

DO EDUCATIONAL ATTAINMENT, GENDER AND AGE AFFECT LABOUR MARKET OUTCOMES OF IMMIGRANTS?

By

Valerie Preston, Nina Damsbaek, Philip Kelly, Maryse Lemoine,
Lucia Lo, John Shields, Steven Tufts

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KEY POINTS:

- The wage gap between Canadian-born and immigrants is larger for adults with more education.
- Both Canadian-born and immigrant women consistently earn less than their male counterparts. Female immigrants – specifically, recent immigrants – with less education are the worst off.
- The unemployment rates for all immigrants are higher than for the Canadian-born at every level of education, despite similar participation rates in the labour market.
- Immigrant women with college and university education have the lowest unemployment rates of all immigrant women. For immigrant men, the lowest unemployment rates occur for men who have trades qualifications.
- Across all age groups, the largest differences in unemployment and participation rates between Canadian-born and immigrant adults are found among those with a university degree.

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 Stella Park, the TIEDI Project Coordinator (tiedi@yorku.ca). Our website address is at <http://www.yorku.ca/tiedi/>.

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

How do educational attainment, age and gender influence the labour market outcomes of immigrants in terms of earnings, unemployment rate and participation rate?

BACKGROUND

The literature related to the labour market integration and outcomes of immigrants “has focused on the (...) relevance of [immigrants’] human capital to the destination labour market” (Chiswick, 1991, p. 149). This report explores the labour market outcomes for immigrants in Toronto according to one measure of their human capital, the highest level of education.

Generally, positive labour market outcomes “are shown to increase with schooling (...) and duration in Canada” (Chiswick and Miller, 2002, np). Indeed, most findings suggest that immigrants with more human capital earn more (Li 2003). However, labour market outcomes are also influenced by demographic characteristics such as gender, age, country of birth and educational attainment (Chiswick, Lee and Miller, 2005).

While labour market outcomes improve with educational attainment, foreign education may not lead to the same outcomes as a Canadian degree. A recent Canadian study found that “immigrant years of schooling (...) accumulated before arrival is valued much less than Canadian experience of comparable natives” (Ferrer and Riddell, 2008, p. 186). Similar work from the US also finds that “immigrants have been found to earn lower returns to schooling than natives” (Lofstrom, 2000, p. 20). Evidence from Australia also supports these conclusions. A comparative study of wage outcomes indicates that “considerably greater rewards are given to [native-born] formal qualifications compared to those accruing to overseas qualifications”. Australian postsecondary degrees are considered 15-20% “more valuable than degrees obtained overseas” (Chapman & Iredale, 1993, p. 380).

Alboim, Finnie and Meng (2005, p.2) found that the discounting of immigrants’ human capital applies mostly to those with college or university experience. They suggest the kind of “education (...) possessed by some immigrants is not well-suited to the Canadian economy”, or employers in Canada “may lack the information required to evaluate, and thus fully remunerate” immigrants’ educational attainments. The discounting of foreign credentials may also be the result of discrimination (Ferrer and Riddell, 2008). Another Canadian study suggests that income disparities may also result from lower immigrant skills, the underutilization of immigrant skills, and pay inequities. According to Reitz (2001), analysis of the 1996 Census indicated that the underutilization of immigrant skills was the most significant factor. There is growing concern that the “unrecognized skills of the foreign born represent a substantial loss to the economy and a significant burden on new arrivals” (Ferrer and Riddell, 2008, p. 187).

An important demographic characteristic is gender. Much research has found labour market integration to be much more difficult for women than for men (Bloom, Grenier and Gunderson, 1995, p. 361). This may be because “the gender difference in educational attainment is greatest

among the foreign born” (Chiswick and DebBurman, 2004, p. 329). This is confirmed by Canadian research that found:

“About 15 to 20 percent of the male arrival cohorts and about 11 to 19 percent of the female cohorts before 1992 had a university degree upon landing. The proportion with a university degree increased for arrivals after 1994 to 27 percent or higher for men and over 20 percent for women” (Li, 2003).

The study showed “a clear earning disadvantage for immigrant foreign degree holders who are women of visible minority origin” – a “multiple negative effect” (Li, 2001, p. 19). In a study focusing on the labour market performance of highly skilled Chinese immigrant women, one woman became self-employed “after several months of being rejected by employers due to her lack of ‘Canadian experience’ and her ‘foreign’ degree”. The same woman suggested that these reasons were “used by employers to discriminate against internationally trained immigrant women and men” (Man, 2004, p. 141).

