

**Economic Assimilation of Canadian Immigrants:
Cross sectional vs. Panel Data Estimates**

Final Research Report

Submitted by

**Derek Hum & Wayne Simpson
University of Manitoba**

To

**Prairie Centre of Excellence for Research on Immigration and
Integration**

October 2005

Abstract

The economic integration of immigrants—that is, the economic performance of the foreign born relative to the native born—has been studied widely. Previous studies have used either one or a series of cross sections, principally census micro data. While such studies are useful, they suffer from important biases arising from data limitations and from unobserved influences on economic performance. This project uses a recently released panel data set of Canadian households, the Survey of Labour and Income Dynamics, to investigate biases resulting from conventional estimates on cross-sectional data and those resulting from limitations in the measurement of work experience. We assess the credibility of previous estimates of immigrant economic integration, which constitute our conventional wisdom.

Since virtually all of our current understanding about the immigrant assimilation process is derived from studies using cross sectional data, it is extremely important to assess this literature, and to gauge, through a thorough meta analysis of the findings, how our understanding might differ now that panel data are available. Importantly, immigrant adjustment is a process that occurs through time, and only panel data affords real time observations of this process.

Final Research Report

Statement of the Problem

The economic integration of immigrants is at the centre of policy debates in Canada. Indeed, the issue of how many immigrants to admit is inevitably related to the question of Canada's capacity to absorb newcomers, and this in turn, is affected by how rapidly immigrants can achieve economic success in the labour market. Canada wants to have its immigrants, after an initial adjustment period, enjoy the same economic success as its native born. Therefore the question of economic adjustment can be stated sharply as follows: What is the economic performance of otherwise identical workers who differ only in terms of immigrant status? Additionally, how long does it take immigrants to achieve parity with Canadian born workers?

Many researchers have addressed this issue. Borjas' (1994) authoritative review of the research on immigrant integration was confined to studies using cross-sectional data; that is, census data or one-time surveys. This literature distinguishes two effects: (1) the entry effect; that is, the economic performance of immigrants upon arrival relative to the native born, and (2) the assimilation (or convergence) effect; that is, the rate at which immigrant economic performance "catch up" relative to the native born. Almost all researchers (e.g., Chiswick, 1978 and Carliner, 1980) report a negative entry effect; that is, immigrants face disadvantage upon arrival. More controversy attends the assimilation effect, with some authors reporting that immigrants overcome this disadvantage with time in the host country (that is, a positive assimilation effect). Chiswick's (1978) initial

estimate of the entry effect for men in the U.S. was 16.4% with an initial assimilation rate of 1.5% per year, which declined with time in the host country, implying that immigrants catch up to their native counterparts after 13 years. Subsequent studies have found similar results for other countries, including the United States (Allensworth, 1997; Borjas, 1987; Butcher, 1994; Funkhauser and Trejo, 1995; Kossoudji, 1988; LaLonde and Topel, 1991 and 1992; Long, 1980; Yuengert, 1994), Canada (Abbott and Beach, 1993; Baker and Benjamin, 1997; Bloom et al, 1995; Grant, 1999; Hum and Simpson, 1999; McDonald and Worswick, 1998; Meng, 1987), Australia (Beggs and Chapman, 1988; McDonald and Worswick, 1999), and Israel (Friedberg, 2000).

But are these results reliable? Many researchers now consider this body of work untrustworthy. The reason is quite simple. These previous results relied on cross-sectional data, primarily the census. Cross sectional data record the economic circumstances of many individuals at one single moment, say, the year of the Census. Studies of assimilation using this type of data therefore implicitly assume that all immigrants (after adjustment for socio demographic characteristics, of course) are identical in their assimilation trajectory, and that the length of their stay in Canada essentially differentiates their assimilation. The limited type of data available necessitated this assumption at the time. Realization that new data sources are necessary to address questions of change over time led many countries, including Canada, to gather at great expense ambitious panel data; that is, surveys in which the same individuals are followed over a number of years. This is important for the issue at hand because economic assimilation by immigrants is fundamentally a process that occurs throughout time, and it is panel data that allow researchers to follow the same immigrant individuals

over time to gauge their economic performance. The implicit methodology (employed with cross sectional Census data) of assuming that an immigrant's future economic performance could be inferred from past immigrants who migrated to Canada in an earlier period is no longer reliable.

