

# Vancouver Centre of Excellence



## Research on Immigration and Integration in the Metropolis

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**Immigrants and Public Finance Transfers:  
Vancouver, Toronto and Montreal**

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## RIIM

### Research on Immigration and Integration in the Metropolis

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Immigrants and Public Finance Transfers:  
Vancouver, Toronto and Montreal

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### Abstract

The public finance contributions of Canada's immigrants have been well documented by Akbari on a national basis. This paper seeks to demonstrate that substantial variations in public transfers exist across cities in Canada by foreign birth status. A life cycle model is employed to predict the lifetime patterns for both the consumption of public goods and the payment of taxes by both Canadians and immigrants in Vancouver, Toronto and Montreal. For example, upon entry Vancouver's foreign-born population's consumption of public goods exceeds that of the Canadian-born and then later the Canadian-born consumption is greater in the post retirement years rising steeply, peaking at age 70. The consumption of monetized public goods also varies by year of entry. For instance, Vancouver's post-1986 immigrant household's consumed twice the social assistance and unemployment insurance of earlier 1965-1975 Vancouver arrivals. Combining both the consumption of public goods and tax payments yield the net transfer results as predicted by the life-cycle model. Substantial variations in net public finance transfers occur across Canada's three major cities for both immigrants and the Canadian-born. This is in sharp contrast to the Canadian-wide experience. From a public finance standpoint the Montreal experience based largely upon Quebec's selection criteria yields a large note of caution.

'Now I am living in another country  
But I know exactly where I've been'  
by Van Morrison from Bigtime operators.

## I. Introduction:

Immigrants upon arrival and beyond affect the public finances of Canada. Immigrants may bring tax subsidies from their origin country in the form of embodied formal education (Coulson and DeVoretz, 1992). After their arrival in Canada immigrants may continue to subsidize the Canadian taxpayer via continued transfers, if their tax contributions exceed their use of public services. Of course the opposite may hold, especially just after arrival immigrants may consume more services than they pay in taxes (Benjamin and Baker, 1995). The current Canadian literature address the public transfer question exclusively at the aggregate level (Akbari, 1989; Akbari, 1995) and argues that over their lifetime the representative immigrant, regardless of location in Canada, makes a modest net contribution over their lifetime to the treasury. For a variety of reasons we believe that these results may vary by place of residence in Canada. Central to this view is that the major metropolitan areas of Canada receive differential proportions of immigrants across entry classes and that individual city economies differ by immigrant employment outcomes. It is the central task of this paper to measure the immigrant populations' public finance transfers for Vancouver and then, Toronto and Montreal.

## II. Theory

A crucial and reoccurring question in the minds of immigration critics is: "Do the foreign-born make a net positive contribution to the treasury?". Simon's seminal article (1984) sets the theoretical framework to address this question. He argued that it is necessary to consider the life-cycle consumption of public services and tax payments of the foreign-born. Simon argued that income and hence tax payments are concave in age while public goods consumption is convex in age. Hence, the theoretical

construct for a life-cycle argument for tax payments and goods consumption is assured if these conditions hold. There are however, two necessary adaptations to this theory. First, Canada has a highly progressive income tax system. This fact should theoretically yield a greater divergence between tax payments and (public) goods consumption than would typically appear in (private) life cycle wealth accumulation literature (DeVoretz and Shamsuddin, 1999). In addition, unlike most private consumption, the use of important public goods is age specific. For example, education and health are major expenditure items, which occur at the earliest and latest part of the life cycle respectively. Thus, given this age specificity, public goods consumption should be more convex in age than initially predicted. This is illustrated in Figure 1.

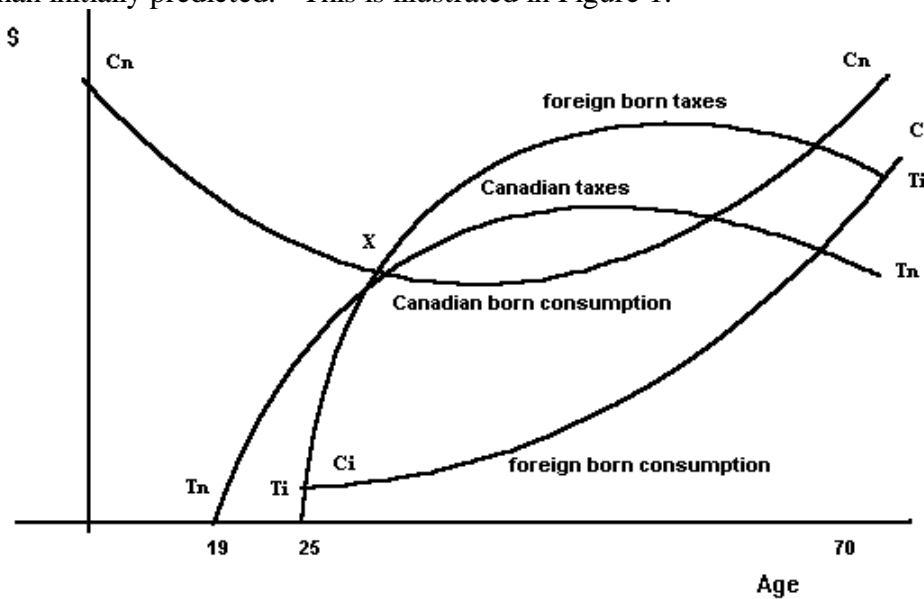


Figure 1 : Age Consumption Tax Profiles by Birth Status: Optimistic Case

In addition, since Canadian immigrants are doubly selected—first by themselves and secondly by Canada's point system the hypothesized age transfer patterns may now vary

by birth status. The effect of this double selection is observed in many dimensions. First, Canadian-born residents start consuming public goods (Cn-Cn) at birth (health), then after age 6, their educational subsidies begin. By age 19 to 22 the Canadian-born population enters the labour force and simultaneously exits the education sector. This reduces their consumption of subsidized education and associated public goods. It is at this point in the life cycle that the Canadian-born begin to pay taxes (Tn-Tn). In contrast to this complete life-cycle pattern, the foreign-born public good consumption curve (Cn-Cn) begins later, after entry (i.e. age 26) and may lie everywhere below (or above) its Canadian-born cohort depending upon their economic or demographic circumstances. This ambiguity in the level of consumption of public goods by the foreign-born at every age is due to two countervailing forces. First, the immigrant's initial lack of eligibility to consume some public goods (i.e. health) may arise due to residency requirements. In addition, some programs are income contingent (employment insurance) and initially immigrants may be unable to meet income tests and thus may reduce their use of some public transfer programs ( Benjamin and Baker, 1995). On the other hand, the greater initial risk faced by the immigrants in the labour market could lead to a greater use of entitlement programs ( social assistance ) upon arrival. On the payment side i.e. taxes, it is hypothesized that the foreign-born tax payments (Ti-Ti) are initially low and then, accelerate to a 'cross over' point (at X) where foreign-born tax payments exceed Canadian-born due to higher foreign-born earnings and the progressive nature of Canada's tax system. Figure 1 best represents the optimistic case.