The last demographic variable considered in this report is age. Age “affects labour market outcomes both directly and indirectly” largely in respect of “schooling and labour market experience” (Chiswick and DebBurman, 2004, p. 365). More specifically, age “will affect both the costs of, and returns from, human capital investment” – immigrant educational attainment (Chiswick and Miller, 1994, p. 166).

Despite the importance of demographic characteristics, there is compelling evidence that “foreign credentials produce a net effect on immigrants’ earnings over and beyond the influence of [demographic characteristics]” (Li, 2001, p. 34).

THE DATA: 2006 CENSUS

The census is one of the primary sources of information on the demographic, social and economic characteristics of Canada and Canadians (Statistics Canada, 2007). The census collects information on the total number of persons who once were, or are now, landed immigrants or permanent residents. This population is also referred to as “persons born outside Canada”, or “foreign-born population”. The 2006 Census enumerated 6,186,950 individuals who were born outside of Canada. They represented one in five (19.8%) of the total population. This is the highest proportion of foreign-born population in 75 years. A majority of the 1.1 million recent immigrants lived in Toronto, Montréal and Vancouver. In the 2006 Census, 80% of households received a short questionnaire containing eight questions, while 20% were given a 61-question long form. The majority of the questions used to gather the data presented in this report were asked in the long census questionnaire.

The 2006 Census was conducted from May to July of that year. As shown in Table 1, the time period leading up to the Census was marked by economic growth, strong employment gains, and earnings growth in Canada (Lin, 2008: 5).

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

Because the sample from the Census is sufficiently large, the data used in this report are for the Toronto CMA, rather than the province or nation. Table 2 shows the distribution of respondents by highest education, gender and period of immigration.

Comparing the educational achievements of immigrant and Canadian-born women shows immigrant women were more likely than Canadian-born women to have not completed high school (with proportions of 22.8% vs. 17.2%). A higher proportion of Canadian-born women had completed high school (28.4% vs. 24.5% for immigrant women) and university (27.2% vs. 24.6%). Among adult men, immigrants were more likely to be university graduates than Canadian-born (29.2% vs. 25.7%) and less likely to be high school graduates (22.3% vs. 27.5%).

The proportion of immigrants who are university graduates has increased for men and women. Of the immigrant men and women who arrived between 2001 and 2006, 45.5% of men and 40.1% of women had a university degree, compared to 24.9% for men and 22.5% for women who arrived between 1981 and 1990.

Table 2: Distribution of respondents by gender and period of arrival, Toronto CMA

		CANADIAN-BORN		IMMIGRANT							
				ALL IMMIGRANTS**		1981-1990		1991-2000		2001-2006	
		N	%	N	%	N	%	N	%	N	%
FEMALE	Less than high school	164,255	17.2	263,115	22.8	41,505	19.7	70,480	19.8	33,480	17.2
	High school	270,610	28.4	282,305	24.5	53,740	25.5	93,565	26.3	40,570	20.9
	Trades	33,320	3.5	64,885	5.6	12,840	6.1	18,130	5.1	6,680	3.4
	College	226,370	23.7	259,585	22.5	55,055	26.2	79,470	22.3	35,565	18.3
	University	259,175	27.2	283,655	24.6	47,330	22.5	94,095	26.5	77,875	40.1
MALE	Less than high school	177,255	19.4	199,060	19.2	33,550	17.2	54,150	17.0	26,850	15.7
	High school	250,585	27.5	231,440	22.3	51,180	26.3	82,105	25.8	34,705	20.3
	Trades	66,715	7.3	94,915	9.2	17,605	9.0	19,840	6.2	6,415	3.7
	College	183,630	20.1	208,610	20.1	44,085	22.6	62,055	19.5	25,380	14.8
	University	234,125	25.7	302,525	29.2	48,445	24.9	100,625	31.6	78,000	45.5

** Includes immigrants who arrived before and after 1981

Only people between 25 to 64 years of age were retained in the analysis, as this age group tends to be the most active in the labour force. The experiences of those aged 15-24 and 65+ differ markedly and are not included here.

Table 3 shows the educational attainment of immigrants and Canadian-born by age group for the Toronto CMA.

When comparing immigrants and Canadian-born, older immigrants (those who are 45-64 years old) are more likely to have trades diplomas than Canadian-born and younger immigrants. They are also less likely to have completed high school or to have a university degree than younger immigrants.

