is within 1 percent of the earlier one and the rank orderings are quite similar. The one exception in this regard is that Alberta has a mobility rate in the middle rank in the later year, and was thus less of an outlier with respect to the size-mobility rule than in the earlier period.

These patterns – as well as those presented below – are, furthermore, generally in agreement with other published work where comparisons are possible, including standard Statistics Canada data (*e.g.*, Statistics Canada [1993]). Overall, Vachon and Vaillancourt [1998] provide probably the closest and most up-to-date comparisons for both aggregate flows (outflows, inflows, and net flows) and the specific directions of these flows (their work is based on family allowance files). These findings thus represent an important affirmation of the quality of the LAD data with respect to the analysis of inter-provincial mobility.

The Specific Province-to-Province Flows

The second interesting element of Table 1 is the precise direction of the flows. On a purely empirical basis, there appear to have been three principal elements to the movements: individuals have tended to move to provinces that were nearby, that were large, and that were further to the west – with Quebec set apart from these general rules to a significant degree, presumably due to the relevant cultural (and perhaps also political) factors.

**Table 1 - The Patterns of Inter-Provincial Mobility in the
Short- and Longer-Run 1982-95, All Individuals**

One Year: 1982-1983

| Province in 1982 | Province in 1983 | | | | | | | | | | TOTAL |
|---------------------|------------------|------|------|------|------|------|------|------|------|------|-------|
| | NFLD | NS | PEI | NB | QUE | ONT | MAN | SASK | ALTA | BC | |
| NFLD | 97.5 | 0.4 | 0.1 | 0.2 | 0.1 | 1.1 | - | - | 0.3 | 0.1 | 100% |
| NS | 0.2 | 97.5 | 0.1 | 0.4 | 0.1 | 0.9 | 0.2 | - | - | 0.3 | 100% |
| PEI | - | 0.6 | 96.9 | 0.6 | - | 1.2 | - | - | - | - | 100% |
| NB | 0.1 | 0.7 | 0.1 | 97.8 | - | 0.6 | 0.1 | - | 0.2 | 0.1 | 100% |
| QUE | - | 0.0 | 0.0 | - | 99.2 | 0.5 | 0.0 | 0.0 | 0.1 | 0.0 | 100% |
| ONT | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 99.1 | 0.1 | 0.0 | 0.2 | 0.2 | 100% |
| MAN | 0.0 | 0.1 | - | 0.1 | 0.1 | 0.7 | 97.4 | 0.4 | 0.6 | - | 100% |
| SASK | - | 0.1 | - | - | 0.1 | 0.4 | 0.4 | 97.7 | 0.9 | 0.5 | 100% |
| ALTA | 0.1 | 0.2 | 0.0 | 0.2 | 0.3 | 1.4 | 0.4 | 0.5 | 95.7 | 1.2 | 100% |
| BC | 0.0 | 0.1 | - | - | 0.1 | 0.6 | 0.2 | 0.2 | 0.7 | 98.2 | 100% |

Six Years: 1982-1988

| Province in 1982 | Province in 1988 | | | | | | | | | | TOTAL |
|---------------------|------------------|------|------|------|------|------|------|------|------|------|-------|
| | NFLD | NS | PEI | NB | QUE | ONT | MAN | SASK | ALTA | BC | |
| NFLD | 92.4 | 1.4 | 0.1 | 0.5 | 0.2 | 3.8 | 0.3 | 0.1 | 0.7 | 0.5 | 100% |
| NS | 0.4 | 92.2 | 0.3 | 1.2 | - | 3.6 | - | - | 0.7 | 0.8 | 100% |
| PEI | 0.4 | 2.3 | 90.7 | 1.7 | - | 3.2 | - | - | 0.6 | 0.4 | 100% |
| NB | 0.2 | 1.8 | 0.3 | 92.3 | 1.1 | 2.9 | 0.3 | 0.1 | 0.5 | 0.4 | 100% |
| QUE | 0.0 | 0.1 | 0.0 | 0.1 | 98.0 | 1.5 | 0.0 | 0.0 | 0.1 | 0.1 | 100% |
| ONT | 0.1 | 0.2 | 0.1 | 0.2 | 0.7 | 97.4 | 0.2 | 0.1 | 0.4 | 0.6 | 100% |
| MAN | 0.2 | 0.2 | 0.0 | 0.2 | 0.4 | 3.2 | 90.5 | 1.1 | 1.9 | 2.2 | 100% |
| SASK | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 1.8 | 1.4 | 90.9 | 3.4 | 1.9 | 100% |
| ALTA | 0.2 | 0.6 | 0.1 | 0.3 | 0.8 | 5.7 | 1.1 | 1.1 | 85.6 | 4.5 | 100% |
| BC | 0.1 | 0.2 | 0.0 | 0.1 | 0.3 | 2.4 | 0.4 | 0.3 | 2.0 | 94.1 | 100% |

Thirteen Years: 1982-1995

| Province in 1982 | Province in 1995 | | | | | | | | | | TOTAL |
|---------------------|------------------|------|------|------|------|------|------|------|------|------|-------|
| | NFLD | NS | PEI | NB | QUE | ONT | MAN | SASK | ALTA | BC | |
| NFLD | 89.2 | 1.8 | 0.2 | 0.8 | 0.3 | 4.9 | 0.4 | 0.1 | 1.4 | 1.2 | 100% |
| NS | 0.4 | 90.4 | 0.5 | 1.5 | 0.5 | 4.1 | 0.3 | 0.1 | 1.0 | 1.2 | 100% |
| PEI | - | 3.0 | 88.9 | 2.1 | 0.4 | 3.2 | - | - | 0.9 | 0.9 | 100% |
| NB | - | 2.2 | 0.3 | 90.7 | 1.5 | 3.2 | - | - | 0.7 | 0.8 | 100% |
| QUE | 0.0 | 0.1 | 0.0 | 0.2 | 97.2 | 2.0 | 0.1 | 0.0 | 0.2 | 0.3 | 100% |
| ONT | 0.2 | 0.4 | 0.1 | 0.2 | 0.9 | 95.9 | 0.3 | 0.1 | 0.7 | 1.3 | 100% |
| MAN | 0.1 | 0.4 | 0.0 | 0.2 | 0.5 | 3.9 | 86.1 | 1.2 | 3.2 | 4.4 | 100% |
| SASK | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 2.0 | 1.7 | 85.2 | 6.2 | 4.2 | 100% |
| ALTA | 0.3 | 0.6 | 0.1 | 0.4 | 0.9 | 5.8 | 1.1 | 1.2 | 81.9 | 7.7 | 100% |
| BC | 0.1 | 0.2 | 0.0 | 0.1 | 0.3 | 2.3 | 0.4 | 0.4 | 2.5 | 93.5 | 100% |

Individuals living in Newfoundland thus tended to move in the greatest numbers to Ontario (large); to Nova Scotia (close) and Alberta (a largish western province) also in some abundance; and to a lesser extent to New Brunswick (also close, but smaller); but not to Prince Edward Island (close but very small), the smaller prairie provinces, British Columbia (far), or Quebec ("distinct"). In roughly similar fashion, Nova Scotians tended to move in fair numbers to New Brunswick (close) and especially Ontario (large); to a lesser degree to Newfoundland (smallish, but still in the region), Manitoba, and British Columbia (western); but not to Prince Edward (small), Quebec, or the smaller western provinces. Prince Edward Islanders moved almost exclusively to Nova Scotia and New Brunswick (close), and Ontario (large). New Brunswick leavers went predominantly to Nova Scotia (close), and Ontario. Individuals who left Quebec mostly went to Ontario (large and close). The relative small amount of migration out of Ontario (at least as a percentage of the baseline population) went to Quebec (close and large), or one of the two larger and most western provinces. Finally, each of the four western provinces had most of its outflow going to either Ontario or the other western provinces, especially the closer/larger ones. Again, the specific directions of the inter-provincial flows are similar for the most recent one-year period covered by the data, 1994-95 (not shown).

The Underlying Factors

As for the factors which underlie these movements, individuals' decisions to stay or move depend to a significant degree on the underlying labour market opportunities, and the larger and more western provinces (Ontario, Alberta, and British Columbia) were generally better economic performers than the smaller and more eastern ones over the period studied.⁵ There have, furthermore, presumably also been size effects *per se*, with the "larger" labour markets of the more populous provinces offering greater diversity and depth of employment opportunities than the smaller ones, especially for workers in certain occupations. In short, "large" and "western" have generally stood for better employment opportunities, while the distance factor begins to enter through the fact that closer opportunities would, *ceteris paribus*, generally be preferred to more distant ones (assuming that individuals are risk averse) due to the better information an individual is likely to have regarding the former.

The distance element also introduces a second factor: moving costs. These come not only in monetary form, but also with respect to personal and cultural considerations, such as wishing to be close to family and friends, or a particular topography, climate, or culture (including language). These influences would, therefore, presumably create a dynamic where individuals would first of all generally prefer to stay where they were currently living, but then choose to move to nearer provinces rather than more distant ones and, given the importance of language in the Canadian context, inhibit out-migration from Quebec (predominantly francophone) and, to a lesser extent, New Brunswick (a large French-speaking minority).

The observed patterns of inter-provincial migration with respect to size, proximity, and direction would thus appear to conform to some simple principles relating to relative labour market opportunities and various moving costs (economic and otherwise).

Finally, there is also the element of return migration, which is not broken out from other sorts of moves in this analysis. It is, in particular, quite possible that a significant portion of the migration out of Alberta represents individuals who returned to their provinces of origin after flowing into that province in the boom days of the late 1970s, while return migration generally plays a distinct role in the other patterns shown here and below (see Finnie [1998a, 1999]).

Longer-Term Mobility

The second and third panels of Table 1 show the patterns of inter-provincial mobility over the longer six- and thirteen-year intervals covered by the data (1982-88, 1982-95). The longest-term rates of out-migration vary from a low of under 3 percent of the initial population in the case of Quebec to 18 percent for Alberta. Nationally, 5.5 percent of Canadians were living in a different province in 1994 than in 1982 (Finnie [1998a]), reflecting the weight of the lower rates of out-migration from the larger provinces in the national totals. Thus, while there was only a "moderate" amount of mobility in the country overall, the rates vary significantly by province and the higher ones are indeed quite substantial.

The general patterns of the six- and thirteen-year rates were generally similar to those found with the shorter-term dynamics: Quebec, Ontario, and British Columbia had the least out-migration, Alberta had the most, and the other Atlantic and prairie provinces had rates reasonably ordered between these others. Furthermore, Alberta again had significantly more out-migration than would be predicted based on population alone, while Quebec and New Brunswick again had less, these latter presumably being due to language and related cultural factors (as discussed above). The precise directions of the flows almost uniformly follow those found in the shorter-term dynamics: individuals tended to move towards provinces which were larger, closer, and further west.

In short, longer-term inter-provincial mobility looks much like shorter-term mobility, except on a larger scale. The six-year results (1982-88) also generally hold for the more recent interval of the same length, 1988-95 (results not shown), with the overall rates of out-migration over the two periods varying by no more than around two percent for any province except Alberta, which again evidenced considerably less out-migration over the later interval.

