THE ECONOMIC PERFORMANCE OF IMMIGRANTS Immigration Category Perspective



IMDB Profile Series

December 1998



Citizenship and Citoyenneté et Immigration Canada Immigration Canada



Produced by Strategic Policy, Planning and Research

For additional copies, please contact:

Communications Branch Citizenship and Immigration Canada Ottawa, Ontario K1A 1L1 Tel.: (613) 954-9019 Fax: (613) 954-2221 Internet: http://www.cic.gc.ca

© Minister of Public Works and Government Services Canada, 2000 Cat. No. MP22-18/2-2000E ISBN 0-662-28835-1



Table Of Contents

Foreword
Introduction
Why immigration category matters
Economic Principal Applicants
Economic Spouses and Dependants
Family Reunification1
Refugees and Refugee-Like Persons10
Effects of Policy and Program Changes
Major immigrant categories: Labour Market Outcomes - 19951
Employment Earnings1
Unemployment10
Social Assistance1'
Incidence of Employment Earnings1
Major Immigrant Categories: Initial and Medium-Term Labour Market Outcomes2
Major Immigrani Calegories. Initial and Meatam-Term Labour Market Outcomes2
Employment Earnings
Employment Earnings
Employment Earnings2 Unemployment Insurance
Employment Earnings
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2 The family reunification category 2
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2 The family reunification category 2 The refugee and refugee-like category 2
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2 The family reunification category 2 The refugee and refugee-like category 2 Technical Annex – EXPLORING THE COVERAGE OF THE IMDB 3
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2 The family reunification category 2 The refugee and refugee-like category 2 Technical Annex – EXPLORING THE COVERAGE OF THE IMDB 3 Comparison of the landed and IMDB populations 3
Employment Earnings 2 Unemployment Insurance 2 Performance Implications for Major Categories 2 Economic principal applicants 2 Economic spouses and dependants 2 The family reunification category 2 The refugee and refugee-like category 2 Technical Annex – EXPLORING THE COVERAGE OF THE IMDB 3 Comparison of the landed and IMDB populations 3 Composition by major immigrant category 3

Foreword

Because traditional data sources used to research immigration issues do not distinguish between the class or category of admission, they force researchers and analysts to treat all immigrants as if they differed only according to their observable characteristics. Class or category of admission is absent and therefore assumed to have no predictive power. As a result, traditional data sources make it extremely difficult to assess the impacts and outcomes of immigration policy and program changes.

The IMDB corrects this deficiency by combining the information recorded on each immigrant visa at the time of admission with data drawn from the subject's personal income tax form. This makes it possible to show how immigrant attributes differ markedly between categories of admission and how the admission category embodies 'unobserved' characteristics that mediate settlement behaviour. It thus demonstrates the fallacy of the assumption that category of admission does not matter and it provides a powerful link between policy and program changes and settlement outcomes.

The power and adequacy of the link between policy and program changes and labour market or economic outcomes depend on the degree to which the population captured in the IMDB is reflective of the landed population it is drawn from. To support policy research, the population captured in the IMDB must not only reflect the characteristics of the entire landed population. It must also reflect the changes that occur over time between and within categories. A technical annex dealing with representativeness attached to this paper shows that this is indeed the case.

However, the interpretation of any findings must always be tempered by the fact that the characteristics recorded at the time of admission are locked into the data set. They remain the same even if we are observing the subject several years after admission. Any immigrant taxfiler in the IMDB may have acquired more education, better knowledge of English or French, or a different occupation than he or she had at admission.

For this reason, and because children are not expected to file tax returns, immigrants who were less than 18 years of age at landing are separated out of the landed and IMDB populations for most of this discussion. Immigrants who were children at landing will nevertheless be the subject of further investigation from the points of view of their immediate impact on services and their subsequent labour market behaviour.

Introduction

This paper is one in a series of profiles focusing on different attributes of the landed immigrant population as they are reflected in the Longitudinal Immigration Database (IMDB). They are designed to provide users of the IMDB with contextual information to guide them in the design of more analytical queries and research projects. Other reports already completed in the IMDB profile series explore level of education and official language ability as characteristics relating to the settlement experiences of immigrants. Others will look at intended occupation and secondary migration.

This paper examines the economic performance of immigrants landed between 1980 and 1995. The focus is the performance of immigrants from the perspective of their category of admission. As category of admission is only one of many characteristics of immigrants influencing their economic performance over time caution should be exercised in the interpretation of the findings below. Economic performance of immigrants cannot be attributed <u>solely</u> to one characteristic.

The report looks first at immigrant earnings at a <u>specific</u> point in time, for example tax year 1995, and then examines employment earnings reported in each taxation year throughout the period 1981-95.

The indicators of economic performance referred to include the level of employment earnings, the incidence of employment earnings, the incidence of Unemployment Insurance (UI) benefits¹ and the incidence of social assistance payments.

The analysis is limited to immigrants 18 and over at landing to isolate an immigrant group which is most likely to seek employment on or soon after arrival in the country and whose education and training skills were mainly acquired abroad.

The paper is divided into five sections. The first discusses why expectations about the labour market behaviour of different categories of immigrants should differ. The second discusses how policy and program changes can affect these expectations. The third describes the labour market outcomes of each immigrant category as observed in 1995. The fourth then investigates the labour market outcomes of each immigrant category one and five years after landing. The fifth outlines the performance implications for each category.

The text is followed by a Technical Annex which discusses why the population of immigrant taxfilers captured in the IMDB is considered to be representative of the population of immigrants landed from 1980 to 1995.

Findings are also presented by gender as males and females usually face different challenges and opportunities, which influence their respective economic outcome.

In many cases, immigrant income levels or incidences are compared to a Canadian average. The average chosen for this analysis is that of *all taxfilers aged 20 and over*. Note that this

¹ The Unemployment Insurance program was reformed and renamed to the Employment Insurance (EI) program in mid-1996. In subsequent taxation years, EI benefits rather than UI benefits will be reported by taxfilers.

benchmark includes both Canadian-born and foreign-born taxfilers. This reference group was chosen as it matches existing groupings of tax statistics on individuals readily available from Revenue Canada and because it was found to be a reasonable reference group for the purpose of measuring performance of immigrant taxfilers aged 18 and over at landing. Gender specific averages are also presented for taxfilers aged 20 and over, where appropriate.

In some cases, it may be more appropriate to use another "yardstick" or reference group to measure the performance of immigrants. For example, a distinction between Canadian-born and foreign-born may be desirable or a comparison to a similarly trained cohort may be most appropriate. In other instances tracking immigrants' movements within income distributions, or comparing earnings to Canada's low-income cutoffs (LICO) may be more informative. Further investigation into these alternatives is ongoing and will be examined in subsequent research.

Income reported by immigrants for the year in which they land may not be representative of a full year of income and, therefore, cannot be used reliably to describe a full year of economic performance. For this reason, average income indicators are calculated for immigrants who landed in 1980-94 and immigrant incomes are not examined until one full year after landing. Also, findings highlighted in this report should not be generalized to apply to immigrants landed in 1995 or before 1980.

The differences that are observed are not explored analytically because the objective of the paper is to describe the IMDB and to suggest lines of investigation based on the IMDB that could be pursued to better understand the settlement behaviour of different groups and categories of immigrants.

The findings reported in this paper show that:

- there are clear performance differences between immigrant categories, and that these differences by and large confirm prior behavioural expectations of the various categories of immigrants admitted to Canada;
- economic principal applicants report high employment earnings, low rates of unemployment benefit and social assistance usage, and high percentages of taxfilers reporting employment earnings;
- economic spouses and dependants report low employment earnings, low rates of unemployment benefit and social assistance usage, and about average percentages of taxfilers reporting employment earnings;
- immigrants in the **family reunification category** report low employment earnings, high rates of unemployment benefit and social assistance usage, and low percentages of taxfilers reporting employment earnings;
- immigrants in the **refugee categories** report low employment earnings, high rates of unemployment benefit and social assistance usage, and high percentages of taxfilers reporting employment earnings.