Table 3: Distribution of respondents by age and period of arrival, Toronto CMA

		CANADIAN-BORN	IMMIGRANT			
			ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
Less than high school	25-34	23,490	25,070	4,455	12,215	7,200
	35-44	28,595	49,130	15,675	18,840	6,030
	45-64	58,070	145,855	27,450	30,270	12,990
High school	25-34	80,372	66,660	12,575	31,920	17,755
	35-44	85,805	98,060	27,190	37,835	12,330
	45-64	132,780	173,750	37,760	40,705	11,815
Trades	25-34	17,460	15,730	3,325	7,215	4,025
	35-44	25,195	32,650	9,190	12,795	3,610
	45-64	34,180	69,155	14,650	12,500	2,765
College	25-34	104,700	78,845	17,095	34,195	21,115
	35-44	100,475	119,565	29,060	45,510	17,885
	45-64	122,210	182,775	41,510	39,130	10,775
University	25-34	151,605	130,300	22,445	40,470	57,520
	35-44	123,835	182,235	20,505	75,760	60,280
	45-64	148,595	206,665	42,080	60,550	27,855

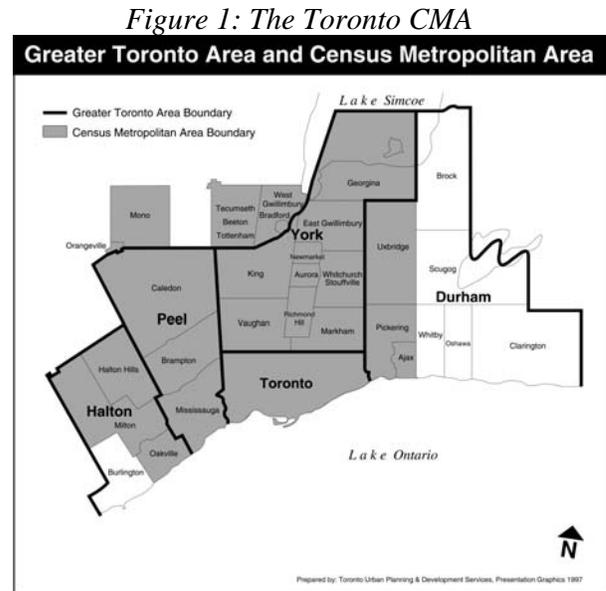
** Includes immigrants who arrived before and after 1981

Immigrants: Refers to people who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some immigrants have resided in Canada for a number of years, while others have arrived recently. Most immigrants are born outside Canada, but a small number were born in Canada. Non-permanent residents were excluded from this category.

Average annual earnings: Average annual earnings refer to the mean gross wages and salaries before deductions for such items as income tax, pensions, employment insurance, etc. Included in this source are military pay and allowances, tips, commissions and cash bonuses, benefits from wage-loss replacement plans, taxable benefits, research grants and royalties, as well as all types of casual earnings in the 2005 calendar year.

Toronto CMA: CMA stands for Census Metropolitan Area of Toronto. The Toronto CMA is the grey-shaded area in Figure 1. It includes the City of Toronto, York Region, Peel Region and parts of Halton and Durham Regions. Other municipalities, such as New Tecumseth in southern Simcoe County and Mono Township in Dufferin County are also included in the Toronto CMA.

CMAs are geographical areas mainly used by Statistics Canada. For more information, see: http://geodepot.statcan.gc.ca/2006/180506051805140305/03150707/1908151820_181905_05-eng.jsp?FILENAME=MetropolitanInfluenceZones&REFCODE=10&TYPE=L



RESULTS

a) Average annual earnings

Table 4 shows the average annual earnings of Canadian-born and immigrant adults between the ages of 25 and 64 according to their highest level of education.

Table 4: Average annual earnings (gross; 2005 dollars) for Canadian-born & Immigrants by Educational Attainment and Period of Immigration, Toronto CMA

	CANADIAN-BORN	IMMIGRANT			
		ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
Less than high school	\$ 10,044.00	\$ 9,542.80	\$ 14,238.80	\$ 7,854.00	\$ 4,841.10
High school	\$ 23,954.30	\$ 17,401.40	\$ 20,636.40	\$ 13,427.80	\$ 8,711.20
Trades	\$ 31,473.10	\$ 22,318.70	\$ 26,805.40	\$ 21,644.00	\$ 13,256.80
College	\$ 36,230.40	\$ 26,736.60	\$ 30,952.80	\$ 23,555.10	\$ 14,008.50
University	\$ 61,904.40	\$ 36,893.60	\$ 42,774.10	\$ 34,956.10	\$ 20,143.70

** Includes immigrants who arrived before and after 1981

At each level of education, Canadian-born adults earn more than immigrants and the earnings gap tends to increase with more education. The earnings gap for high school dropouts is \$497.20, and peaks for university graduates who report an earnings gap of \$25,010.80.

The earnings gap is also larger for more recent immigrants who have very low earnings. Immigrants who arrived between 2001 and 2006 earned between \$4,841.10 and \$20,143.70 in 2005, resulting in earnings gaps that range from \$5,202.90 for high school dropouts to \$41,760.30 for university graduates.