Interestingly, while the longer-term outflows are of course greater than those over the one-year interval considered above, they are also far below the simple multiple of the number of years of the longer periods (six or thirteen) times the one-year rates; more specifically, the six-year rates are between 2.5 and 4 times the one-year rates, while the thirteen-year rates are between 3.5 and 6.5 the one-year rates. These figures presumably reflect a "diminishing marginal mobility" at the individual level (meaning that those who ever left a province over a given period of time were more likely to do so sooner than later), the effects of return migration, and pure sample effects (as discussed further below). The longer-term rates were especially high relative to the shorter-term rates for the three prairie provinces, principally due to the lower rates of return migration to those places (see Finnie [1999]).

Patterns for Continuous Filers

In order to assess the extent to which the comparisons between the shorter- and longer-term mobility patterns are affected by composition effects related to the different samples used for each pair-wise set of years, Finnie [1998a] reports migration patterns for only those individuals who were in the working samples all years 1982-95 (the associated attrition rates are also given). While there was generally somewhat less mobility amongst those in the samples on a continuous basis (as previously found by others (*e.g.*, Vanderkamp and Grant [1988])), the differences in the rates are not all that great and the provincial patterns are quite similar to those reported above. For example, the aggregate one-year out-migration rates obtained with the restricted samples are all within half a point of the one-year rates discussed above, except for Alberta, which varies .7 of a point. In short, the previous discussions still apply and the major conclusions hold.

Annual Outflows, Inflows, and Net Flows by Province

Annual Outflows, All Individuals Taken Together

Having looked at the detailed inter-provincial mobility patterns over the short-run for one specific period and over two longer intervals using the same base year, aggregate outflows, inflows, and net flows for each province on an annual basis over the 1982-95 period are now considered. Adding the inflows and net flows to the outflows seen above obviously provides a much more complete picture of inter-provincial migration, while the annual basis of the results allows the associated time trends to be analysed. Finally, in reducing the dimension of the analysis to aggregate flows (rather than the detailed province-to-province patterns), it becomes feasible to compare the results by the eight sex-age groups defined above.

Table 2a shows the aggregate rates of out-migration for all individuals taken together by province on an annual basis. The first important finding is that the provincial rankings are more or less stable over time and generally consistent with the patterns for the specific years discussed above. Ontario and Quebec thus had by far the lowest rates of out-migration in all years, British Columbia comes next in an equally consistent fashion, and the other provinces generally hold their same approximate positions in the rankings over time.

There are, however, a number of particular trends worth noting. First, there was an almost steady decline in the rate of out-migration from Alberta, while movements out of British Columbia also declined after 1984-85, thus setting the two most western provinces apart in terms of having clear downward trends over time. Conversely, out-migration from Newfoundland trended sharply upward after 1991-92 – no doubt due to the decline in the Atlantic fishery. Finally, there were significant ebbs and flows amongst a number of other provinces, with out-migration first rising and then declining for Nova Scotia, Prince Edward Island, Ontario, Manitoba, and Saskatchewan. Out-migration from Quebec, on the other hand, was the steadiest of all jurisdictions.

Altogether, overall annual migration rates were at a steady 1.5 percent of the population from 1982-83 through 1988-89, reflecting the declines in some provinces versus the offsetting increases in others, then declined gradually to 1.2 percent in 1994-95, with mobility falling for all provinces except Newfoundland over the later years. There was, then, a general decline in mobility rates over time.⁶

Annual Outflows by Sex

Table 2a also shows out-migration rates by sex. The provincial patterns are broadly similar for men and women and are thus consistent with the results for both sexes taken together seen above – the rates being generally related to province size and so on. The male rates are, however, generally greater than the female rates, and there are some interesting patterns to these differences.

In particular, the male rates of out-migration were most consistently higher than the female rates in the smallest provinces (except Prince Edward Island – see below) of Newfoundland, Nova Scotia, New Brunswick, Manitoba, and Saskatchewan; the male “advantage” was somewhat smaller in the next population tier, Alberta and British Columbia; while the gender differences were smaller still in Ontario and essentially non-existent in Quebec, the two largest provinces. Prince Edward Island is, however, curiously the only province where women consistently left at higher rates than men – whereas the size rule which appears to generally apply elsewhere would of course predict the opposite.

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Table 2a - Annual Rates (%) of Out-Migration by Province for All Individuals and by Sex

| Province | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All | | | | | | | | | | | | | |
| NFLD | 2.5 | 2.2 | 2.9 | 2.9 | 2.7 | 2.6 | 2.8 | 2.4 | 2.3 | 2.2 | 2.4 | 2.9 | 3.2 |
| NS | 2.5 | 2.4 | 2.7 | 2.9 | 2.8 | 2.8 | 2.8 | 2.8 | 2.4 | 2.3 | 2.4 | 2.5 | 2.4 |
| PEI | 3.0 | 3.3 | 3.3 | 3.0 | 3.3 | 3.4 | 3.4 | 3.7 | 3.7 | 2.8 | 3.2 | 2.7 | 2.9 |
| NB | 2.1 | 2.5 | 2.6 | 2.5 | 2.7 | 2.6 | 2.4 | 2.3 | 2.1 | 2.0 | 1.8 | 2.0 | 2.0 |
| QUE | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 |
| ONT | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 1.0 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 |
| MAN | 2.5 | 2.6 | 2.7 | 2.9 | 2.9 | 3.2 | 3.2 | 3.1 | 2.7 | 2.7 | 2.3 | 2.4 | 2.2 |
| SASK | 2.2 | 2.3 | 2.9 | 2.9 | 3.0 | 3.8 | 3.9 | 3.6 | 3.0 | 2.9 | 2.8 | 2.6 | 2.3 |
| ALTA | 4.2 | 4.0 | 3.2 | 3.8 | 3.7 | 2.7 | 2.4 | 2.4 | 2.4 | 2.4 | 2.3 | 2.5 | 2.3 |
| BC | 1.8 | 2.0 | 2.3 | 1.9 | 1.8 | 1.5 | 1.5 | 1.4 | 1.4 | 1.2 | 1.2 | 1.3 | 1.4 |
| TOTAL | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.3 | 1.2 |
| Male | | | | | | | | | | | | | |
| NFLD | 2.5 | 2.4 | 3.3 | 3.3 | 3.0 | 2.8 | 3.0 | 2.5 | 2.3 | 2.3 | 2.5 | 3.1 | 3.6 |
| NS | 2.7 | 2.5 | 2.7 | 3.1 | 2.8 | 2.8 | 3.0 | 2.9 | 2.5 | 2.5 | 2.5 | 2.6 | 2.5 |
| PEI | 2.8 | 3.1 | 2.7 | 3.0 | 3.3 | 3.3 | 3.2 | 3.5 | 3.5 | 2.1 | 3.1 | 2.7 | 3.0 |
| NB | 2.3 | 2.6 | 2.8 | 2.9 | 3.1 | 2.7 | 2.6 | 2.2 | 2.3 | 2.1 | 1.8 | 2.1 | 2.2 |
| QUE | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| ONT | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.1 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 |
| MAN | 2.6 | 2.6 | 2.8 | 3.1 | 2.9 | 3.3 | 3.5 | 3.1 | 2.8 | 2.8 | 2.5 | 2.6 | 2.3 |
| SASK | 2.4 | 2.3 | 2.9 | 3.0 | 3.0 | 4.0 | 4.0 | 3.7 | 3.0 | 3.0 | 2.9 | 2.7 | 2.3 |
| ALTA | 4.5 | 4.0 | 3.2 | 4.0 | 3.8 | 3.1 | 2.8 | 2.4 | 2.5 | 2.3 | 2.3 | 2.4 | 2.4 |
| BC | 1.8 | 2.1 | 2.4 | 1.9 | 1.9 | 1.6 | 1.5 | 1.5 | 1.4 | 1.2 | 1.3 | 1.3 | 1.5 |
| TOTAL | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 |
| Female | | | | | | | | | | | | | |
| NFLD | 2.5 | 2.1 | 2.6 | 2.5 | 2.5 | 2.4 | 2.6 | 2.3 | 2.4 | 2.1 | 2.2 | 2.7 | 2.8 |
| NS | 2.3 | 2.3 | 2.6 | 2.8 | 2.8 | 2.8 | 2.6 | 2.8 | 2.3 | 2.1 | 2.3 | 2.4 | 2.4 |
| PEI | 3.2 | 3.2 | 3.5 | 3.0 | 3.3 | 3.6 | 3.6 | 4.3 | 3.9 | 3.5 | 3.4 | 2.7 | 2.9 |
| NB | 1.9 | 2.3 | 2.4 | 2.2 | 2.4 | 2.5 | 2.3 | 2.4 | 2.0 | 2.0 | 1.8 | 1.9 | 1.9 |
| QUE | 0.7 | 0.6 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| ONT | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 | 0.8 |
| MAN | 2.5 | 2.5 | 2.6 | 2.7 | 2.9 | 3.2 | 2.9 | 3.0 | 2.6 | 2.6 | 2.2 | 2.3 | 2.1 |
| SASK | 2.1 | 2.2 | 2.7 | 2.8 | 3.1 | 3.5 | 3.8 | 3.5 | 3.0 | 2.7 | 2.7 | 2.6 | 2.3 |
| ALTA | 4.0 | 4.0 | 3.1 | 3.5 | 3.5 | 2.9 | 2.7 | 2.4 | 2.4 | 2.4 | 2.3 | 2.5 | 2.2 |
| BC | 1.7 | 1.9 | 2.1 | 1.9 | 1.7 | 1.4 | 1.5 | 1.4 | 1.3 | 1.2 | 1.1 | 1.2 | 1.4 |
| TOTAL | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 |

The generally higher migration rates of men are probably due to their generally stronger attachment to the labour market and the greater benefits thus associated with any job-enhancing move. Furthermore (and related), men are more often in the sorts of occupations where the monetary returns to mobility are greater (*e.g.*, Grant and Vanderkamp [1976]). The costs of moving might also be lower for men, including the ability to leave their families (given the typical gender distribution of household responsibilities) at least for a time in order to profit from employment opportunities in other places. Men might also have lower “psychological” costs of moving, perhaps feeling more (physically) secure about travelling to and settling into a new location and/or having different attitudes about leaving friends and family behind, although these are only conjectures which cannot be tested by these data.

As for the variation in the gender differences in rates across provinces, it would appear that men in provinces with smaller labour markets and fewer economic opportunities in general have been not only more likely to move than men in larger, stronger provinces – but *relatively* more likely to do so than women. In short, inter-provincial differences in economic opportunity appear to have had a stronger effect on men’s migration patterns than on women’s. It is, however, not obvious why this relationship should not hold for Prince Edward Island.

Finally, the very similar rates of out-migration from Quebec on the part of men and women might reflect a greater tendency for moves from that province to be made as couples/families rather than as unattached individuals. This might be another reflection of personal/cultural factors (related to language) playing a greater role for Québécois than for Canadians in other provinces – that is, not only are they less likely to move than others (see above), but they are perhaps also more likely to do so with a partner when it happens, thus taking their language and culture with them in some strength. In any event, the data suggest that Quebec is distinct with respect to not only its *level* of out-migration, but also its “type”.