A simple analogy makes the above point more forcefully as well as somewhat humorously. If, indeed, cross sectional data were entirely reliable, we could determine future circumstances of individuals by simply "looking at" older individuals who have similar characteristics (same gender, age, language etc). Because this procedure is fraught with danger, it is preferable to re-visit the same individuals at a later time and actually record what happened. If this were not the case, we could simply learn what happened to someone by inspecting more senior individuals in the same school yearbook --- there would be no need for high school reunions.

Immigration and Interruption of Work

One useful way to view the immigration event is in terms of the "interrupted work career." Mincer and Ofek (1982) used this concept to analyze the labour market recovery of married women whose work career is interrupted, and to measure the rate at which previously acquired human capital is restored or repaired upon return to employment. This model can apply to other work interruptions, including international migration whereby human capital is incompletely transferred across borders, or depreciates in market value as a result of relocation. If so, immigrants will experience a significant work interruption involving substantial labour market inactivity as they resettle in a new country and locate suitable employment.

Immigrants may require retraining, or may need to wait for recognition of

their credentials by the host country. They may also require time to develop an understanding of labour market processes in their new environment in order to restore lost market value.

Most studies of immigrant integration that employ cross section data have also had to rely upon a measure of potential experience (age minus schooling minus 5 years) to explain labour market performance. It is widely acknowledged that this measure presents problems when work careers are interrupted, as is commonly the case for married women. The impact on the comparison of immigrant and native-born earnings, even in those studies restricted to men, has been neither recognized nor appreciated, however. Since our data source, the Survey of Labour and Income Dynamics (SLID), measures actual accumulated work experience in full-time equivalent years, we will be able to assess the effect of using potential experience rather than actual experience. To motivate our discussion, we note that the simple correlation between actual experience and potential experience is weaker for immigrant men than for native born men, just as the correlation is much weaker for women than for men. In the two combined panels of SLID, the correlation for immigrant men is 82.2% compared to 90.1% for native born men because of the interruption of the work career arising from immigration. In sum, the use of potential experience in past studies was necessitated by limitations associated with cross sectional data sets, such as the Census. These errors in measurement lead to bias in estimating assimilation, which panel data can potentially resolve.

Chiswick's estimates of the entry and assimilation effects for immigrants is challenged by Borjas (1985), who argued that changes in the productivity of migrant cohorts over time may account for the observed pattern that immigrants eventually overtake the native born. Since cohort of

arrival is perfectly correlated with years in the host country for cross-section data, declining productivity of successive cohorts of migrants would bias upward estimates of the assimilation effect. Using a series of cross-sections, Borjas and others report a cohort effect that declines over time for the U.S. and which substantially attenuates the assimilation effect. Borjas admits these estimates remain controversial (Borjas, 1994, 1675) but his results for recent immigrant cohorts to the U.S. and Canada suggest very slow, if not negligible, assimilation. He finds an overall entry effect of 23% for the 1975-80 cohort for the U.S. with an assimilation rate of 0.5%, and an entry effect of 18% for Canada with no significant evidence of assimilation (Borjas, 1993b) There is no consensus in the research literature, and we need to re-examine the extent of bias in previous studies. We need to assess whether this bias is important and to do this, we need to turn to panel data. A full specification of our research program is contained in a technical appendix. Essentially, we will take care to separate those influencing factors that are constant over time (e.g., gender or visible minority status) from those which change over time (education upgrade, further credentials, residence moves, etc). Panel data afford us this advantage.

Data Analysis and Methodology

The Survey of Labour and Income Dynamics (SLID) is a continuing panel survey of Canadian households begun in 1993. This Statistics Canada internal SLID file (not the public version) provides demographic and labour market activity information and, in particular, details on immigrant arrival not available on public data releases. This information is clearly crucial to our study.