A pessimistic case would have the foreign-born earn less and never 'catch-up' to Canadian-born earnings. This would result in lower tax payments and delay or forestall completely their tax 'crossover'. In addition, due to a low household income, foreign-born public goods consumption could rise above that predicted in figure 1. This leads to the outcome in figure 2 which is a complete reversal of the optimistic case in figure 1 since

immigrant tax payments never exceed their consumption of public services and hence the Canadian-born population subsidizes the immigrant cohort.

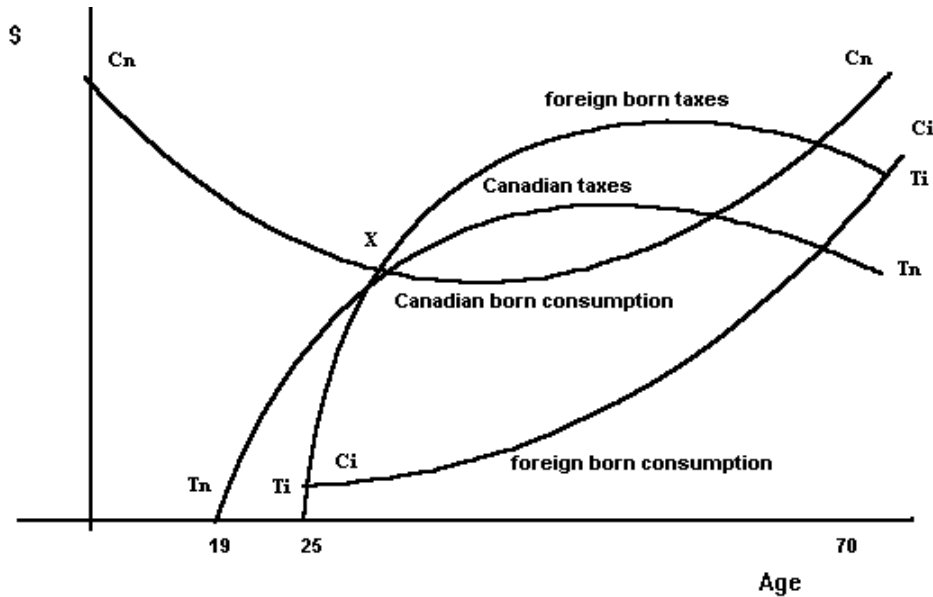


Figure 2 : Age Consumption Tax Profiles by Birth Status: Pessimistic Case

At this point we conclude that the life-cycle model represents a flexible framework (either figures 1 or 2) to analyze differential tax transfers by foreign birth status. In addition, demographic (age, marital status, family size) and economic variables are identified as conditioners for both tax payments and the consumption of public goods for both the Canadian and foreign-born cohorts. Earlier work (Laryea, 1998) has demonstrated the wide variations in demographic and economic variables across Canada's major CMSA's which could lead to differential public finance city-wide outcomes. We now turn to our data set to present some stylized facts to place this model in the Vancouver context.

### III. Data



A standard cross-sectional data set used to analyze Canadian public goods consumption is the (1995) Survey of Consumer Finances (SCF) for Census Families. This data set contains all the relevant variables outlined in the life-cycle model depicted in figures 1 and 2. Direct observations on both tax payments and consumption of particular public goods are provided in detail at the city level (CMSA) for both the Canadian and foreign-born populations. In addition, the data set allows the truncation of the foreign-born population into old (pre-1986) and new (post-1986) immigrant vintages to observe any entry co-hort effects.

Table 1: Descriptive Statistics: Vancouver Foreign-born Population

	Age	Income	Total Govt	Child Tax	Old Age	Canada Pension	E I	Social Assist	Tax
Mean	49.3	\$40,942	\$5,881	\$417.71	\$2,928	\$1,159	\$744	\$755	\$7,423
Std Dev	16.8	\$36,819	\$4,795	\$4,926	\$14,460	\$12,995	\$14,574	\$15,200	\$11,439
Min	17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Max	80	\$90,000	\$26,256	\$4,956	\$14,460	\$12,995	\$14,754	\$15,200	\$90,838
Number	452	452	452	452	452	452	452	452	452

Source: Survey of Consumer Finances for Census families: Head of Household, 1995.

Table 2: Descriptive Statistics: Vancouver Canadian-born Population

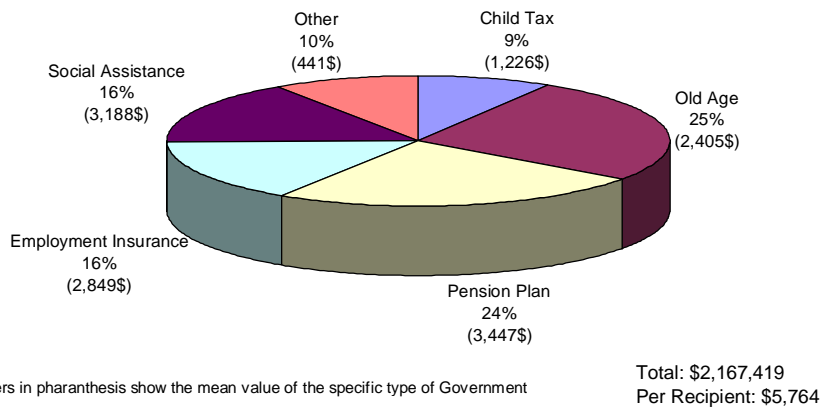
	Age	Income	Total Govt	Child Tax	Old Age	Canada Pension	E I	Social Assist	Tax
Mean	46.3	\$47,135	\$5,005	\$211	\$1597	\$1,408	\$644	\$417	\$9,669
Std Dev	17.5	\$36,600	\$6,986	\$623	\$3350	\$2,900	\$2,251	\$2,013	\$12,476
Min	17	-\$694	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Max	80	\$300k	\$39,505	\$4,730	\$16,642	\$16,178	\$22,412	\$20,913	\$150k
Number	833	833	833	833	833	833	833	833	833

Source: Survey of Consumer Finances for Census families: Head of Household, 1995.