Outflow Patterns by Age

Table 2b shows aggregate outflows by the eight age-sex groups previously defined. Probably the most interesting aspect of these results is the strong negative relationship between mobility and age, this holding more or less equally for men and women. Thus, on a national level, from 2.4 to 3.0 percent of the Entry groups (age 20-24) moved from one year to the next, from 1.7 to 2.0 percent of the younger groups (25-34) were mobile, from .9 to 1.2 percent of the Prime-Younger groups (35-44) transported themselves elsewhere, and from .5 to .6 of the Prime-Older (45-54) groups changed jurisdictions over the various one year periods covered by the data.⁷

The Patterns of Inter-Provincial Migration in Canada 1982-95: Evidence from Longitudinal Tax-Based Data

Table 2b - Annual Rates (%) of Out-Migration by Age and Sex

| Male | | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|-----------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Age Group | Province | | | | | | | | | | | | | |
| ENTRY (20-24) | NFLD | 4.9 | 5.4 | 7.1 | 7.9 | 8.1 | 7.8 | 6.6 | 5.6 | 5.0 | 5.2 | 6.7 | 7.0 | 9.7 |
| | NS | 4.6 | 3.7 | 5.3 | 6.3 | 5.7 | 5.4 | 6.3 | 6.0 | 5.0 | 4.1 | 4.6 | 6.0 | 5.2 |
| | PEI | 5.0 | 7.1 | 6.9 | - | 9.3 | 7.5 | 5.4 | 9.0 | 6.4 | - | 6.4 | 5.8 | 5.7 |
| | NB | 4.5 | 4.8 | 5.7 | 5.8 | 5.2 | 6.2 | 5.1 | 4.5 | 4.1 | 3.7 | 3.3 | 3.4 | 4.3 |
| | QUE | 1.2 | 1.0 | 1.1 | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 0.9 | 0.8 | 0.8 | 0.9 | 0.9 |
| | ONT | 1.6 | 1.5 | 1.6 | - | 1.7 | 1.8 | 2.0 | 2.2 | 2.1 | - | 1.6 | 1.8 | 1.7 |
| | MAN | 3.8 | 4.2 | 4.1 | 5.0 | 4.0 | 4.2 | 5.7 | 5.0 | 4.9 | 4.0 | 4.3 | 4.7 | 4.0 |
| | SASK | 4.3 | 3.8 | 5.4 | 6.0 | 5.4 | 8.0 | 7.8 | 8.6 | 6.6 | 6.2 | 6.8 | 6.3 | 5.1 |
| | ALTA | 7.1 | 5.7 | 4.5 | 5.7 | 5.3 | 4.4 | 4.6 | 4.2 | 4.4 | 4.1 | 3.9 | 4.5 | 4.8 |
| | BC | 3.5 | 4.0 | 5.0 | 3.9 | 4.1 | 3.3 | 3.1 | 3.3 | 3.4 | 2.7 | 2.8 | 2.9 | 2.9 |
| TOTAL | | 2.9 | 2.6 | 2.8 | 3.0 | 2.8 | 2.8 | 2.9 | 2.9 | 2.8 | 2.4 | 2.4 | 2.7 | 2.7 |
| YOUNGER (25-34) | NFLD | 2.7 | 2.3 | 3.2 | 3.5 | 3.2 | 3.0 | 3.5 | 3.0 | 2.8 | 3.1 | 3.1 | 3.9 | 4.5 |
| | NS | 2.9 | 3.0 | 3.2 | 3.6 | 3.4 | 3.8 | 3.6 | 3.2 | 3.2 | 3.4 | 3.4 | 3.1 | 3.3 |
| | PEI | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 | 4.3 | 4.3 | 4.3 | 3.4 | 2.2 | 4.3 | 3.4 | 4.0 |
| | NB | 2.7 | 3.2 | 2.7 | 3.2 | 3.9 | 3.2 | 3.3 | 2.9 | 2.6 | 2.6 | 2.6 | 3.3 | 3.1 |
| | QUE | 0.8 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| | ONT | 1.1 | 1.0 | 1.1 | 1.1 | 1.1 | 1.3 | 1.4 | 1.5 | 1.3 | 1.3 | 1.3 | 1.1 | 1.2 |
| | MAN | 3.3 | 3.1 | 3.6 | 3.6 | 3.6 | 4.3 | 4.2 | 3.9 | 3.4 | 3.5 | 3.1 | 3.3 | 3.0 |
| | SASK | 2.7 | 3.1 | 3.6 | 3.4 | 3.6 | 4.4 | 5.2 | 4.6 | 3.7 | 3.6 | 4.2 | 3.2 | 2.8 |
| | ALTA | 5.4 | 5.2 | 3.9 | 4.8 | 4.6 | 3.9 | 3.4 | 3.0 | 3.0 | 3.0 | 2.9 | 3.4 | 3.0 |
| | BC | 2.2 | 2.7 | 3.1 | 2.4 | 2.5 | 2.1 | 2.1 | 2.0 | 1.9 | 1.6 | 1.8 | 1.8 | 2.1 |
| TOTAL | | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| PRIME-YOUNGER (35-44) | NFLD | 1.3 | 1.5 | 1.7 | 1.6 | 1.8 | 1.8 | 1.7 | 1.4 | 1.4 | 1.4 | 1.6 | 2.0 | 2.3 |
| | NS | 2.2 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 2.1 | 2.0 | 1.5 | 1.8 | 1.8 | 2.2 | 1.8 |
| | PEI | 2.9 | 2.8 | - | 2.5 | 2.4 | 2.3 | 3.2 | 2.1 | 2.0 | 2.0 | 2.0 | - | 2.0 |
| | NB | 1.2 | 1.8 | 2.2 | 1.9 | 2.2 | 1.8 | 1.7 | 1.3 | 1.8 | 1.6 | 1.4 | 1.2 | 1.5 |
| | QUE | 0.6 | 0.4 | - | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 | 0.4 | - | 0.4 |
| | ONT | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 |
| | MAN | 2.2 | 2.2 | 2.3 | 2.5 | 2.5 | 2.8 | 2.9 | 2.2 | 2.2 | 2.3 | 1.9 | 2.0 | 1.9 |
| | SASK | 1.8 | 1.5 | 2.0 | 2.2 | 2.1 | 2.9 | 2.5 | 2.3 | 2.1 | 2.3 | 1.7 | 1.8 | 1.8 |
| | ALTA | 2.9 | 2.7 | 2.4 | 3.2 | 3.0 | 2.4 | 2.3 | 1.9 | 2.0 | 1.8 | 1.8 | 1.9 | 1.9 |
| | BC | 1.3 | 1.5 | 1.6 | 1.4 | 1.3 | 1.0 | 1.1 | 1.0 | 1.0 | 0.9 | 0.9 | 1.1 | 1.2 |
| TOTAL | | 1.2 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| PRIME-OLDER (45-54) | NFLD | 1.3 | - | 2.6 | 1.3 | 0.8 | 0.8 | 1.6 | - | 1.1 | 1.4 | 0.6 | 1.8 | 1.2 |
| | NS | - | - | 1.0 | 1.3 | - | 0.7 | 1.2 | 1.4 | 1.3 | 1.0 | 1.0 | - | 1.2 |
| | PEI | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | NB | 1.0 | 1.0 | - | 1.0 | 1.6 | - | 0.9 | 1.1 | - | - | 1.0 | 1.1 | 0.8 |
| | QUE | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 |
| | ONT | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 |
| | MAN | 1.0 | 1.2 | 1.4 | 1.6 | 1.4 | 1.6 | 1.5 | 2.1 | 1.5 | 1.4 | 1.3 | 1.6 | 1.2 |
| | SASK | 0.9 | 0.7 | 1.2 | 1.2 | 1.4 | 1.9 | 1.7 | 1.7 | 1.4 | 1.3 | 1.3 | 1.6 | 1.2 |
| | ALTA | 1.8 | 1.6 | 1.6 | 2.1 | 2.1 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 |
| | BC | 0.7 | 0.7 | 0.9 | - | 0.8 | 0.6 | - | 0.6 | 0.6 | 0.5 | - | 0.7 | - |
| TOTAL | | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 |

Table 2b - Annual Rates (%) of Out-Migration by Age and Sex (continued)