For all levels of educational attainment, average earnings increase with longer residence in Canada. For example, immigrants who arrived in the 1980s and have at least one university degree earn \$42,774.10, much more than the average earnings of \$20,143.70 for equally educated immigrants who arrived between 2001 and 2006.

b) Average annual earnings by gender

Table 5 shows the average annual earnings of male and female Canadian-born and immigrant adults according to their highest level of education.

Table 5: Average annual earnings (gross; 2005 dollars) for Canadian-born & Immigrants by Educational Attainment, Period of Immigration and Gender, Toronto CMA

		CANADIAN-BORN	IMMIGRANT			
			ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
FEMALE	Less than high school	\$ 6, 420.10	\$ 5, 973.70	\$ 8, 614.00	\$ 5, 307.60	\$ 3, 360.40
	High school	\$ 18, 855.50	\$ 13, 488.10	\$ 16, 148.80	\$ 10, 664.60	\$ 6, 496.70
	Trades	\$ 18, 527.40	\$ 15, 423.80	\$ 19, 305.30	\$ 15, 627.90	\$ 9, 309.50
	College	\$ 28, 927.20	\$ 21, 979.40	\$ 26, 754.50	\$ 19, 841.70	\$ 10, 375.60
	University	\$ 44, 278.30	\$ 28, 346.00	\$ 35, 777.40	\$ 27, 656.30	\$ 14, 861.60
MALE	Less than high school	\$ 13, 402.10	\$ 14, 260.50	\$ 21, 196.90	\$ 11, 168.10	\$ 6, 687.10
	High school	\$ 29, 460.50	\$ 22, 174.80	\$ 25, 349.30	\$ 16, 576.60	\$ 11, 457.40
	Trades	\$ 37, 939.40	\$ 27, 032.00	\$ 32, 274.00	\$ 27, 140.40	\$ 17, 368.70
	College	\$ 45, 233.30	\$ 32, 656.10	\$ 36, 196.00	\$ 28, 310.70	\$ 19, 099.50
	University	\$ 81, 416.00	\$ 44, 908.00	\$ 49, 609.70	\$ 41, 782.00	\$ 25, 417.30

** Includes immigrants who arrived before and after 1981

Regardless of their levels of education, male and female immigrants usually earn less on average than Canadian-born men and women. Immigrant men who did not finish high school are the only exception to this pattern. Their earnings are approximately \$750 higher than those of Canadian-born men with the same educational attainment. The earnings gap is most pronounced for immigrant men who arrived between 2001 and 2006 whose earnings range from \$6,687.10 for those who did not finish high school to \$25,417.30 for university graduates. The same scenario is true for women. Whereas Canadian-born women earn between \$6,420.10 and \$44,278.3, immigrant women earn between \$5,973.70 and \$28,346.00. The earnings gap is also largest for recent immigrant women, who earn between \$3,360.40 and \$14,861.60.

Canadian-born and immigrant women consistently earn less than their male counterparts. The earnings gap between men and women increases with education. For example, the earnings gap between immigrant men and immigrant women ranges from \$8,286.80 for immigrants who have not finished high school to \$16,562.00 for immigrants who are university graduates.

c) Average annual earnings by age groups

Table 6 shows the average annual earnings of the Canadian-born and immigrants according to their highest level of education and age. Earnings are expected to increase with age as people acquire more experience in the labour market.

Table 6: Average annual earnings (gross; 2005 dollars) for Canadian-born & Immigrants by Educational Attainment, Period of Immigration and Age, Toronto CMA