The Vancouver foreign-born and Canadian population samples differ with respect to key economic, demographic and public goods consumption variables. The sampled Vancouver foreign-born population circa 1995 is three years older and earns \$6,183 less than its Canadian-born cohort. In addition, the foreign-born population consumes more

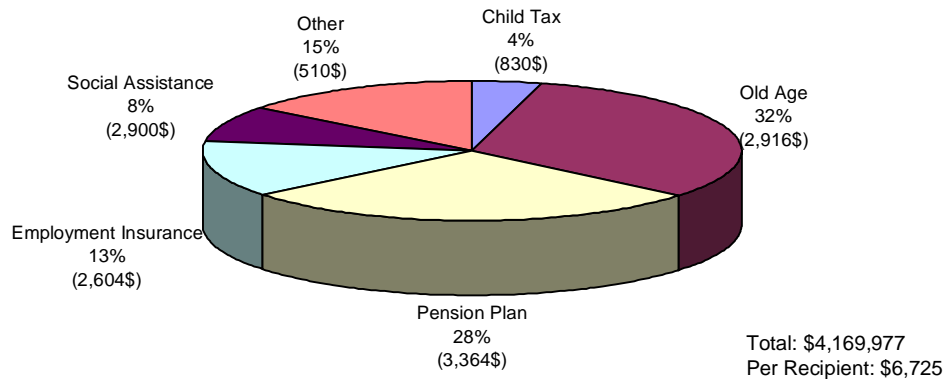
of the sampled public goods (\$5,881) than the Canadian-born population (\$5,005) while paying less in taxes (\$7,423) than the Canadian-born residents in Vancouver (\$9,669). More importantly the two populations differ in their distribution of consumption of public goods. We investigate these patterns in detail below.

**Figure 3; Federal Government Transfers to Vancouver Foreign Born:**



Note: Numbers in paranthesis show the mean value of the specific type of Government Transfers.  
 Source: Survey of Consumer Finances (SCF) for Census Families, 1995 income, 1996 expenditure.  
 Sample Size: 452 Observations among which 376 receives government transfers.

**Figure 4: Federal Government Transfers to Canadian Born Citizens in Vancouver:**



Note: Numbers in paranthesis show the mean value of thehead of household specific type of Government Transfers.

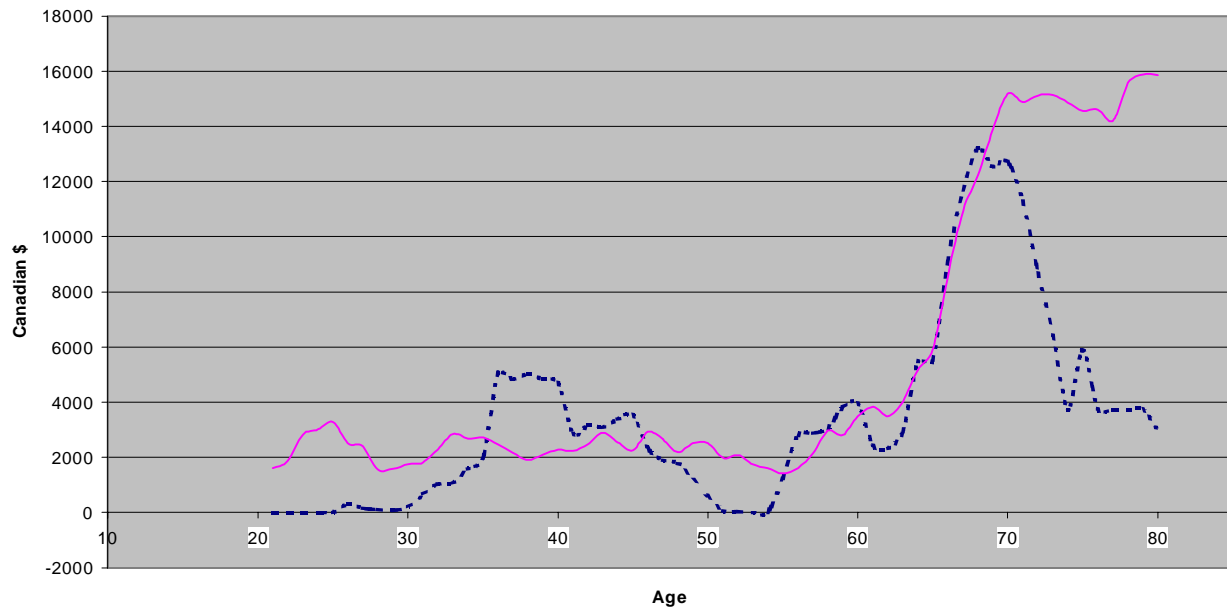
Source: Survey of Consumer Finances (SCF) for Census Families , 1995 income, 1996 expenditure.

Sample Size: 833 Observations among which 620 receives government transfers.

Figures 3 and 4 depict the distribution of consumption by foreign-birth status across the sampled public goods in Vancouver. First, it should be noted that average transfers received by the Canadian-born population (\$6,725) exceeds the average consumption of public goods by the foreign-born (\$5,764) in Vancouver's CMSA.<sup>1</sup> This \$961 difference could be owing to several factors and hence we will estimate a demand function for public consumption by foreign-birth status in the next section. Two other facts emerge from the figures; namely, that the absolute amount of pensions consumed (Old Age and CPP) by the Canadian-born Vancouver residents (\$6,280) exceeds the amount used by the foreign-born (\$5,852) by \$428. In contrast, the foreign-born households in Vancouver's CMSA consumed a modest amount more of social assistance (\$3,188) versus (\$2,900) for the Canadian-born households.

<sup>1</sup>We now concentrate on the user population for both the foreign-born and Canadian-born populations and hence the average figures reported below are across the actual number of users in each population and not the total population as in tables 1 and 3.

**Figure 5:**  
**Total Government Transfers by Foreign Birth Status in Vancouver: 1995-96\***  
**(5 Year Moving Average)**