| Female | | | | | | | | | | | | | | | |
|-----------------------|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| Age Group | Province | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 | |
| ENTRY (20-24) | NFLD | 4.5 | 4.2 | 6.2 | 5.0 | 6.0 | 5.5 | 5.4 | 4.7 | 4.7 | 4.8 | 5.5 | 5.7 | 7.0 | |
| | NS | 6.6 | 4.6 | 6.8 | 4.7 | 6.9 | 4.8 | 7.6 | 8.5 | 6.2 | 6.4 | 12.5 | 6.4 | 2.9 | |
| | PEI | 3.3 | 4.6 | 4.8 | 6.4 | 6.1 | 5.4 | 4.9 | 5.3 | 4.4 | - | 4.6 | 4.8 | - | |
| | NB | 3.7 | 3.7 | 4.9 | 3.8 | 4.3 | 5.3 | 4.7 | 4.5 | 4.3 | 4.3 | 3.5 | 3.4 | 4.2 | |
| | QUE | 1.1 | 1.0 | 1.0 | 0.9 | 1.0 | 1.1 | 0.9 | 1.0 | 1.0 | 1.0 | 0.9 | 1.0 | 0.8 | |
| | ONT | 1.5 | 1.3 | 1.4 | 1.3 | 1.3 | 1.7 | 1.8 | 1.9 | 2.0 | - | 1.6 | 1.5 | - | |
| | MAN | 4.0 | 3.7 | 3.7 | 4.3 | 4.0 | 5.1 | 4.6 | 5.4 | 4.1 | 4.4 | 3.5 | 3.5 | 3.8 | |
| | SASK | 3.5 | 3.8 | 5.2 | 5.1 | 5.5 | 6.6 | 7.6 | 6.8 | 6.0 | 6.1 | 6.2 | 5.8 | 4.7 | |
| | ALTA | 7.1 | 6.1 | 4.3 | 5.3 | 5.7 | 4.6 | 4.3 | 3.8 | 4.5 | 4.7 | 4.4 | 4.5 | 4.4 | |
| | BC | 3.2 | 3.4 | 4.0 | 3.6 | 3.5 | 3.0 | 3.0 | 2.8 | 2.6 | 2.6 | 2.5 | 2.5 | 2.8 | |
| | TOTAL | 2.7 | 2.5 | 2.5 | 2.6 | 2.6 | 2.7 | 2.7 | 2.6 | 2.6 | 2.5 | 2.4 | 2.4 | 2.5 | |
| | YOUNGER (25-34) | NFLD | 3.3 | 2.2 | 2.4 | 2.8 | 2.3 | 2.6 | 2.8 | 2.6 | 3.0 | 2.4 | 2.6 | 3.8 | 3.5 |
| NS | | 4.6 | 4.4 | 4.4 | 3.2 | 4.1 | 5.1 | 4.1 | 4.0 | 4.1 | 3.0 | 3.0 | 3.1 | 4.2 | |
| PEI | | 3.0 | 2.8 | 3.0 | 3.0 | 3.3 | 3.2 | 3.1 | 3.7 | 3.0 | 2.7 | 3.0 | 3.2 | 3.4 | |
| NB | | 2.4 | 2.7 | 2.5 | 2.7 | 3.0 | 3.0 | 2.8 | 3.2 | 2.5 | 2.5 | 2.4 | 2.6 | 2.5 | |
| QUE | | 0.9 | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.9 | 0.7 | |
| ONT | | 1.0 | 0.9 | 0.9 | 1.0 | 1.0 | 1.2 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.1 | 1.0 | |
| MAN | | 3.2 | 3.2 | 3.3 | 3.4 | 3.8 | 4.0 | 3.6 | 3.9 | 3.7 | 3.3 | 2.7 | 3.0 | 2.6 | |
| SASK | | 2.5 | 2.9 | 3.4 | 2.9 | 3.8 | 4.1 | 4.8 | 4.4 | 3.5 | 3.3 | 3.2 | 3.3 | 3.4 | |
| ALTA | | 4.5 | 4.7 | 4.1 | 4.5 | 4.4 | 3.6 | 3.4 | 2.9 | 2.7 | 2.9 | 3.0 | 3.1 | 2.7 | |
| BC | | 2.2 | 2.3 | 2.6 | 2.3 | 2.1 | 1.8 | 2.0 | 1.8 | 1.7 | 1.7 | 1.5 | 1.7 | 1.9 | |
| TOTAL | | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | |
| PRIME-YOUNGER (35-44) | | NFLD | 1.3 | 1.5 | 1.5 | 1.4 | 1.9 | 1.6 | 1.7 | 1.7 | 1.4 | 1.4 | 1.1 | 1.5 | 1.7 |
| | NS | 1.4 | 2.7 | 2.6 | 2.6 | 1.2 | 2.4 | 2.3 | 4.7 | 4.4 | 3.2 | 3.2 | 3.1 | 2.0 | |
| | PEI | - | 1.6 | 1.7 | 1.4 | - | 1.9 | 2.0 | 1.9 | 1.5 | 1.6 | 1.8 | 1.9 | 1.6 | |
| | NB | 1.2 | 1.6 | 1.3 | 1.5 | 1.7 | 1.6 | 1.5 | 1.6 | 1.6 | 1.4 | 1.3 | 1.5 | 1.3 | |
| | QUE | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | |
| | ONT | - | 0.5 | 0.5 | 0.6 | - | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | |
| | MAN | 1.6 | 2.0 | 1.8 | 1.9 | 2.1 | 2.5 | 2.4 | 2.3 | 2.0 | 1.9 | 1.7 | 1.6 | 1.6 | |
| | SASK | 1.6 | 1.2 | 1.7 | 2.2 | 2.1 | 2.6 | 2.5 | 2.6 | 2.3 | 2.1 | 1.9 | 1.8 | 1.6 | |
| | ALTA | 2.2 | 2.8 | 2.0 | 2.4 | 2.3 | 1.9 | 2.0 | 1.9 | 1.9 | 1.7 | 1.5 | 1.9 | 1.8 | |
| | BC | 1.2 | 1.2 | 1.4 | 1.3 | 1.2 | 0.9 | 1.0 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 1.0 | |
| | TOTAL | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | |
| | PRIME-OLDER (45-54) | NFLD | 1.0 | - | 1.0 | 1.4 | - | 0.9 | 1.2 | 1.6 | 0.7 | 1.1 | 1.0 | 0.9 | 1.2 |
| NS | | - | 2.1 | 2.1 | 2.0 | - | 1.8 | 1.7 | - | 1.6 | 1.5 | 1.4 | - | 1.2 | |
| PEI | | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NB | | 0.7 | 1.1 | - | 1.0 | 1.0 | - | 1.2 | 0.8 | - | - | 0.7 | 1.1 | 0.9 | |
| QUE | | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | |
| ONT | | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | |
| MAN | | 1.0 | 1.0 | 1.2 | 1.2 | 1.4 | 1.2 | 1.2 | 1.3 | 1.1 | 1.4 | 1.0 | 1.3 | 1.1 | |
| SASK | | 0.7 | 0.7 | 1.0 | 1.0 | 1.2 | 1.4 | 1.4 | 1.4 | 1.6 | 1.3 | 1.2 | 1.2 | 1.0 | |
| ALTA | | 1.6 | 1.4 | 1.3 | 1.5 | 1.8 | 1.6 | 1.2 | 1.4 | 1.1 | 1.3 | 1.2 | 1.4 | 1.0 | |
| BC | | 0.5 | 0.8 | 0.9 | - | 0.7 | 0.6 | - | 0.6 | 0.7 | 0.5 | - | 0.5 | - | |
| TOTAL | | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | |

The Patterns of Inter-Provincial Migration in Canada 1982-95: Evidence from Longitudinal Tax-Based Data

These patterns by age are probably best understood from the perspective of a simple benefit-cost framework: younger individuals have more years over which they may profit from any move and typically face lower economic and psychological costs of moving (especially when we consider that individuals' family situations vary with age, implying a set of family – as opposed to individual – costs for older individuals). With greater benefits and lower costs, the young are more mobile.

Also of interest is that the other patterns revealed above – differences in mobility rates by province, over time, and with respect to sex – all generally hold at this more disaggregated level, thus demonstrating an important robustness to the previous findings. Indeed, some of the patterns by province are stronger at this level of detail – not surprising in a context where the provinces with the highest rates of out-migration have also tended to be those with relatively older populations (partly as a *result* of those mobility patterns), which in itself would tend to have a negative effect on mobility rates (older individuals move less).

In particular, out-migration rates for the Entry groups vary from around 1 percent in Quebec and mostly between 1.5 and 2.0 percent in Ontario, to generally around the 5 percent range for the smaller Atlantic and prairie provinces, and as high as the 8 percent mark (and more) in certain provinces in certain years, with these annual rates obviously accumulating to quite substantial flows over longer periods of time. Thus, national rates of “only” 2.5 to 3 percent on an annual basis are seen alongside, say, five year rates which might imply somewhere in the neighbourhood of one-quarter of the relevant youth population of a given province leaving (ignoring return migration for the moment).

Annual Inflows and Net Flows

Aggregate inter-provincial inflows are given in Tables 3a (all individuals and by sex) and 3b (by the eight age-sex groups) – thus paralleling the outflow tables seen above. Net flows – inflow minus outflow – are given in Tables 4a and 4b. Focusing mostly on the results for all individuals taken together (the first panels of Tables 2a, 3a, and 4a), the general directions of the results are perhaps largely as expected, but the rather mixed nature of the patterns would not necessarily have been anticipated. For example, while the population inflows to British Columbia were generally greater than the outflows (*i.e.*, net population gains due to inter-provincial mobility) and while the British Columbia record was indeed the leader in this regard, net outflows occurred in 1983-84 and 1984-85. Thus, not only did a substantial number of individuals leave British Columbia in most years, with rates higher than Ontario and Quebec in this regard (as seen above), but in some years these flows were sufficiently large to give the province a net population loss due to inter-provincial mobility, these patterns presumably reflecting the varying cyclical behaviour of the different provinces' economies over time.

Perhaps even more surprising, however, is that the province with the net mobility record closest to that of British Columbia (in terms of the number of years with a net population gain due to inter-provincial mobility) is Prince Edward Island, which had negative net flows in just 3 years (plus some zeros). Thus, although Prince Edward Island had quite high rates of out-migration in all years, this was typically more than offset by even higher rates of in-migration. Evidently, both sides of the mobility equation must be carefully inspected in order to properly assess the net effects of inter-provincial mobility – and, *pari passu*, the overall “attractiveness” of each province.

The Prince Edward Island record compares to, for example, that of Ontario, where inflows were greater than outflows in all years up to 1988, but after which outflows were consistently greater than inflows. In short, as the oft-described manufacturing engine of the nation was running roughly during the early-90s recession, its allure as a place to live waned commensurately – perhaps contrasting with the popular image of Ontario as an invariantly strong population magnet for those living elsewhere.⁸

Nova Scotia had net gains and losses due to inter-provincial mobility in an equal number of years (plus some zeros), New Brunswick gained population in 4 years and lost in 6, while Newfoundland, Manitoba, and Saskatchewan all had net losses due to inter-provincial mobility in almost all years. Quebec retains its differentness once again, with the net change in population due to inter-provincial mobility close to zero in all years.

These results all generally hold for males and females alike. Turning briefly to the results by age, some of the inter-provincial patterns are again even stronger for certain specific age-sex groups (Tables 2c, 3c, 4c), and in many cases indicate that the substantial gross outflows seen above were in fact also associated with significant net population losses. Again focusing on the (most critical?) youngest (“Entry”) group, Newfoundland, for example, had a net population loss in every year, with the male rates averaging over 2.7 per cent per year and a mean female loss of 1.8 percent per annum, the net losses being especially high in the last three years covered by the data. Somewhat less extreme patterns of net change are seen for the Entry groups in the other high outflow provinces: Nova Scotia, New Brunswick, New Brunswick, Manitoba, and Saskatchewan, and less so for Prince Edward Island. Finally, the consistent net losses observed for the youngest groups in Quebec are in contrast to the generally small and offsetting outflows seen for individuals of all ages taken together seen above – although the numbers remain relatively small.

Conclusion

This paper has reported the results of an empirical analysis of inter-provincial mobility for the period 1982-95 carried out using the recently available “LAD”

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database derived from individuals' tax file records. The principal findings may be summarised as follows:

- Over-all, only a small proportion (around 1.5 percent) of the adult population changed their province of residence in any given year, but the flows have varied significantly by age-sex group and province, and in some cases the movements have been quite sizeable – as great as 8.6 percent for some groups in certain years.
- Rates of out-migration have generally been inversely related to a province's population size, presumably reflecting the effects of comparative labour market opportunities (the larger provinces have generally been better performers) as well as market scale effects *per se*, while resource-based Alberta generally had greater rates of out-migration than might have otherwise been expected and francophone Quebec and bilingual New Brunswick have had lower rates.
- Migrants have tended to move to provinces which were close, large, and further west, presumably reflecting the effects of economic factors, information networks, and various distance-related moving costs.
- The extent of inter-provincial migration has been inversely related to age, consistent with their young people generally having lower moving costs and conforming to a simple benefit-cost model of lifetime income maximisation and a similar dynamic with respect to the other gains from moving: in short, younger people are likely to have a longer payback period for a given set of benefits, and are, therefore (*ceteris paribus*), more likely to do so.
- Men have typically had moderately higher migration rates than women, presumably reflecting the greater attachment of men to the labour market and the associated greater benefits associated with any job-related move, along with (possibly) lower moving costs. The gender difference in mobility rates were generally greater in the poorer provinces where out-migration rates have been generally higher all around, perhaps suggesting that men are more responsive to economic conditions in their mobility decisions.
- Longer-term mobility has looked much like short-term mobility with respect to the relative sizes of the outflows by province and the directions of the movements, but has of course been on a much larger scale. Over the full 1982-95 period, overall rates of out-migration varied from just under 3 percent for Quebec to a high of over 18 percent for Alberta.
- Adding inflows to the picture and looking at the resulting net flows reveals patterns that were largely predictable, with the larger, wealthier provinces generally having net population gains due to inter-provincial mobility and the

smaller, poorer provinces experiencing losses, but these patterns are perhaps not as uniform as one might have expected, and there were some interesting exceptions, such as Prince Edward Island having many years with net inflows.

Thus, although overall annual rates of migration have not been huge in absolute terms, the accumulation of such flows – especially for certain groups in certain provinces – cannot but have had significant effects on the population, cultural makeup, economic performance and potential for future growth and development of each province and the country as a whole.

The contribution of this paper has, therefore, been to provide an empirical analysis of mobility patterns which will be of interest to some readers purely for the descriptive view of this dynamic it paints, while also helping to inform various policy discussions where inter-provincial migration is an issue. Finally, the analysis presented here should stand as a useful point of departure for further, more analytical, research on the topic, with its greatest value added coming from the alternative nature of the tax-based data employed, thus providing a different set of figures to the usual census-based results; from the detailed level of analysis facilitated by the massive size of the LAD file (by specific age-sex groups and broken down for each province); and from the annual basis of the database which allows these dynamics to be analysed on a continual basis from the early 1980s up to the present.

