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DO COUNTRY OF BIRTH AND LEVEL OF EDUCATIONAL ATTAINMENT AFFECT THE LABOUR MARKET OUTCOMES OF IMMIGRANTS?

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KEY POINTS:

- Immigrants that arrived earlier in Canada earn more regardless of their schooling. For each country of birth, the earnings gap is worst among recent immigrants. Immigrants from China, Pakistan and Iran are among the lowest earners, while immigrants from Guyana and Jamaica are among the highest earners.
- With a few exceptions, the unemployment rates for more recent immigrants are higher than for immigrants who arrived earlier.
- It is difficult to discern any trends across countries of birth. For each period of arrival, immigrants from different countries of birth report the highest and lowest unemployment rates for each educational level.
- Our analysis points to substantial differences in the labour market experiences of immigrants from different countries of birth, even for cohorts with similar periods of arrival and educational attainments. This analysis cannot, however, identify the reasons for these differences.

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

How do country of birth and educational attainment 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: 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 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: 186). Similar work from the US also finds that “immigrants have been found to earn lower returns to schooling than natives” (Lofstrom, 2000: 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 and Iredale, 1993: 380).

Alboim, Finnie and Meng (2005) 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: 2). Another Canadian study suggests that income disparities may also result from lower immigrant skill qualifications, 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: 187).

Several studies point out that “the international transferability of human capital skills” – and the accruing earnings – has a tendency to depend on the particular country of origin (Chiswick and Miller, 1994: 166), in part because educational attainment differs by country of origin (Chiswick and DebBurman, 2004). Not only does a Canadian study “find important differences in how the market rewards the education of immigrants from different regions” but the authors explain part of the

decline in immigrant earnings by the “changing source country composition” of immigration:

“Immigration from other European countries, Asia, South America and Africa has increased considerably. Therefore, a larger fraction of recent immigrants may experience more difficulty adapting to the Canadian labour market” (Ferrer and Riddell, 2008: 189).

There is also compelling evidence that “foreign credentials produce a net effect on immigrants’ earnings over and beyond the influence of [demographic characteristics]” (Li, 2001: 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 on one specific day (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 country of birth and highest educational attainment. These countries are some of the major countries of birth for immigrants in Toronto.

When looking at the major countries of birth of immigrants in Toronto, the highest educational achievements are found among immigrants from the Philippines (66.1% with a college or university degree), Pakistan (61.5%) and Iran (61.0%) while immigrants from Jamaica and Poland had high proportions of immigrants with trades degrees (14.8% and 11.5%, respectively). Immigrants from Sri Lanka and Guyana are less educated than those from other countries of birth. More than half of the immigrants from Sri Lanka (60.6%) and Guyana (53.4%) only have high school education.

Table 2: Distribution of immigrants by country of birth, Toronto CMA

	Less than high school		High school		Trades		College		University	
	N	%	N	%	N	%	N	%	N	%
1. PR China	46,620	26.2	37,200	20.9	4,080	2.3	27,560	15.5	62,340	35.1
2. India	37,995	18.5	45,035	21.9	7,010	3.4	35,495	17.3	79,815	38.9
3. Philippines	11,019	9.1	23,075	19.0	7,155	5.9	35,120	28.9	45,195	37.2
4. Hong Kong	11,915	11.9	26,500	26.4	3,245	3.2	22,360	22.3	36,320	36.2
5. Sri Lanka	18,480	23.1	29,975	37.5	4,595	5.7	16,600	20.8	10,275	12.9
6. Pakistan	9,830	13.9	15,485	21.9	1,977	2.8	12,675	17.9	30,890	43.6
7. Jamaica	16,170	17.7	22,640	24.7	13,550	14.8	28,980	31.7	10,165	11.1
8. Iran	3,740	8.7	9,850	23.0	3,105	7.3	8,395	19.6	17,710	41.4
9. Poland	8,975	13.6	16,700	25.3	7,635	11.5	18,295	27.7	14,530	22.0
10. Guyana	16,000	23.8	19,860	29.6	6,325	9.4	18,495	27.6	6,440	9.6

Table 3 shows the distribution of immigrants by country of birth and period of arrival. The numbers in bold indicate the decades with the highest numbers of arrivals per country of birth.

