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## **Canada's Secret Province: 2.8 Million Canadians Abroad**

Dr. Don DeVoretz

## Canada's Secret Province: 2.8 Million Canadians Abroad

Dr. Don DeVoretz<sup>1</sup>

### **Executive Summary**

In 2008, the Asia Pacific Foundation of Canada (APF) embarked on a three-year research project aimed at filling the information gap on the Canada's permanent overseas population. This paper estimates the total Canadian population living permanently abroad by drawing on information from two original studies of the research consortium of APF's Canadians Abroad Project -- empirical evidence that can be used to formulate future policy toward the Canadian Diaspora. A Diaspora member as used here means a Canadian citizen who has lived abroad for one year or more. This precision in terms of status and length of stay abroad -- Canadian citizen and one year or more -- eliminates the possibility of including foreign nationals who have no inherent right of return to Canada. Moreover, limiting the definition to those who have an absolute right of return to Canada means the data gathered can later be used to examine the possible impact of return migration on Canada's social programs and labour force.

Canada does not collect emigration statistics, so the research synthesized here offers a mixed approach involving Canadian Census data, the Longitudinal Immigration Database (IMDB) and tax records. The Canadian Census can provide a comprehensive estimate of Canadians disappearing between censuses for both Canadian-born and foreign-born citizens. Using this methodology, outmigration rates are computed for the naturalized portion of the Canadian population for the 1996-2006 period. This yields a net exit rate for the period of 4.5%.

A similar census-based estimate for the Canadian-born population yields a low net exit rate for the 1996-2006 period (1.33%) which translates into 500,000 Canadian-born leavers over the 1996-2006 period. Thus, over this period the naturalized group exhibited a three times greater outmigration rate than the Canadian-born population. Moreover, given these exit rates for both the Canadian and foreign-born populations, a stock of 2.78 million Canadian leavers living abroad can be estimated.

An administrative data base maintained by Statistics Canada allows a more detailed calculation of the yearly outflow rates of various foreign-born Canadian immigrant cohorts between 1982 and 2000. Distinct exit patterns emerge across immigrant groups which may reveal divergent motivations for leaving over their lifetimes in Canada.

In sum, this 2009 estimate, based on the most current available data up to 2006, estimates Canada's Diaspora to be 2.8 million or around 8% of Canada's total population. In terms of size, one can think of these Canadians as a 'missing province.' In fact, of the 13 provinces and territories of Canada, only four

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can boast a higher population. With such a large exit rate of 4.5%, naturalized Canadians represent the fastest growing segment of this population.

Key findings of the study can be summarized as follows:

- A mixed methodological approach finds that approximately 2.8 million (~8%) Canadians live permanently abroad, with the majority of these citizens being Canadian born.
- 57% of Canadians living abroad are in the United States, Greater China, the United Kingdom and Australia.
- Outmigration rates for foreign born-Canadians range from negative (meaning net inflows of a specific census group, as in the case of India) to as high as 30% in the case of Taiwan.
- Of the Canadian-born citizens living abroad, men have a higher exit rate (1.60%) than women (1.05%).
- 21-25 year old Canadian-born citizens had exit rates more than double the average.
- Canadian citizens who identify themselves ethnically as French had a net return rate of 29%.
- Second generation South Asian and Chinese-Canadian citizens had exit rates of -9.92% and 11.04% respectively, suggesting a highly mobile generation.
- Males who were naturalized aged between 21-30 years old and who arrived in 1992 had the greatest propensity to leave between 1996 and 2006.

## **I. Introduction**

In 2006 Kenny Zhang estimated that 2.7 million Canadian citizens lived permanently abroad *circa* 2006. This paper sets out to evaluate this estimate by providing detailed information derived from a new set of estimates of Canadian citizens living abroad based on two original studies by the research consortium of APF's Canadians Abroad Project. Canada does not collect emigration data on Canadian citizens leaving Canada, thus a variety of indirect methods have been employed in the past to estimate portions of Canada's overseas permanent population.<sup>2</sup> Given this lack of primary emigration data, no definitive estimate of both naturalized and Canadian-born citizens living abroad exists.

Thus, APF, under the aegis of the Canadians Abroad Project, commissioned a series of studies using primarily Canadian sources to estimate the size and composition of Canada's overseas population. Canada's census data and an administrative data base, the Longitudinal International Migration Database (IMDB), compiled by Statistics Canada provided disaggregated estimates of both the Canadian-born and naturalized portions respectively of the Canada's Diaspora. An evaluation of these sources in turn will allow us to infer a "best or meta estimate" of both the size and composition of Canadian citizens resident abroad.<sup>3</sup> Though I have some case study-based estimates of population size that are more current than 2006 data, I do not include these figures in the meta-estimate. In the interest of consistency, this paper bases its empirical findings on the Census and IMDB approach only.

Central to the estimate of Canada's Diaspora is the concept employed to define membership in the Canadian Diaspora. The conservative, but precise, definition of the Diaspora must first recognize the individual Canadian's substantial attachment to Canada while simultaneously recognizing a substantial commitment by the Diaspora

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<sup>2</sup> See Aydemir and Robinson, "Return and Outward Migration among Working Age Men," Analytical Studies Branch Research Paper Series, Catalogue No. 11F0019MIE-No. 273: Statistics Canada.

<sup>3</sup> In this context a meta estimate refers to an estimate owing to an evaluation of all other plausible existing estimates.

member to living abroad. Given these two criteria, membership in the Canadian Diaspora is defined as: a Canadian citizen residing abroad for one year or more.<sup>4</sup> In this sense the definition is limiting but still allows a great deal of flexibility since Canadian citizens can be Canadian-born or naturalized and are not limited by occupation, age or presence in the labour market.<sup>5</sup> This precision in terms of status (Canadian citizen) and length of stay abroad (one year or more) is a byproduct of the goal of the Canadians Abroad Project which attempts to assess the social and economic implications derived from its overseas Diaspora. Citizenship status is central to the definition of the Canadian Diaspora since it eliminates the possibility of including foreign born sojourners (i.e. landed immigrants, foreign students, temporary foreign workers, etc.) who have no inherent right of return to Canada. Limiting the definition to those who have an absolute right of return to Canada ensures that I can later infer the approximate possible impact of return migration on Canada's social programs and labour force. Given this narrow, but precise definition of a Canadian Diaspora member, I now turn to alternative methodologies and data sources used to estimate the size of the Canadian Diaspora.