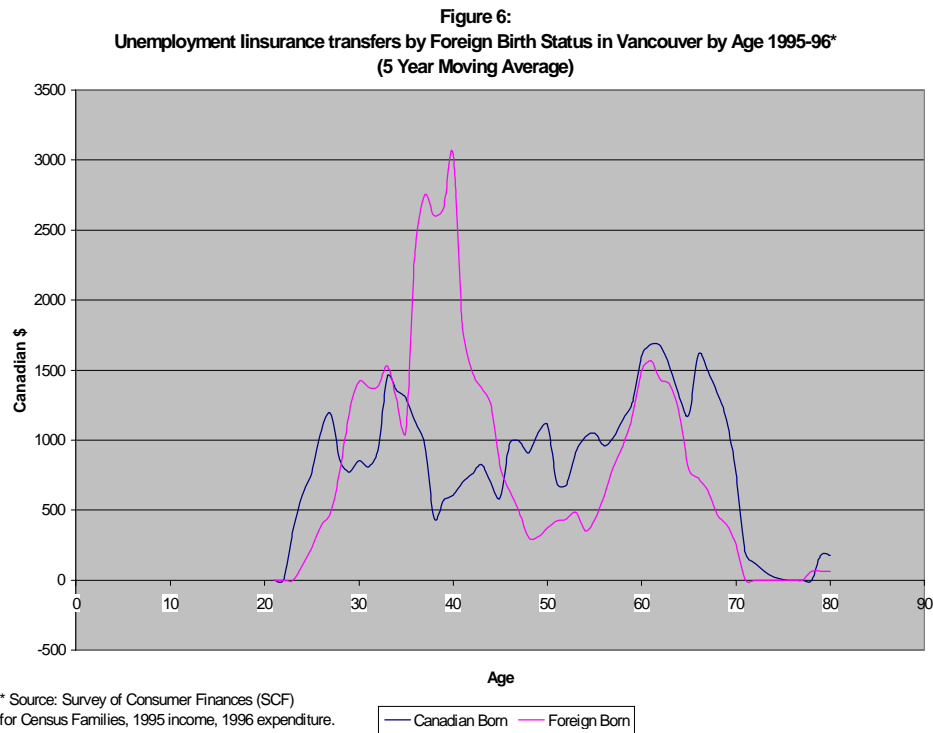
\* Source: Survey of Consumer Finances (SCF) for Census Families, 1995 income, 1996 expenditure.

■ Post 1986 Immigrants    ■ Canadian Born

It is possible to array the total reported government transfers by and age and foreign-birth status as predicted by the life-cycle analysis. This is reported in figure 5. The public consumption functions by age are as predicted by the life-cycle model since for both the foreign-born and Canadian-born Vancouver populations the total consumption of federal transfers appears convex in age. Initially, the foreign-born population's consumption exceeds that of the Canadian-born between the ages 19 and 50 and then afterwards the Canadian-born consumption is greater in the post retirement years rising steeply, peaking at age 70.

Benjamin and Baker (1996) argue that we should disaggregate the consumption of public goods into the two most contentious public consumption items, (un)employment insurance and social assistance since these goods are potentially complementary over the lifecycle of immigrants. In other words, upon entry immigrants are not eligible to use unemployment insurance since they have limited labour force experience. Thus, if they choose to and qualify recent immigrants will use social assistance and then after a period of attachment to the labour force assimilate into unemployment insurance benefits and out of social assistance income.

Figures 6 and 7 respectively portray the life-cycle consumption patterns for the Vancouver foreign-born and Canadian-born households circa 1995-96 for these two public goods. Several points are clear. First, figure 6 demonstrates that for the Canadian-born in Vancouver unemployment insurance consumption is curvilinear in age between 20 and 55. Thus, the Canadian-born gradually assimilate into employment insurance consumption between the ages 20-35 then diminish their use of unemployment benefits until their mid 50's. After 50, their labor force attachment is more tenuous and their use of benefits rises. Vancouver's foreign-born households assimilate into the use of

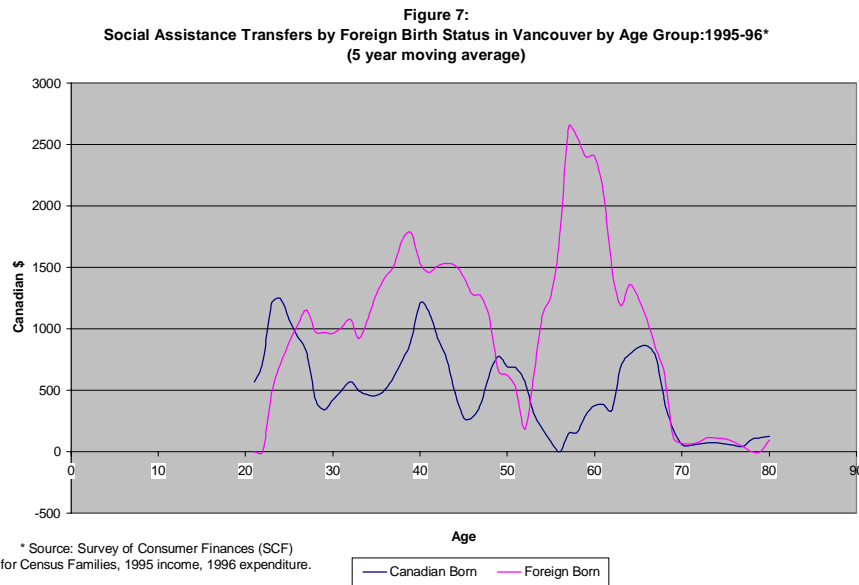


unemployment insurance between the ages 35 to 45 with a large increase in unemployment payments ( i.e. an annual increase of \$1500 to \$3500). After a brief decline in payments after age 50, the foreign-born in Vancouver experience a sharp rise in unemployment benefits after age 55.

Figure 7 portrays the use of social assistance over the Vancouver household's life cycle. The Canadian-born households follow the predicted life cycle pattern as social assistance payments decline from age 20 to 55 with occasional fluctuations. The rise in payments after age 55 is as predicted by the life cycle model given the weaker

commitment to the labour market for this older group.

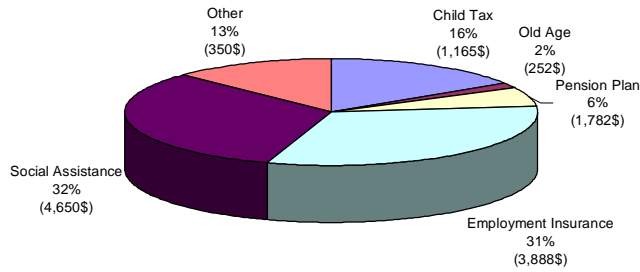
The foreign-born in Vancouver do not follow the predicted life cycle model and



initially assimilate into the use of social assistance between the ages of 20 to 40, then experience a dramatic decline during their mid period (40-55). After age 55, a dramatic increase occurs. It is also important to note that the representative Vancouver foreign-born household consumes a greater amount of social assistance between the ages 25 to 70 (except 50-55) than the Canadian-born household.

The life cycle analysis also hypothesizes a household's differential use of public goods by year of entry into Canada for the foreign-born. Two hypotheses are embedded in this vintage approach. Each entry cohort, on average, should have a different mean age for the head of household and thus be representative of a different point in the household's lifecycle. In addition to the aging effect, year of entry can influence lifetime consumption of public goods given the state of the economy upon immigrant entry. This latter effect is termed the period effect in the literature. Thus, the period effect (entry during recession/or boom) plus the cohort effect (i.e. age and country source characteristics) are expected to condition the consumption of public goods.