The SLID labour force activity data is particularly rich, including

detailed information on wages and salaries, hours of work and pay structures to allow determination of composite hourly wage rates, which is our preferred measure of labour market performance. SLID also contains retrospective information on past job history work not available in the Census. Consequently, SLID allows us to assess the effect of using potential work experience (age minus time spent in school) as a proxy for actual work experience, a common practice in Census studies of immigrant assimilation.

The master file of SLID is not a public file. However, we made a successful application through SSHRCC to access the master SLID data through the RDC (Research data Centre) program. We negotiated access arrangements through affiliation with the Calgary RDC until the Winnipeg RDC opened, at which time we completed our work in Winnipeg.

Eventually, we hope to extend our analysis to a cross-country comparative basis. To that end, we hope to explore the German socio economic panel data set. We received clearance from Germany to access the German data. We visited Germany the past year to learn about the German panel data set. Further, Professor Simpson spent his sabbatical (2005) in Australia and there is hope for collaboration with researchers in Australia.

Policy Relevance of the Study

Our study goes to the very heart of the question of immigrant economic integration in Canada. There can be no more important or policy relevant issue concerning the economic performance of immigrants. Yet, we do not know what is the state-of-the-arts research understanding employing modern data sets now available in Canada and current analytic techniques.

This is due to the fact that these data sets are only just now available in Canada.

The conventional wisdom in Canada is that immigrants face an initial disadvantage in the labour market (the so called negative entry effect), but eventually catch up to other Canadians, and even overtaking them, in certain cases (the so called positive assimilation effect). Phrased in this fashion, the question concerns the magnitude of the negative entry effect, and the speed of the positive assimilation effect (or what is the same thing, the length of time before immigrants catch up to their Canadian born counterparts).

Canadian policy response is conditioned, in large part, on believing the negative entry effect to be substantial (but temporary) and the assimilation effect to be positive (and relatively large). Phrased in the language of policy response, the issue may be restated as one involving the nature of the “need” to help immigrants to Canada adjust to the labour market upon arrival, the “duration of this assistance”, and the determination of the “barriers to assimilation in the labour market” that can be identified and rectified. Only by knowing answers to these fundamental questions can effective policy be designed to deliver the appropriate programs, whether they be language training, skill upgrading, social integration, or anti-discrimination initiatives.

References

NOTE: In the interest of brevity, full references are listed in Hum, D. & W. Simpson, “Reinterpreting the Performance of Immigrant Wages from Panel Data.” 2004 AD. **Empirical Economics**. Vol. 29, No.1, 129-47. (**Attached**)

Dissemination Activities

Numerous interviews with: CBC, The Globe and Mail, and other media.

For Derek Hum

Workshop (Ottawa PRI)	June 2004	On Social capital
Discussant (Ottawa, PRI)	Dec 2004	On Asset based policies
Seminar (CIC, Winnipeg)	Jan 2005	Economic assimilation
Workshop (Ottawa, Metropolis)	May 2005	Immigrant credentials
Workshop (Ottawa, PRI)	May 2005	Older Workers
Paper, Delta Marsh (U of M)	Oct 2005	Chinese Head Tax
Keynote address (Saskatoon)	Oct 2005	Keynote address

For Wayne Simpson

Seminar (U Waterloo)	Oct 2004	Immigrant Integration
Workshop (Ottawa HRSDC)	Nov 2004	On Employment Insurance
Paper (U Melbourne)	Jan 2005	Immigration research in Canada
Paper (U Western Sydney)	Mar 2005	Microdata and immigration
Paper (U Woolingong, Au)	Mar 2005	Microdata and immigration
Paper (EconMod Con, Istanbul)	June 2005	Modeling immigration

Note: The Globe and Mail (June 27, 2005) published a review of the cumulative impact of our research on immigration and visible minorities. (Copy attached)

Training Activity

The following individuals were retained at various times to assist on this project:

Mr. Sisira Sarma	Ph D student (graduated)
Mr Eyob Ghebretsadik	Ph D student (current)

Publications

Numerous progress reports, seminar presentations and preliminary working papers were produced and released on an interim basis to solicit commentary and constructive criticism. As these are treated as “works in progress” in various stages with the ultimate aim of achieving a better final product, they are not included here. The following papers represent “end products” in terms of official journal publications or submissions.