Period of arrival affects the economic outcomes of immigrants. Immigrants often start at a disadvantage compared to the Canadian-born, but tend to catch up with longer residence in Canada (Alboim, Finnie and Meng, 2005).

In 2006, immigrants born in Pakistan had the highest proportion of recent arrivals: 84.7% had arrived in Canada since 1990. They were followed by immigrants from Sri Lanka (77.2%), Iran (74.8%), China (71.6%) and India (68.9%). Although high percentages of immigrants from the Philippines and Sri Lanka had arrived recently, large proportions, at least one fifth of each group, arrived in the 1980s as well. Finally, immigrants from Jamaica and Guyana started arriving in large numbers earlier than other groups, in the 1970s, while large numbers of immigrants from Poland and Hong Kong started arriving in the 1980s.

Table 3: Distribution of respondents 15 years and over by country of birth and period of arrival, Toronto CMA

	All immigrants	Before 1960		1961-1970		1971-1980		1981-1990		1991-2000		2001-2006	
		N	%	N	%	N	%	N	%	N	%	N	%
1. PR China	177,705	3,255	1.8	5,485	3.1	14,930	8.4	26,840	15.1	72,435	40.8	54,760	30.8
2. India	205,260	560	0.3	7,580	3.7	25,160	12.3	30,640	14.9	76,335	37.2	64,985	31.7
3. Philippines	121,450	n/a		3,270	2.7	16,870	13.9	24,930	20.5	50,015	41.2	26,365	21.7
4. Hong Kong	100,130	300	0.3	4,035	4.0	14,710	14.7	32,560	32.5	45,895	45.8	2,630	2.6
5. Sri Lanka	79,795	n/a		465	0.6	1,445	1.8	16,325	20.5	46,425	58.2	15,135	19.0
6. Pakistan	69,775	n/a		995	1.4	4,935	7.1	4,745	6.8	32,475	46.5	26,625	38.2
7. Jamaica	91,490	1,495	1.6	11,030	12.1	29,085	31.8	21,225	23.2	22,435	24.5	6,220	6.8
8. Iran	42,765	n/a		135	0.3	1,310	3.1	9,310	21.8	19,560	45.7	12,450	29.1
9. Poland	66,065	8,520	12.9	3,670	5.6	3,615	5.5	27,590	41.8	19,690	29.8	2,980	4.5
10. Guyana	67,115	495	0.7	4,660	6.9	16,820	25.1	21,440	31.9	18,425	27.5	5,275	7.9

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

Only people between 25 to 64 years of age were retained in the analysis, as this age group tend 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.

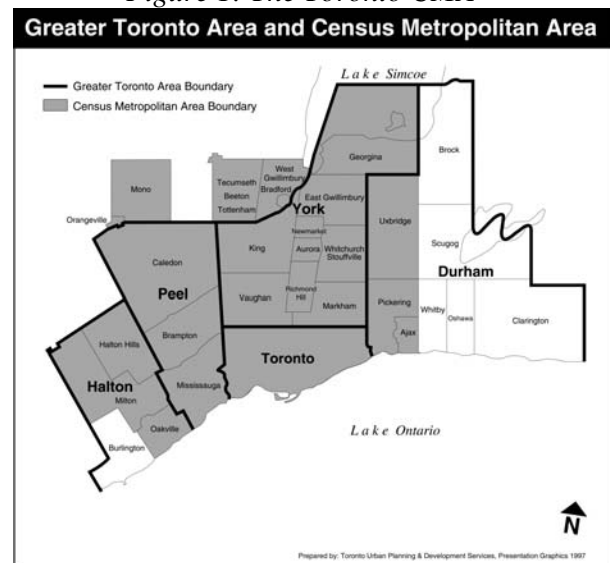
Immigrants: Refers to people who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some immigrants have resided in Canada for a number of years, while others have arrived recently. Most 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://www12.statcan.ca/english/census06/reference/dictionary/geo009.cfm>.

Figure 1: The Toronto CMA



RESULTS

a) Average annual earnings by country of birth

Table 4 presents the average annual earnings of immigrants by country of birth according to highest level of education.

