
Feature Article: New Measures of International Migration

Summary

On a conceptual basis, net international migration to British Columbia consists of the difference between the number of people arriving in the province from outside Canada on either a permanent (immigration) or temporary basis (non-permanent residents) and the number of people leaving the province for other countries (total net emigration). The measurement of people entering Canada is based on relatively good administrative data, but the estimation of people leaving the country has been based on weaker data sources and assumptions. Statistics Canada has recently developed an improved method of estimating total net emigration from Canada, which includes permanent emigrants less emigrants who return to Canada plus a new measure of the change in the number of people temporarily out of the country.

Following the 1996 Census, there were indications that the estimates of one or more of the components of population change were likely deficient. This followed from the fact that the 1996 population of Canada (as measured by the census and adjusted for net undercoverage) was considerably lower than the corresponding population estimates. This divergence was also greater than had been the case following either the 1986 or 1991 Censuses. Based on knowledge of the sources and methods used for each of the components of population and supported by information from the 1996 Reverse Record Check (RRC)¹, the measurement of net emigration seemed the most likely area requiring improvement.

¹ The Reverse Record Check is a sample survey carried out following each census to estimate the number of people missed by the census and also those who were counted more than once.

Definitions

Permanent emigrants are Canadian citizens or landed immigrants who leave the country without an intention to return.

Returning emigrants are Canadian citizens or landed immigrants who emigrated from the country and who subsequently returned to Canada to re-establish a permanent residence.

Temporarily abroad are those whose stay abroad is from six months to two years and whose intention of returning is unknown OR those whose stay abroad is longer than six months but who intend to return.

Prior to the new measures, which are being introduced with this release, the estimates of permanent emigration and returning Canadians were based on outdated data sources and assumptions. In addition, no estimate was made for people moving to another country on a temporary basis, with an implicit assumption being made that there has been little change in its magnitude over time. However, there are indications that there has been an upward trend in the number of people temporarily abroad, partly as a result of freer trade and increasing globalization. Also from a conceptual point of view, it would be consistent to exclude people temporarily abroad from the population, since non-permanent residents (people in Canada on a temporary basis) are included in the Canadian population.

Permanent Emigrants

The new measure for this component starts with data on the **emigration of children** (ages 0 to 17) as identified by the Child Tax Benefit (CTB) program. Since CTB is

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not a universal program, the data must be adjusted to represent the complete child population and also for the differential propensity to emigrate of children receiving benefits compared to those not covered.

Emigration of adults is measured by using U.S. data on immigration of Canadians to the United States, as well as an indirect estimate of adults emigrating to other countries. The indirect estimate is determined by first calculating the number of children emigrating to other countries by subtracting the children emigrating to the U.S. from the total of all child emigrants. An adult to children ratio of 1.1 (based on information from various administrative data sources) is then used to calculate the number of adult emigrants from the number of child emigrants to other countries.

The provincial/territorial distribution of all permanent emigrants is determined from the distribution of CTB data on child emigrants.

Returning Emigrants

Estimates of **returning child emigrants** follow the same approach as is used to produce estimates of child emigrants from the CTB information.

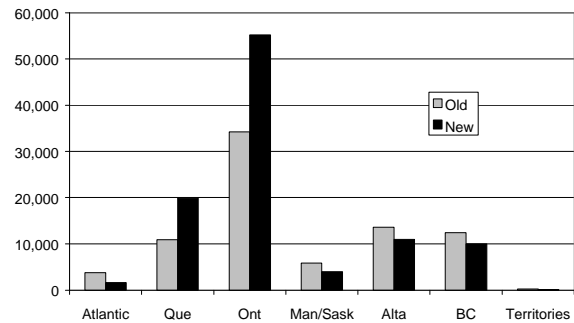
The number of **returning adult emigrants** is estimated by applying an adult to children ratio (calculated from income tax information) to the estimate of returning child emigrants.

The provincial/territorial distribution of all returning emigrants is determined from the distribution of CTB data on returning child emigrants.

The following chart compares the net effect of the changes to emigration less returning

emigrants at the provincial level over the 1996-1999 period. The impact of the changes differs considerably by province with net emigration from Ontario and Quebec being much higher, and from British Columbia and Alberta, somewhat lower.

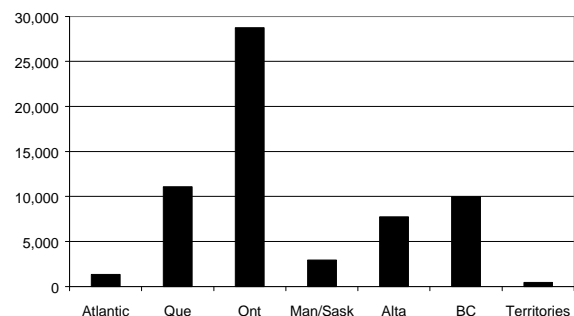
Emigrants - Returning Emigrants
1996-1999



Temporarily Abroad

Temporarily abroad is defined in a way that is consistent with the census definition (see text box on previous page). The new estimates of temporarily abroad were developed using an extrapolation of information from the 1991 and 1996 RRC on those who were temporarily absent from Canada at the time of each census. The provincial/territorial distribution derived from the 1996 RRC is maintained constant.

Net Temporarily Abroad
1996-1999



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Based on extrapolation of the RRC information, the number of Canadians who were temporarily out of the country at any one time increased by 62,000 between 1996 and 1999. Ontario accounted for 46% of the net change in persons temporarily abroad, Quebec for 18%, British Columbia for 16% and Alberta for 12%.

Conclusion

The new methods have the effect of reducing the Canadian population as of July 1, 1999 by 83,000 persons (62,000 in net temporarily abroad plus 21,000 in net permanent emigration). For B.C. the reduction is 7,600 persons (10,000 in net temporarily abroad less 2,400 in net permanent emigration).

For Canada as a whole, the revision to the methods, as discussed above, would have the effect of reducing the difference between the census-based population measure and the component-based population estimates². At the provincial level, there would also have been a substantial reduction in the differences between these measures for Ontario and Quebec. However, for British Columbia where the 1996 Census-based measure of population was considerably higher than the component-based population estimates, the new methodology would actually have the effect of increasing the discrepancy between the two measures. Other reasons for this divergence remain to be investigated.

Note: Refer to Table 2 of this release for the quarterly estimates of B.C. population and its components.

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² This difference is referred to as the error of closure and is a measure of the quality of the population estimates produced by Statistics Canada.