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Table 3a - Annual Rates (%) of In-Migration by Province for All Individuals and by Sex

| Province | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All | | | | | | | | | | | | | |
| NFLD | 2.6 | 2.2 | 1.6 | 1.8 | 2.0 | 2.2 | 2.3 | 2.2 | 2.1 | 1.6 | 1.6 | 1.6 | 1.7 |
| NS | 3.2 | 2.9 | 2.6 | 2.4 | 2.6 | 2.9 | 2.9 | 2.8 | 2.5 | 2.6 | 2.2 | 2.2 | 2.2 |
| PEI | 4.6 | 4.3 | 3.3 | 3.2 | 3.7 | 3.8 | 3.4 | 3.4 | 3.3 | 3.3 | 3.3 | 3.4 | 2.8 |
| NB | 2.9 | 2.4 | 2.2 | 2.3 | 2.2 | 2.5 | 2.5 | 2.3 | 2.4 | 2.0 | 1.8 | 1.8 | 2.1 |
| QUE | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 |
| ONT | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.2 | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| MAN | 2.7 | 2.6 | 2.5 | 2.5 | 2.2 | 2.2 | 2.1 | 2.2 | 2.1 | 1.9 | 1.9 | 2.1 | 2.0 |
| SASK | 2.9 | 2.5 | 2.0 | 2.1 | 1.9 | 1.8 | 1.7 | 2.0 | 2.2 | 2.1 | 2.1 | 2.2 | 2.3 |
| ALTA | 2.4 | 2.4 | 3.0 | 2.3 | 2.2 | 2.6 | 2.9 | 2.9 | 2.7 | 2.4 | 2.3 | 2.3 | 2.3 |
| BC | 2.2 | 1.9 | 1.9 | 2.4 | 2.7 | 2.6 | 3.0 | 2.9 | 2.7 | 2.8 | 2.7 | 2.6 | 2.3 |
| TOTAL | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.3 | 1.2 |
| Male | | | | | | | | | | | | | |
| NFLD | 2.5 | 2.4 | 1.7 | 2.0 | 2.4 | 2.2 | 2.4 | 2.5 | 2.2 | 1.9 | 1.8 | 1.8 | 1.8 |
| NS | 3.3 | 3.1 | 2.6 | 2.5 | 2.8 | 3.0 | 2.9 | 2.8 | 2.7 | 2.5 | 2.3 | 2.1 | 2.3 |
| PEI | 4.8 | 3.9 | 3.1 | 3.0 | 3.7 | 4.0 | 3.6 | 2.5 | 2.9 | 3.1 | 3.1 | 3.0 | 2.7 |
| NB | 2.9 | 2.4 | 2.2 | 2.5 | 2.4 | 2.7 | 2.7 | 2.4 | 2.5 | 2.1 | 1.8 | 2.0 | 2.1 |
| QUE | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 |
| ONT | 1.3 | 1.4 | 1.3 | 1.5 | 1.5 | 1.2 | 1.1 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 |
| MAN | 2.8 | 2.7 | 2.7 | 2.7 | 2.4 | 2.3 | 2.2 | 2.4 | 2.1 | 2.0 | 1.9 | 2.2 | 2.1 |
| SASK | 3.0 | 2.5 | 2.1 | 2.2 | 1.8 | 1.8 | 1.8 | 2.1 | 2.2 | 2.1 | 2.1 | 2.2 | 2.3 |
| ALTA | 2.3 | 2.4 | 3.1 | 2.4 | 2.2 | 2.7 | 3.0 | 3.1 | 2.8 | 2.3 | 2.4 | 2.4 | 2.3 |
| BC | 2.3 | 1.9 | 1.9 | 2.5 | 2.8 | 2.7 | 3.2 | 3.0 | 2.8 | 3.0 | 2.8 | 2.7 | 2.4 |
| TOTAL | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 |
| Female | | | | | | | | | | | | | |
| NFLD | 2.5 | 2.0 | 1.4 | 1.5 | 1.6 | 2.2 | 2.2 | 2.1 | 1.9 | 1.4 | 1.3 | 1.4 | 1.5 |
| NS | 3.0 | 2.7 | 2.6 | 2.3 | 2.5 | 2.9 | 2.9 | 2.8 | 2.4 | 2.6 | 2.2 | 2.3 | 2.1 |
| PEI | 4.4 | 4.7 | 3.5 | 3.4 | 3.7 | 3.6 | 3.3 | 4.3 | 3.9 | 3.5 | 3.4 | 3.7 | 2.6 |
| NB | 2.7 | 2.3 | 2.1 | 2.2 | 2.1 | 2.4 | 2.3 | 2.3 | 2.2 | 2.0 | 1.8 | 1.7 | 2.0 |
| QUE | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 |
| ONT | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 |
| MAN | 2.5 | 2.4 | 2.3 | 2.3 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 1.8 | 1.9 | 1.9 | 2.0 |
| SASK | 2.8 | 2.5 | 1.9 | 2.1 | 1.9 | 1.8 | 1.7 | 1.9 | 2.2 | 2.2 | 2.1 | 2.2 | 2.3 |
| ALTA | 2.4 | 2.4 | 2.8 | 2.3 | 2.2 | 2.6 | 2.8 | 2.8 | 2.6 | 2.4 | 2.2 | 2.2 | 2.2 |
| BC | 2.1 | 1.9 | 1.9 | 2.3 | 2.5 | 2.6 | 2.8 | 2.8 | 2.6 | 2.6 | 2.5 | 2.4 | 2.1 |
| TOTAL | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 |

Table 3b - Annual Rates (%) of In-Migration by Age and Sex

| Male | | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|-----------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Age Group | Province | | | | | | | | | | | | | |
| ENTRY (20-24) | Nfld | 4.0 | 3.6 | 2.7 | 3.9 | 5.6 | 5.2 | 5.6 | 5.1 | 3.9 | 3.5 | 2.4 | 3.6 | 3.1 |
| | NS | 5.6 | 5.2 | 4.7 | 4.9 | 4.9 | 5.1 | 5.0 | 5.7 | 4.3 | 4.6 | 3.4 | 3.6 | 4.4 |
| | PEI | 9.5 | 4.9 | 7.0 | 4.7 | 4.9 | 7.5 | 5.4 | 5.7 | 6.7 | 6.1 | 1.9 | 3.4 | 5.9 |
| | NB | 5.3 | 3.4 | 3.5 | 4.4 | 4.5 | 4.3 | 3.2 | 5.3 | 4.6 | 2.9 | 1.9 | 3.4 | 3.4 |
| | QUE | 0.8 | 1.0 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 0.5 | 0.7 | 0.8 | 0.9 |
| | ONT | 2.3 | 2.2 | 2.3 | 2.7 | 2.7 | 2.4 | 2.2 | - | 1.7 | 1.4 | - | - | 1.7 |
| | MAN | 4.3 | 4.0 | 4.6 | 4.3 | 3.8 | 3.7 | 3.1 | 3.9 | 4.0 | 3.4 | 2.7 | 4.1 | 3.7 |
| | SASK | 5.4 | 4.4 | 3.4 | 3.6 | 3.1 | 3.9 | 3.9 | 5.0 | 4.9 | 3.9 | 4.5 | 5.0 | 5.2 |
| | ALTA | 4.4 | 4.2 | 6.3 | 4.9 | 4.3 | 5.1 | 5.8 | 6.4 | 5.7 | 4.6 | 5.4 | 5.5 | 5.0 |
| | BC | 4.3 | 3.6 | 3.8 | 5.2 | 5.3 | 4.9 | 6.2 | 5.6 | 5.7 | 5.8 | 5.8 | 6.2 | 5.5 |
| | TOTAL | 2.9 | 2.6 | 2.8 | 3.0 | 2.8 | 2.8 | 2.9 | 2.9 | 2.8 | 2.4 | 2.4 | 2.7 | 2.7 |
| YOUNGER (25-34) | Nfld | 3.0 | 2.6 | 1.9 | 2.6 | 2.8 | 2.9 | 2.4 | 3.1 | 2.9 | 2.7 | 2.5 | 2.5 | 2.8 |
| | NS | 3.8 | 3.6 | 3.2 | 2.9 | 3.4 | 3.5 | 3.3 | 3.1 | 3.4 | 3.0 | 2.9 | 3.0 | 3.1 |
| | PEI | 5.3 | 5.4 | 2.2 | 4.3 | 3.4 | 5.4 | 4.3 | 3.3 | 3.4 | 4.3 | 3.3 | 3.4 | 3.5 |
| | NB | 3.1 | 3.3 | 2.9 | 2.9 | 2.7 | 3.6 | 3.0 | 2.8 | 3.3 | 2.8 | 2.5 | 2.5 | 2.9 |
| | QUE | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.6 | 0.7 |
| | ONT | 1.7 | 1.8 | 1.7 | 2.0 | 1.9 | 1.6 | 1.4 | 1.1 | 1.0 | 0.9 | 1.0 | 1.1 | 1.1 |
| | MAN | 3.7 | 3.5 | 3.2 | 3.1 | 3.0 | 3.0 | 2.6 | 3.2 | 2.4 | 2.4 | 2.3 | 3.0 | 2.9 |
| | SASK | 3.6 | 2.9 | 2.7 | 2.7 | 2.4 | 2.2 | 2.1 | 2.4 | 2.9 | 2.8 | 2.9 | 3.1 | 3.0 |
| | ALTA | 2.5 | 2.6 | 3.3 | 2.6 | 2.4 | 3.2 | 3.8 | 3.9 | 3.3 | 2.9 | 3.1 | 2.9 | 2.9 |
| | BC | 2.8 | 2.5 | 2.3 | 3.0 | 3.4 | 3.6 | 4.3 | 3.8 | 3.7 | 4.1 | 3.9 | 3.6 | 3.3 |
| | TOTAL | 2.0 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| PRIME-YOUNGER (35-44) | Nfld | 1.6 | 1.5 | 1.2 | 1.1 | 1.4 | 1.0 | 1.5 | 1.5 | 1.4 | 1.2 | 1.4 | 0.9 | 1.2 |
| | NS | 2.8 | 2.4 | 1.5 | 1.6 | 1.9 | 3.5 | 2.5 | 1.9 | 2.0 | 1.9 | 1.8 | 1.5 | 1.8 |
| | PEI | 3.0 | 4.2 | 2.7 | 2.5 | 2.4 | 3.4 | 3.3 | 2.1 | 2.1 | 1.9 | 3.1 | 3.0 | 2.0 |
| | NB | 2.0 | 1.7 | 1.6 | 1.7 | 1.9 | 2.0 | 2.0 | 1.5 | 1.8 | 1.6 | 1.4 | 1.6 | 1.7 |
| | QUE | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 |
| | ONT | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 0.9 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 |
| | MAN | 2.0 | 2.1 | 1.9 | 2.1 | 1.7 | 1.7 | 1.8 | 1.7 | 1.8 | 1.7 | 1.6 | 1.7 | 1.6 |
| | SASK | 2.2 | 1.8 | 1.5 | 1.7 | 1.4 | 1.2 | 1.2 | 1.3 | 1.4 | 1.5 | 1.5 | 1.4 | 1.5 |
| | ALTA | 1.6 | 1.9 | 2.0 | 1.7 | 1.7 | 1.9 | 2.0 | 2.1 | 2.1 | 1.9 | 1.6 | 1.8 | 1.7 |
| | BC | 1.5 | 1.3 | 1.3 | 1.8 | 2.1 | 2.0 | 2.4 | 2.3 | 2.2 | 2.2 | 2.0 | 2.1 | 1.8 |
| | TOTAL | 1.2 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| PRIME-OLDER (45-54) | Nfld | 1.4 | 2.3 | 0.9 | 0.9 | - | 0.9 | 1.3 | - | 1.5 | 0.7 | 1.0 | 0.6 | 1.2 |
| | NS | - | 1.6 | 1.4 | 1.1 | 1.3 | - | 1.3 | 1.9 | 1.4 | 1.5 | 1.4 | 1.0 | 1.3 |
| | PEI | - | - | - | - | - | - | - | - | - | - | 2.9 | 2.7 | - |
| | NB | 1.4 | 1.4 | 0.7 | 1.4 | 1.0 | 1.0 | 1.5 | 1.2 | - | 1.1 | 1.3 | 1.4 | - |
| | QUE | 0.2 | 0.2 | - | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 |
| | ONT | 0.5 | - | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.4 |
| | MAN | 1.0 | 1.0 | 1.3 | 1.5 | 1.2 | 1.2 | 1.2 | 1.1 | 1.1 | 1.0 | 1.2 | 1.1 | 1.1 |
| | SASK | 1.2 | 1.0 | 0.7 | 1.0 | 0.7 | 0.8 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.0 | 1.0 |
| | ALTA | 1.0 | 0.8 | 1.3 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 | 1.4 | 1.0 | 1.2 | 1.4 | 1.3 |
| | BC | 1.0 | 0.8 | 0.9 | 1.2 | 1.6 | 1.4 | 1.4 | 1.7 | 1.4 | 1.5 | 1.3 | 1.4 | 1.1 |
| | TOTAL | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 |