		CANADIAN-BORN	IMMIGRANT			
			ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
Less than high school	25-34	\$ 18, 888.20	\$ 14, 929.60	\$ 18, 558.60	\$ 14, 985.20	\$ 11, 593.60
	35-44	\$ 27, 086.20	\$ 20, 017.80	\$ 23, 494.70	\$ 17, 084.40	\$ 9, 348.00
	45-64	\$ 26, 138.90	\$ 17, 225.10	\$ 19, 365.90	\$ 11, 981.60	\$ 6, 486.30
High school	25-34	\$ 27, 497.40	\$ 17, 557.30	\$ 22, 767.70	\$ 17, 237.50	\$ 11, 541.80
	35-44	\$ 38, 191.10	\$ 23, 958.10	\$ 26, 942.90	\$ 19, 820.90	\$ 12, 955.00
	45-64	\$ 39, 873.60	\$ 25, 431.30	\$ 25, 962.20	\$ 16, 871.20	\$ 10, 008.40
Trades	25-34	\$ 29, 922.70	\$ 20, 051.00	\$ 23, 892.20	\$ 20, 415.40	\$ 14, 159.30
	35-44	\$ 39, 993.80	\$ 27, 261.60	\$ 30, 090.20	\$ 25, 328.70	\$ 15, 230.10
	45-64	\$ 40, 294.80	\$ 29, 747.40	\$ 29, 671.00	\$ 24, 452.20	\$ 14, 837.10
College	25-34	\$ 33, 242.90	\$ 23, 165.30	\$ 28, 724.70	\$ 23, 742.50	\$ 14, 200.60
	35-44	\$ 46, 205.50	\$ 31, 354.30	\$ 34, 810.40	\$ 28, 149.10	\$ 17, 028.90
	45-64	\$ 47, 534.60	\$ 34, 222.20	\$ 34, 890.60	\$ 26, 357.90	\$ 16, 086.20
University	25-34	\$ 45, 067.30	\$ 29, 208.40	\$ 38, 711.80	\$ 32, 709.00	\$ 19, 595.50
	35-44	\$ 78, 917.10	\$ 41, 091.20	\$ 51, 236.80	\$ 42, 726.70	\$ 23, 305.80
	45-64	\$ 86, 070.90	\$ 46, 238.50	\$ 49, 218.30	\$ 34, 735.30	\$ 19, 707.20

** Includes immigrants who arrived before and after 1981

For every age group, all immigrants have lower annual earnings than Canadian-born adults. The earnings gap ranges from \$3,958.60 (for 25-34 year olds who dropped out of high school) to \$39,832.40 (for 45-64 year old university graduates).

As expected, older adults between the ages of 45 and 64 have higher earnings for all but one level of education. At the bottom of the labour market, middle-aged adults between the ages of 35 and 44 years who did not finish high school have higher earnings than 45 to 64 year-olds with the same education. The same trend is found among recent immigrants who have a high school diploma. Recent immigrants in the 35 to 44 year age bracket who are high school graduates have higher earnings than older and younger adults with the same educational attainments and period of arrival.

Adults with a university degree who are 45 to 64 years of age have the highest earnings among all Canadian-born and immigrant groups. On the other hand, the lowest earners for both Canadian-born and immigrants are those in the 25-34 age groups, recent entrants in the labour market.

d) Unemployment and participation rates

Table 7 shows the labour force participation rate (i.e. the percentage of adults 15 to 64 years of age who are working or looking for work) and unemployment rate (i.e. the percentage of those participating in the labour force who are unable to find work) for Canadian-born and immigrant adults disaggregated by highest level of education and, for the immigrants, period of arrival.

Table 7: Unemployment and Participation Rates for Canadian-born and Immigrants by Educational Attainment and Period of Immigration, Toronto CMA

	UNEMPLOYMENT RATE					PARTICIPATION RATE				
	CANADIAN-BORN	IMMIGRANT				CANADIAN-BORN	IMMIGRANT			
		ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006		ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
Less than high school	11.6 %	8.6 %	7.7 %	11.4 %	14.7 %	44.0 %	36.6 %	50.5 %	41.6 %	37.8 %
High school	8.2 %	8.6 %	7.7 %	10.7 %	12.7 %	72.9 %	62.9 %	71.4 %	66.2 %	60.8 %
Trades	5.0 %	6.0 %	5.1 %	6.8 %	11.1 %	75.3 %	66.9 %	81.7 %	80.4 %	76.1 %
College	4.9 %	6.0 %	4.8 %	6.8 %	11.5 %	82.0 %	75.1 %	83.7 %	80.4 %	72.3 %
University	3.8 %	6.5 %	4.7 %	6.0 %	11.1 %	84.2 %	80.1 %	84.5 %	83.8 %	78.9 %

** Includes immigrants who arrived before and after 1981

The unemployment rates for all immigrants are generally higher than for Canadian-born adults across educational groups. There is little fluctuation in the unemployment rates for all immigrants across levels of educational attainment. The Canadian-born unemployment rates vary, decreasing from 11.6% for Canadian-born with less than a high school diploma, to 3.8% for Canadian-born with at least one university degree. The unemployment rates for Canadian-born and immigrants differ most between university graduates (3.8% vs. 6.5%), perhaps because of the increasing proportions of recent immigrants who have university degrees but higher unemployment rates compared to immigrants who arrived earlier.

Education reduces unemployment rates for both Canadian-born and immigrant adults. For the Canadian-born, the unemployment rate falls from 11.6% for those who did not finish high school to 3.8% for those with at least one university degree. The immigrant unemployment rate for the same educational groups also declines, but the impact of education is smaller with a reduction of only 2.1%; from 8.6% for those who did not finish high school to 6.5% for university graduates. It is noteworthy that most of the improvement in unemployment rates is due to postsecondary education. The unemployment rates for adults with trades, college and university levels of education are similar within the Canadian-born and immigrant groups. Having a university degree does not always ensure the lowest level of unemployment. For immigrants, the trades and a college diploma rival the university degree for the lowest unemployment rate.

