TIEDI Toronto Immigrant Employment DATA INITIATIVE

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DOES RETURNING TO SCHOOL AFTER IMMIGRATION AFFECT LABOUR MARKET OUTCOMES FOR IMMIGRANTS?

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KEY POINTS:

- Immigrants who have enrolled in at least one university course in Canada take longer to find employment, but are more likely to have higher hourly wages and to work in their field of study than other immigrants.
- Immigrants who have completed courses in Canada are less likely, on average, to hold full-time employment than immigrant men who did not return to school, but more likely than immigrant women who did not return to school.
- Immigrants who enrolled in classes leading to higher degrees were likely to have taken more time to find their first job following immigration.
- Immigrants who had completed classes leading to a high school diploma or had enrolled in other training not leading to a diploma had significantly higher average income per household member than immigrants who had enrolled in trades or university education or immigrants who had not attended school after immigration.
- Immigrant women who did not return to school have less favourable labour market outcomes than immigrant men who did not return to school, or immigrants who enrolled in courses.

INTRODUCTION TO TIEDI

The Toronto Immigrant Employment Data Initiative (TIEDI) seeks to assist organizations whose mandate includes the better integration of immigrants into Toronto's labour force. Such partner organizations include immigrant service agencies and advocacy groups, labour organizations, regulatory bodies, professional associations, training organizations, and credential assessment agencies.

The purpose of the project is to provide organizations with free access to statistical data and analysis on various aspects of immigrant labour market integration. The goal is to help organizations access the quantitative data they need in order to: identify priorities, develop programs and services, compose proposals and reports, and carrying out advocacy and public education endeavours.

TIEDI provides a unique service in which community organizations' data needs are met by a team of academic researchers and student analysts. Our partners define the data that they need - the project is thus driven by their agendas and not by academic research priorities.

TIEDI is based at York University, with a team of academic researchers drawn from York, the University of Toronto, and Ryerson University. Core members of the project team also include representatives of the Ontario Council of Agencies Serving Immigrants (OCASI), the Toronto Region Immigrant Employment Council (TRIEC) and World Education Services. The project is funded by the Social Sciences and Humanities Research Council of Canada under its Knowledge Impact in Society program, and by York University.

The datasets used by the project include a range of large-scale surveys such as the Census, the Longitudinal Survey of Immigrants to Canada, the Ethnic Diversity Survey, the Workplace and Employee Survey, the Survey of Labour and Income Dynamics, the Labour Force Survey and the Permanent Residents Data System.

TIEDI Analytical Reports provide tabulations of data, some brief analysis and contextualization, and some necessary caveats about the limitations of the data and analysis. Since the data presented have not been treated to detailed statistical analysis, any conclusions must be seen as preliminary and as starting points for further, more detailed, research.

For further information, contact the TIEDI Principal Investigator, Dr Philip Kelly (pfkelly@yorku.ca), or the TIEDI Project Coordinator, Maryse Lemoine (mlemoine@yorku.ca).

While the research and analysis are based on data from Statistics Canada, the opinions expressed do not represent the views of Statistics Canada.

RESEARCH QUESTION

What is the labour market performance, in terms of income, labour force participation, and unemployment levels for immigrants who enrolled in school or in (non-language) training programs following their arrival to Canada?

BACKGROUND

According to Statistics Canada research, very recent immigrants aged 25 to 54 with a university degree are nearly three times more likely than Canadian-born individuals to be enrolled in school or training programs (19.0% vs. 6.7%, respectively), even when their previous degrees was obtained in Canada. Among those very recent immigrant students, almost half (47.2%) attended university, 25.9% attended college or CEGEP, and 23.8% attended other education such as language training, accreditation or professional upgrade programs (Gilmore and Le Petit, 2008).

Duleep and Regets (1999) found that immigrants from developing countries were more likely to return to school as a way to invest in their human capital. Research by Cobb-Clark, Connolly and Worswick (2005) based on immigrant family data confirms this. A study in the Netherlands found that the length of stay in the host country, higher pre-immigration education level, and adverse macroeconomic conditions at arrival were all positively correlated with the enrolment of immigrants in schools following immigration (Tubergen and Werfhorst, 2007).