*Table 4: Average annual earnings (gross; 2005 dollars) for All Immigrants** by Educational Attainment and 10 Selected Countries of Birth, Toronto CMA*

	Less than high school	High school	Trades	College	University
1. PR China	\$ 4, 848.30	\$ 9, 505.70	\$ 14, 851.40	\$ 16, 507.20	\$ 28, 476.50
2. India	\$ 8, 178.40	\$ 15, 065.00	\$ 23, 084.80	\$ 24, 155.30	\$ 29, 218.70
3. Philippines	\$ 5, 723.10	\$ 18, 523.40	\$ 24, 515.60	\$ 28, 251.90	\$ 32, 580.80
4. Hong Kong	\$ 7, 917.80	\$ 14, 110.10	\$ 22, 086.10	\$ 27, 964.80	\$ 42, 613.00
5. Sri Lanka	\$ 10, 427.80	\$ 15, 306.40	\$ 22, 389.50	\$ 24, 552.50	\$ 30, 534.00
6. Pakistan	\$ 3, 511.50	\$ 8, 745.80	\$ 15, 670.70	\$ 17, 924.80	\$ 23, 140.90
7. Jamaica	\$ 11, 590.20	\$ 20, 623.70	\$ 22, 736.50	\$ 30, 102.30	\$ 42, 743.50
8. Iran	\$ 3, 731.20	\$ 8, 986.60	\$ 13, 526.50	\$ 18, 256.60	\$ 26, 384.10
9. Poland	\$ 7, 899.80	\$ 17, 802.80	\$ 23, 327.30	\$ 27, 393.80	\$ 39, 287.10
10. Guyana	\$ 12, 314.90	\$ 22, 989.90	\$ 26, 553.10	\$ 33, 340.40	\$ 50, 419.30

** Includes immigrants who arrived before and after 1981

Immigrant annual earnings vary according to their country of origin. Immigrants from Jamaica (\$11,590.20 - \$42,743.50) and Guyana (\$12,314.90 - \$50,419.30) are often the highest earners. Immigrants from China (\$4,848.30 - \$28,476.50), Pakistan (\$3,511.50 - \$23,140.90) and Iran (\$3,731.20 - \$26,384.10) often have the lowest earnings.

The average earnings of immigrants born in China, Pakistan and Iran, are between \$17,000 and \$18,000 below those of the Canadian-born, whereas immigrants from Guyana and Jamaica earn between \$3,500 and \$7,000 less than equally educated Canadian-born adults. The largest wage gaps occur between immigrant and Canadian-born adults who have at least one university degree.

Differences in earnings could be due to the periods of arrival for immigrants from different countries. As seen in Table 3, immigration from Jamaica and Guyana peaked in the 1970s and 1980s, while large numbers of immigrants from Pakistan, China and Iran arrived after 1990. Following the “years-since-immigration-effect” theory, the earnings of immigrants should increase the longer they live in Canada (Alboim, Finnie and Meng, 2005). In the case of immigrants from Guyana and Jamaica, large numbers have lived in Canada for more than 20 years, increasing average earnings. The recent arrival of most immigrants from China, Pakistan and Iran will likely decrease average earnings.

b) Average annual earnings by country of birth and period of immigration

Table 5 presents the average annual earnings of immigrants by country of birth, period of arrival and highest educational attainment.

Table 5: Average annual earnings (gross; 2005 dollars) for Immigrants by Educational Attainment, Period of Immigration and 10 Selected Countries of Birth, Toronto CMA