## **II. Methodological and Data Issues**

As noted earlier, Canada does not collect exit information on Canadians leaving the country. Hence the most direct methodology, to count Diaspora members (i.e. a Canadian administrative exit data set) is not available. Instead three alternative methodologies are available to estimate the size and describe the dimensions of Canada's overseas permanent population. First, it is possible to employ a forward census survival technique on two or more recent Canadian censuses to infer the loss of population owing to net emigration under a precise set of assumptions.<sup>6</sup> Simply speaking, this method counts citizens and permanent residents during a census according to certain characteristics, and then observes whether these people are absent from future censuses, adjusting for mortality. Next, several Canadian administrative data sets allow emigration estimates across several portions of the Canadian population. For example, an analysis of the longitudinal IMDB allows a count of a portion of the Canadian immigrant base after 1981.<sup>7</sup> Other data sets allow an even more limited insight into the composition of Canada's Diaspora populations.<sup>8</sup> Finally, administrative and census records exist in the destination countries housing Canada's Diaspora. Again, these destination country records are more or less inclusive of the true number of Canadian citizens resident in the reporting countries.<sup>9</sup> Thus, I conclude at this point that no one ideal data set exists to estimate the size of the Canadian population abroad. Instead, from a variety of sources it will be possible to calculate components of Canada's offshore population and from these estimates construct a meta-estimate.

### *A. Canadian Census Data Sources: 1996-2006*

The Canadian Census has been used in the past to estimate portions of Canada's population which have "disappeared." It must be pointed out that when I use census data I can only estimate a global net exit count or rate

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<sup>4</sup> Suggestions have been made to include non-citizens such as permanent resident immigrants residing abroad. These sub-populations may have strong attachments to Canada but given their status and lack of automatic re-entry rights, they represent less interesting groups for policy analysis. For example, in the case of another SARS outbreak, Canadian citizens resident in the infected area have an automatic right of return while the other groups do not.

<sup>5</sup> This lack of age restriction allows retirees to be included while the absence of labour force status allows students and a multitude of others to be included.

<sup>6</sup> Net migration would be defined as the number of leavers over a period minus the number of new immigrants over this period.

<sup>7</sup> Note the IMDB does not reveal whether the immigrants who disappear in the data set are actually Canadian citizens.

<sup>8</sup> Others have used tax-filer records to infer the movement of a small set of Canadians who file taxes while abroad. While citizen status is reported in tax filer records, of course they represent a massive understatement of Canadians abroad since many overseas Canadians do not pay taxes.

<sup>9</sup> Dual citizenship recognition distorts the 'head count' in the resident countries. For example, many naturalized Canadian citizens report themselves as Chinese in Hong-Kong since China forbids dual citizenship.

of emigration.<sup>10</sup> In addition, I can only estimate who leaves Canada and not where they go. Thus, this section will provide a comprehensive set of estimates on Canadian leavers by birth status, year of entry into Canada (if applicable) and period of exit. However, where these Canadians reside and their demographic and economic features cannot be inferred from this data source. To make inferences about these features, I will appeal to other sources.

Victor Chen (2009) provides the most comprehensive estimates of foreign-born Canadians disappearing from a recent and comprehensive census data set. Using the 20% sample of the 1996, 2001 and 2006 censuses he provides the following estimates contained in Tables 1-3. Chen's methodology was straight-forward. He grouped individual respondents in each sample year by five constant demographic characteristics:

- Gender
- Year of birth,
- Year of immigration (if applicable),
- Residence in a census metropolitan area (CMA),
- Country of birth

This allowed Chen to deduce the changes in the relevant population size over the 1996-2001 and 2001-2005 periods and infer a decrease or increase in the relevant population size when netted for mortality. Thus, a decrease (increase) in population would imply a net outmigration from (net return migration back to) Canada.

The underlying methodology can be stated as follows: Over any five-year interval, the actual calculation of the change ( $dN_{l,m}$ ) in the weighted count of ( $l$ th) population appears in Equation 1 while the percentage change ( $Z_{l,m}$ ) of the weighted count of ( $l$ th) population group appears in Equation 2.<sup>11</sup>

$$dN_{l,m-vs-m+5} = N_{l,m}^{(5)} - N_{l,m+5} = \sum_{i=1}^{n_{l,m}} w_{i,m} \cdot (1 - R_i^{(5)}) - \sum_{i=1}^{n_{l,m+5}} w_{i,m+5} \quad (1)$$

$$Z_{l,m-vs-m+5} = \frac{dN_{l,m-vs-m+5}}{N_{l,m}^{(5)}} \times 100\% \quad (2)$$

If equation 1 yields a positive (negative) value then the net out migration (in-migration) rate is revealed. I next turn to Chen's calculations under equation 1 to report Chens's estimates of outmigration levels by country of origin for the period 1996-2006.

<sup>10</sup> A net rate estimate arises since a forward (or backward) census survival technique essentially counts the number of residents at day 1 and day n+1. Clearly, movement could have occurred between these dates as people leave and return. A gross estimate would simply count all the leavers.

<sup>11</sup> Where  $dN_{l,m}$  is the absolute change in the size of the ( $l$ th) group between periods ( $m$ ) and ( $m+5$ ).  $R_i$  is the five year mortality adjusted by the weight count ( $w_{i,m}$ ) in census year ( $m$ ).

i. *Outmigration Levels and Rates 1996-2006 for Naturalized Canadians*

**Table 1: Countries with High Positive Outmigration Rates: 1996-2006**

Country	Num.	Out-Rate
Hong Kong	44710	23.98 %
United States	15130	10.64 %
Taiwan	14060	30.37 %
Iran	7620	15.14 %
France	5090	11.47 %
South Korea	4460	10.10 %
Japan	1630	12.50 %
Australia	1130	10.44 %
Singapore	620	12.02 %

Source: Chen, V.Z. 2009

Table 1 reports Chen’s estimated cumulative outmigration levels and outmigration rates for the stock of foreign-born Canadian citizens from key immigrant areas who were resident in Canada for the period 1996-2006 using the methodology outlined above.<sup>12</sup> The outmigration rates for the foreign-born Canadian émigrés emanating from Taiwan (30%), Hong Kong (24%), the Iran (15%), United States (11%), Japan (12 %), Singapore (12%), France (11), Australia (10%) and S. Korea (10%) all demonstrate a robust outward movement pattern over these ten years. It is important to note that these countries sent to Canada a diverse set of immigrants ranging from predominately refugees (Iran) to business and professionally trained immigrants (USA, Japan, Australia). In addition, political tensions in Hong Kong and Taiwan coupled with a latter period of quiescence may have led to these high reported exit rates.

**Table 2: Countries with Negative Outmigration Rates: 1996-2006**

Country	Num.	Out-Rate
Netherlands	-40	-0.15 %
Philippines	-200	-0.12 %
Greece	-270	-0.72 %
Italy	-2370	-2.10 %
Vietnam	-5050	-4.66 %
India	-9090	-4.17 %

Source: Chen, V.Z. 2009

At the other extreme are the immigrant source countries which actually exhibit net increases in their migration rates, particularly India (-4.2%) and Vietnam (-4.7%). In the case of India, a large “chain based” family class of immigrants substantially outweighed the out-movement of prior Indian immigrants during this period.

<sup>12</sup> Appendix tables 1 and 2 report Chen’s raw numbers for computing the rates reported in Tables 1 to 3 including his important mortality adjustments.