In the long-term, immigrants appear to benefit from having a Canadian education. Established immigrants with a Canadian university education had comparable employment rates in 2007 to their Canadian-born peers, while immigrants with a foreign university education had lower employment rates than immigrants with a Canadian university degree (Gilmore and Le Petit, 2008).

Findings by Akresh (2007) based on 12 months of American data suggested that the earnings growth for those who enrolled in school following immigration was faster than those who did not enrol. American research by Bratsberg and Ragan (2002) based on male immigrants found that the earning returns on education were higher for immigrants with U.S. education than those with foreign education. Moreover, earning returns on non-U.S. degrees were higher for immigrants who had completed a U.S. degree than those who had not.

While research points out that immigrants who have obtained a Canadian degree have better employment outcomes than immigrants who do not, findings from this study show more mixed results. Indeed, immigrants who have enrolled in school following immigration are integrating slower into the labour market than immigrant men who did not return to school. This may be due to the fact that the Longitudinal Survey of Immigrants to Canada only follows immigrants for their first four years in Canada. Gilmore and Le Petit (2008) found that very recent immigrants enrolled in school had much lower labour force participation rates than Canadian students (45.1% vs. 73.3%, respectively). Research by Mincer and Ofek (1980) moreover found that interrupted work careers (experienced, among others, when immigrating) depreciated human capital and led to lower wages when re-entering the labour market. Longer interruptions resulted in even lower wages. Returning

into the labour market repaired human capital over time and allowed catching-up somewhat with those who had not had their career interrupted. In the case of immigrants returning to school, the longer interruption in their work career, coupled with the fact that immigrants who have not returned to school had already had the opportunity to repair their human capital can result in lower income, higher unemployment rates, and lesser likelihood of holding full-time employment, at least in the first years following their arrival.

THE DATA: LONGITUDINAL SURVEY OF IMMIGRANTS TO CANADA

This report uses data from the Longitudinal Survey of Immigrants to Canada (LSIC), which was a joint undertaking between Statistics Canada and Citizenship and Immigration Canada under the Policy Research Initiative.

The LSIC is a comprehensive survey designed to study the process by which new immigrants adapt to, or integrate into, Canadian society. As part of adapting to life in Canada, many immigrants face challenges such as finding suitable accommodation, learning or becoming more fluent in one or both of Canada's official languages, participating in the labour market or accessing education and training opportunities. The results of this survey provide indicators of how immigrants are meeting these challenges and what resources are most helpful to their settlement in Canada. The survey also examines how the socio-economic characteristics of immigrants influence the process by which they integrate into Canadian society.

The topics covered by the survey include language proficiency, housing, education, foreign credentials recognition, employment, health, values and attitudes, citizenship, the development and use of social networks, income, and impressions about life in Canada. The questions address respondents' situation before coming to Canada and since their arrival.

The survey involved a longitudinal design, with immigrants being interviewed at three different times: six months, two years, and four years after landing in Canada. The target population for the survey consisted of immigrants who arrived in Canada between October 1, 2000 and September 30, 2001, were age 15 years or older at the time of landing, and landed from abroad (i.e. they must have applied through a Canadian Mission Abroad). Individuals who applied and landed from within Canada are excluded from the survey (Statistics Canada, 2007).

The LSIC was conducted from 2001 to 2005. This time period was marked by economic growth, strong employment gains, and earnings growth in Canada (Lin, 2008: 5). Existing economic conditions (see table 1 for basic economic data) and government policies may affect the trajectories of respondents. The outcomes of the respondents presented in this report may not be comparable to the experiences of immigrants who landed in different time periods. It is also important to note that this report examines the relationship between education alone and labour market outcomes. Clearly, a great many other variables are involved in shaping labour market integration and mobility for immigrants.