The unemployment rate is also lower for immigrants who have lived longer in Canada. For example, the unemployment rate for immigrants who arrived in Canada in the 1980s is 7.7% among those who did not finish high school, compared with a rate of 14.7% for those without a high school diploma who arrived between 2001 and 2006. With more recent periods of immigration, the unemployment rate is higher at all levels of education.

When looking at participation rates, immigrant participation rates are almost always slightly lower than those of the Canadian-born. The Canadian-born participation rate ranges from 44.0% to 84.2%, and the participation rate for immigrants ranges from 36.6% to 80.1%. The participation rates for immigrants who arrived recently, between 2001 and 2006, are always lower than more established immigrants across all levels of education.

Education increases labour force participation. Regardless of immigrants' periods of arrival, high school graduates have much higher rates of labour force participation than adults who did not finish high school. While adults with trades, college, and university qualifications had similar unemployment rates, this is not the case for the participation rate. Canadian-born with university education are 8.9% more likely to be in the labour market than those with a trades diploma. Immigrants see an increase of 13.2%. When immigrants are disaggregated by period of arrival, the effects of postsecondary education are smaller within each period of arrival group, however, they persist between the groups. Recent arrivals have lower participation rates than established immigrants.

e) Unemployment and participation rates by gender

Table 8 shows the labour force participation rates and unemployment rates for male and female Canadian-born and immigrants who arrived at different periods of arrival by highest level of education.

Table 8: Unemployment and Participation Rates for Canadian-born and Immigrants by Educational Attainment, Period of Immigration and Gender, Toronto CMA

		UNEMPLOYMENT RATE					PARTICIPATION RATE				
		CANADIAN-BORN	IMMIGRANT				CANADIAN-BORN	IMMIGRANT			
			ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006		ALL IMMIGRANTS**	1981-1990	1991-2000	2001-2006
FEMALE	Less than high school	11.7 %	10.0 %	9.4 %	13.0 %	17.2 %	38.4 %	28.8 %	39.4 %	33.7 %	30.5 %
	High school	8.3 %	9.6 %	8.2 %	12.4 %	15.2 %	67.6 %	56.1 %	65.3 %	60.1 %	53.3 %
	Trades	7.0 %	8.2 %	7.4 %	9.3 %	15.2 %	67.8 %	63.7 %	76.2 %	73.9 %	68.0 %
	College	5.1 %	6.8 %	5.1 %	7.7 %	13.9 %	77.9 %	71.1 %	80.8 %	76.4 %	65.0 %
	University	4.1 %	7.8 %	5.0 %	7.2 %	14.2 %	82.0 %	75.9 %	82.8 %	79.5 %	70.9 %
MALE	Less than high school	11.6 %	7.5 %	6.5 %	10.0 %	12.8 %	49.2 %	47.0 %	64.4 %	51.8 %	46.9 %
	High school	8.1 %	7.6 %	7.2 %	9.1 %	9.5 %	78.5 %	71.3 %	77.9 %	73.1 %	71.8 %
	Trades	4.1 %	4.6 %	3.5 %	4.9 %	7.6 %	79.1 %	69.2 %	85.8 %	86.5 %	84.6 %
	College	4.6 %	5.1 %	4.5 %	5.8 %	8.8 %	87.0 %	80.1 %	87.2 %	85.5 %	82.6 %
	University	3.4 %	5.4 %	4.5 %	4.9 %	8.6 %	86.6 %	84.0 %	86.2 %	87.8 %	86.9 %

** Includes immigrants who arrived before and after 1981

For both men and women, the unemployment rates for immigrants are generally higher than the rates for the Canadian-born. The differences in unemployment rates are largest between Canadian-born and immigrant adults who are university graduates. The unemployment rate for immigrant men exceeds that for Canadian-born men by 2 percentage points (5.4% vs. 3.4%). For women who are university graduates, the unemployment rate for immigrants exceeds that for the Canadian-born by nearly 4 percentage points (7.8% vs. 4.1%).

Canadian-born and immigrant women have higher unemployment rates and lower participation rates than their male counterparts regardless of their educational attainments. In 2005, Canadian-born women had unemployment rates between 4.1% and 11.7%, and immigrant women's unemployment ranged from 7.8% to 10.0%. The unemployment rates for Canadian-born and immigrant men were lower, ranging from 3.4% to 11.6% and from 5.4% to 7.5%, respectively.