**Table 3: Countries with Low Positive Outmigration Rates: 1996-2006**

Country	Num.	Out-Rate
China	5230	2.74%
Poland	4620	4.83%
Sri Lanka	3800	6.29%
Jamaica	3710	4.39%
United Kingdom	3680	1.34%
Lebanon	2840	5.91%
Germany	2290	4.27%
Trinidad & Tobago	2270	4.74%
Portugal	2180	2.06%
Hungary	1150	8.12%
Guyana	570	0.95%
New Zealand	380	7.00%
Haiti	230	0.63%

Source: Chen, V.Z. 2009

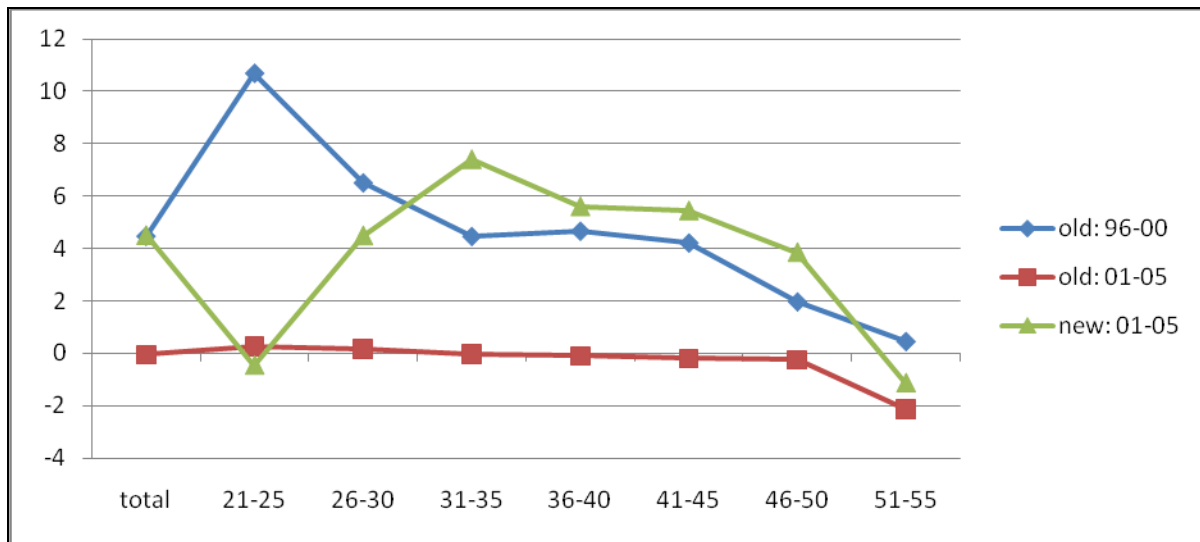
Table 3 portrays the actual complexity of recent emigration rates with a mixture of single digit outmigration rates across a variety of immigrant sending countries. These single digit rates appear for new immigrant sending states (China), older vintages of Canadian immigrants from the UK, Germany, Portugal and Poland and the refugee producing areas of Sri Lanka and Lebanon.

Tables 1 to 3 report a wide range of net exit rates, indicating the diversity of experiences in the outmigration process for resident foreign-born Canadian citizens during the 1996-2006 census period.<sup>13</sup> The average net rate of emigration for all the countries reported in Tables 1 and 2 with positive outmigration rates is 8.7%, which is large for a ten-year interval. However, Chen estimates a 4.5% exit rate for the period 1996-2006 for the entire foreign-born Canadian citizen population.

In order to extrapolate the 4.5% average net outmigration rate over any immigrant cohort's lifetime to reveal any stock's entire outflow, we must know the outmigration rates over the cohort's lifetime. Chen provides such data which will allow us to draw some inferences about the cumulative outflows of the foreign-born population as the stock ages. I first report Chen's lifecycle outflow estimates in Figure 1 below. Concentrating on the life-cycle rates of immigrants who arrived between 1960 to 1996 (old immigrant vintage), I note that their leaving rates 1996-2000 (blue line) between ages 21-50 are equal or exceed their reported average rate of 4.5%. Given these historical trends, it is reasonable to extrapolate that over 30 years, at least 27% of this cohort would leave Canada if the age-specific rates reported in Figure 1 were maintained.

<sup>13</sup> Again, it must be noted that these rates are lower bound estimates of movers since this is a net rate which deducts for inter-census period return movement of immigrants who may have been resident in Canada during the 1996-2006 period.

**Figure 1: Out-Migration Rates by Age Group and Immigrant Vintage (%)**



Source: Chen, V.Z. 2009

ii. *Outmigration Levels and Rates 1996-2006 for Canadian-born citizens*

The largest reported group of Canadian citizens living in the United States is reported to be Canadian-born citizens and for this reason alone it is important to report the size of this Canadian-born outflow world-wide.<sup>14</sup> Chen again provides estimates of this outflow in Table 4.

**Table 4: Canadian-born Outmigration Levels and Rates, 1996-2001**

Canadians by Birth	1996 Weighted count (rounded)	1996 weighted count (5-year mortality adjusted, rounded)	1996 weighted count (10-year mortality adjusted, rounded)	2001 weighted count (rounded)	2001 weighted count (5-year mortality adjusted, rounded)	2006 weighted count (rounded)
<b>Total</b>	20,761,610	20,498,730	20,108,830	20,112,880	19,729,200	19,581,700
<b>Absolute Out 96 - 01</b>	<b>Absolute Out 01- 06</b>	<b>Out-Rate 96 - 01</b>	<b>Out-rate 01- 06</b>	<b>Overall Out-rate</b>		
385,850	147,500	1.88 %	0.75 %	1.33%		

Source: Chen, V.Z. 2009

An inspection of Table 4 shows the high absolute outmigration levels for Canadian-born citizens, especially between 1996-2001 with 385,850 leavers. In total, the estimated number of Canadian-born leavers for the ten-year period 1996-2006 exceeds 500,000. However, given the large base population of approximately 20 million, this translates into a low net exit rate of only 1.33% of total Canadian-born citizens. In addition, as is well known, Canadian-born

<sup>14</sup> See DeVoretz 2009.



emigration is largely driven by economic forces in the United States and the economic downturn after 2001 caused a collapse in the net outmigration rate to 0.75%.<sup>15</sup>

In sum, Chen reports a vastly different story for the naturalized and Canadian-born population, in terms of outflow rates between 1996-2006. In short, the Canadian-born population has a low net exit rate for this period (1.33%) and the naturalized group has a three times greater outmigration rate of 4.5%.

Given these outmigration estimates for the 1996-2006 period, it is possible to estimate a global Canadian overseas citizen population stock if I apply these leaving rates to Canadians living abroad pre-1996, so long as we are willing to invoke two major assumptions: the recent past (1996-2006) mirrors the more distant past (e.g. 1976-1996) in terms of age-specific mortality rates and exit rates. Given these assumptions hold, it is possible to construct an estimate of the number of total Canadian leavers living abroad that was generated over the period 1976-2006 or the last 30 years.<sup>16</sup> As can be seen by an inspection of Table 5 the total estimated Canadian citizen population level is 2.78 million under these set of assumptions.