Table 1: Economic Performance Indicators, Canada, 2001-2005

	2001	2002	2003	2004	2005	Overall average
Growth in Real GNP	1.8 %	2.9 %	1.9 %	3.1 %	3.1 %	2.6 %
Unemployment Rate	7.2 %	7.6 %	7.6 %	7.2 %	6.8 %	7.3 %

Source: Maslove, 2008: 228

The sample design has been developed using a "funnel-shaped" approach. Thus, only immigrants that responded to the Wave 1 interview (at six months) were traced for the Wave 2 interview (at two years) and only those that responded to the Wave 2 interview were traced for the Wave 3 interview (at four years) (Statistics Canada, 2007).

Because of limited sample sizes, the data used in this report are for all of Canada. Table 2 shows the distribution of respondents to the LSIC. Immigrants who have enrolled in courses leading to general certificates or high school diplomas constitute the largest single category in the survey at 41.0%, followed by immigrants who enrolled in trade/college courses (32.4%). Immigrants with university education only constitute 4.9% of the survey and the findings should be used with caution due to small sample size. Overall, immigrants who complete courses following immigration represented a third (33.8%) of all respondents, while immigrants who had not returned to school or followed any training other than language courses represented 66.2%.

Table 2: Distribution of respondents who enrolled in school after immigrating to Canada, 4 year after landing, Canada

	NO DIPLOMA, CERTIFICATE	GENERAL CERTIFICATE, HIGH SCHOOL	TRADE/ COLLEGE DIPLOMA	UNIVERSITY DEGREE	NONE EVER TAKEN	
					MEN	WOMEN
%	21.7	41.0	32.4	4.9		
N	7, 160	13, 570	10, 730	1, 610	32, 580	32, 200

School enrolment: completed courses in Canadian institutions following immigration (excluding language training courses). The category ‘no diploma or certificate’ includes immigrants who enrolled in training programs not leading to a diploma or certificate.

Note on statistically significant difference: Simply put, when comparing two numbers (percentages, averages, etc.), a significant difference indicates that we are sure that the numbers are different, 95 times out of a hundred. When using samples to calculate statistics, there is a chance that the sample does not represent the entire population. Statistical significance relies on confidence intervals to indicate the range within which the real value (that is, if the entire population had been used to calculate it, instead of a sample) should fall. It is possible to compare confidence intervals to determine whether the numbers are different. We used a 5% chance of error in this report. If the confidence intervals do not overlap, then we are confident that the difference between the 2 numbers is not due to chance, 95% of the time. Statistics can be compared across time (for example, 6 months, 2 years or 4 years after arrival) or between different groups (for example, immigrants who arrived under different immigration classes).

RESULTS

a) Labour force participation and employment

Table 3 shows the percentage of those immigrants participating in the labour force (i.e. those working or looking for work); unemployment rates (i.e. the percentage of those participating in the labour force who are unable to find work) and the incidence of full-time employment among those who are employed. All of these data refer to the immigrant's situation 4 years after their arrival in Canada.

Table 3: Labour Force Participation Statistics for Immigrants who enrolled in school in Canada, 4 years after landing, Canada

	NO DIPLOMA, CERTIFICATE	GENERAL CERTIFICATE, HIGH SCHOOL	TRADE./ COLLEGE DIPLOMA	UNIVERSITY DEGREE	NONE EVER TAKEN	
					MEN	WOMEN
Participation rate	94.3 %	96.3 %	93.0 %	86.3 %	96.4 %	77.1 %
Unemployment rate	14.9 %	11.6 %	14.0 %	16.8 %	10.9 %	17.6 %
Full-time employment	85.5 %	84.4 %	86.2 %	81.3 %	95.3 %	80.0 %

Immigrants who enrolled in classes leading to a university degree following immigration have a higher unemployment rate and are less likely to hold full-time employment 4 years after arrival than immigrants who completed other courses or immigrant men who had not returned to school. This may be due to the fact that immigrants who enrolled in university education would not have had time to complete their studies (especially if they were seeking degrees that require up to four years of full-time study) and are still in school or have only recently graduated.