**Figure 8: Federal Government Transfers to Vancouver Foreign Born post 1985**

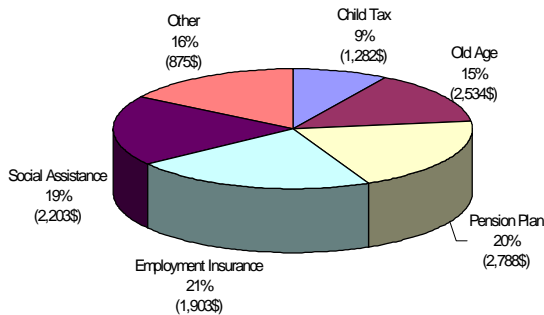


Note: Numbers in paranthesis show the mean value of the specific type of Government Transfers.  
 Source: Survey of Consumer Finances (SCF) for Census Families, 1995 income, 1996 expenditure.  
 Sample Size: 163 Observations among which 143 receives government transfers.

Total: \$509,442  
 Per Recipient: \$3,563

Inspection of figures 8 - 11 depicts the public good consumption patterns for various foreign-born entry-level cohorts. The most recent arrivals (post-1985) are

**Figure 9: Federal Government Transfers to Vancouver Foreign Born 1965 - 1975**



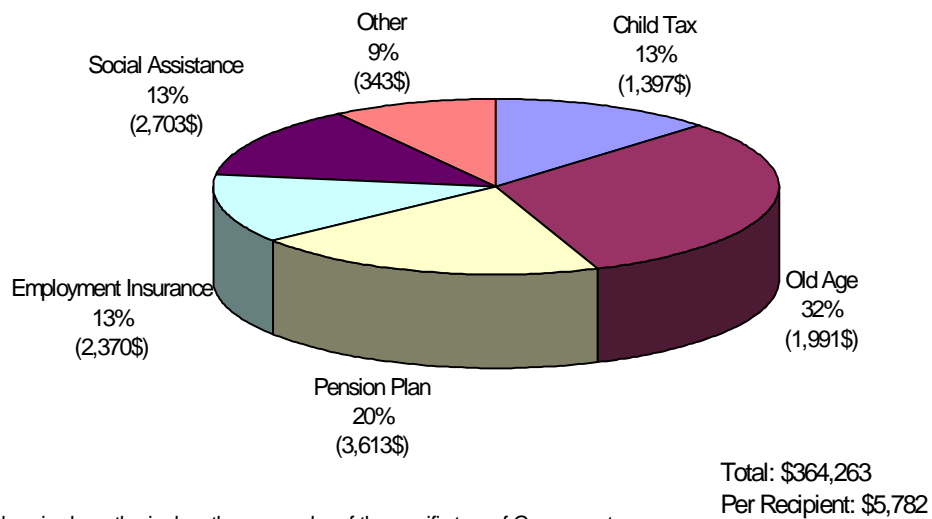
Note: Numbers in paranthesis show the mean value of the specific type of Government Transfers.  
 Source: Survey of Consumer Finances (SCF) for Census Families, 1995 income, 1996 expenditure.  
 Sample Size: 93 Observations among which 73 receives government transfers.

Total: \$433,762  
 Per Recipient: \$5,942

depicted in figure 8. Their consumption of social assistance (\$4650) and employment insurance (\$3,888) is twice the amount consumed by the 1965-1975 arrivals (figure 9) for these two programs.

On the other hand the 1975-85-entry cohort use of social assistance and employment insurance (figure 10) is approximately 60 % of the post-1985 cohort's consumption level.

**Figure 10: Federal Government Transfers to Vancouver Foreign Born 1975 - 1985**



Note: Numbers in paranthesis show the mean value of the specific type of Government Transfers.

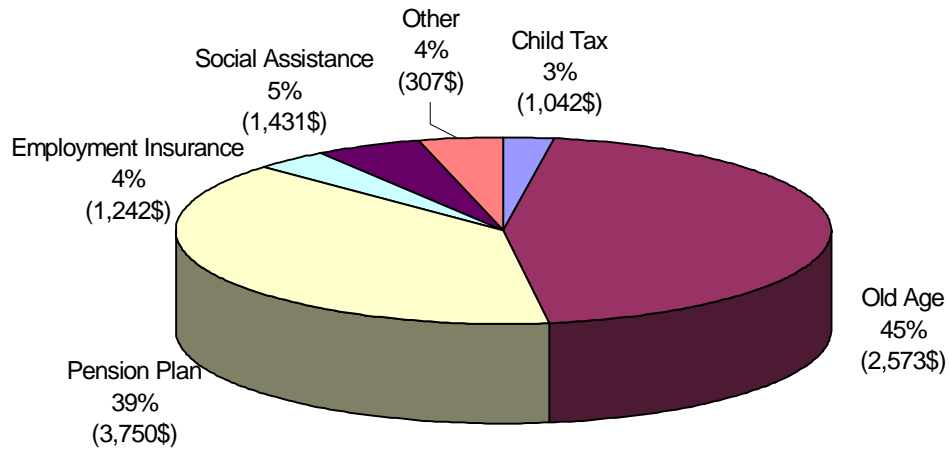
Source: Survey of Consumer Finances (SCF) for Census Families, 1995 income, 1996 expenditure.

Sample Size: 81 Observations among which 63 receives government transfers.

Finally, the pre -1965 entry cohort (figure 11) does not participate heavily in social assistance or employment insurance and for obvious reasons (age) has the highest entry cohort use of pension payments (\$3,750 and \$2,573).



**Figure 11: Federal Government Transfers to Vancouver Foreign Born Pre 1965**



Total: \$849,952  
Per Recipient: \$8,762

Note: Numbers in pharantthesis show the mean value of the specific type of Government Transfers.  
Source: Survey of Consumer Finances (SCF) for Census Families. 1995 income, 1996 expenditure.  
Sample Size: 115 Observations among which 97 receives government transfers.

In sum, Vancouver foreign-born cohorts differ markedly in their consumption levels and distribution of use of public goods by their year of entry.