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Table 3b - Annual Rates (%) of In-Migration by Age and Sex (continued)

| Female | | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|-----------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Age Group | Province | | | | | | | | | | | | | |
| ENTRY (20-34) | Nfld | 4.1 | 3.4 | 2.5 | 2.6 | 3.6 | 5.1 | 4.5 | 4.7 | 1.8 | 2.7 | 2.3 | 3.0 | 1.6 |
| | NS | 4.9 | 4.9 | 4.9 | 3.8 | 4.3 | 4.8 | 5.7 | 4.6 | 4.4 | 5.1 | 3.1 | 3.7 | 3.0 |
| | PEI | 4.4 | 8.9 | 4.5 | 4.8 | 4.8 | 7.1 | 7.7 | 5.9 | 6.3 | 6.5 | 6.7 | - | - |
| | NB | 4.4 | 3.4 | 3.4 | 3.5 | 2.8 | 4.6 | 3.9 | 4.1 | 4.3 | 3.9 | 3.5 | 2.5 | 2.9 |
| | QUE | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 0.9 | 0.9 | 0.8 | 0.7 | 0.8 | 1.0 |
| | ONT | 2.1 | 2.1 | 2.1 | 2.3 | 2.4 | 2.2 | 1.8 | 1.8 | 1.7 | 1.6 | 1.5 | - | - |
| | MAN | 4.5 | 3.7 | 3.8 | 3.7 | 3.3 | 3.0 | 3.2 | 3.1 | 3.2 | 3.2 | 3.2 | 3.6 | 3.5 |
| | SASK | 4.8 | 4.6 | 3.4 | 3.8 | 3.4 | 3.1 | 3.4 | 3.8 | 4.8 | 4.9 | 5.0 | 4.6 | 4.3 |
| | ALTA | 4.2 | 4.4 | 5.4 | 4.2 | 4.4 | 5.2 | 5.4 | 5.1 | 4.8 | 4.6 | 4.6 | 4.4 | 4.9 |
| | BC | 4.0 | 3.4 | 3.3 | 4.6 | 4.5 | 4.5 | 5.2 | 5.2 | 5.0 | 5.2 | 5.4 | 4.7 | 4.8 |
| | TOTAL | 2.7 | 2.5 | 2.5 | 2.6 | 2.6 | 2.7 | 2.7 | 2.6 | 2.6 | 2.5 | 2.4 | 2.4 | 2.5 |
| YOUNGER (25-34) | Nfld | 3.2 | 2.4 | 1.8 | 1.8 | 2.0 | 2.4 | 2.6 | 2.6 | 2.4 | 1.8 | 2.0 | 2.1 | 2.1 |
| | NS | 3.6 | 3.1 | 2.9 | 2.9 | 3.0 | 3.5 | 3.5 | 3.5 | 2.9 | 3.3 | 2.9 | 3.0 | 2.5 |
| | PEI | 7.9 | 5.6 | 5.5 | 4.3 | 5.2 | 4.1 | 3.1 | 4.0 | 4.1 | 3.1 | 4.0 | 5.1 | 4.2 |
| | NB | 3.3 | 2.6 | 2.4 | 2.6 | 2.7 | 2.9 | 3.0 | 2.7 | 2.7 | 2.6 | 2.4 | 2.1 | 3.0 |
| | QUE | 0.5 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 |
| | ONT | 1.6 | 1.7 | 1.7 | 1.6 | 1.7 | 1.4 | 1.3 | 1.2 | 1.0 | 1.0 | 0.9 | 1.1 | 1.0 |
| | MAN | 3.2 | 3.2 | 3.1 | 2.9 | 2.7 | 2.9 | 2.7 | 2.7 | 2.4 | 2.3 | 2.6 | 2.5 | 2.3 |
| | SASK | 3.6 | 3.1 | 2.1 | 2.5 | 2.2 | 2.1 | 2.0 | 2.6 | 2.6 | 2.5 | 3.0 | 3.1 | 3.3 |
| | ALTA | 2.6 | 2.6 | 3.1 | 2.5 | 2.4 | 3.0 | 3.6 | 3.4 | 3.1 | 2.8 | 2.6 | 2.8 | 2.7 |
| | BC | 2.5 | 2.3 | 2.3 | 2.8 | 3.1 | 3.2 | 3.5 | 3.5 | 3.3 | 3.4 | 3.4 | 3.2 | 2.7 |
| | TOTAL | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 |
| PRIME-YOUNGER (35-44) | Nfld | 1.7 | 1.3 | 0.9 | 1.2 | 0.8 | 1.3 | 1.3 | 1.0 | 1.2 | 1.2 | 0.9 | 0.9 | 0.9 |
| | NS | 1.9 | 1.8 | 1.7 | 1.7 | 2.0 | 2.4 | 2.0 | 1.9 | 1.7 | 1.8 | 1.6 | 1.7 | 2.0 |
| | PEI | - | 2.8 | 2.7 | - | 3.8 | 2.5 | 3.6 | 4.7 | 3.3 | 4.3 | 3.2 | 2.1 | 2.1 |
| | NB | 2.0 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.4 | 1.7 | 1.6 | 1.2 | 1.2 | 1.5 | 1.5 |
| | QUE | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| | ONT | 0.9 | 0.9 | 0.8 | - | 0.9 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 |
| | MAN | 1.5 | 1.8 | 1.6 | 1.6 | 1.4 | 1.4 | 1.8 | 1.6 | 1.5 | 1.4 | 1.6 | 1.5 | 1.6 |
| | SASK | 1.8 | 1.6 | 1.5 | 1.5 | 1.6 | 1.4 | 1.2 | 1.3 | 1.6 | 1.6 | 1.4 | 1.3 | 1.7 |
| | ALTA | 1.6 | 1.5 | 1.7 | 1.7 | 1.5 | 1.7 | 2.0 | 1.9 | 2.0 | 1.8 | 1.6 | 1.5 | 1.5 |
| | BC | 1.3 | 1.5 | 1.3 | 1.5 | 1.6 | 1.9 | 2.1 | 2.1 | 1.9 | 1.9 | 1.8 | 1.8 | 1.6 |
| | TOTAL | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 |
| PRIME-OLDER (45-54) | Nfld | 1.1 | 1.0 | - | - | - | 0.9 | 0.9 | 1.2 | 1.2 | 0.7 | 0.7 | 0.7 | 0.9 |
| | NS | 1.2 | 0.9 | 1.4 | 0.9 | 1.3 | 1.0 | 1.5 | 1.7 | 1.2 | 1.3 | 1.4 | 1.4 | 1.1 |
| | PEI | - | - | - | - | - | 3.6 | - | 3.3 | 3.2 | - | - | 2.7 | 2.6 |
| | NB | - | 1.1 | 0.7 | 1.1 | 0.7 | 1.0 | 1.3 | 1.2 | 1.1 | 0.8 | - | 1.0 | 1.1 |
| | QUE | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| | ONT | 0.4 | - | 0.4 | 0.6 | 0.5 | 0.4 | - | 0.4 | 0.4 | - | 0.4 | 0.4 | 0.4 |
| | MAN | 0.9 | 0.9 | 0.9 | 1.1 | 0.9 | 0.8 | 0.8 | 0.8 | 1.0 | 0.7 | 0.7 | 0.8 | 1.0 |
| | SASK | 0.8 | 0.8 | 0.5 | 0.8 | 0.5 | 0.8 | 0.7 | 0.7 | 0.7 | 0.9 | 0.9 | 1.1 | 1.0 |
| | ALTA | 0.9 | 1.0 | 1.3 | 0.9 | 1.1 | 1.1 | 1.4 | 1.3 | 1.4 | 1.2 | 1.1 | 1.1 | 1.3 |
| | BC | 1.1 | 0.8 | 1.1 | 1.1 | 1.6 | 1.4 | 1.5 | 1.7 | 1.3 | 1.4 | 1.3 | 1.4 | 1.0 |
| | TOTAL | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