The LSIC findings indicate that immigrants who have completed courses in Canada are less likely to hold full-time employment than immigrant men who did not return to school. While 95.3% of employed male immigrants who did not enrol in training since immigrating worked full-time, only between 81.3% and 86.2% of employed immigrants who returned to school were working full-time. The low proportion of full-time employment among immigrants taking university classes may be due to current students holding part-time employment during the time of their studies.

While immigrant men who did not return to school have better labour outcomes than immigrants who did, immigrant women who did not return to school have poorer outcomes across all groups. Once again because of the limited time spell covered by the survey (four years) it may be the case that more positive labour market outcomes for school returnees are only fully manifested over a longer time horizon.

b) Transition into employment and relevance of employment found

Table 4 explores the labour market performance of the immigrants who completed Canadian courses within 4 years after landing. The table presents five labour market indices: the average number of

months that were taken after arrival before an immigrant was employed in their first job; the percentage of individuals whose main job at the time of the surveys was related to their training or field of study; the average number of jobless days per month experienced by immigrants between their second and fourth year in Canada; the average hourly wage of male and female immigrants at different periods after landing, in constant 2005 Canadian dollars; and, the average family income in 2005 dollars for the households of immigrants, divided by the number of household members (this includes the earnings of all members of the economic family, not just the respondent; hence, it is a measure of the income available per member of the family).

Table 4: Labour Force Participation Statistics for Immigrants who enrolled in school in Canada, 4 years after landing, Canada

	NO DIPLOMA, CERTIFICATE	GENERAL CERTIFICATE, HIGH SCHOOL	TRADE./ COLLEGE DIPLOMA	UNIVERSITY DEGREE	NONE EVER TAKEN	
					MEN	WOMEN
Months taken to find work	3.9	4.5	5.0	7.5	3.3	6.2
% of main job being related to training or field of study	63.0 %	66.7 %	69.5 %	79.7 %	43.2 %	32.2 %
Average days of jobless spells per month **	4.6	3.9	5.8	6.0	2.7	5.8
Average hourly wage (2005 dollars)	$ 19.90	$ 19.30	$ 16.30	$ 24.70	$ 18.00	$ 13.20
Annual household income per household member (2005 dollars)	$ 19, 900	$ 18, 900	$ 15, 100	$ 15, 700	$ 16, 100	$ 14, 000

**The data do not represent actual days of unemployment in any given month, but is calculated from the total number of jobless days accumulated between the second and fourth year in Canada, divided by the number of months in the period (i.e. 24 months).

Immigrants who complete courses were likely to have taken more time to find their first job following immigration, ranging from 3.9 months for immigrants who enrolled in training not leading to a diploma, to 7.5 months for immigrants who completed university courses. It is unclear from the data whether the longer time taken to find employment is a cause or a consequence of returning to school.

Immigrants who returned to school after arrival were far more likely to find employment related to their field of study or their training (63.0% to 79.7% for immigrants who returned to school, compared to 43.2% and 32.2% for immigrants who did not). The differences between immigrants who returned to school and those who had not returned to school are significant. Among those who returned to school, the acquisition of a university degree was the route most likely to lead to employment related to the field of study/training.

Immigrants with university education earned the highest hourly wage among all categories ($24.70), followed by immigrants who enrolled in training not leading to a degree or diploma ($19.90). Immigrants with trade/college education earned the lowest hourly wage among the four categories ($16.30). Except for immigrants who completed at least one trades or college course and immigrant women who did not return to school, there were no statistically significant differences between the hourly wages of immigrants returning to school and immigrants men who had not returned to school.

Immigrants who had completed classes leading to a high school diploma, or had enrolled in training not leading to a diploma, had significantly higher family incomes than immigrants who had enrolled in trades or university education or immigrants who had not attended school after immigration. Whether outcomes based on a longer time period of observation would result in shifts in household income patterns between these categories is a matter of speculation and interest. It is interesting however, that on average university education leads to higher individual income but lower per capita family income. This might raise questions about how families support individuals in university education, with some members held back from higher education in order to facilitate the studies of another member.