## V. Demand for Public Goods in Vancouver

With the aid of the stylized facts reported above we have established that the unconditioned consumption of public goods differs by foreign-birth status, age and year of entry into Canada. We now propose a public goods consumption model to condition the demand for public goods by controlling for demographic and economic characteristics of the household. It must be noted that estimating a demand function for public goods differs crucially from estimating a demand function for a private good in at least two dimensions. First, the price of a public good often bears no relation to its marginal or average cost and in the extreme approximates zero (e.g. defense). Next, the consumption value of income contingent programs and their qualifying side conditions (e.g. weeks worked for unemployment benefits) confounds the issue of predicting a household's consumption of public goods. Given this environment of arbitrary or zero prices, entitlement requirements and the further presence of moral hazard in the consumption patterns for many publicly insured goods we choose to estimate a household's demand function for public goods by arguing that demographic factors, foreign-birth status, years in Canada and income affect the consumption of public services. The coverage of public goods in this study (unlike Akbari, 1989, 1995) is specifically limited to monetized goods (social assistance, child tax credit, (un)employment insurance, old age and CCP pensions). We limit the coverage to monetized public goods to avoid having to infer a value for a pure public good ( e.g. roads, police, and defense).

Equation 1 presents the relevant life-cycle arguments for the monetized public goods demand equation.

$$\text{Eq. 1 } P_i = f(\text{Age}, \text{Age}^2, \text{income}, \text{net income}, \text{family size}, \text{foreign-birth status}, \text{years in Canada})$$

Where

Pi = total dollar value of household consumption of social assistance, child tax credit, (un) employment insurance, old age and CCP pensions

Age = Age of head of household

Age<sup>2</sup> = Age of head of household squared

Income = household income

Net income = household income net of income taxes

Family size = all dependent household members

Foreign-birth status = Canadian-born or not.

Years in Canada = entry year interval for foreign-born cohort

Table 3:

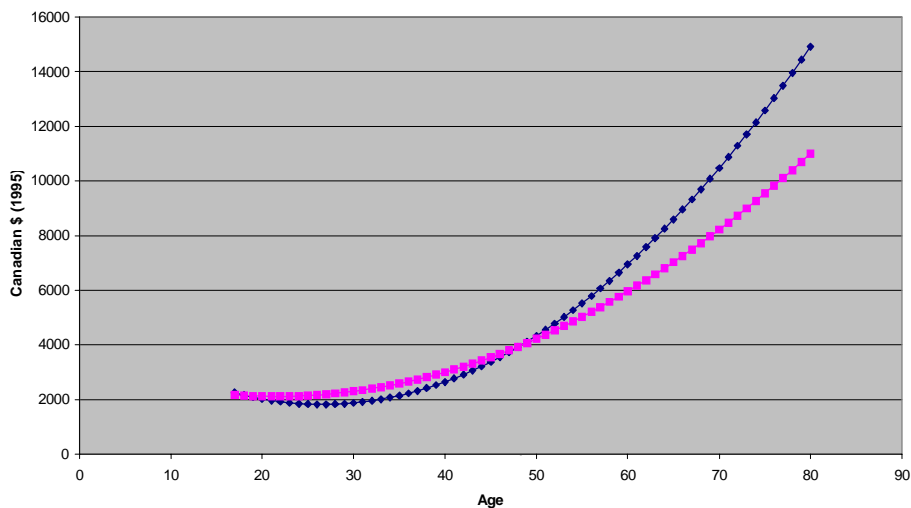
Parameter Estimates and Associated Statistics for Public Goods Demand Functions for Canadian-born Head of Vancouver Households: 1996

Canadian-Born N=882	Estimated Coeff	T-Value	Elasticity at means	R <sup>2</sup>
Constant	6806	4.4	1.3	NA
Age	-245	-3.5	-2.2	NA
Age <sup>2</sup>	4.6	6.7	2.2	NA
Net Income	-.04	-8.1	-.34	NA

Notes: a.  $P_i = \text{Constant} + B_1 \text{Age} + B_2 \text{Age}^2 + B_3 \text{net income}$  was the final estimating equation

Table 3 presents the parameter estimates for the estimated life cycle model when applied to the Vancouver Canadian-born demand for public goods. The basic life cycle model is confirmed for the Canadian-born since the age and age<sup>2</sup> parameter estimates are positive and negative respectively. The estimated public goods consumption function is convex in age over the household's lifetime as predicted by lifecycle theory. Given these parameter estimates for age and age<sup>2</sup> the point of inflexion (see figure 12) for the public

Figure 12:  
Comparison of Estimated Government Transfers  
by Age and Foreign Birth Status : Vancouver, 1995-96\*



\* Source: Survey of Consumer Finances (SCF)

goods consumption function was age 30 for the representative Vancouver Canadian-born head of household. After age 50 the affect of the squaring of the age term is self-evident as total government transfer rise steeply for the Canadian-born household.

Two household income measures were proposed – total household and net household income as conditioners for public goods consumption. The reported net income variable is significant and conforms to our theoretical prediction.<sup>2</sup> As income rises the demand for listed public services declines. In fact, a one- percent rise in Vancouver's Canadian-born household income led to a one-third (-.34) percent decline in their reported consumption of monetized public goods. Thus, as a Canadian-born head of household ages, and income rises these two offsetting life cycle forces affect public goods consumption.

Table 4

Parameter Estimates and Associated Statistics for Public Goods Demand Functions for Foreign-born Head of Vancouver Households: 1996.				
Foreign Born N=452	Estimated Coeff	T-Value	Elasticity at means	R <sup>2</sup>
Constant	4871	2.2	1.01	NA
Age	-112	-1.1	-1.12	NA
Age <sup>2</sup>	25	2.8	1.4	NA
Net Income	-.042	-6.5	-.32	NA

Notes: a.  $P_i = \text{Constant} + B_1 \text{Age} + B_2 \text{Age}^2 + B_3 \text{net income}$  was the final estimating equation

The reported results (table 4) for Vancouver's foreign-born populations' demand for publicly funded goods differ with respect to age but is similar for the income variable. This is an important contrast to note. The affect of the age variable is insignificant and indicates that no life cycle consumption pattern for public goods exists for the foreign-born in Vancouver. Rather, the square of aging is significant and indicates a constantly rising public goods consumption in age throughout the foreign-born Vancouver's household lifetime. It is also important to note that this squared aging term is much stronger than for the Canadian-born household case.