	1981-1990					1991-2000					2001-2006				
	Less than high school	High school	Trades	College	University	Less than high school	High school	Trades	College	University	Less than high school	High school	Trades	College	University
1. PR China	5,916.80	11,770.90	19,908.70	23,969.80	35,600.00	4,437.70	9,610.50	14,714.50	16,761.80	33,542.10	4,267.70	6,274.20	10,648.30	9,740.30	18,303.70
2. India	10,615.50	19,196.70	29,130.80	31,065.90	41,574.70	8,613.20	14,569.90	22,622.20	24,224.60	33,798.20	4,688.70	9,062.60	14,550.80	15,607.50	19,615.40
3. Philippines	9,276.30	21,660.90	26,544.40	31,175.90	39,379.80	6,119.00	17,296.70	25,360.50	27,676.60	36,551.00	3,016.40	10,227.40	14,497.70	16,721.10	22,753.40
4. Hong Kong	11,494.40	16,061.30	25,231.90	30,152.50	43,960.40	5,628.40	11,117.10	17,637.30	22,147.70	35,211.40	5,093.50	5,759.00	9,414.60	12,006.70	20,289.50
5. Sri Lanka	16,110.90	20,527.60	32,955.70	30,791.70	35,194.30	9,739.70	14,506.60	20,276.00	23,870.80	30,354.10	8,825.00	11,261.20	14,560.30	14,760.90	19,056.20
6. Pakistan	4,955.70	14,556.40	15,263.60	32,182.30	34,362.30	3,744.20	7,939.40	16,566.40	17,634.50	27,687.90	2,314.60	5,626.50	10,692.70	9,369.80	13,844.30
7. Jamaica	13,545.80	22,746.00	25,173.10	34,010.80	37,832.40	10,007.30	17,624.80	22,768.10	26,241.60	41,020.60	8,712.90	12,283.20	19,221.80	17,353.50	28,139.20
8. Iran	9,217.10	12,738.30	17,872.50	23,237.70	39,535.30	2,412.90	8,719.90	13,839.20	18,168.20	28,252.70	2,062.70	5,233.40	9,169.40	7,718.00	15,310.20
9. Poland	15,711.60	20,632.50	26,699.10	30,177.60	40,915.50	8,389.30	14,774.00	23,255.20	25,066.00	33,656.20	9,084.40	9,184.40	12,618.80	16,158.40	19,704.00
10. Guyana	12,663.80	25,141.60	30,253.20	34,691.40	48,012.70	12,246.00	20,267.10	24,101.30	29,677.10	38,506.00	11,036.80	15,392.60	17,014.40	15,543.10	23,473.30

The trends in earnings are similar in Tables 4 and 5. Immigrants who arrived earlier in Canada earn more regardless of their schooling. For each country of birth, the earnings gap is widest among recent immigrants. Immigrants from China, Pakistan and Iran continue to be among the lowest earners, while immigrants from Guyana and Jamaica continue to be among the highest earners.

c) Unemployment and participation rates by country of birth

Table 6 shows the labour force participation (i.e. those working or looking for work) and unemployment rates (i.e. the percentage of those participating in the labour force who are unable to find work) for immigrants from different countries of birth disaggregated by level of educational attainment.

Table 6: Unemployment and Participation Rate for Immigrants by Educational Attainment and 10 Selected Countries of Birth, Toronto CMA

	UNEMPLOYMENT RATE					PARTICIPATION RATE				
	Less than high school	High school	Trades	College	Univ.	Less than high school	High school	Trades	College	Univ.
1. PR China	10.8 %	11.1 %	5.4 %	9.6 %	8.2 %	31.6 %	52.6 %	67.8 %	66.0 %	76.8 %
2. India	9.8 %	9.4 %	7.0 %	7.1 %	7.9 %	38.5 %	68.5 %	74.7 %	78.1 %	82.7 %
3. Philippines	12.8 %	6.4 %	6.0 %	4.4 %	4.8 %	35.7 %	72.5 %	78.2 %	82.0 %	82.6 %
4. Hong Kong	7.3 %	8.7 %	4.9 %	5.9 %	4.8 %	40.0 %	58.0 %	76.0 %	75.5 %	83.5 %
5. Sri Lanka	10.4 %	10.1 %	8.3 %	7.9 %	8.6 %	48.5 %	65.3 %	78.8 %	79.2 %	80.3 %
6. Pakistan	16.6 %	15.9 %	6.3 %	10.2 %	9.0 %	30.6 %	55.6 %	74.5 %	70.1 %	74.8 %
7. Jamaica	11.6 %	8.1 %	8.1 %	5.4 %	4.6 %	48.1 %	72.6 %	76.1 %	81.3 %	85.1 %
8. Iran	15.8 %	12.7 %	12.7 %	8.9 %	9.3 %	32.1 %	60.6 %	76.3 %	77.4 %	76.3 %
9. Poland	5.9 %	7.0 %	7.0 %	4.6 %	4.3 %	31.0 %	66.2 %	71.3 %	79.1 %	81.8 %
10. Guyana	8.4 %	8.6 %	8.6 %	5.3 %	5.3 %	47.1 %	72.4 %	81.1 %	82.5 %	85.8 %

Unemployment rates vary among countries of birth and by level of education. There are few consistent trends underscoring the diverse experiences of immigrants in Toronto's labour market. In general, unemployment rates are highest for high school dropouts and lowest for immigrants with some postsecondary education, whether it be trades qualifications or college and university degrees. There are exceptions to both these general patterns. For example, among immigrants born in Poland and Guyana, unemployment rates are higher for high school graduates and those with trades qualifications than for those who did not complete high school.