Why immigration category matters

Policy makers have an overall interest in the economic behaviour and well being of immigrants. They have legitimate reasons for wanting to know how immigrants do 'as a group' to understand the broad impacts of immigration on society as a whole or on a particular region of the country. But they are also interested in the outcomes of specific policy objectives. They want to know to what extent the objectives are being met and what can be done to correct the situation when they are not. For this, they must be able to observe the behaviour of those immigrants targeted by the policy and tailor the yardstick to their expectations for the target group. Otherwise, they cloud the links between policy levers and outcomes.

To be relevant, research on the effectiveness and/or impacts of immigration policies must focus on the behaviour or performance of immigrants admitted as a result of specific policies as well as on the behaviour or performance of the immigrant population as a whole.

This paper groups immigrants into four major categories that correspond broadly to the economic, family reunification, and humanitarian objectives of the Immigration Act. It discusses why expectations about the economic and labour market behaviours of immigrants differ for each of these broad categories and illustrates the importance of distinguishing between categories of admission in assessing the economic behaviour of the immigrant population.

Economic Principal Applicants

The economic principal applicant category is made up of individuals who have actively sought to resettle in Canada and who have presumably prepared themselves for the transition. They were 'selected', that is assessed, against criteria designed to maximize the probability that they would succeed on the labour market or in business. They come to Canada in search of either full-time work as salaried or self-employed workers, or full-time business opportunities. For purposes of this text this group includes only principal applicants in the skilled worker and business categories and excludes those who were admitted under special programs with relaxed criteria.

Economic principal applicants make up the target group for assessing the effectiveness of the selection program. How well they do on the labour market relative to other immigrant categories and to Canadian averages is a legitimate measure of their settlement performance. They should have higher employment earnings or self-employment income and lower rates of unemployment benefit usage. And, they should not appear on social assistance roles. Of course, their performance will be affected by the economic conditions they encounter when they arrive in Canada.

Economic Spouses and Dependants

The 'selected' economic principal applicants are accompanied by spouses and dependants tied movers - who have not been screened against selection criteria and who may therefore possess different settlement-related characteristics. They are nevertheless part of family units who shared in the decision to move and participated in the preparations for the transition. For purposes of this text, all economic immigrants admitted under special programs and those in the retired category are included with the spouses and dependants of economic principal applicants. Those who were less than 18 years of age are excluded for the reasons cited earlier.

Economic spouses and dependants should be excluded from assessments of the effectiveness of the selection system and any assessment of their economic performance should take into account their lower labour force attachment. Many may intend to seek full-time work but others will probably look for part-time or seasonal work to supplement household income. We would therefore expect their average annual employment earnings to be lower than those of economic principal applicants. We should not be surprised if they made more use of unemployment benefits because of the probable higher incidence of seasonal or part-year employment. They should, however, be no more likely to appear on the social assistance roles than their principal applicant counterparts because they belong to households with heads who are expected to have full-time employment.

Family Reunification

The family reunification category is made up of individuals who are joining family members already established in Canada. Sponsors are screened to ensure that they are able to provide the lodging, care, maintenance and normal settlement needs of the applicant and accompanying dependants for up to 10 years. The applicants are not assessed against labour market criteria. Those who are of working age are less likely than their economic counterparts to have moved for economic reasons and, therefore, likely to exhibit similar or even weaker labour force attachment. This group includes children, fiancées, spouses, parents and grandparents of Canadian citizen or permanent-resident sponsors who were at least 18 years of age at landing. No distinction is made between principal applicants and spouses or dependants for the purposes of this text.

Immigrants in this category should be included in the target group for any assessment of the performance and impacts of the family reunification program. We would expect this category to experience low annual earnings and high unemployment benefit usage because of the likelihood of part-time and/or part-year employment, and low social assistance usage rates because sponsorship undertakings should preclude recourse to social assistance.

Refugees and Refugee-Like Persons

This category is made up of Convention refugees and other refugee-like persons who are deemed to require protection or relief. It includes government-assisted refugees drawn from refugee camps, persons from countries in political turmoil or victims of oppression sponsored by non-governmental institutions, asylum seekers who made their way to Canada on their own to seek refugee status, and others. They may not have wanted to leave their native country and may not have had the opportunity to prepare for the transition. For purposes of this text, immigrants admitted under the Administrative Review or the Backlog Clearance program are included in this category and principal applicants, spouses and dependants are grouped together without distinction.

Immigrants in this category should be included in the target group for the assessment of the refugee program.

Refugees are expected to take longer to adjust to their new environment than any of the three other categories. In fact, government-assisted refugees are provided with adjustment assistance benefits for at least twelve months following their arrival in Canada in recognition of the settlement difficulties they are expected to experience. It wouldn't be surprising in their case, or in the case of privately-sponsored refugees and other refugee-like immigrants, to discover that their early labour market performance appeared weak in comparison to that of the economic or family reunification categories. In fact, it would be inappropriate to use these measures to assess the success of the refugee program without qualifications.

The time it takes for refugees to become 'self-sufficient' would seem to be a more legitimate measure of their settlement performance than their level of earnings. Nevertheless, we would expect to observe low annual earnings, high unemployment benefit usage, and high social assistance usage across all categories of refugees.

These differences in expectations translate into different labour market and economic motivations and strategies. They are magnified by significant differences between categories in characteristics that have an important bearing on settlement outcomes, such as gender, knowledge of French or English, and level of education.

Each one of these categories can and should be broken down further in the light of the specific policy or program effects one wants to assess. This is particularly true for the refugee and refugee-like category, which should be broken down further to better focus on the differences between government-assisted and privately-sponsored refugees, and asylum seekers.

Effects of Policy and Program Changes

It is not enough, however, to focus on a particular category of immigrants without taking into account policy and program changes implemented in the past, as these may have contributed to, or resulted in changes to the characteristics of the immigrants admitted in that category. These policy and program effects may therefore have an impact on the labour market outcomes observed for the affected categories. It is important to take them into account in the interpretation of observed performance outcomes to ensure that these are not erroneously attributed to other factors, such as prevailing economic conditions at time of landing - or vice versa.

There were numerous policy and program changes introduced during the 1980 to 1995 period. Many of them have had a measurable effect on the composition of the different immigrant categories and these changes are to a lesser or greater extent reflected in the performance measures of the IMDB population. For example:

On May 1, 1982 a 'temporary restriction' was placed on all independent class immigrants except entrepreneurs, self-employed, and retirees requiring that they have a validated job offer for their applications to immigrate to Canada to be considered. The restriction remained in effect until January 1, 1986.

This restriction had the intended effect of sharply reducing the number of 'skilled workers' admitted during this period. It also had the unintended effect of lowering the levels of education and language skills of the economic principal applicant category: applicants with arranged employment admitted during this period of restriction were less likely to have post-secondary education or knowledge of English or French. As a result, we would expect economic principal applicants admitted during the period of restriction to experience lower real average earnings than those admitted before or after because earnings are positively correlated with language skills and education levels.

On August 9, 1993 the selection criteria were revised to give more weight to higher levels of education. Prior to this change, one point was assigned for each year of schooling to a maximum of 12 with no additional points given for a certificate, diploma or university degree. The new scale assigned additional points for post-secondary credentials thus weighting the selection criteria in favour of better educated applicants.

This change, combined with the reduction in February 1993 of the bonus points allocated to assisted relatives, had the effect of raising the education level of the economic principal applicant category by assigning more weight to higher education. In fact, there was a sharp increase in the percentage of economic principal applicants with a university degree starting in 1993. As a result, we would expect economic principal applicants admitted during this period to experience higher real average earnings than those admitted in earlier years because of the positive correlation between earnings and education levels.

Changes in policies and/or programs not directly related to immigration can also have effects

on the labour market behaviour of immigrants. For example, during the eighties and early nineties, workers who were more likely to seek part-year or seasonal employment were able to voluntarily quit their jobs and use unemployment insurance benefits to finance their search for new employment opportunities. This behaviour may explain the very high rates of unemployment benefit usage observed during the early settlement period. The tightening up of the availability of benefits for voluntary separations should have resulted in a flattening of the unemployment benefit usage patterns for recent immigrants with weak labour force attachment, that is, economic spouses and dependants and the family reunification category.