As expected, education reduces unemployment for Canadian-born and immigrant women. Women who have a college diploma or university education have lower unemployment rates than less educated women. Immigrant men with trades qualifications have the lowest unemployment rates of all immigrant men, while a university degree ensures lower unemployment rates for Canadian-born men. Regardless of immigrant status, men and women who did not finish high school have the highest unemployment rates.

Education also increases labour force participation, although the labour force participation rates for immigrants are generally lower than for the Canadian-born. Men and women with university degrees have high rates of labour force participation, while those who did not finish high school have the lowest rates of participation. Participation rates for Canadian-born women range between 38.4% and 82.0%, while those for immigrant women vary from a low of 28.8% for women who do not have a high school degree to a high of 75.9% for university graduates. The participation rates for men are

slightly higher than those for women. For Canadian-born men, the participation rate varies from 49.2% for high school dropouts to 86.6% for university graduates. For the same educational groups, the participation rates for immigrant men are almost identical, varying from a low of 47.0% to a high of 84.0%.

f) Unemployment and participation rates by age

Table 9 shows the labour force participation and unemployment rates for the Canadian-born and immigrants disaggregated by highest level of education and age.

Table 9: Unemployment and Participation Rates for Canadian-born & Immigrants by Educational Attainment, and Age, Toronto CMA

		UNEMPLOYMENT RATE		PARTICIPATION RATE	
		CANADIAN-BORN	IMMIGRANT**	CANADIAN-BORN	IMMIGRANT**
Less than high school	25-34	10.4 %	10.0 %	75.2 %	68.8 %
	35-44	7.2 %	7.0 %	77.0 %	74.7 %
	45-64	5.0 %	6.2 %	64.9 %	57.7 %
High school	25-34	6.6 %	8.9 %	86.4 %	77.1 %
	35-44	4.4 %	5.2 %	86.2 %	80.4 %
	45-64	3.7 %	5.5 %	78.6 %	71.7 %
Trades	25-34	6.1 %	8.2 %	89.8 %	83.4 %
	35-44	4.1 %	6.2 %	90.2 %	87.6 %
	45-64	4.5 %	4.9 %	81.5 %	79.6 %
College	25-34	4.8 %	7.3 %	91.3 %	83.6 %
	35-44	4.0 %	5.7 %	89.8 %	86.7 %
	45-64	3.8 %	4.8 %	83.2 %	81.7 %
University	25-34	3.8 %	7.9 %	90.8 %	83.8 %
	35-44	2.7 %	5.9 %	90.4 %	88.2 %
	45-64	2.6 %	5.4 %	85.7 %	83.6 %

* Data by period of arrival has been removed for clarity. Data is available on request.

** Includes immigrants who arrived before and after 1981

n/a: Data suppressed due to reliability and/or confidentiality issues

Labour force participation increases with educational attainment and declines with age. Adults with trades qualifications, college diplomas, and university education have the highest participation rates of all Canadian-born and immigrant adults. Adults who did not finish high school report the lowest participation rates whether they are Canadian-born or immigrants. Within each educational category, participation rates for Canadian-born decline once people are 45 to 64 years of age.

Immigrants have higher unemployment rates than the Canadian-born, although the increased risk of unemployment for immigrants depends on their age and educational attainments. As new entrants, young people between the ages of 25 and 34 years are at highest risk of unemployment at each level of educational attainment. As older adults between the ages of 45 and 64 withdraw from the labour force, their unemployment rate falls. The highest unemployment rates occur among young Canadian-born and immigrant adults aged 25 to 34 years and the lowest among older adults. Education

moderates the effects of age on unemployment, particularly for the Canadian-born. Well educated adults with at least one university degree have the lowest unemployment rates of all age and educational groups. For immigrants, trades qualifications, a college diploma or a university degree are almost equally effective at reducing unemployment rates. At the other end of the spectrum, young adults without a high school diploma, experience very high rates of unemployment in the Toronto CMA, regardless of whether they are foreign-born or Canadian-born.

CONCLUSIONS

Clearly only tentative conclusions can be derived from the data compiled in this report. In part this is because education, gender and period of immigration are only some of many factors that contribute to labour market outcomes. The 2006 census data also reflects a particular moment in time - significantly it represents the end of a period of economic growth. A final caveat is that the data presented here do not differentiate according to age at immigration nor the country in which educational credentials were awarded.

Mindful of these caveats, some conclusions do emerge from the data presented here:

- The wage gap between Canadian-born and immigrants is larger for adults with more education.
- Both Canadian-born and immigrant women consistently earn less than their male counterparts. Female immigrants – specifically, recent immigrants – with less education are the worst off.
- The unemployment rates for all immigrants are higher than for the Canadian-born at every level of education, despite similar labour force participation rates.
- Immigrant women with college and university education have the lowest unemployment rates; for immigrant men, the lowest unemployment rates occur with trade level education
- Across all age groups, the largest differences in unemployment and participation rates between Canadian-born and immigrant adults are found among those with a university degree.