There are also marked differences in unemployment rates across countries of birth. Among university graduates, unemployment rates vary from a low of 4.6% for people born in Jamaica to a high of 9.3% for immigrants born in Iran. The differences in unemployment rates are likely related to average period of residence in Canada with most Jamaicans arriving in the 1970s while Iranians have arrived in two waves; in the early 1980s and later in the last half of the 1990s and early 2000s. The diverse trends warrant closer examination so we can identify the labour market processes that lead to such differentiated economic outcomes.

Labour force participation rates also vary with level of education and country of birth, however, educational attainment is associated consistently with higher levels of labour force participation for all immigrants regardless of country of birth. The magnitude of the educational effect varies, but for immigrants from the ten selected countries of birth, labour force participation increases with education. The variations in labour force participation diminish as educational attainment improves. For example, among those without high school completion, labour force participation ranges from a

low of 31% for immigrants born in Poland to a high of 48.5 % for immigrants born in Sri Lanka. For university graduates, the participation rate has a smaller range of 11.0%. It varies from 74.8% for university graduates born in Pakistan to 85.8% for those born in Guyana. Although the trends are more consistent, the variation in labour force participation rates across countries of birth, like the variation in unemployment rates, warrants further investigation. Our analysis points to substantial differences in the labour market experiences of immigrants from different countries of birth, but it cannot identify the reasons for these variations.

d) Unemployment rate by country of birth, and period of arrival

Table 7 lists the unemployment rates for immigrants from various countries of birth and periods of arrival according to their highest level of educational attainment.

Table 7: Unemployment Rate (%) for Immigrants by Period of Immigration, Educational Attainment and 10 Selected Countries of Birth, Toronto CMA

	1981-1990					1991-2000					2001-2006				
	Less than high school	High school	Trades	College	Univ.	Less than high school	High school	Trades	College	Univ.	Less than high school	High school	Trades	College	Univ.
1. PR China	10.3	9.9	n/a	4.6	3.4	11.1	11.4	5.4	7.4	6.6	12.7	13.6	7.7	16.3	11.7
2. India	8.4	6.3	4.1	3.6	4.6	8.1	9.6	7.7	7.0	6.2	15.4	12.6	11.3	10.8	11.2
3. Philippines	7.4	5.5	4.9	3.1	3.6	10.3	6.6	6.1	4.5	2.6	21.0	8.7	9.0	7.2	6.7
4. Hong Kong	5.8	9.3	4.1	6.1	5.2	9.6	9.3	5.5	6.7	5.8	n/a	12.9	n/a	10.8	6.4
5. Sri Lanka	7.0	7.3	5.3	6.7	6.1	11.3	11.0	6.9	7.8	7.6	11.2	11.0	20.0	12.0	15.7
6. Pakistan	n/a	9.5	n/a	5.3	4.5	17.4	19.1	6.0	8.8	7.2	15.6	15.6	8.6	17.4	12.2
7. Jamaica	11.5	7.7	5.6	4.7	4.6	12.8	10.5	7.4	7.7	4.7	17.3	11.1	14.0	5.4	9.4
8. Iran	12.1	9.1	9.1	6.1	5.4	23.1	12.9	5.4	9.1	8.2	12.7	16.8	23.4	14.9	13.6
9. Poland	6.7	6.5	3.6	4.2	3.9	6.9	7.9	4.3	4.8	4.4	n/a	9.0	n/a	10.7	12.3
10. Guyana	6.9	8.3	6.3	5.7	4.1	8.3	10.9	8.0	6.7	4.6	15.8	16.6	15.7	9.2	13.0

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

Disaggregating unemployment rates for immigrants from selected countries of birth by period of arrival reveals the deterioration in economic outcomes for recent immigrants. For each country of birth, the unemployment rates for immigrants who arrived after 1990 are higher than for the 1980s cohort. In general, unemployment rates for immigrants who arrived between 2001 and 2006 are higher than for those who arrived in the 1990s. However, there are exceptions to this trend, particularly among immigrants who had not completed high school by the time of the 2006 census. For immigrants from Sri Lanka, Pakistan, and Iran who did not have a high school diploma, unemployment was actually lower among people who arrived after 2000 than among those who arrived in the 1990s.