Hum, D. & W. Simpson. “Economic Integration of Immigrants to Canada: A Short Survey.” 2004 AD. **Canadian Journal of Urban Research**. Vol. 13, 1, 46 - 61.

* Hum, D. & W. Simpson. “Reinterpreting the Performance of Immigrant Wages from Panel Data.” 2004 AD. **Empirical Economics**. Vol. 29, No.1, 129-47.

* Hum, D. & W. Simpson. “Reinterpreting the performance of immigrant wages from panel data.” (2004 AD) In Badi Baltagi (ed.) **Panel Data**. Heidelberg & New York: Physica-Verlag.

Hum, D. and W. Simpson. “The Legacy of Immigration: The Labour Market Performance of the Second Generation.” **PCERII Working Paper Series**, 2004.

(Currently under revision for submission to academic journal)

* NOTE: The article in Empirical Economics is the primary academic output from this grant. This journal is considered among the best scholarly journals in the world for empirical studies. The quality of the paper was judged of sufficient merit that it was subsequently selected for inclusion in a volume on panel data. Of the twenty papers selected for the volume, only one other paper was from Canada. An earlier version was presented at a major international conference on quantitative techniques in Berlin.

Executive Summary

The conventional wisdom in Canada is that immigrants face an initial disadvantage in the labour market (the so called negative entry effect), but eventually catch up to other Canadians, and even overtaking them, in certain cases (the so called positive assimilation effect). Phrased in this fashion, the research questions concern the magnitude of the negative entry effect, and the speed of the positive assimilation effect (or what is the same thing, the length of time before immigrants catch up to their Canadian born counterparts). Canadian policy response is conditioned, in large part, on believing the negative entry effect to be substantial (but temporary) and the assimilation effect to be positive (and relatively large). Phrased in the language of policy response, the issue may be restated as one involving the nature of the “need” to help immigrants to Canada adjust to the labour market upon arrival, the “duration of this assistance”, and the determination of the “barriers to assimilation in the labour market” that can be identified and rectified. Only by knowing answers to these fundamental questions can effective policy be designed to deliver the appropriate programs, whether they be language training, skill upgrading, social integration, or anti-discrimination initiatives.

There have been widely varying estimates of the negative entry effect and/or the assimilation effect in the literature, both for Canada as well as other countries. Furthermore, recent work by Hum and Simpson (1999, 2000) have established that visible minority immigrants must be distinguished from non-visible minority immigrants. This fact is especially

important since two of every three immigrants to Canada are now members of a visible minority group. The conventional wisdom of “gradual but inevitable” assimilation into the labour markets may not be valid anymore, since that conventional wisdom was forged by the empirical work of the past, when immigrants were disproportionately of European origin, white, and entered Canada under different policy auspices, and during different macro economic conditions. Indeed, the recent work of Hum and Simpson (2000, 2004) suggest that economic assimilation has been extremely slow, or largely absent, during the 1990s.

With the exception of Hum and Simpson (2000), all past studies in Canada have not employed panel data, but rather a cross section (e.g., Census) or a series of cross sections. However, economic assimilation is fundamentally a process that takes place over time, and panel data (which tracks the same individuals over time) is preferable for uncovering the economic assimilation process. It is absolutely crucial to determine whether our understanding of immigrant economic assimilation based on past cross sectional research is still valid. With the availability of panel data for Canada, it is essential that we reexamine our accepted wisdom, one that was manufactured in an earlier time with less than ideal data.

The empirical results of the present study lend support to the view that recent immigrants to Canada are experiencing a larger disadvantage (negative entry) upon landing, and, for many, will not catch up to the Canadian national average (weak assimilation effect) during their lifetime.