In short, we should have different expectations regarding the economic and labour market performance of each category of admission because each one will have different economic and labour market motivations and strategies.

We should expect the economic principal applicants to have very strong labour force attachment and to experience the highest employment earnings of all categories because of this and because they were selected on the basis of their labour market skills and attributes.

We should expect the economic spouses and dependants and the family reunification categories to have weaker labour force attachment than the economic principal applicants because most of them are not household heads and they are more likely to lack essential language and other labour market skills because they have not been assessed against labour market criteria. We should expect immigrants in these categories to experience lower average earnings than economic principal applicants. And, we should not be surprised to learn that they make more use of unemployment benefits than the economic principal applicants because their weaker labour force attachment is more likely to result in their accepting part-year and/or seasonal employment.

We should expect the refugee and refugee-like category to have weaker labour force attachment than the economic principal applicants during their early settlement period and, because of the conditions in which many of them lived before coming to Canada we should also expect them to require an extended adjustment period including training before entering the labour market full time. This could, and does, translate into a higher reliance on public support in the form of adjustment assistance for those who are eligible and social assistance for those who are not.

Major immigrant categories: Labour Market Outcomes - 1995

The IMDB contains data on measurable characteristics such as level of education, gender, intended occupation and knowledge of French or English. But it does not contain direct measures of unobservable characteristics 'imbedded' in the indicators of immigrant category such as labour force attachment. However, by distinguishing between categories it is possible to draw conclusions about the effect that these are having on the observed outcomes. For example, it is reasonable to conclude that the higher employment earnings reported by economic principal applicants are in part attributable to their stronger labour force attachment and to take this into account in the interpretation of findings.

Also, because these unobservable characteristics have a significant effect on the outcomes measured for different categories, it is important to recognize that changes in the composition of immigration flows will bias the measures towards any category which increases its share of the flow, thus distorting the measures of year to year changes in the earnings of the entire immigrant population.

The following charts present measures of labour market outcomes for each immigrant category by period of residence at one point in time, that is, taxation year 1995. They show the progression of each labour market outcome measure as the period of residence lengthens and the differences between the measures for each immigrant category. They show that there are significant differences in the labour market behaviour of the four immigrant categories in terms of three of the 'yardsticks' available in the IMDB. The first is earnings levels which include wages and salaries and other earnings from employment. The second is the incidence of unemployment benefits which can only be accessed after the worker has been employed long enough to become eligible. The third is access to public support such as social assistance which has been reported on the income tax form only since 1992.

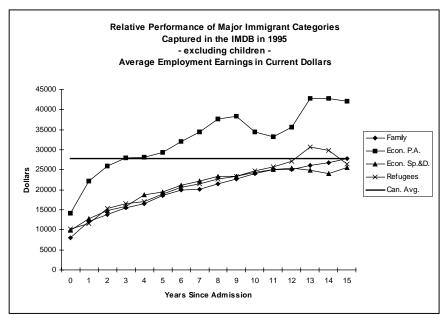
Employment Earnings

Chart 1 shows average employment earnings reported in 1995 for each of the major immigrant categories. The horizontal scale shows the number of years since admission. Year "0" represents landing year 1995 and year "15" represents landing year 1980. The solid horizontal line represents average earnings from employment for all Canadian taxfilers over 19 years of age in 1995.

The data show that average employment earnings increase as the period of residence in Canada lengthens for all immigrant categories. It also shows that in 1995:

- Economic principal applicants reported substantially higher employment earnings than all other immigrant categories;
- the earnings patterns relative to length of residence in Canada of the three other categories are very similar;





• refugees and refugee-like persons who had been in Canada for twelve or more years, reported average employment earnings at or near the Canadian average;

Unemployment

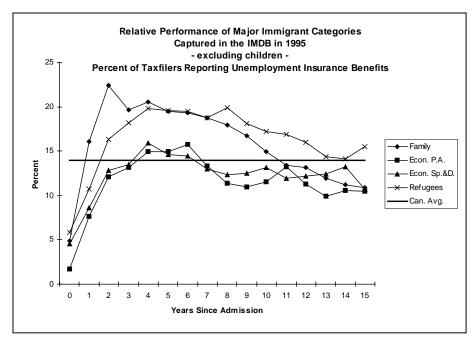
Chart 2 shows the percentage of immigrant taxfilers in each of the four immigrant categories who reported unemployment benefits in 1995. The vertical axis shows the rates in percentages and the horizontal axis shows years since admission.

The data show that the rates of unemployment benefit claims increase during the first four to five years of residence in Canada for all immigrant categories. They then decline steadily for the family reunification and refugee and refugee-like categories as the period of residence in Canada lengthens. The rates increase during the early period of residence as the workers become eligible for benefits and move to different or better jobs.

In 1995:

- economic principal applicants and economic spouses and dependants experienced similar rates of unemployment benefit usage relative to length of residence in Canada and, except for those admitted in 1989 to 1991, the rates reported were lower than the Canadian average;
- immigrants in the refugee and refugee-like category who were admitted prior to 1990 typically reported the highest rates of unemployment benefit usage of all categories and, except for those who had been in Canada for less than three years, the rates were higher than the Canadian average;





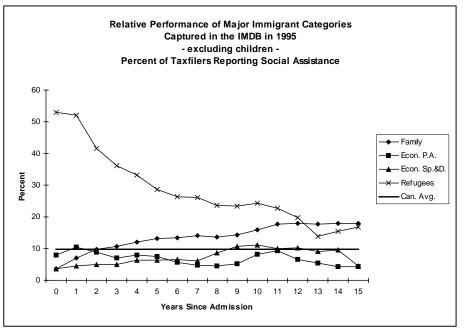
• immigrants in the family reunification category also reported high rates of unemployment benefit usage relative to the economic categories but the rates dropped sharply relative to those reported by the refugee and refugee-like category for family reunification immigrants who had been in Canada for more than seven years.

Social Assistance

Chart 3 shows the 'social assistance' reporting rates for the same immigrant categories. The vertical axis shows the rates in percentages and the horizontal axis shows years since admission. It should be noted here that for income tax purposes, federal adjustment assistance benefits are reported in the same manner as provincial social assistance. This means that all government assisted refugees in receipt of adjustment assistance are counted as social assistance recipients. In 1995:

- the social assistance usage rates reported by economic principal applicants and economic spouses and dependants were about equal to or less than the rates reported by the Canadian taxfiler population;
- immigrants in the family reunification category who had been in Canada for more than three years reported social assistance usage rates above the Canadian average. The rates rise as the period of residence in Canada increases;
- the refugee and refugee-like category ignoring those who were in Canada for less than three years reported the highest rates of social assistance usage but the rates drop steadily as the period of residence in Canada lengthens.





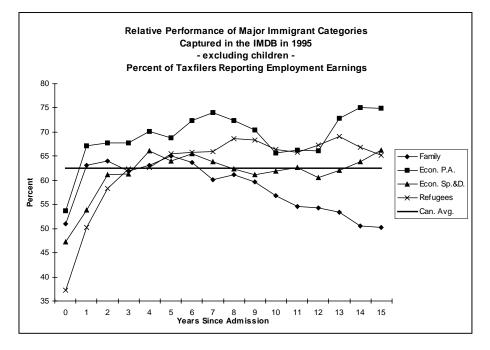
Incidence of Employment Earnings

Chart 4 shows the percentage of the taxfilers in each immigrant category included in the IMDB who reported employment earnings by year of admission. These percentages take into account the number of taxfilers who report sources of income other than employment earnings and the number who are filing only to qualify for refundable tax credits. The incidence of employment earnings is a measure of relative labour market activity which reflects differences in participation rates. Participation rates themselves are not directly measurable from IMDB data.