**Table 5: Estimates of Post-1976 Canadian population Living Abroad**

	Population	Median age	Years to 2006	Survival Rae based on Median Age	Estimated # of surviving Canadian (net-emigrant) population in 2006
<b>2006</b>			0		0
<b>1996</b>	29,610,757	35.3	10	98.7885%	1,062,590
<b>1986</b>	26,100,587	31.6	20	96.8492%	918,240
<b>1976</b>	23,449,793	27.8	30	93.9585%	800,360
<b>Total</b>					2,781,190

Source: Author's construction

*B. Conditioners of Census-based Exit Rates*

*a. Canadian-born*

These reported countrywide exit rates estimated for the Canadian population by foreign birth status do not reveal the richness in the underlying patterns of emigration. Key demographic conditioners such as, age, length of time in Canada, place of residence in Canada all condition the emigration rate. This section of the paper both highlight these features and allows a composite picture to be drawn on who leaves and when. Central to this description is to portray the likelihood of Canadian citizens leaving over their life cycle to better appreciate the possible socio-economic impact derived from emigration, and perhaps return migration.

The demographic conditioners which affect the exit rates for the Canadian-born portion of the emigration population are offered in Table 6 below.

<sup>15</sup> Ibid.

<sup>16</sup> 1978 is a crucial benchmark year since after 31 years a portion of this population could still be living abroad under normal mortality conditions.

**Table 6: Absolute Flows and Return Rates for Canadian Born Population: 1996-2006**

	1996 (weighted count, rounded)	2001 (weighted count, rounded)	2006 (weighted count, rounded)	Out: 96 – 01	Out: 01 – 06	Overall Out Rate (96 – 06) %
<b>Total<sup>17</sup></b>	20,761,610	20,112,880	19,581,700	385,850	147,500	1.33
<b>Gender</b>						
Female	10,372,270	10,111,760	9,903,540	158,370	54,940	1.05
Male	10,389,340	10,001,120	9,678,160	227,480	92,560	1.60
<b>Age in 1996</b>						
21-25	1,547,560	1,470,990	1,460,050	72,050	6,200	2.60
26-30	1,603,450	1,563,060	1,546,440	35,210	9,860	1.43
31-35	1,973,700	1,931,840	1,918,990	33,330	870	0.88
36-40	1,953,720	1,920,670	1,903,620	20,990	-1,200	0.51
41-45	1,710,170	1,682,880	1,666,970	11,090	-9,040	0.06
46-50	1,456,360	1,424,130	1,407,700	10,600	-17,730	-0.25
51-55	1,115,420	1,083,260	1,057,230	5,350	-16,040	-0.50
<b>Ethnicity</b>						
African	51,210	52,280	53,460	-1,280	-1,500	-2.70
Arab	61,760	61,310	66,050	140	-5,210	-4.15
Asian: South	29,210	29,140	34,890	30	-5,810	-9.92
Asian: S (East Indian)	135,340	132,650	141,070	-5,450	-970	-2.33
Asian: E/SE	137,920	173,770	131,010	4,510	520	1.87
Asian: E/SE (Chinese)	179,290	20,490	187,100	4,900	-14,210	-2.65
Asian: West	19,980	854,570	24,270	-570	-3,880	-11.04
Canadian	6,417,680	4,895,990	7,287,130	-2,196,890	1,099,550	-7.45
European: British	6,121,140	2,066,680	5,540,020	1,133,590	-756,600	3.49
European: French	3,510,000	985,980	1,808,650	1,392,570	208,970	29.24
European: German	1,073,130	532,120	1,049,960	74,090	-82,240	-0.40
European: Italian	537,670	451,960	572,640	1,980	-45,630	-4.11
European: Other East	453,050	1,223,610	560,610	-4,560	-117,380	-13.69
European: Others	1,251,770	472,980	1,299,520	15,700	-93,920	-3.20

Notes: a. Excluding Indigenous Peoples

Canadian-born citizens as reported above had a low overall exit rate (1.33%) for the 1996-2006 period, however, the male exit rate of 1.60% was greater than the female rate of 1.05%. In addition, the exit rate was age specific with the 21-25 year old rate almost double the average rate. This may be a byproduct of both youth and the mobility associated with seeking an international education. Beyond age 45 the exit rates for Canadian-born citizens collapse.

The most dramatic variations in exit rates for the Canadian-born population are reported by ethnicity. Those who self identify as French had a substantial net return rate of 29%. This alone begs for an explanation. In addition, the

<sup>17</sup> Aged 0 to 71 in 1996.

exit rates for newer vintages of second generation Canadians who claimed either South Asian (-9.92%) or Chinese (-11.04%) ethnicity were high and is indicative of a mobile second generation. In sum, the low average exit rates for Canadian-born Canadian citizens disguises the robust exit rates in the second generation and for some specific age groups.

*b. Naturalized Canadians*

**Table 7: Return Rates for Pre-1996 Naturalized Canadians in 1996-2006**

	1996 (weighted count, rounded)	2001(weighted count, rounded)	2006 (weighted count, rounded)	Out-migration 1996-2000 (%)	Out-migration 2001-2005 (%)	Out-migration 1996-2005 (%)
<b>Total</b>	2,644,880	2,503,360	2,475,180	4.48	-0.05	4.20
<b>Gender</b>						
<b>Female</b>	1,366,440	1,303,780	1,291,350	3.93	-0.02	3.82
<b>Male</b>	1,278,440	1,199,580	1,183,830	5.07	-0.07	4.62
<b>Age in 1996</b>						
<b>21-25</b>	250,110	222,760	214,200	10.68	0.27	13.83
<b>26-30</b>	357,000	332,690	327,390	6.51	0.15	7.60
<b>31-35</b>	448,930	427,010	424,970	4.47	-0.02	4.34
<b>36-40</b>	441,760	418,550	417,060	4.67	-0.10	4.10
<b>41-45</b>	423,480	401,780	400,090	4.22	-0.20	3.19
<b>46-50</b>	407,050	393,070	386,590	1.98	-0.25	1.22
<b>51-55</b>	316,540	307,500	304,880	0.47	-2.17	-2.67
<b>Year of Immigration</b>						
<b>1960-1967</b>	304,010	298,120	299,860	0.57	-1.80	-2.25
<b>1968-1971</b>	266,200	254,740	255,140	3.05	-0.54	0.86
<b>1972-1974</b>	272,100	255,000	261,500	5.25	-0.66	1.16
<b>1975-1977</b>	247,920	237,380	229,950	3.33	0.37	4.94
<b>1978-1981</b>	274,420	267,630	264,980	1.66	-0.11	1.37
<b>1982-1986</b>	276,690	267,560	267,510	2.57	-0.31	1.47
<b>1987-1989</b>	280,850	269,670	264,440	3.29	0.19	4.12
<b>1990-1991</b>	236,800	219,940	216,420	6.48	0.07	7.02
<b>1992-1993</b>	2,66880	225,810	218,590	14.82	0.12	16.71
<b>1994-1995</b>	219,010	207,520	196,790	4.62	0.72	8.65

Table 7 reveals the differential exit rates by age, gender and year of entry for Canada's older vintage (pre-1996) of naturalized Canadian citizens. Clearly a male naturalized citizen between the ages of 21-30 who arrived in 1992 would have the greatest propensity to leave Canada during the 1996-2005 period. For example, almost 17% of the 1990-1991 cohort had left in that ten-year period. Moreover, in the pre-1996 naturalized cohort aged 21-45 (the peak earning years), over 33% had left Canada.