Table 4a - Annual Rates (%) of Net Migration by Province for All Individuals and by Sex

| Province | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All | | | | | | | | | | | | | |
| NFLD | 0.1 | 0.0 | -1.3 | -1.1 | -0.7 | -0.4 | -0.5 | -0.2 | -0.2 | -0.6 | -0.8 | -1.3 | -1.5 |
| NS | 0.7 | 0.5 | -0.1 | -0.5 | -0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | -0.2 | -0.3 | -0.2 |
| PEI | 1.6 | 1.0 | 0.0 | 0.2 | 0.4 | 0.4 | 0.0 | -0.3 | -0.3 | 0.5 | 0.1 | 0.7 | -0.1 |
| NB | 0.8 | -0.1 | -0.4 | -0.2 | -0.5 | -0.1 | 0.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 |
| QUE | -0.2 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | 0.0 |
| ONT | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.2 | -0.1 | -0.2 | -0.2 | -0.1 | -0.1 | 0.0 | 0.0 |
| MAN | 0.2 | 0.0 | -0.2 | -0.4 | -0.7 | -1.0 | -1.1 | -0.9 | -0.6 | -0.8 | -0.4 | -0.3 | -0.2 |
| SASK | 0.7 | 0.2 | -0.9 | -0.8 | -1.1 | -2.0 | -2.2 | -1.6 | -0.8 | -0.8 | -0.7 | -0.4 | 0.0 |
| ALTA | -1.8 | -1.6 | -0.2 | -1.5 | -1.5 | -0.4 | 0.2 | 0.5 | 0.3 | 0.0 | 0.0 | -0.2 | 0.0 |
| BC | 0.4 | -0.1 | -0.4 | 0.5 | 0.9 | 1.1 | 1.5 | 1.5 | 1.3 | 1.6 | 1.5 | 1.3 | 0.9 |
| TOTAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Male | | | | | | | | | | | | | |
| NFLD | 0.0 | 0.0 | -1.6 | -1.3 | -0.6 | -0.6 | -0.6 | 0.0 | -0.1 | -0.4 | -0.7 | -1.3 | -1.8 |
| NS | 0.6 | 0.6 | -0.1 | -0.6 | 0.0 | 0.2 | -0.1 | -0.1 | 0.2 | 0.0 | -0.2 | -0.5 | -0.2 |
| PEI | 2.0 | 0.8 | 0.4 | 0.0 | 0.4 | 0.7 | 0.4 | -1.0 | -0.6 | 1.0 | 0.0 | 0.3 | -0.3 |
| NB | 0.6 | -0.2 | -0.6 | -0.4 | -0.7 | 0.0 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | -0.1 | -0.1 |
| QUE | -0.2 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.0 |
| ONT | 0.4 | 0.6 | 0.5 | 0.6 | 0.6 | 0.2 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | -0.1 | 0.0 |
| MAN | 0.2 | 0.1 | -0.1 | -0.4 | -0.5 | -1.0 | -1.3 | -0.7 | -0.7 | -0.8 | -0.6 | -0.4 | -0.2 |
| SASK | 0.6 | 0.2 | -0.8 | -0.8 | -1.2 | -2.2 | -2.2 | -1.6 | -0.8 | -0.9 | -0.8 | -0.5 | 0.0 |
| ALTA | -2.2 | -1.6 | -0.1 | -1.6 | -1.6 | -0.4 | 0.2 | 0.7 | 0.3 | 0.0 | 0.1 | 0.0 | -0.1 |
| BC | 0.5 | -0.2 | -0.5 | 0.6 | 0.9 | 1.1 | 1.7 | 1.5 | 1.4 | 1.8 | 1.5 | 1.4 | 0.9 |
| TOTAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Female | | | | | | | | | | | | | |
| NFLD | 0.0 | -0.1 | -1.2 | -1.0 | -0.9 | -0.2 | -0.4 | -0.2 | -0.5 | -0.7 | -0.9 | -1.3 | -1.3 |
| NS | 0.7 | 0.4 | 0.0 | -0.5 | -0.3 | 0.1 | 0.3 | 0.0 | 0.1 | 0.5 | -0.1 | -0.1 | -0.3 |
| PEI | 1.2 | 1.5 | 0.0 | 0.4 | 0.4 | 0.0 | -0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | -0.3 |
| NB | 0.8 | 0.0 | -0.3 | 0.0 | -0.3 | -0.1 | 0.0 | -0.1 | 0.2 | 0.0 | 0.0 | -0.2 | 0.1 |
| QUE | -0.3 | -0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 |
| ONT | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.2 | 0.0 | -0.1 | -0.1 | -0.2 | -0.1 | 0.0 | 0.0 |
| MAN | 0.0 | -0.1 | -0.3 | -0.4 | -0.8 | -1.1 | -0.8 | -1.0 | -0.6 | -0.8 | -0.3 | -0.4 | -0.1 |
| SASK | 0.7 | 0.3 | -0.8 | -0.7 | -1.2 | -1.7 | -2.1 | -1.6 | -0.8 | -0.5 | -0.6 | -0.4 | 0.0 |
| ALTA | -1.6 | -1.6 | -0.3 | -1.2 | -1.3 | -0.3 | 0.2 | 0.4 | 0.2 | -0.1 | -0.1 | -0.3 | 0.0 |
| BC | 0.4 | 0.0 | -0.2 | 0.4 | 0.8 | 1.2 | 1.3 | 1.4 | 1.3 | 1.4 | 1.4 | 1.2 | 0.7 |
| TOTAL | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

The Patterns of Inter-Provincial Migration in Canada 1982-95: Evidence from Longitudinal Tax-Based Data

Table 4b - Annual Rates (%) of Net Migration by Age and Sex

Male

| Age Group | Province | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|-----------------------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ENTRY (20-24) | NFLD | -0.9 | -1.8 | -4.4 | -4.0 | -2.5 | -2.6 | -1.0 | -0.5 | -1.1 | -1.7 | -4.3 | -3.4 | -6.6 |
| | NS | 1.0 | 1.5 | -0.6 | -1.4 | -0.8 | -0.3 | -1.3 | -0.3 | -0.7 | 0.5 | -1.2 | -2.4 | -0.8 |
| | PEI | 4.5 | -2.2 | 0.1 | - | -4.4 | 0.0 | 0.0 | 0.1 | 0.3 | - | - | - | 0.2 |
| | NB | 0.8 | -1.4 | -2.2 | -1.4 | -0.7 | -1.9 | 0.1 | 0.8 | 0.5 | -0.8 | -1.4 | 0.0 | -0.9 |
| | QUE | -0.4 | 0.0 | -0.1 | -0.2 | -0.2 | -0.2 | -0.2 | -0.2 | 0.1 | -0.3 | -0.1 | -0.1 | 0.0 |
| | ONT | 0.7 | 0.7 | 0.7 | - | 1.0 | 0.6 | 0.2 | - | -0.4 | - | - | - | 0.0 |
| | MAN | 0.5 | -0.2 | 0.5 | -0.7 | -0.2 | -0.5 | -2.6 | -1.1 | -0.9 | -0.6 | -1.6 | -0.6 | -0.3 |
| | SASK | 1.1 | 0.6 | -2.0 | -2.4 | -2.3 | -4.1 | -3.9 | -3.6 | -1.7 | -2.3 | -2.3 | -1.3 | 0.1 |
| | ALTA | -2.7 | -1.5 | 1.8 | -0.8 | -1.0 | 0.7 | 1.2 | 2.2 | 1.3 | 0.5 | 1.5 | 1.0 | 0.2 |
| | BC | 0.8 | -0.4 | -1.2 | 1.3 | 1.2 | 1.6 | 3.1 | 2.3 | 2.1 | 3.1 | 3.0 | 3.3 | 2.6 |
| TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YOUNGER (25-34) | NFLD | 0.3 | 0.3 | -1.3 | -0.9 | -0.4 | -0.1 | -1.1 | 0.1 | 0.1 | -0.4 | -0.6 | -1.4 | -1.7 |
| | NS | 0.9 | 0.7 | 0.2 | -0.7 | 0.0 | -0.3 | -0.3 | -0.1 | 0.2 | -0.4 | -0.5 | -0.1 | -0.2 |
| | PEI | 2.2 | 2.2 | -1.0 | 1.1 | 1.1 | 1.1 | 0.0 | -1.0 | -2.0 | 2.1 | -1.0 | 0.0 | -1.1 |
| | NB | 0.4 | 0.1 | 0.2 | -0.3 | -1.2 | 0.4 | -0.3 | -0.1 | 0.7 | 0.2 | -0.1 | -0.8 | -0.2 |
| | QUE | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | 0.0 |
| | ONT | 0.6 | 0.8 | 0.7 | 0.9 | 0.8 | 0.3 | 0.0 | -0.4 | -0.3 | -0.4 | -0.3 | 0.0 | -0.1 |
| | MAN | 0.4 | 0.4 | -0.4 | -0.5 | -0.6 | -1.3 | -1.6 | -0.7 | -1.0 | -1.1 | -0.6 | -0.3 | -0.1 |
| | SASK | 0.9 | -0.2 | -0.9 | -0.7 | -1.2 | -2.2 | -3.1 | -2.2 | -0.8 | -0.8 | -1.3 | -0.1 | 0.2 |
| | ALTA | -2.9 | -2.6 | -0.6 | -2.2 | -2.2 | -0.7 | 0.4 | 0.9 | 0.3 | -0.1 | 0.2 | -0.5 | -0.1 |
| | BC | 0.6 | -0.2 | -0.8 | 0.6 | 0.9 | 1.5 | 2.2 | 1.8 | 1.8 | 2.5 | 2.1 | 1.8 | 1.2 |
| TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRIME-YOUNGER (35-44) | NFLD | 0.3 | 0.0 | -0.5 | -0.5 | -0.4 | -0.8 | -0.2 | 0.1 | 0.0 | -0.2 | -0.2 | -1.1 | -1.1 |
| | NS | 0.6 | 0.5 | -0.3 | -0.3 | 0.0 | 1.6 | 0.4 | -0.1 | 0.5 | 0.1 | 0.0 | -0.7 | 0.0 |
| | PEI | 0.1 | 1.4 | - | 0.0 | 0.0 | 1.1 | 0.1 | 0.0 | 0.1 | -0.1 | 1.1 | - | 0.0 |
| | NB | 0.8 | -0.1 | -0.6 | -0.2 | -0.3 | 0.2 | 0.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.4 | 0.2 |
| | QUE | -0.2 | 0.0 | - | 0.0 | 0.0 | 0.0 | 0.0 | -0.2 | -0.2 | -0.1 | 0.0 | - | 0.0 |
| | ONT | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.0 | -0.2 | -0.2 | -0.2 | -0.1 | 0.0 | 0.0 |
| | MAN | -0.2 | -0.1 | -0.4 | -0.4 | -0.8 | -1.1 | -1.1 | -0.5 | -0.4 | -0.6 | -0.3 | -0.3 | -0.3 |
| | SASK | 0.4 | 0.3 | -0.5 | -0.5 | -0.7 | -1.7 | -1.3 | -1.0 | -0.7 | -0.8 | -0.2 | -0.4 | -0.3 |
| | ALTA | -1.3 | -0.8 | -0.4 | -1.5 | -1.3 | -0.5 | -0.3 | 0.2 | 0.1 | 0.1 | -0.2 | -0.2 | -0.2 |
| | BC | 0.2 | -0.2 | -0.3 | 0.4 | 0.8 | 1.0 | 1.3 | 1.3 | 1.2 | 1.3 | 1.1 | 1.0 | 0.6 |
| TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRIME-OLDER (45-54) | NFLD | 0.1 | - | -1.7 | -0.4 | - | 0.1 | -0.4 | - | 0.4 | -0.7 | 0.4 | -1.2 | 0.0 |
| | NS | - | 0.6 | 0.1 | -0.2 | - | - | 0.3 | 0.5 | 0.1 | 0.5 | 0.4 | - | 0.1 |
| | PEI | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | NB | 0.4 | 0.4 | - | 0.4 | -0.6 | - | 0.6 | 0.1 | - | - | 0.3 | 0.3 | - |
| | QUE | -0.2 | -0.1 | - | 0.0 | 0.0 | -0.1 | - | 0.0 | -0.1 | - | 0.0 | -0.1 | 0.0 |
| | ONT | 0.0 | -0.2 | - | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.1 | 0.0 | 0.0 | 0.0 | -0.1 |
| | MAN | 0.0 | -0.2 | -0.1 | -0.1 | -0.2 | -0.4 | -0.3 | -0.9 | -0.4 | -0.3 | -0.3 | -0.4 | -0.1 |
| | SASK | 0.3 | 0.3 | -0.5 | -0.2 | -0.7 | -1.1 | -0.7 | -0.7 | -0.4 | -0.2 | -0.2 | -0.5 | -0.2 |
| | ALTA | -0.8 | -0.8 | -0.3 | -1.1 | -1.0 | -0.2 | -0.1 | 0.1 | 0.1 | -0.4 | 0.0 | 0.2 | 0.0 |
| | BC | 0.3 | 0.1 | 0.0 | - | 0.8 | 0.8 | - | 1.1 | 0.8 | 1.0 | - | 0.7 | - |
| TOTAL | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 4b - Annual Rates (%) of Net Migration by Age and Sex (continued)