In 1995:

- the percentage of economic principal applicants reporting employment earnings was higher than the Canadian average and than any other immigrant category;
- immigrants in the refugee and refugee-like category who had been in Canada for at least five years registered rates well above the Canadian average and higher than economic spouses and dependents or the family reunification category;
- immigrants in the family reunification category who had resided in Canada for over six years registered the lowest percentages of taxfilers reporting employment earnings and these percentages were well below the Canadian average;





In summary:

- economic principal applicants report high employment earnings, low rates of unemployment benefit and social assistance usage, and high percentages of taxfilers reporting employment earnings;
- economic spouses and dependants report low employment earnings, low rates of unemployment benefit and social assistance usage, and about average percentages of taxfilers reporting employment earnings.
- immigrants in the family reunification category report low employment earnings, high rates of unemployment benefit and social assistance usage, and low percentages of taxfilers reporting employment earnings.
- immigrants in the refugee and refugee-like category report low employment earnings, high rates of unemployment benefit and social assistance usage, and high percentages of taxfilers reporting employment earnings.

These observations show that the different immigrant categories do in fact 'behave' differently and pretty much in line with expectations. But they also show that some of the expectations alluded to earlier are not always borne out. For example, the family reunification category reported much higher rates of social assistance usage than expected.

Major Immigrant Categories: Initial and Medium-Term Labour Market Outcomes

The following charts show the initial and medium-term measures of labour market outcomes for each immigrant category. These differ from the previous charts in that they present labour market outcomes for each immigrant category after a fixed period of residence in Canada. They allow us to compare the performance of different immigrant cohorts in 'real time'. Differences in gender performance are also discussed.

Employment Earnings

Chart 5 shows the *index of employment earnings*² for each of the four major immigrant categories measured in the first year after admission. This is a measure of 'initial earnings performance'. The use of this type of index makes it possible to compare the earnings levels achieved one, two, or more years after admission of immigrant groups who were landed at different times. Chart 5 therefore shows how each arrival group (year of admission on the horizontal axis) within each immigrant category performed in its first full year in Canada.

The upper panel (chart 5-a) includes immigrants of both genders. The middle (chart 5-b) and lower (chart 5-c) panels show male and female immigrants respectively.

The charts show that since 1980, economic principal applicants reported higher initial employment earnings than all other categories of immigrants regardless of the year of admission. They also show that they and the other categories of immigrants landed since 1989, except the refugee and refugee-like category, have experienced lower initial employment earnings relative to the Canadian average than those who landed earlier.

As can be seen by comparing the three charts, these broad observations apply to both genders. However, a closer look reveals significant differences between the initial performance of the two genders:

- the employment earnings index for male economic principal applicants who landed since 1989 shown on chart 5-b ranges from 71 to 75 percent, which means that this group reported earnings of 25 to 30% less than the Canadian average in their first full year in Canada. This 'earnings gap' began to develop with the 1987 arrival group;
- the index for female economic principal applicants (chart 5-c) ranges from 91 to 95 percent for those who landed in 1990 to 1992 and is about 80 percent for those who landed in 1993 and 1994.

Thus, males in the economic principal applicant category who landed since 1986 have been experiencing a more severe degradation of their initial performance relative to the Canadian

 $^{^{2}}$ The index is simply the ratio of average employment earnings reported for the immigrant category to the average employment earnings reported for the Canadian taxfiler population in the same year. The index is expressed as a percentage with the Canadian average set at 100. A value of 110 means that immigrant earnings were 10% higher than the Canadian average. A value of 90 means they were 10% lower.

average than their female counterparts at least in terms of their initial employment earnings.

Chart 6 shows the index of employment earnings for each of the major immigrant categories measured much later, that is, five years after landing. It shows how each immigrant category has progressed relative to the Canadian average during their first five years on the Canadian labour market.

Chart 6-a shows that economic principal applicants landed in 1990 or earlier reported average employment earnings above the Canadian average in their fifth year after landing. However, the index calculations shown in chart 6-b indicate that males landed in 1989 and 1990 had not reached the Canadian average for males after five years although females (chart 6-c) had moved well ahead by then.

There has been a clear deterioration of the earnings performance of recent immigrants and it appears that male immigrants have been more severely affected than females regardless of their category of admission. There is evidence that the deterioration is attributable to the erosion of the earnings 'premium' for language and education. This being the case, it appears that males are being hit the hardest because they were previously receiving higher premiums. Traditionally, female immigrants - even those in the economic principal applicant category - report significantly lower earnings than males which is consistent with what we see in the Canadian economy. They are less affected by the erosion of language and/or education premiums because there is less premium to erode.

Unemployment Insurance

Chart 7 shows the 'index of unemployment claims' for the four major immigrant categories in the first year after landing. This index is the ratio of the percentage of immigrant taxfilers who report unemployment benefits to that of the Canadian taxfiler population of the same gender and is constructed in the same manner as the index of employment earnings shown in charts 5 and 6.

Chart 7-a shows that economic principal applicants report the lowest rates of unemployment benefit usage of all immigrant categories in their first year after landing. They and economic spouses and dependents, consistently report rates below the Canadian average.

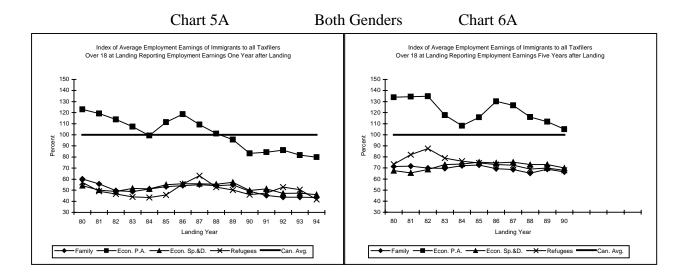
Chart 7-b shows that male economic principal applicants who landed in 1989,90 and 91 experienced higher initial unemployment benefit rates than those who arrived earlier or later and that males in all other immigrant categories landed during this period experienced higher than usual initial rates.

Chart 7-c shows that females exhibit the same pattern except that females in the family reunification category landed during the 1991-92 recession experienced slightly lower rates.

Chart 8 shows the index of unemployment claims for males and females five years after landing.

Chart 8-a shows that economic principal applicants still report the lowest unemployment benefit rates of all immigrant categories five years after landing, except that those who landed in 1988 and 1989 reported slightly higher rates than their spouses and dependants. It also shows that the spread between the highest and lowest rates is much narrower for the more recent arrivals.

Chart 8-b shows that male economic principal applicants, except those landed in 1988 and 1989, consistently report unemployment benefit rates below the Canadian average. Their female counterparts (chart 8-c) consistently report rates well above the Canadian average.





Males

Chart 6B

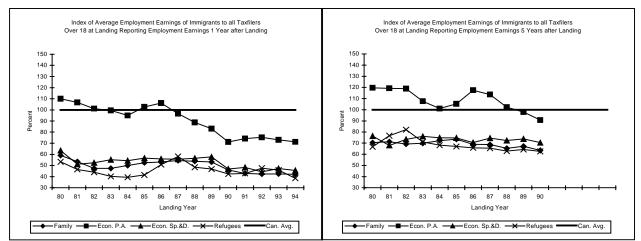
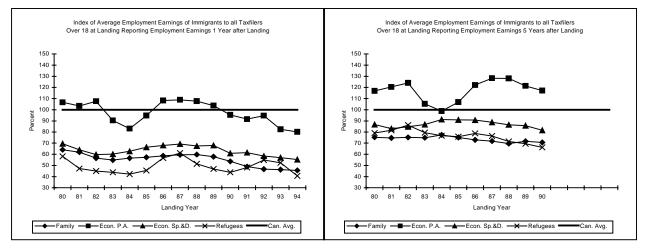
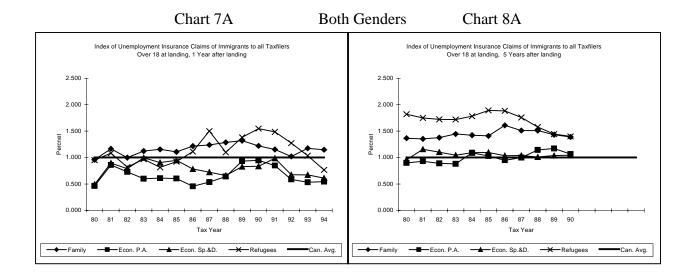