To understand how other factors, such as [language skills](#) and [credentials earned outside of Canada](#), influence labour market outcome of immigrants, visit our website to have free access to our TIEDI publications <http://www.yorku.ca/tiedi/pubreports.html>.

APPENDIX

RELEVANT QUESTIONS FROM SURVEY QUESTIONNAIRE:

1. 2 – Sex
2. 3 – Date of birth
3. 9 – Where was this person born?
4. 12 – In what year did this person first become a landed immigrant?
5. 26 – Has this person completed a secondary (high) school diploma or equivalent?
6. 27 – Has this person completed a Registered Apprenticeship or other trades certificate or diploma?
7. 28 – Has this person completed a college, CEGEP, or other non-university certificate or diploma?
8. 29 – Has this person completed a university degree, certificate or diploma?
9. 34 – Last week, how many hours did this person spend working for pay or in self-employment?
10. 35 – Last week, was this person on temporary lay-off or absent from his/her job or business?
11. 36 – Last week, did this person have definite arrangements to start a new job within the next four weeks?
12. 37 – Did this person look for paid work during the past four weeks?
13. 38 – Could this person have started a job last week had one been available?
14. 52 (a) – During the year ending December 31, 2005, did this person receive any income from the sources listed below... Total wages and salaries, including commissions, bonuses, tips, taxable benefits, research grants royalties, etc., before any deductions

Questionnaire: <http://www12.statcan.ca/census-recensement/2006/ref/question-guide-eng.cfm>

BIBLIOGRAPHY

Alboim, Naomi, Ross Finnie and Ronald Meng. 2005. "The Discounting of Immigrants' Skills in Canada: Evidence and Policy Recommendations." *IRPP Choices*, 11:2.

Baker, M and D. Benjamin. 1994. "The performance of immigrants in the Canadian labor market." *Journal of Labor Economics* 12, 369-405.

Bloom, David E., Gilles Grenier and Morley Gunderson. 1995. "The Changing Labour Market Position of Canadian Immigrants." *Canadian Journal of Economics*, 28:4b, pp. 987-1005.

Chapman, Bruce J. and Robyn R. Iredale. 1993. "Immigrant Qualifications: Recognition and Relative Wage Outcomes." *International Migration Review*, 27: 2 359-387.

Chiswick, Barry R. and Noyna DebBurman. 2004. "Educational attainment: analysis by immigrant generation." *Economics of Education Review*, 23 361-379.

Chiswick, Barry R. 1991. "Speaking, Reading, and Earnings among Low-Skilled Immigrants." *Journal of Labor Economics*, 9:2 149-170.

Chiswick, Barry R. and Paul W. Miller. 1994. "The Determinants of Post-Immigration Investments in Education." *Economics of Education Review*, 13:2 163-177.

Chiswick, Barry R. Yew Liang Lee and Paul W. Miller. 2005. "Immigrant Earnings: A Longitudinal Analysis." The Institute for the Study of Labor (IZA), Discussion Paper No. 1750.

Ferrer, Ana and W. Craig Riddell. 2008. "Education, credentials, and immigrant earnings." *Canadian Journal of Economics*, 41: 1.

Li, Peter S. 2003. "Initial Earnings and Catch-up Capacity of Immigrants." *Canadian Public Policy*, 29:3 319-337.

Li, Peter S. 2001. "The Market Worth of Immigrants' Educational Credentials." *Canadian Public Policy*, 27:1 23-38.

Lin, Jane. 2008. "Trends in employment and wages, 2002 to 2007", *Perspectives on Labour and Income*, September, pp. 5-15.

Lofstrom, Magnus. 2000. "Self-Employment and Earnings among High-Skilled Immigrants in the United States." Institute for the Study of Labour (IZA), Mobility and Flexibility of Labour Markets. Discussion Paper No. 175.

Maslove, Allan M. ed. 2008. "Appendix B Fiscal Facts and Trends". *How Ottawa Spends, 2008-2009 A More Orderly Federalism?* (Montreal: McGill-Queen's University Press), 211-228.

Reitz, Jeffrey G. 2001. "Immigrant Skill Utilization in the Canadian Labour Market: Implications of Human Capital Research." *Journal of International Migration and Integration* 2:3, 347-378.

Statistics Canada. 2007. "Census of Population." September 21, 2009. <<http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&SDDS=3901&lang=en&db=imdb&adm=8&dis=2>>