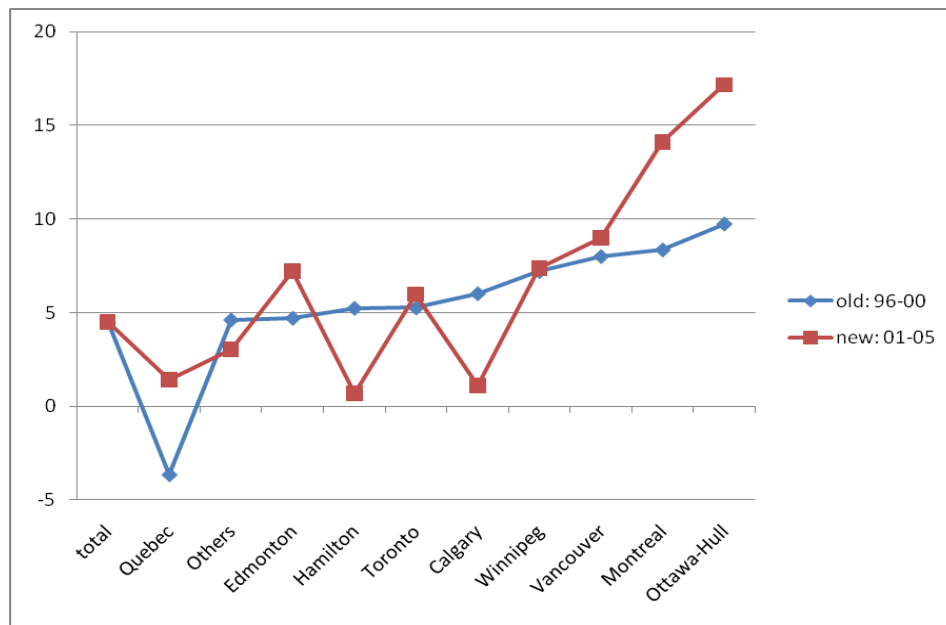
Table 8 describes the exit rates for the newest vintage of naturalized Canadians who arrived between 1996 and 2000 and left between 2001-2005. In this short five year leaving period, over 16% of the 1997 arrivals had left with a heavy concentration of leavers in the male older age bracket (31-45).

**Table 8: Migration Exit Rates for Newer Vintage Naturalized Canadian Immigrants: 2001-2005**

	2001 (weighted count)	2006 (weighted count)	Outmigration Rate 2001-2005 (%)
<b>Total</b>	556,560	528,900	4.5
<b>Gender</b>			
<b>Female</b>	292,340	280,370	3.76
<b>Male</b>	264,220	248,530	5.34
<b>Age in 2001</b>			
<b>21-25</b>	65,630	65,760	-0.46
<b>26-30</b>	102,840	98,110	4.49
<b>31-35</b>	124,110	115,070	7.40
<b>36-40</b>	105,790	99,560	5.60
<b>41-45</b>	79,210	74,410	5.44
<b>46-50</b>	51,430	48,780	3.85
<b>51-55</b>	27,550	27,200	-1.14
<b>Year of Immigration</b>			
<b>1996</b>	115,550	109,190	5.0
<b>1997</b>	118,610	101,200	16.33
<b>1998</b>	96,010	93,520	1.97
<b>1999</b>	103,750	101,050	2.01
<b>2000</b>	122,640	123,940	-1.66

In Figure 2 I report Chen's exit rates by Canadian cities for naturalized Canadian citizens between 1996 to 2005 to reveal the regional nature of these outflows. Concentrating on the older immigrant vintage reveals that the post 1996 naturalized cohort previously resident in Vancouver, Montreal and Ottawa experienced high exit rates.

**Figure 2: Exit Rates for Old and New Immigrant Vintages by CMA (%)**



In sum, reporting the exit rates by demographic and foreign-birth status reveals the complexity of the emigration process. Young males generally dominate the exit process with certain ethnic groups (French) or immigrant cohorts by year of entry (1997) exhibiting extraordinarily high emigration rates over a short period. Nonetheless, the exit process is best described for the naturalized group by the older vintage of immigrants who over their economic lifetime exhibited a 33% exit rate. In sharp contrast, the Canadian-born cohort reported in Table 6 had only a 4.7% exit rate over their economic life.

*C. IMBD- Based Exit Rate Estimates:*

As was noted earlier, an alternative Canadian-based data source to estimate outward migration for naturalized Canadians is the IMDB. This is an administrative data base which collects “tombstone data” upon a permanent immigrant’s arrival in Canada which in turn is electronically collated to the immigrant’s income tax record. In short, the absence of a tax filer record in a particular year indicates his/her disappearance owing to death, lack of income, lack of filing or separation from Canada.

Citizenship and Immigration Canada has estimated onward migration rates for select immigrant source countries over the period 1982 to 1997 as reported in Figure 3.<sup>18</sup> The onward migration rate which consists of a combination of actual and estimated outmigration rates plus a residual flow (other) is high for a select group of countries or regions: the USA (33%), Northern Europe (27%) Hong Kong (23%), Oceania (22%) and around 18% for Taiwan and Lebanon.<sup>19</sup> Of the remaining reported countries, all experienced an onward migration rate below 15% with some