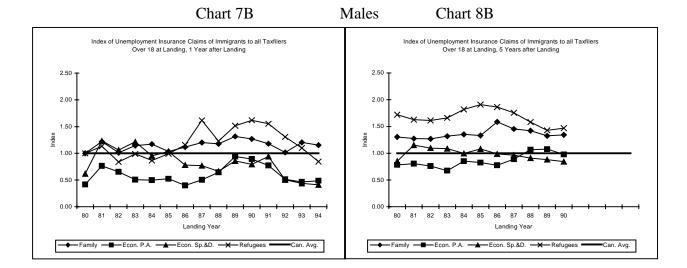
Chart 5C

Females

Chart 6C

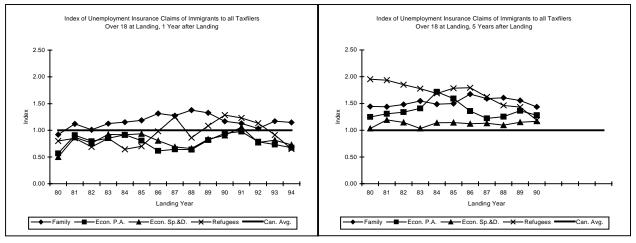












Performance Implications for Major Categories

Economic principal applicants

Immigrants in the economic principal applicants category, as a group, consistently report higher employment earnings than all other categories (chart 1).

They make less use of unemployment benefits than any other category except, on occasion, the economic spouses and dependants category (chart 2).

They also make less use of social assistance than any other category except that those who landed since 1989 report higher usage than economic spouses and dependants (chart 3).

Speaking very generally, economic principal applicants outperform all of the other immigrant categories on the Canadian labour market.

However, those who landed since 1989 appear to be experiencing difficulties in adjusting to the labour market.

Since 1989, they have been reporting initial average employment earnings below the Canadian average (chart 5-a).

In 1995:

- those who landed in 1989 to 1991 reported higher unemployment benefit usage than the Canadian average (chart 2);
- those who had landed since 1989, reported a higher rate of social assistance usage than the economic spouses and dependants (chart 3);
- those who landed since 1992 also reported higher social assistance usage than those who were landed in all earlier years except 1984 and 1985 (chart 3).

The superior performance of economic principal applicants relative to other immigrant categories is explained by the fact that this group is made up of individuals who demonstrated through selection that they possess the skills and attributes to succeed on the Canadian labour market. They are mostly male heads of households with high labour force attachment and are better educated and possess better language skills than the other categories of immigrants.

They are expected to do better than other categories and they do. They are also expected to perform consistently relative to the Canadian population and in this respect, the most recent arrivals do not, at least in terms of their initial performance.

The experience of the most recent arrivals, who landed during a severe recession, is not unlike that of those who landed during the previous recession a decade earlier.

The question this raises is whether this inferior performance is attributable only to the economic conditions these two groups encountered on their arrival in Canada or also to their settlement-related characteristics. The question arises because economic principal applicants

who arrived during the 1990-91 recession were, on average, much better educated and had much better knowledge of English or French than those who arrived during the earlier recession.

If the inferior performance observed for the most recent arrivals of economic principal applicants is primarily the result of economic conditions, we should expect them to make a better recovery than the earlier group because of their higher levels of education and language and their higher gender-related labour market attachment.

In fact, there is evidence not shown in this paper that economic principal applicants who landed in 1989 and later are experiencing faster real earnings growth than all arrival groups who landed from 1983 to 1988.

There is reason to believe therefore that the inferior performance experienced by the economic - principal applicant category since 1989 is to a large extent attributable to the economic situation they faced on or immediately after their arrival. It remains to be seen whether their performance will continue to improve sufficiently for them to catch up to the earlier arrival groups.

Economic spouses and dependants

In 1995:

- economic spouses and dependants who landed in each year since 1982 reported average employment earnings equal to or higher than the family reunification category (chart 1);
- they reported unemployment benefit usage at a significantly lower rate than the family reunification category (chart 2);
- economic spouses and dependants who landed in each year from 1980 to 1992 reported significantly less social assistance usage than the family reunification category (chart 3);

Since 1989, economic spouses and dependants have been experiencing lower initial average real employment earnings than those who were landed from 1984 to 1989 (chart 5-a).

However, there is no evidence that they are more reliant on social assistance or unemployment benefits.

In each of the years for which data on social assistance usage is available, economic spouses and dependants who were landed from 1980 to 1988 reported higher social assistance usage rates than their counterpart economic principal applicants (chart 3). Exactly the opposite is true for those who were landed since 1989.

The reversal of usage rates may well signal a change in the association between the notions of principal applicant and head of household since 1990 rather than a behavioural change, an issue that remains to be investigated. This issue is complicated by the fact that social assistance is a household concept while the IMDB reports the behaviour of individuals.

The economic spouses and dependants or 'tied mover' category (excluding children) in the IMDB is predominantly female because it excludes the principal applicants who are predominantly male. Its level of education has been improving over time as the proportion with 10 to 12 years of schooling has overtaken the percentage with 0 to 9 years.

These and the additional fact that spouses and dependants have a lower incentive to work explain why the labour market performance measures for this group are inferior to those of the economic - principal applicant category. However, they do not explain why its performance has declined relative to the Canadian average since 1990 in terms of employment earnings, a trend which is observed for all immigrant categories.

The family reunification category

In 1995,

- the family reunification category reported initial employment earnings slightly below or equal to those of economic spouses and dependants for all landing years (chart 1);
- those who landed since 1984 reported significantly higher rates of unemployment benefit usage than either the economic principal applicant or the economic spouses and dependant categories (chart 2);
- those who landed in all years prior to 1993 reported higher social assistance usage rates than either the economic principal applicant or the economic spouses and dependant categories (chart 3). The rate of social assistance usage increases with time in Canada and averages about 18%, as compared to the Canadian average of 9.6%, for those who have been in the country for 10 years or more;

The family reunification category also experienced a drop in initial employment earnings relative to the Canadian average as of 1989 (chart 5-a).

The family reunification category most resembles the economic spouses and dependants because it is largely made up of family members - spouses and dependants - who join household heads already resident in Canada.

The principal differences in the make up of this group are:

- one of the family members the sponsor is already settled in Canada;
- some of the family members namely, parents and grandparents, are heads of households who will settle as new households distinct from that of the sponsor;
- others are older never-married 'children' who will presumably settle, immediately or later, as new households. Due to a regulatory change affecting the 1988 to 1992 period, this group also included unmarried, non-dependent children (over 19 years of age) who would have previously been processed as assisted relatives.

It is because of the presence of parents and grandparents in this category that the proportion of males is significantly higher than in the economic spouses and dependants category. This could also explain why the percentage with no knowledge of either French or English (42% overall) is also much higher than the proportion (26%) observed in the economic spouses and dependants category.

In addition there is a larger proportion of individuals with less than twelve years of schooling (62 vs. 48%) and a smaller proportion of individuals with university degrees (13 vs. 18%) than in the economic spouses and dependents category.

The refugee and refugee-like category

The refugee and refugee-like category includes government assisted refugees who are expected to integrate into the labour market after an adjustment period of one year. They receive financial support to carry them through this adjustment period. It also includes privately sponsored refugees who receive non-financial support from their sponsors to see them through their adjustment period. In Canada asylum seekers, who are neither sponsored nor provided financial support are also included in this broad category³.

It is to be expected therefore that the refugee and refugee-like category would take longer to enter the labour market than the other three categories. Neither would it be surprising if this group experienced lower earnings for a certain period of time since it includes numerous persons who were unacquainted with western employment practices prior to emigrating to Canada.

The indicators of settlement behaviour used to assess the success of the economic category cannot be applied to the refugee and refugee-like category without significant reservations. For refugees, the time it takes to become self-sufficient is a more meaningful measure than the time it takes to catch up to other immigrant categories or to the Canadian average.