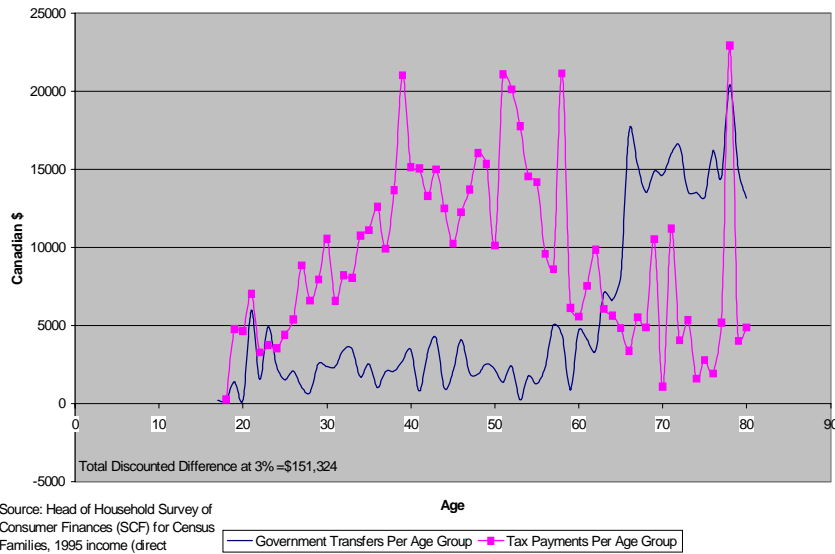
<sup>2</sup> The total household income variable was dropped since it included by definition the value of some public goods.

In sum, the life cycle consumption model applies to the Canadian-born population in Vancouver but not to the foreign-born population.

### V. Net Transfers: Vancouver

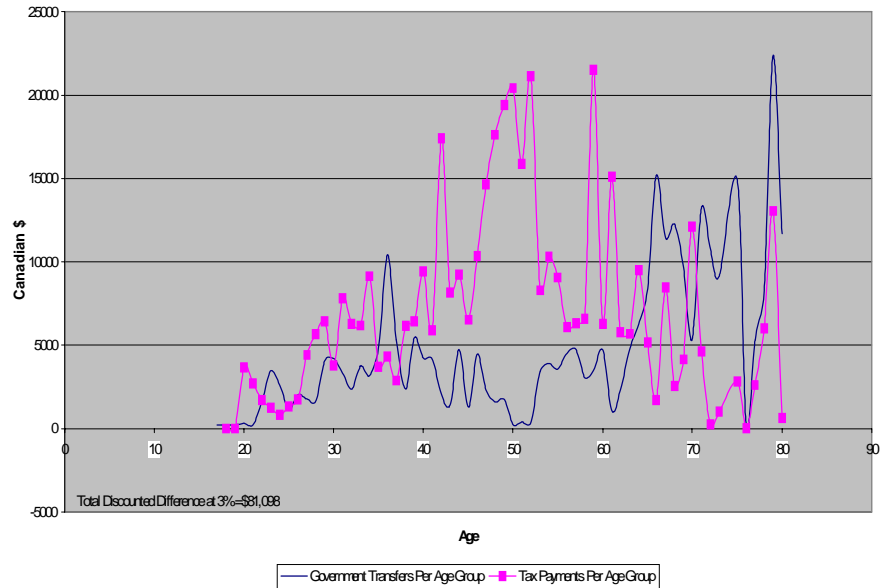
Figures 13 and 14 summarize the all-important results of combining the actual tax payments net of consumption to yield net government transfers by foreign-birth status in Vancouver circa 1995.

Figure 13: Tax Payments Versus Government Transfers to Canadian Born Citizens in Vancouver: 1995\*



The lifecycle model for Vancouver Canadian-born households is strongly supported by the evidence depicted in figure 13. The total net transfer over the simulated lifetime of the representative Canadian-born resident circa 1995 in Vancouver is \$152,324 (1995 dollars). The combination of the convex age-consumption profile and the concave tax payment profile supports the model's prediction that positive public finance transfers will occur over a representative head of household's working life (25-65). Beyond retirement i.e. age 63 public consumption in the form of pension payments exceeds the tax payments for Vancouver Canadian-born households.

Figure 14: Tax payments Versus Government Transfers for Foreign Born Citizens in Vancouver: 1995\*

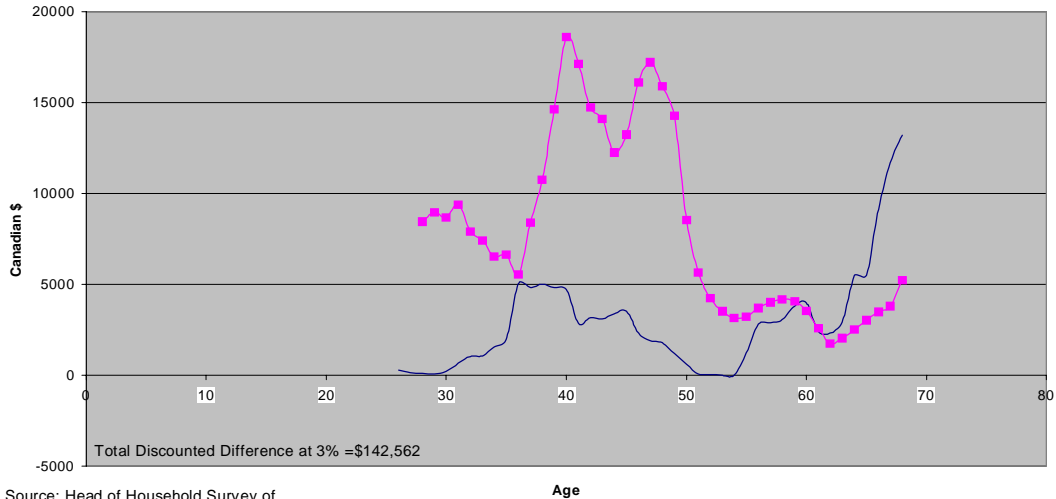


The foreign-born Vancouver household transfers a similar life cycle predicted pattern resulting in an albeit, smaller, but positive lifetime transfer of \$81,098. This is approximately 53 % of the amount transferred by Vancouver's representative Canadian-born household. In fact, unlike the Canadian-born life cycle no clear positive transfer occurs until after age 40.

Any inference about the future net transfer payments for either the Canadian-born or foreign-born cohort in Vancouver must be clearly tempered by the fact that these figures were generated by cross-sectional estimates. These extrapolations depicted in figures 13 and 14 would only hold if newer vintages of immigrant arrivals replicate the experience of past arrivals as the newer vintages age.