Female

| Age Group | 1982-83 | 1983-84 | 1984-85 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 | 1993-94 | 1994-95 |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ENTRY (20-24) | | | | | | | | | | | | | |
| NFLD | -0.4 | -0.8 | -3.7 | -2.4 | -2.4 | -0.4 | -0.9 | 0.0 | -0.9 | -2.1 | -3.2 | -2.7 | -3.4 |
| NS | -1.7 | 0.3 | -1.9 | -0.9 | -2.6 | 0.0 | -1.9 | -3.9 | -1.8 | -1.3 | -9.4 | -2.7 | 0.1 |
| PEI | 1.1 | 4.3 | -0.3 | -1.6 | -1.3 | 1.7 | 2.8 | 0.6 | 1.9 | - | 2.1 | - | - |
| NB | 0.7 | -0.3 | -1.5 | -0.3 | -1.5 | -0.7 | -0.8 | -0.4 | 0.0 | -0.4 | 0.0 | -0.9 | -1.3 |
| QUE | -0.2 | -0.2 | -0.1 | 0.0 | -0.1 | -0.1 | 0.0 | -0.1 | -0.1 | -0.3 | -0.2 | -0.2 | 0.2 |
| ONT | 0.6 | 0.8 | 0.7 | 1.0 | 1.1 | 0.5 | 0.0 | -0.1 | -0.3 | - | -0.1 | - | - |
| MAN | 0.5 | 0.0 | 0.1 | -0.6 | -0.7 | -2.1 | -1.4 | -2.3 | -0.9 | -1.2 | -0.3 | 0.1 | -0.3 |
| SASK | 1.3 | 0.8 | -1.8 | -1.3 | -2.1 | -3.5 | -4.2 | -3.0 | -1.2 | -1.2 | -1.2 | -1.2 | -0.4 |
| ALTA | -2.9 | -1.7 | 1.1 | -1.1 | -1.3 | 0.6 | 1.1 | 1.3 | 0.3 | -0.1 | 0.2 | -0.1 | 0.5 |
| BC | 0.8 | 0.0 | -0.7 | 1.0 | 1.0 | 1.5 | 2.2 | 2.4 | 2.4 | 2.6 | 2.9 | 2.2 | 2.0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| YOUNGER (25-34) | | | | | | | | | | | | | |
| NFLD | -0.1 | 0.2 | -0.6 | -1.0 | -0.3 | -0.2 | -0.2 | 0.0 | -0.6 | -0.6 | -0.6 | -1.7 | -1.4 |
| NS | -1.0 | -1.3 | -1.5 | -0.3 | -1.1 | -1.6 | -0.6 | -0.5 | -1.2 | 0.3 | -0.1 | -0.1 | -1.7 |
| PEI | 4.9 | 2.8 | 2.5 | 1.3 | 1.9 | 0.9 | 0.0 | 0.3 | 1.1 | 0.4 | 1.0 | 1.9 | 0.8 |
| NB | 0.9 | -0.1 | -0.1 | -0.1 | -0.3 | -0.1 | 0.2 | -0.5 | 0.2 | 0.1 | 0.0 | -0.5 | 0.5 |
| QUE | -0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | -0.2 | 0.0 |
| ONT | 0.6 | 0.8 | 0.8 | 0.6 | 0.7 | 0.2 | 0.0 | -0.1 | -0.2 | -0.2 | -0.3 | 0.0 | 0.0 |
| MAN | 0.0 | 0.0 | -0.2 | -0.5 | -1.1 | -1.1 | -0.9 | -1.2 | -1.3 | -1.0 | -0.1 | -0.5 | -0.3 |
| SASK | 1.1 | 0.2 | -1.3 | -0.4 | -1.6 | -2.0 | -2.8 | -1.8 | -0.9 | -0.8 | -0.2 | -0.2 | -0.1 |
| ALTA | -1.9 | -2.1 | -1.0 | -2.0 | -2.0 | -0.6 | 0.2 | 0.5 | 0.4 | -0.1 | -0.4 | -0.3 | 0.9 |
| BC | 0.3 | 0.0 | -0.3 | 0.5 | 1.0 | 1.4 | 1.5 | 1.7 | 1.6 | 1.7 | 1.9 | 1.5 | 0.8 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRIME-YOUNGER (35-44) | | | | | | | | | | | | | |
| NFLD | 0.4 | -0.2 | -0.6 | -0.2 | -1.1 | -0.3 | -0.4 | -0.7 | -0.2 | -0.2 | -0.2 | -0.6 | -0.8 |
| NS | 0.5 | -0.9 | -0.9 | -0.9 | 0.8 | 0.0 | -0.3 | -2.8 | -2.7 | -1.4 | -1.6 | -1.4 | 0.0 |
| PEI | - | 1.2 | 1.0 | - | - | 0.6 | 1.6 | 2.8 | 1.8 | 2.7 | 1.4 | 0.2 | 0.5 |
| NB | 0.8 | 0.1 | 0.3 | 0.1 | 0.0 | 0.0 | -0.1 | 0.1 | 0.0 | -0.2 | -0.1 | 0.0 | 0.2 |
| QUE | -0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | -0.1 | 0.0 | -0.1 | -0.1 | -0.1 | 0.0 | 0.0 |
| ONT | - | 0.4 | 0.3 | - | - | 0.0 | 0.0 | 0.0 | -0.1 | 0.0 | 0.0 | 0.1 | 0.0 |
| MAN | -0.1 | -0.2 | -0.2 | -0.3 | -0.7 | -1.1 | -0.6 | -0.7 | -0.5 | -0.5 | -0.3 | -0.2 | 0.0 |
| SASK | 0.2 | 0.4 | -0.2 | -0.7 | -0.5 | -1.2 | -1.3 | -1.3 | -0.7 | -0.5 | -0.5 | -0.5 | 0.1 |
| ALTA | -0.6 | -1.3 | -0.3 | -0.7 | -0.8 | -0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | -0.4 | -0.3 |
| BC | 0.1 | 0.3 | -0.1 | 0.2 | 0.4 | 1.0 | 1.1 | 1.2 | 1.0 | 1.1 | 0.9 | 0.9 | 0.6 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRIME-OLDER (45-54) | | | | | | | | | | | | | |
| NFLD | 0.1 | - | - | - | - | 0.0 | -0.3 | -0.4 | 0.5 | -0.4 | -0.3 | -0.2 | -0.3 |
| NS | - | -1.2 | -0.7 | -1.1 | - | -0.8 | -0.2 | - | -0.4 | -0.2 | 0.0 | - | -0.1 |
| PEI | - | - | - | - | - | - | - | - | - | - | - | - | - |
| NB | - | 0.0 | - | 0.1 | -0.3 | - | 0.1 | 0.4 | - | - | - | -0.1 | 0.2 |
| QUE | -0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 | 0.0 | 0.0 | 0.0 | -0.1 | -0.1 |
| ONT | 0.2 | - | 0.1 | 0.3 | 0.2 | 0.1 | - | -0.1 | 0.0 | - | 0.0 | -0.1 | 0.0 |
| MAN | -0.1 | -0.1 | -0.3 | -0.1 | -0.5 | -0.4 | -0.4 | -0.5 | -0.1 | -0.7 | -0.3 | -0.5 | -0.1 |
| SASK | 0.1 | 0.1 | -0.5 | -0.2 | -0.7 | -0.7 | -0.7 | -0.7 | -0.9 | -0.4 | -0.3 | -0.1 | 0.0 |
| ALTA | -0.7 | -0.4 | 0.0 | -0.6 | -0.7 | -0.5 | 0.2 | -0.1 | 0.3 | -0.1 | -0.1 | -0.3 | 0.3 |
| BC | 0.6 | 0.0 | 0.2 | - | 0.9 | 0.8 | - | 1.1 | 0.6 | 0.9 | - | 0.9 | - |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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Endnotes:

1. Related work includes a series of articles which focuses on the different "types" of migration (primary, return, onward), including Hiscott [1987], Grant and Vanderkamp [1984, 1986], Newbold and Liaw [1990], Rosenbaum [1988, 1993], and Vanderkamp [1972]. A focus on migration between Ontario and Atlantic Canada is found in Hiscott [1987] and Hou and Beaujot [1995]. Econometric models of the determinants of inter-provincial mobility, including an important sub-literature which focuses on the role of fiscal variables, can be found in Courchene [1970], Day [1992], Day and Winer [1994], Dean [1992], Finnie [1998b], Grant and Vanderkamp [1976], Lin [1995], Mills, Percy, and Wilson [1983], Osberg, Gordon, and Lin [1994], Robinson and Tomes [1982], Shaw [1986], Vachon and Vaillancourt [1998], and Winer and Gauthier [1982].

The effects of inter-provincial mobility on provincial wage structures and related policy issues includes Courchene [1974], Graham [1964], Rosenbluth [1996], Shaw [1986], and Vanderkamp [1988]. Burbidge and Finnie [1999] and Day and Grafton [1998] focus on the mobility of post-secondary students. Finally, the relationship between migration and individuals' earnings/incomes is addressed in Courchene [1974], Finnie [1998c], Grant and Vanderkamp [1976, 1980], Marr and Millerd [1980], and Vanderkamp [1980], as well as in more of a passing manner in Osberg, Gordon, and Lin [1994] and Robinson and Tomes [1982].

2. Earlier work by Courchene and Grant and Vanderkamp (see the references) was also based on tax-based files similar to those employed here, but over a much shorter and earlier period (from the late 1960s into the early 1970s).
3. See Finnie [1998a] for further discussion of the LAD and the construction of the samples employed here.
4. The provincial populations in 1982 were, in ascending order: Prince Edward Island: 125,000; Newfoundland: 578,000; New Brunswick: 713,000; Nova Scotia: 865,000; Saskatchewan: 995,000; Manitoba: 1,053,000; Alberta: 2,386,000; British Columbia: 2,896,000; Quebec: 6,605,000; Ontario: 8,988,000 (source: Statistics Canada cansim database/results/9111.TX).
5. The importance of relative earnings opportunities on individuals' decisions to move.
6. Averaging the first six years of movements (1982-83 through 1987-88), the latter seven pairs of years (1988-89 through 1994-95), and all years taken

together (shown in parentheses) yields the following average rates of out-migration: Newfoundland: 2.6, 2.6 (2.6); Nova Scotia: 2.7, 2.5 (2.6); Prince Edward Island: 3.2, 3.2 (3.2); New Brunswick: 2.5, 2.1 (2.3); Quebec: 0.5, 0.5 (0.5); Ontario: 0.9, 0.8 (0.9); Manitoba: 2.8, 2.7 (2.7); Saskatchewan: 2.9, 3.0 (2.9); Alberta: 3.7, 2.5 (3.0); British Columbia: 1.9, 1.3 (1.6); Canada total: 1.5, 1.3 (1.4). To put these in a broader perspective, see Vanderkamp and Grant [1988] for a discussion of the results from other studies.

7. These findings agree with those of others, including Courchene [1974] and Grant and Vanderkamp [1976].
8. Immigrants' first arrivals in the country (which comprise especially important population inflows for Ontario and British Columbia) are not included in this analysis (although immigrants are picked up from that point on and would therefore be included in terms of their post-arrival dynamics).

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