As alluded to above, the refugee and refugee-like category is expected to register lower measures of initial earnings and higher levels of social assistance usage - for a certain time - than other categories of immigrants. In fact, although this category does have lower initial earnings than the other categories in most years (chart 5-a), they move ahead of the family reunification category and, those who landed in the early and mid eighties also moved ahead of the economic spouses and dependants within three years of landing (chart 6-a).

Part of this effect is due to the grouping together of principal applicants, spouses and dependants. If we considered refugee and refugee-like principal applicants alone we would observe a stronger and faster movement relative to the other categories because we would focus more on male household heads who presumably have high labour force attachment.

The refugee and refugee-like category makes much more use of social assistance than the Canadian or other immigrant taxfiler populations (chart 3). Part of the reason for the very high rates during the very early years after landing is the fact that adjustment assistance

³ This third group was resident in Canada prior to being landed, unlike refugees landed from abroad.

benefits received by government assisted refugees are reported on the income tax form on the same line as provincial social assistance. Nevertheless, the rates remain high even if we ignore the rates shown for the first three years after landing. However, the rate of social assistance usage declines with the length of residence in Canada but it remains above the Canadian average even for those who have been in Canada for 10 to 12 years.

Technical Annex – EXPLORING THE COVERAGE OF THE IMDB

The IMDB is a file of linked immigration and tax records. A subject is included only if he or she landed since 1980 and filed at least one tax return after obtaining landed immigrant status. It is therefore more appropriate to refer to the population captured in the IMDB as the immigrant taxfiler population and to compare measures of economic or labour market behaviour derived from the IMDB to similar measures applicable to the Canadian taxfiler population.

The characteristics of the immigrant taxfiler population differ from those of the entire immigrant population because the tendency or requirement to file a tax return will vary in relation to a person's age, status within a family, and other factors. One would expect a higher percentage of males to file a tax return for example, because males have higher participation rates than females. Therefore, even when immigrants who were 'children' at admission are excluded from both the landed and IMDB populations, we would expect to see differences related to labour force participation rates which vary by marital status, gender, and age.

These differences are reflected in the IMDB 'capture rates' (the percentage of individuals in a population who file tax returns). The capture rates are also influenced by the introduction of federal and provincial non-refundable tax credit programs because these programs encourage individuals with no taxable income to file a return to qualify for certain tax credits.

Overall, over 66% of immigrants 18 years of age or more and 21% of those under 18 who were admitted from 1980 to 1995 are captured in the IMDB. The lowest overall capture rate is 63% for the family reunification category followed by 64% for economic spouses and dependants. The highest rate is 74% for the refugee and refugee-like category. The rate for economic principal applicants is 70%.

However, all immigrants do not necessarily file tax returns in each year after their arrival. Some do not enter the labour market immediately and some leave the labour market temporarily or permanently and, some may leave the country. In fact, a taxfiler need only appear once during the entire period to be counted in the overall capture rates reported above. Thus for the 1995 tax year, the capture rate for all immigrants who were landed from 1980 to 1994 and were at least 18 years of age at landing was 57.8%.

The capture rates are therefore very high. And, because they are high across all immigrant categories and all characteristics recorded at landing the IMDB can support the investigation of a broad range of policy and program issues from the national as well as regional perspectives.

Comparison of the landed and IMDB populations

Composition by major immigrant category

Chart A1 shows the composition by major immigrant category of the landed and IMDB populations for each landing year with children (immigrants under 18 years of age at landing) removed from both data sets.

The upper panel (chart A1-a) shows the percentage distribution of each of the four major categories by year of landing calculated from the landings records after excluding children. The lower panel (chart A1-b) shows the results of the same calculations using the population captured in the IMDB. A comparison of the two panels confirms that the patterns observed in the IMDB are virtually identical to those observed in the landed population.

At this aggregate level, Chart A1 shows that the IMDB is broadly representative of the landed population because it reflects the evolving composition by major immigrant categories observed in the landed population from 1980 to 1995.

Chart A2 shows the composition of the landed population by major immigrant category for the three five-year periods from 1981 to 1995. The upper panels include immigrants of all ages and the lower panels exclude immigrants who were less than 18 years of age at landing. Both the absolute numbers (on the left) and the percentage shares (on the right) are shown in order to underline the fact that a rise in numbers can correspond to a drop in share.

For example, the chart in the upper left shows that the total number of landed immigrants in each of the major categories increased substantially in each of the five-year periods following 1980-85 while the chart in the upper right shows that the percentage of immigrants in some categories moved down. More specifically:

- although the proportion of immigrants in the family reunification category dropped sharply from 45.3% in 1980-85 to 34.2% in 1986-90 and recovered only partially to 39.0% in 1991-95, the size of the flow increased significantly from 232,352 in 1980-85 to 281,171 in 1986-90 and dramatically to 458,850 in 1991-95; and,
- while the proportion of economic principal applicants remained relatively stable (12.4 to 13.8%) over the three periods, their numbers more than doubled from 68,956 to 145,919 over the same period.

A comparison of the landed population of all ages with the same population excluding children shows that the removal of the immigrants under 18 years of age at landing from the landed population reduces the proportion of economic spouses and dependants and increases the proportions of both the family reunification and the economic principal applicant categories. This reflects the fact that most immigrant children admitted to Canada have landed in the economic categories.

Chart A3 shows the composition of the population captured in the IMDB by immigrant category for the same five-year periods ending in 1995. If the IMDB population is representative of taxfilers in the landed population the patterns displayed in charts A2 and A3 should be roughly similar. However, there should also be noticeable differences

attributable to the factors such as age, gender, and family status which influence labour force participation rates.

For example, we would expect the proportion of economic principal applicants to be higher in the IMDB than in the landed population because it includes only adults destined to the labour market or business. We would expect the same for the refugee and refugee-like category because it includes principal applicants who are ultimately destined to the labour market and because recipients of public support, such as Adjustment Assistance benefits, are required to file tax returns to qualify for other benefits administered through the tax system.

The family reunification category on the other hand is largely made up of fiancées, spouses and dependants of persons already resident in Canada while the economic spouses and dependants include, by definition, only spouses and dependants of economic principal applicants. These compositional differences should translate into lower labour force attachment and lower tax filing rates for the family reunification and economic spouses and dependants categories.

These expectations are borne out: for each of the five-year landing periods, the family reunification category and economic spouses and dependants make up a lower percentage of the IMDB than of the landed population. Exactly the opposite is true for the economic principal applicants and the refugee and refugee-like category. The rates observed for the refugee and refugee-like category are probably understated because it includes spouses and dependants.

These observations are in line with the previously cited capture rates and they reinforce the conclusion that the IMDB is broadly representative of the landed population.

Gender composition

Chart A4 shows the gender composition of the landed and IMDB populations. The upper panel shows the percentage of males and females in the entire landed population by year of landing. The middle panel shows the same calculations for the landed population excluding children. The bottom panel shows them for the IMDB population excluding children.

It shows that females made up a larger share of the total flow in those years when the family reunification category accounted for a higher than usual share of total landings and that the removal of children has a marginal effect on the gender composition of the landed population, increasing the proportion of females by half to one and a half percentage points for each landing year.

The stronger labour force attachment rates for males are apparent in the lower panel which shows that while the year to year changes in the gender composition of the IMDB population reflect the patterns observed in the landed population, males make up a larger share of the IMDB population than of the landed population.

Chart A5 goes a step further. It shows the percentage of females in each of the major immigrant categories by year of landing. The upper panel shows all females of all ages in the landed population. The middle panel shows the same calculations excluding children. And, the lower panel shows the percentage of females in the IMDB population excluding children.

These charts show that females dominate the economic spouses and dependants and family reunification categories in the landed population excluding children. This is closely mirrored in the IMDB population except that, as expected, females are under-represented in all categories because they generally have lower labour force participation rates.