It is also difficult to discern any trends across the countries of birth. For each period of arrival, immigrants from different countries of birth report the highest and lowest unemployment rates for each educational level. The migration flows from each country vary over time as established immigrants sponsor family members, Canadian immigration policy evolves, and conditions change in the country of birth. Labour demand in Toronto also changes over time. The result is complex

patterns of unemployment across levels of educational attainment for immigrants from different countries of birth.

e) Participation rate by country of birth, and period of arrival

Table 8 lists the labour force participation rates for immigrants from various countries of birth and periods of arrival disaggregated by educational attainment.

Table 8: Participation Rate (%) for Immigrants with a University Degree by Period of Immigration, Educational Attainment and 10 Selected Countries of Birth, Toronto CMA

	1981-1990					1991-2000					2001-2006				
	Less than high school	High school	Trades	College	Univ.	Less than high school	High school	Trades	College	Univ.	Less than high school	High school	Trades	College	Univ.
1. PR China	30.8	56.9	n/a	69.0	72.3	31.8	56.0	75.3	70.0	82.8	39.8	52.9	71.4	63.8	74.8
2. India	41.3	71.8	78.7	82.2	86.3	40.4	71.7	83.8	81.4	86.1	34.8	64.5	74.9	78.1	83.8
3. Philippines	38.2	74.4	80.2	83.7	85.5	36.9	73.6	81.8	85.3	90.5	36.5	70.5	81.7	83.1	86.5
4. Hong Kong	45.5	61.0	77.2	78.2	86.2	34.7	54.7	76.3	74.5	82.8	n/a	50.0	n/a	59.1	69.9
5. Sri Lanka	65.9	74.3	85.4	81.5	78.0	47.5	64.3	79.0	80.3	81.8	41.5	60.3	68.2	72.4	46.5
6. Pakistan	21.3	59.8	n/a	73.3	79.6	31.8	58.8	80.6	74.4	80.9	28.8	49.5	70.0	61.5	68.5
7. Jamaica	53.7	79.5	83.9	89.1	87.7	53.3	77.9	83.3	87.6	88.1	55.8	82.1	89.5	86.8	91.4
8. Iran	45.8	61.7	85.9	82.8	77.2	28.3	66.0	77.2	80.3	78.6	29.4	50.7	68.6	61.5	73.0
9. Poland	61.0	77.4	81.0	86.0	87.8	52.5	75.6	85.5	84.8	85.7	51.5	70.7	n/a	79.1	74.4
10. Guyana	45.9	75.6	84.8	88.1	88.0	51.1	75.3	87.3	86.5	91.1	56.6	76.7	86.4	82.1	93.5

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

Labour force participation rates also vary by level of educational attainment across the ten selected countries of birth. In the three periods of arrival, Guyana, Jamaica and – to a lesser extent – Poland have the highest rates of participation for each level of educational attainment, while participation rates tend to be lowest for immigrants born in Pakistan across all levels of educational attainment.

As we saw with unemployment rates, the trends in labour force participation change from one period of arrival to another. For example, among immigrants who arrived in the 1980s, immigrants born in Pakistan have lower participation rates than immigrants from the other countries of birth, regardless of their educational attainments. Among immigrants who arrived in the 1990s, those born in China and Iran report the lowest participation rates. Among recent immigrants who arrived between 2001 and 2006, those from Pakistan, Hong Kong, and Iran had the lowest labour force participation across the levels of educational attainment. The complex and changing patterns of labour force participation underscore the need to investigate the reasons that country of birth affects immigrants' labour market experiences in more detail.

CONCLUSIONS

Clearly only tentative conclusions can be derived from the data compiled in this report. In part this is because country of origin, education, 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, we draw the following tentative conclusions from the data presented here:

- There are significant variations in labour market outcomes for immigrants from different countries, even where immigrants with similar periods of arrival and levels of education are compared. Further inquiry would be needed to explain these variations.
- Immigrants from Guyana and Jamaica have some of the highest earnings and the highest participation rates. Immigrants from China, Pakistan and Iran tend to have low earnings, high unemployment, and low participation rates.
- 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.

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>

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