CONCLUSIONS

Clearly only tentative conclusions can be reached from the data compiled in this report. In part this is because post-immigration education is only one of many factors contributing to the labour market outcomes of immigrants. It is also worth bearing in mind that the data presented here represent a very specific cohort of immigrants – arriving in a narrow window of time and within a particular set of macro-economic circumstances. Moreover, the small sample size does not allow us to differentiate immigrants who only enrolled in one class from those who completed degrees. Some of the immigrants who enrolled in courses leading to a university degree may be still in school or have graduated recently, which can affect their labour market outcomes. As the studies both in Canada and abroad have suggested, the effects of Canadian education on immigrants will take many years to manifest – certainly more than the 4 years of settlement covered in this survey. The way that family income per household member is calculated also raises the issue of merging the income of family members who may and may not have enrolled in school following immigration. This adds to the ambiguity of the effects of education on household income. Further research will need to address these issues.

In terms of the specific labour market outcomes that we examined, the following conclusions emerge:

- There is no clear pattern between school enrolment level and labour force participation rate, unemployment rate and full-time employment rate.
- Immigrants enrolling in classes leading to higher degrees take longer to find employment.
- Enrolling in more advanced education significantly increased the chance of finding a job related to training or field of study.
- Immigrants who enrolled in at least one university course earn the highest hourly wages, while immigrants who enrolled in trades diploma or certificates have the lowest hourly wages. Enrolling in more advanced education did not contribute to higher household income per member. Immigrants who had completed classes leading to a high school diploma or had enrolled in training not leading to a diploma had significantly higher family incomes than immigrants who had enrolled in trades or university education or immigrants who had not attended school after immigration.

- Immigrants who have completed courses in Canada are less likely to hold full-time employment than immigrant men who did not return to school.
- Immigrant women who did not return to school have less favourable labour market outcomes than immigrant men who did not return to school, or immigrants who enrolled in courses.

APPENDIX

RELEVANT QUESTIONS FROM LSIC SURVEY QUESTIONNAIRE:

1. Gender – from CIC immigration records
2. In what month and year did you arrive in Canada as a landed immigrant, a refugee or other type of immigrant? (wave 1)
3. Number of members in household (waves 1-3)
4. When did you start working for (the) employer? (waves 1-3)
5. Are you still working for (the) employer? (waves 1-3)
6. When did you stop working for (the) employer? (waves 1-3)
7. How many hours per week do you usually work? (waves 1-3)
8. Since you came to Canada, have you taken any education or training, including language instruction? (wave 1)
9. What kind of education or training was/is this course? (wave 1)
10. Since your last interview, have you taken "any/any other" education or training, excluding language instruction? (wave 2-3)
11. Did/does this education/training lead to the completion of a certificate, diploma or degree? (waves 1-3)
12. "Is/Was" this job related to any education or training you have taken or are currently taking? (wave 2-3)
13. Since you came to Canada, how much income in total, have "you and your family" received from all sources? (Both inside and outside Canada if applicable.) (wave 1)
14. Could you give me an estimate of the total income that "you/you and your family" received before taxes and deductions from all sources inside and outside Canada in the last 12 months? (waves 2-3)

Questionnaire (wave 1): http://www.statcan.gc.ca/imdb-bmdi/instrument/4422_Q1_V1-eng.pdf

Questionnaire (wave 2): http://www.statcan.gc.ca/imdb-bmdi/instrument/4422_Q1_V2-eng.pdf

Questionnaire (wave 3): http://www.statcan.gc.ca/imdb-bmdi/instrument/4422_Q1_V3-eng.pdf

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FURTHER READING

For data on training taken by immigrants following immigration, see
http://www.statcan.gc.ca/pub/89-614-x/2005001/findings-resultats/4079120-eng.htm