- The gender composition of each major immigrant category has remained relatively stable over time as have the differences between categories (chart A5);
- The gender composition of the landed population has nevertheless shifted noticeably because the composition by category has changed (chart A4). The percentage of males in the landed population was equal to or higher than the percentage of females from 1986 to 1990 because of the lower proportion of family reunification and higher proportion of economic principal applicants who landed during that period;
- The consistency of the gender composition within categories and the shifting of the gender composition of the landed population are both reflected in the IMDB population except that females are consistently under-represented.

The important point to retain here is that the stability of the gender distribution within the major immigrant categories - allowing for the effect of excluding children - and the variations in the gender distribution of the entire landed population are both reflected in the IMDB population.

Language composition

Chart A6 shows the language composition of the landed and IMDB populations excluding children in both cases. The upper panel shows the percentage of immigrants who declared knowledge of French, English, both, or neither at the time of landing for each landing year. The lower panel shows the same calculations for the IMDB population.

Although the percentage of immigrants declaring a knowledge of French or both languages remains fairly steady over time, there are significant swings between the percentage of immigrants overall with either knowledge of English or knowledge of neither language.

Chart A7 shows the percentage of immigrants in each of the major categories who declare no French or English language ability. It shows that there is much more variation in the language composition within the major immigrant categories than was the case for gender.

- The dramatic swings between immigrants with knowledge of English and those with knowledge of neither official language since 1980 (chart A6) are mostly attributable to variations within the refugee and refugee-like category;
- The increase in the share of immigrants with knowledge of neither language experienced by the economic principal applicants in the early eighties (chart A7) coincided with the restriction of skilled workers to applicants with confirmed job offers;
- Economic principal applicants, except for those who landed in 1984 and 1985, always had the smallest proportion of immigrants with no knowledge of French or English. The proportion for the family reunification category has always been substantially higher than that for the economic spouses and dependants;

• The swings in language composition of the refugee and refugee-like category reflects the admissions of Administrative Review, Backlog clearance and refugee claimants who were granted landed status after a period of residence in Canada during which they presumably would have learned one of the official languages.

The swings in language composition observed for the entire landed and IMDB populations in Chart A6 reflect the combined effects of those observed within the four immigrant categories as shown in chart A7.

Again, these patterns are consistent in both the landed and the IMDB populations although the group with knowledge of English is slightly over-represented in the IMDB throughout the period.

Education composition

Chart A8 shows the education composition of the landed and IMDB populations excluding children in both cases. The upper panel shows the percentage of the landed population by level of education reported for each landing year. The lower panel shows the same calculations for the IMDB population.

It shows that the share of less educated has been shifting from a predominance of individuals with 0 to 9 years of schooling to those with 10 to 12. The percentage of individuals with bachelors' degrees has also been increasing significantly since 1992.

Chart A9 shows the percentage of immigrants in each major category who reported having a university degree for each landing year. The upper panel shows the percentages for the landed population excluding children. The lower panel shows the same calculations for the IMDB population.

- The dip in the percentage of the landed population with a bachelor's degree observed in 1983 to 1985 (chart A8) is largely attributable to a sharp drop in the number of economic principal applicants landed during that period;
- The rise in the proportion of immigrants with a bachelor's degree since 1992 (chart A8) is attributable to an increase in the numbers of economic principal applicants and economic spouses and dependants admitted since 1992 combined with a regulatory change which increased the weight assigned to higher education.

Once more, the education composition of the IMDB population reflects that of the landed population in all years except that immigrants with the lowest level of education - 0 to 9 years - are under-represented.

The foregoing discussion speaks to the issue of representativeness. It attempts to show that the characteristics observed in the population captured in the IMDB reflect those of the landed population closely enough for the results of analyses carried our with the IMDB to be inferred to the landed population it represents, that is, the population of adult immigrants admitted as permanent residents from 1980 to 1995.

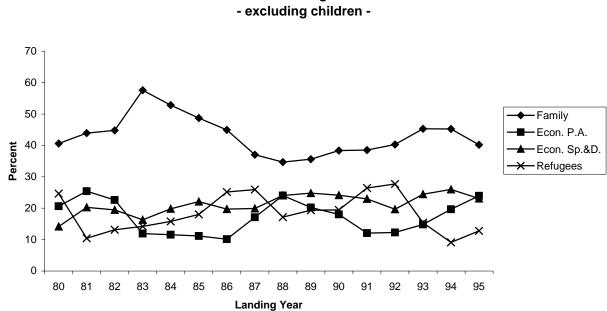
For this conclusion to hold true, it is necessary to show that the characteristics and the

temporal changes in these characteristics observed in the landed population and its components are faithfully replicated in the IMDB with allowances for expected differences in labour market and taxfiling behaviours.

It would seem, from the summary analysis presented here and the more detailed analyses carried our on an earlier prototype of the IMDB covering the period 1980 to 1988⁴, that the IMDB is indeed representative of immigrant taxfilers admitted to Canada from 1980 to 1995. This means that it is a reliable source of economic, demographic, and labour market data to assess the settlement behaviour of different categories of immigrants and the impact of policy and program changes on that behaviour.

⁴ Étude de représentativité des immigrants retracés dans la banque de données sur les immigrants (projet *BDIM*), Ministère des Affaires internationales, de l'immigration et des Communautés culturelles, Québec, Mars 1994. This report is available in both English and French.

Chart A1-a



Landed Population by Major Immigrant Category and Landing Year

Chart A1-b

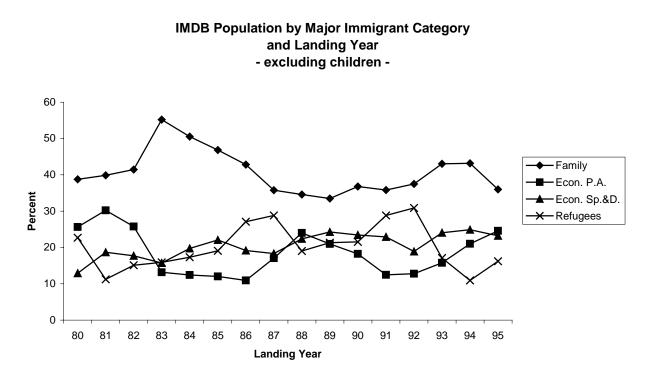
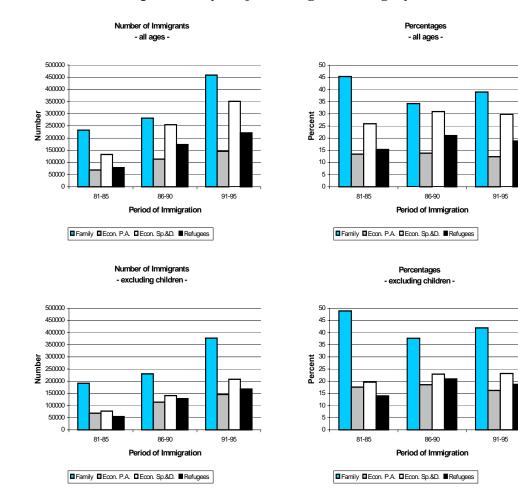


Chart A2



Total Landed Population by Major Immigrant Category and Period of Immigration



LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Refugees
81-85	232352	68956	132767	78671
86-90	281871	113989	255096	173602
91-95	458850	145919	350835	221634

LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Refugees
81-85	45	5.32 1	3.45 25.89	15.34
86-90	34	.18 1	3.82 30.94	21.05
91-95	38	3.98 1	2.40 29.80	18.83

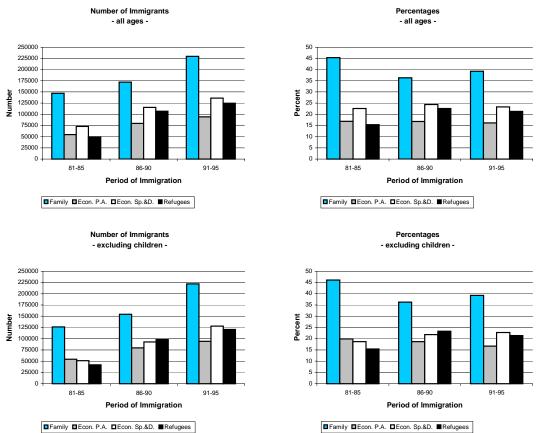
Landed Population - excluding children

LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Refugees
81-85	191440	68692	76737	54678
86-90	230569	113582	140534	128404
91-95	376724	145682	208073	167871

LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Refugees
81-85	48.89	17.54	19.60	13.96
86-90	37.61	18.53	22.92	20.94
91-95	41.94	16.22	23.16	18.69

Chart A3

IMDB Population by Major Immigrant Category and Period of Immigration



Family Econ. P.A. Econ. Sp.&D. Refugees

IMDR Population - All Ages

пире Рорија	lion - All Ages			
LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Humanitarian
81-85	147059	54563	73144	49663
86-90	172133	79690	115565	106932
91-95	229703	94337	136308	124674
LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Humanitarian
81-85	45.33	16.82	22.55	15.31
86-90	36.29	16.80	24.36	22.54
91-95	39.26	16.13	23.30	21.31

IMDB Population - excluding children

пирь гориа	lion - excludin	ig children		
LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Humanitarian
81-85	126344	54449	51296	42236
86-90	154300	79597	92714	99015
91-95	221684	94297	128122	120847
LNDYR	Family	Econ. P.A.	Econ. Sp.&D.	Humanitarian
81-85	46.06	19.85	18.70	15.40
86-90	36.25	18.70	21.78	23.26
91-95	39.24	16.69	22.68	21.39





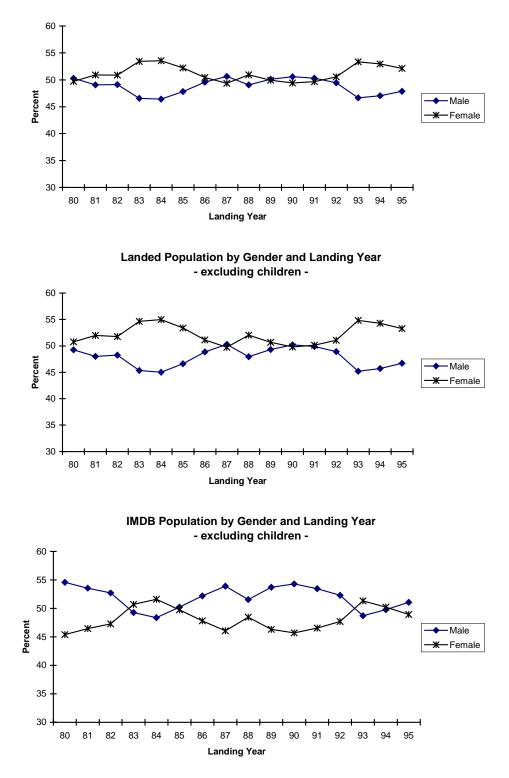
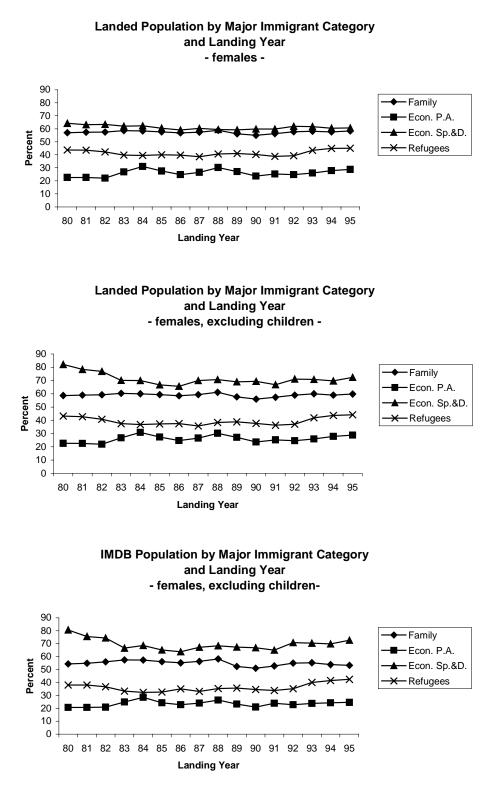
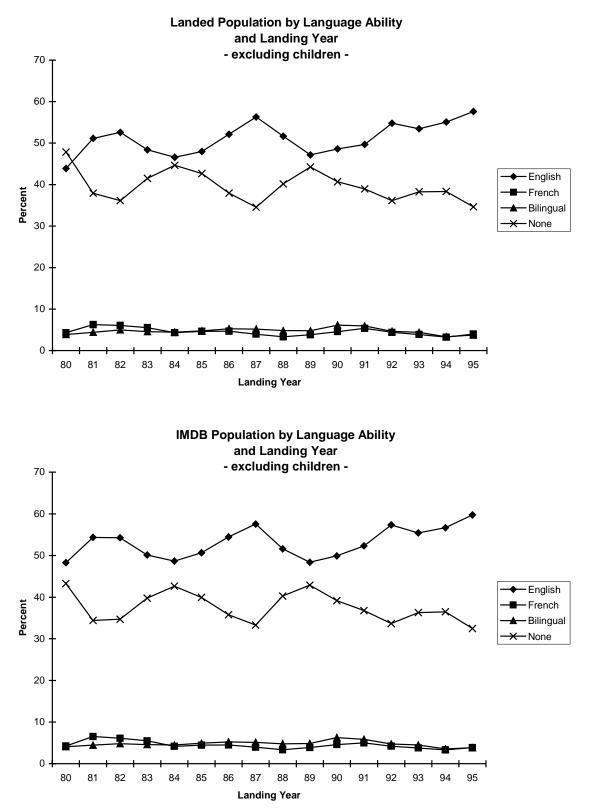


Chart A5

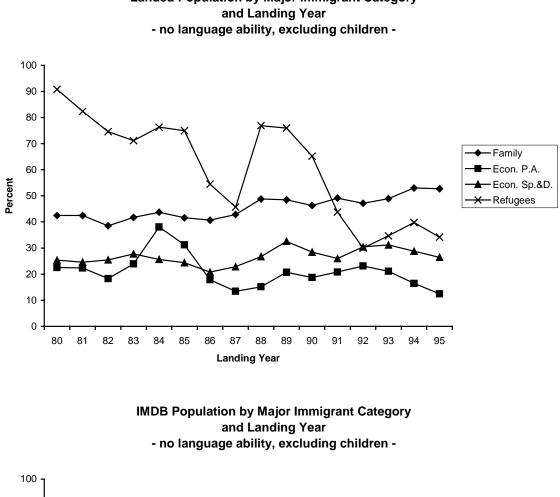


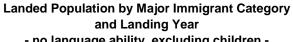
41











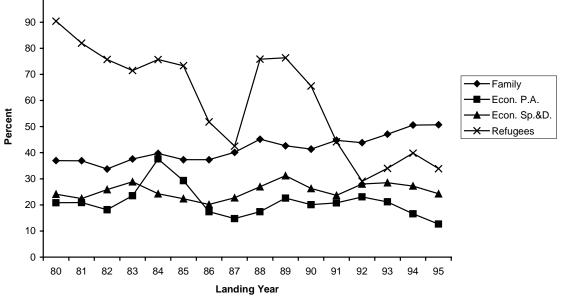
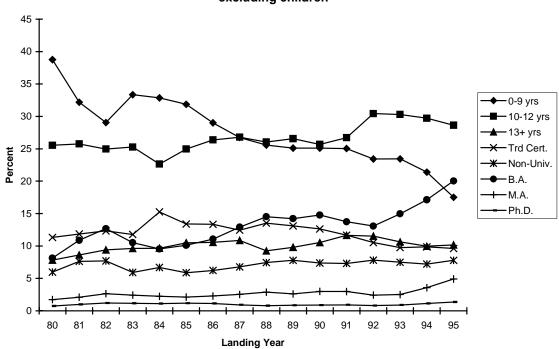


Chart A8



Landed Population by Level of Education and Landing Year - excluding children -

IMDB Population by Level of Education and Landing Year - excluding children -