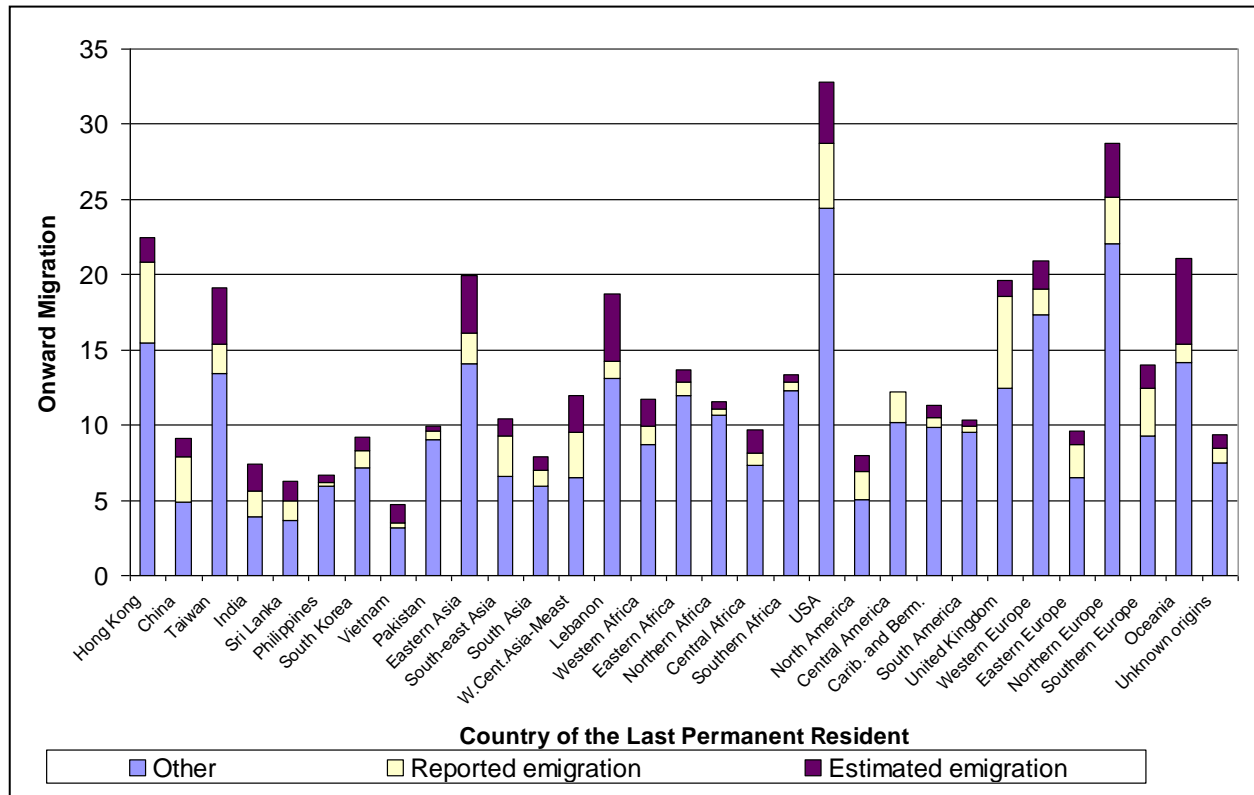
<sup>18</sup> Onward migration is defined as disappearances in a cohort minus reported deaths, estimated deaths, and non-tax filers.

<sup>19</sup> Actual emigration rate occurs when a respondent writes the date he left the country on the first page of his T1 return. Estimated emigration occurs when a member of a unit does not file an income tax form for two years or files from outside Canada. The other category equals onward migration: reported minus estimated emigration.

major immigrant-sending countries (India, Philippines, Vietnam and China) experiencing onward migration rates well below 10%.

How do the IMDB based estimates of emigration compare to Chen’s census-based findings for the period 1996-2006? In terms of orders of magnitude, Chen’s estimates are obviously smaller since they cover only the 1996-2006 exit window, while the IMDB exit window covers 16 years.<sup>20</sup> Nonetheless, regardless of the data source, a few countries (e.g. USA, Hong Kong and Taiwan) dominate the exit experience based on census or IMDB data. However, Oceania and Northern Europe have high exit rates based on the IMDB data source.

**Figure 3: Onward Migration: Percent by Country of Last Permanent Residence**



Source: B. St-Jean, 2009

There is one further glaring discrepancy in the two source estimates of exit rates. The average onward migration rate derived from Figure 3 is 12.4%, which is more than 2.5 times greater than the exit rate of 4.5 % as reported by Chen for the 1996-2006 period. However, a combination of the actual and estimated outmigration rates reported in Figure 3 would yield an exit rate similar to Chen's estimate. Again, it must be noted that the IMDB data does not control for Canadian citizenship and hence I would always anticipate an over estimate owing to this discrepancy.

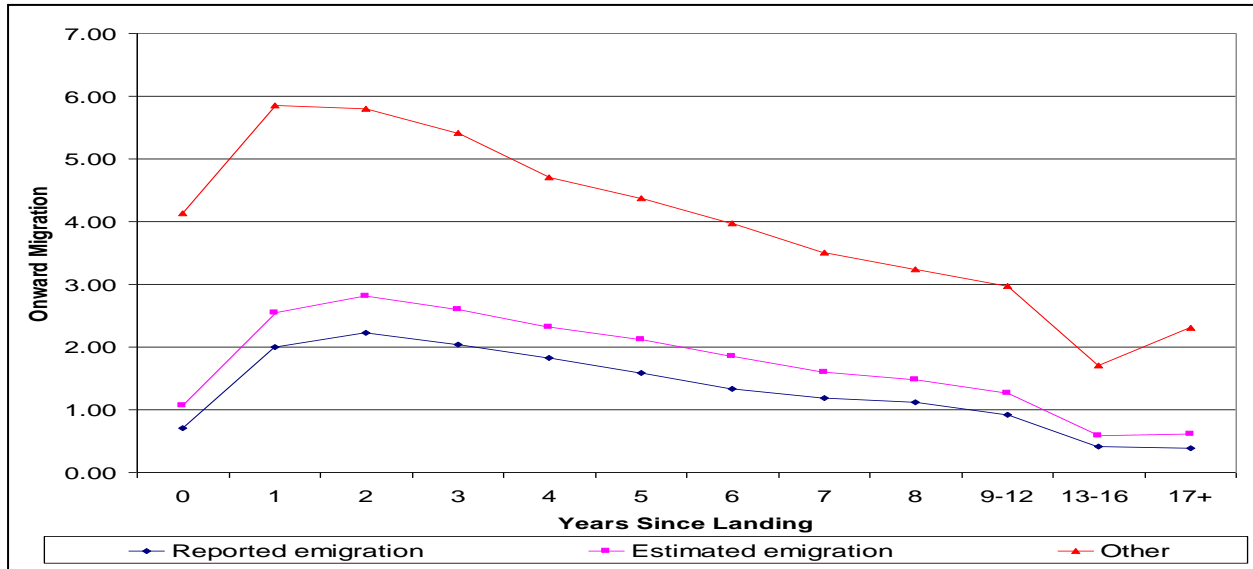
Even given the definitional limits inherent in the IMDB, this data set allows the researcher to compute the time path of exit for any cohort by years in Canada. A sample of the results derived from this computation is provided in Figures 4 to 6 below.

Figure 4 reveals that immigrants from the USA leave very shortly after arrival (years 1 to 3) and then their rates of exit subside while Hong Kong immigrants wait at least three years before leaving in substantial numbers. Immigrants from China, Lebanon and Pakistan follow the Hong-Kong pattern while the UK-sourced immigrants

<sup>20</sup> The onward migration rate is computed for 16 years for any cohort. In other words, in the 17th year a cohort is dropped from the IMDB, thus underestimating the cohort’s exit rate since some will leave after retirement.

follow the USA pattern of a short stay. The Philippines and Vietnam, albeit with low exit rates, are mainly concentrated in immigrants who have been in Canada for 18 or more years.