Earlier it was argued that the date of immigrant entry could affect the size of immigrant public transfers. Figure 15 presents the transfer outcome for the post-1986 immigrant arrivals to Vancouver. The extra-ordinary performance of the post-1986

**Figure 15:**  
**Tax Payments Versus Government Transfers To Post-1986 Immigrants in Vancouver: 1995**  
**(5 Year moving Average)**



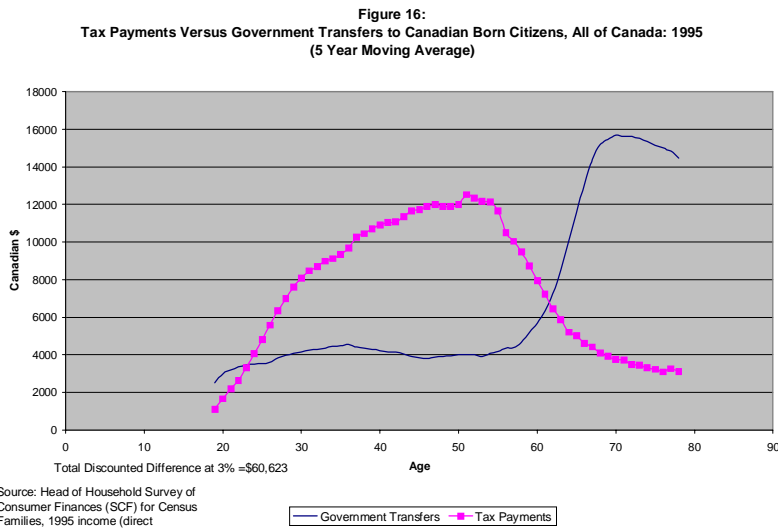
Source: Head of Household Survey of Consumer Finances (SCF) for Census Families, 1995 income (direct)

Note: Age 50 1 value observation is replaced by the average of previous and next age groups.

— Total Government Transfers    ■ Tax Payments

immigrant group to Vancouver is owing to a less than \$5,000 (per household) use of public goods after age 35 and an high tax payments between ages 40 and 48. The result of this pattern is a discounted transfer of over \$142,000 to the public treasury by Vancouver’s most recent arrivals.

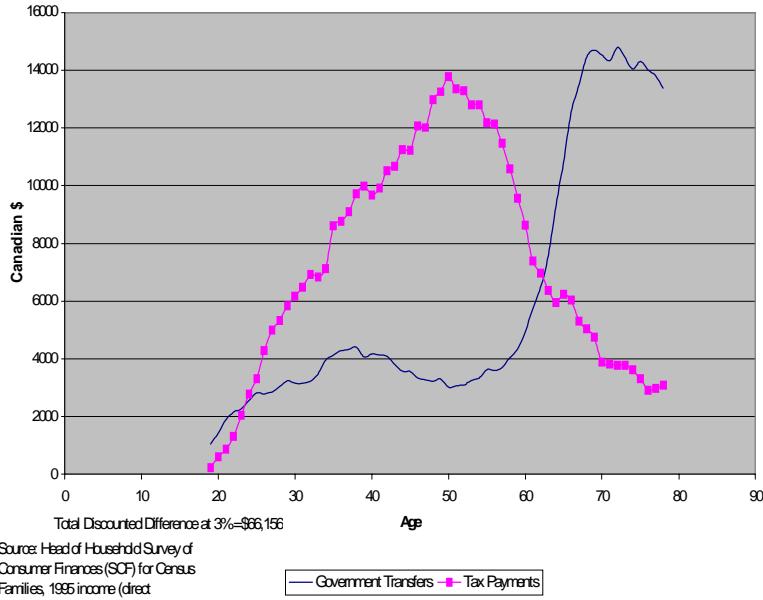
Figures 16 and 17 place the Vancouver public transfer payments into perspective and indicate how sensitive the results are to citywide variations. For Canada as a whole, Canadian-born residents followed the life cycle model over their lifetime with a modest but positive lifetime transfer of \$60,623. This transfer is only 40 % of the amount transferred by Vancouver Canadian-born households.



Transfers for all the foreign-born in Canada is slightly greater (\$66,156). In fact, the representative Canadian-born household transfers only 40% of the transferred amount of a Vancouver based Canadian-born household. However, the average Vancouver foreign-born household transfers \$15,000 more than that transferred by the foreign born in Canada. We explore these urban patterns in detail across Canada's major cities in more detail in table 5.



**Figure 17:**  
**Tax Payments Versus Government Transfers to Foreign Born Citizens, All of Canada: 1995**  
**(5 Year Moving Average)**



VI. Summary and Conclusions

**Table 5:**  
**Net Present Value of Public Finance transfers by Canadian CMSA's: 1995**

Location	Canadian-born	Foreign-born	263	Col (3) - Col (2)
(1)	(2)	(3)	(4)	(5)
Canada	\$60,623	\$66,156	1.09	+\$5,523
Vancouver	\$151,324	\$81,098	. 54	-\$70,226
Toronto	\$188,403	\$77,589	. 41	-\$101,814
Montreal	\$92,326	-\$1686	N.A.	-\$99,012
Other	xxxxxxx	xxxxxxx	xxxxxx	xxxxxx

Table 5 demonstrates the significance of our underlying thesis of geographical dispersion for public finance outcomes. Row (1) reports the Canada-wide results and reflects the typical pattern of results reported by past Canada-wide based research (Akbari, 1995). In fact these values closely replicate the Akbari reported values. The results indicate that the net public finance transfers across Canada are near equal for both Canadian-born and foreign-born households. The ratio of foreign-born payments to Canadian-born payments (col. 4) indicates a small 9% premium paid by the foreign-born. This in fact amounts to a \$5,523 subsidy per foreign-born household being transferred to the Canadian-born population over the lifetime of the foreign-born household.

The Vancouver CMSA results in row (2) clearly reflect several specific effects arising from urbanisation. First, for Vancouver the net transfer from the Canadian-born households rises to \$151,324 while the foreign-born resident Vancouver household's contribution only rises to \$81,098. Thus, the ratio of payments by foreign-birth status, (col. 4) collapses in Vancouver with the foreign-born now paying only 54 per cent of the Canadian-born total. In other words, the net public finance transfer of a foreign-born household in Vancouver was \$70,226 less than the net transfer of a Vancouver Canadian-born household.

These trends are even more pronounced in the Toronto context where net transfers rise for the Canadian-born (\$188,403) and foreign-born (\$77,589) households. However, the ratio of net transfers (col.3) becomes even smaller between the Toronto foreign-born and Canadian-born households (.41). Thus, on average the foreign-born household's transfer while strongly positive (\$77,589) is \$110,000 less than the lifetime net contribution of a Canadian-born household in Toronto circa 1995 ( col. 5).

Montreal presents a clear reversal of the pattern observed either in Canada as a whole or Vancouver and Toronto. The net lifetime public finance transfer for a foreign-born household in Montreal is negative (-\$1686). Thus, the Canadian-born household subsidises the average foreign-born Montreal household over its entire lifetime.

In sum, three points must be emphasised. First with the exception of Montreal all foreign-born households make a positive net transfer to the treasury over their lifetime.

Second, the foreign-born (except in Montreal) transfer more in Toronto and Vancouver than the national average. Finally, disaggregation by urban area presents a different fact pattern than the Canada-wide average, which revealed little difference between the foreign-born and Canadian-born household contributions.

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