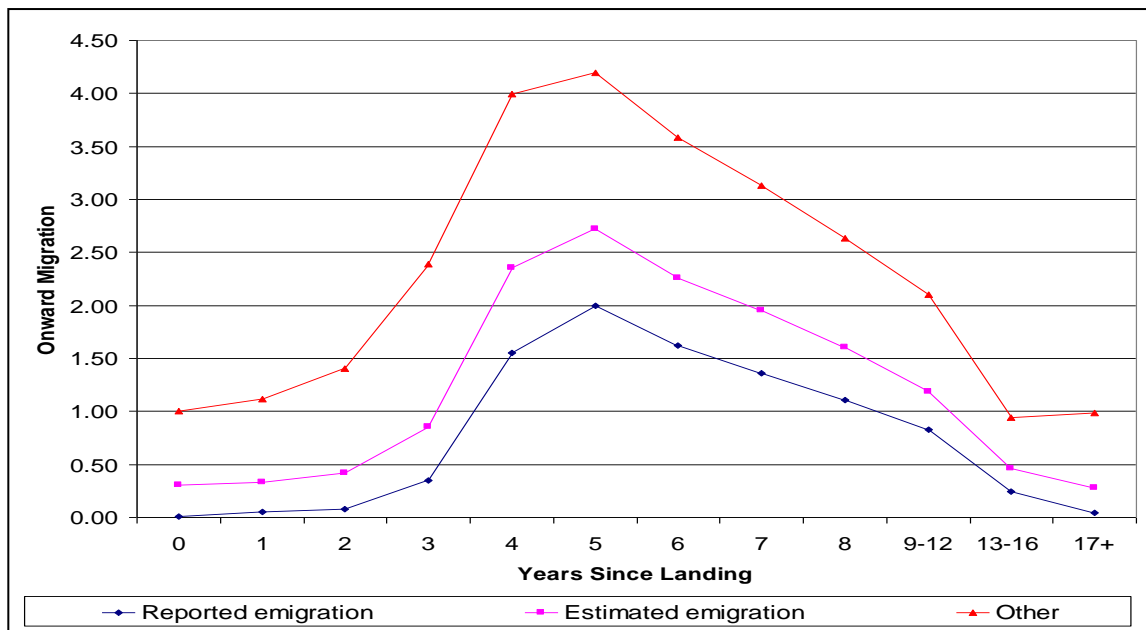
**Figure 4: Onward migration by years since landing according to the definition of emigration and the country of the last permanent residence (USA)**



Source: B. St-Jean (2009)

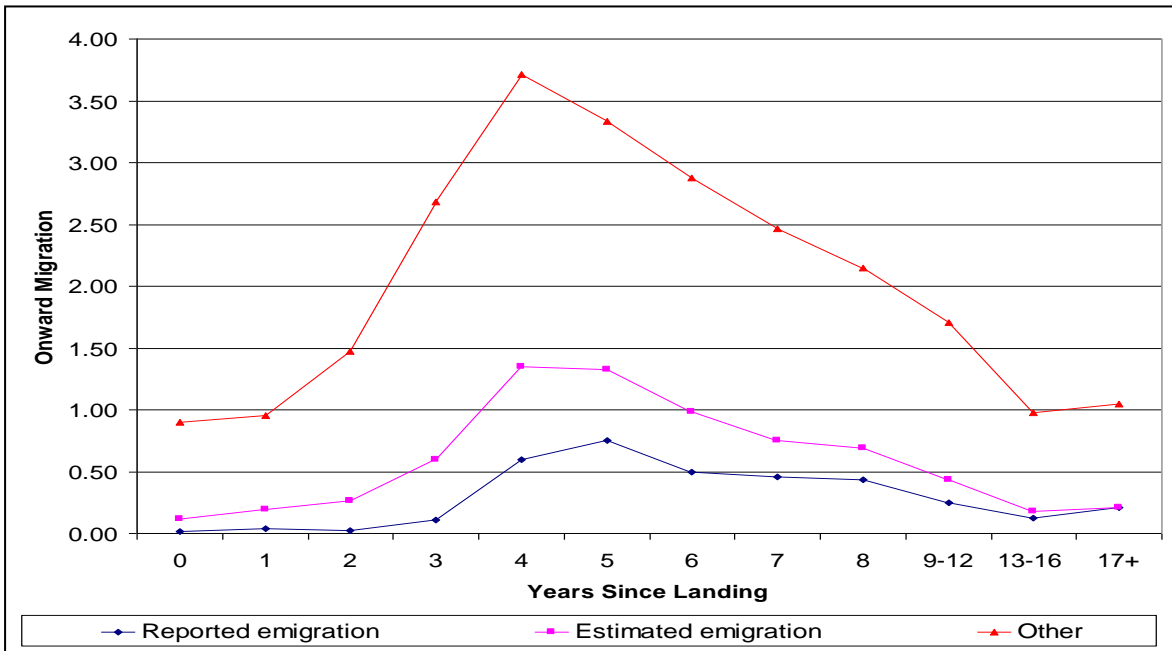
The case of Lebanon is important, as it is the oft cited example since 2006. As Figure 6 below illustrates, the case of Lebanese emigration mimics the Hong-Hong experience and to that extent, Lebanon is not exceptional. Figures 4 to 6 reveal a diverse exit pattern for Canada’s immigrants. Immigrants from wealthy countries tend to have high exit rates after a brief stay, whereas people from less wealthy countries or countries with political stress leave after five or more years of residency in Canada.

**Figure 5: Onward migration by years since landing according to the definition of emigration and the country of the last permanent residence (Hong Kong)**



Source: B. St-Jean (2009)

**Figure 6: Onward migration by years since landing according to the definition of emigration and the country of the last permanent residence (Lebanon)**



Source: B. St-Jean (2009).

### III. Destination Country Estimates

A core question emerging from this work and relevant for future policymaking asks where Canada’s overseas population resides. Table 9 provides estimates of the Canadian Diaspora by resident country derived from multiple sources and thus, when appropriate, I provide a range of estimates.<sup>21</sup> For the purposes of this analysis, I will concentrate on the fourth column of Table 9, the average estimate. The USA had just over 1 million Canadian citizens in residence in 2001 or 36% of the total Canadian Diaspora. Greater China – Hong Kong, China and Taiwan -- had an additional 292,000 Canadian citizens in residence in 2006. The only other significant destination countries are the UK and Australia with 70,000 and 27,289 Canadian citizens respectively in residence in 2008. In sum, these major residential areas account for over 57% of Canada’s Diaspora. The remaining reported destination countries all have less than 10,000 Canadians in residence and point to a pattern of a widely dispersed, but minor world-wide Canadian population resident in several countries.<sup>22</sup>

<sup>21</sup> It should be noted that the estimates in Table 9 will be underestimates since Canadian dual citizens of these countries are reluctant to report their dual nationalities.

<sup>22</sup> Several of the countries listed in Table 9 below have been profiled as part of the Canadians Abroad Project, and these country profiles are accessible online at [www.canadiansabroad.ca](http://www.canadiansabroad.ca).



**Table 9: Country Profile Table -- Population Estimates, Select Countries**

Country	Low Estimate	High Estimate	Average	Source
United States	945,060	1,062,640	1,003,850	US Census, Asia Pacific Foundation of Canada (APF)
Singapore	5,140	---	5,140	Foreign Ministry of Singapore
United Kingdom	70,000	---	70,000	UK Census, National Statistics Labour Force Survey
Hong Kong	150,000	250,000	200,000	Canadian Consulate and APF
Trinidad & Tobago	3,700	5,000	4,350	Canadian High Commission
Australia	--	--	27,289	OECD
China	---	---	40,000	APF
Taiwan	--	--	52,500	APF
Japan	---	--	7,067	OECD
Republic of Korea	2,468	14,879	8,673	OECD, APF
Mexico	--	--	5,768	OECD
New Zealand	--	--	7,770	OECD
Philippines	--	--	7,500	DFAIT
Singapore	--	--	5,140	APF
Thailand	--	--	5,000	DFAIT
Vietnam	--	--	1,000	APF

#### **IV. Conclusions**

Canada's exit rates as reported by several authors (Chen, Zhang, and Benoit St-Jean) illustrate a consistent pattern. In fact, Zhang's global estimate *circa* 2006 of 2.7 million Canadian citizens living abroad can be replicated from Chen's census-based estimates. Moreover, Chen's immigrant country of origin exit rates are replicated in many cases with independent estimates derived from the IMDB. This leads me to conclude that Chen's census based exit rates and my 2.8 million stock measures are my preferred or 'meta' estimate of the Canadian population living abroad. Thus, almost 9% of Canada's citizen based population lives overseas with the dominate portion being Canadian-born citizens. The outflow of recent naturalized immigrant cohorts has been substantial, with several immigrant origin countries exhibiting high exit rates after five years of residence in Canada. Finally, 57% of Canada's Diaspora resides in the USA, greater China, the United Kingdom, and Australia. The remainder is dispersed world-wide in small numbers.

**Appendix Tables**

**Appendix Table 1: Older Vintage of Immigrants: Aged 21 to 55, Landing Years 1960-1996**

Selected Country	1996 weighted rounded	1996 weighted rounded 5-year survival	1996 weighted 10-ye survival	2001 weighted rounded	2006 weighted rounded	Out-migration 96-00	Out-Migration 01-05
Australia*	9,600	9,520	9,390	8,740	8,440	780	170
China	117,880	116,720	114,930	109,780	113,940	6,940	-5,950
France	36,280	35,940	35,420	33,270	32,140	2,670	610
Germany	51,190	50,640	49,780	48,030	47,310	2,610	-140
Greece	38,710	38,200	37,420	36,050	37,690	2,150	-2,420
Guyana	56,370	55,910	55,210	54,880	54,710	1,030	-530
Haiti	33,450	33,170	32,740	31,750	32,160	1,420	-840
Hong Kong	166,690	165,450	163,570	135,310	122,150	30,140	11,280
Hungary	13,160	13,010	12,780	11,600	11,650	1,410	-280
India	164,780	163,330	161,110	159,840	164,150	3,490	-6,530
Iran	32,470	32,210	31,820	27,840	27,160	4,370	290
Italy	115,250	113,750	111,400	114,140	113,880	-390	-2,090
Jamaica	80,140	79,460	78,410	76,660	74,570	2,800	290
Japan*	9,690	9,600	9,450	8,680	8,300	920	230
Lebanon	43,990	43,660	43,160	41,480	40,530	2,180	450
Netherlands	26,260	25,960	25,500	25,510	25,720	450	-670
New Zealand*	5,560	5,510	5,430	5,190	5,050	320	60
Philippines	132,800	131,740	130,120	128,990	128,890	2,750	-1,520
Poland	92,360	91,600	90,440	86,730	85,810	4,870	-240
Portugal	106,540	105,550	104,020	102,720	101,620	2,830	-430
Singapore	5,260	5,220	5,160	4,790	4,540	430	190
South Korea	30,150	29,860	29,420	27,190	26,120	26,780	630
Sri Lanka	46,290	45,950	45,450	42,890	41,900	3,060	490
Taiwan	29,460	29,200	28,800	21,850	18,400	7,350	3,050
Trinidad & Tobago	45,150	44,730	44,080	42,540	41,490	2,190	400
United Kingdom	271,130	268,260	263,820	263,070	259,780	5,190	-1,150
United States	134,820	133,620	131,770	121,340	117,090	12,280	2,400
Vietnam	102,890	102,190	101,160	103,260	105,690	-1,070	-3,460
Yugoslavia	30,960	30,670	30,230	23,700	13,920	6,970	9,340

Source: Chen's calculation from 1996 – 2006 Census of Canada

**Appendix Table 2: New Immigrants: Age in 2001: 21 to 55, Landing Years 1996-2000**

Selected Country	2001 weighted rounded	2001 weighted rounded 5-yr survival	2006 weighted rounded	Out-Migration 01-05
Australia*	1,440	1,430	s.p.	180
China	76,610	76,090	71,850	4,240
France	9,000	8,950	7,140	1,810
Germany	3,930	3,900	4,080	-180
Greece	s.p.	s.p.	s.p.	
Guyana	4,960	4,930	4,860	70
Haiti	3,530	3,510	3,860	-350
Hong Kong	23,070	22,870	19,580	3,290
Hungary	1,380	1,380	1,360	20
India	57,510	57,110	63,160	-6,050
Iran	18,660	18,510	15,550	2,960
Italy	1,370	1,360	s.p.	110
Jamaica	6,170	6,130	6,260	-130
Japan*	3,610	3,590	3,110	480
Lebanon	4,890	4,860	4,650	210
Netherlands	2,070	2,060	1,880	180
New Zealand*	s.p.	s.p.	s.p.	
Philippines	33,530	33,310	34,740	-1,430
Poland	5,240	5,200	5,210	-10
Portugal	1,620	1,610	1,830	-220
Singapore*	s.p.	s.p.	s.p.	
South Korea	14,850	14,730	13,570	1,160
Sri Lanka	15,110	15,010	14,760	250
Taiwan	17,650	17,490	13,830	3,660
Trinidad & Tobago	3,800	3,770	4,090	-320
United Kingdom	10,860	10,780	11,140	-360
United States	10,510	10,440	9,990	450
Vietnam	7,190	7,160	7,680	-520
Yugoslavia	9,690	9,620	4,370	5,250

\*Source: Chen's calculation from 1996 – 2006 Census of Canada

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