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Employment and Occupational Outcomes among Postsecondary Educated Immigrants: Country of Education and Field of Study

Citizenship and Immigration Canada

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Canada

Introduction

- For the first time, location of the highest postsecondary degree is available in the 2006 Census.
- This study profiles educational characteristics of immigrants, focusing on the transferability of foreign degrees by country of the highest educational attainment and field of study, and how these two aspects are related to employment and occupational outcomes.
- Key policy research questions:
  - Do country of education and field of study matter in the Canadian labour market?
  - How do observed labour market statistics of immigrants vary by field of study and place of the highest degree?
  - Are labour market outcomes different for those immigrant workers who have degrees from countries having educational systems similar to the Canadian one, compared to those who do not?
  - Are immigrant groups with degrees in certain fields of study or from certain countries more likely to be employed and work in certain occupations than others?
- The population of the study
  - Canadian-born and immigrant postsecondary degree holders aged 25-64

Highest Level of Educational Attainment, Immigrants and Canadian-born

	Canadian born	All immigrants	*Established immigrants*	*Recent immigrants*	*Very recent immigrants*
Total	13,148,925	4,076,705	*2,838,280*	*556,565*	*681,860*
None	15.9	14.0	*15.8*	*10.8*	*9.4*
High school graduation certificate or equivalency certificate	24.9	21.1	*23.0*	*18.8*	*14.9*
Trades certificate, college diploma, university certificate or diploma below bachelor level	39.2	33.3	*36.4*	*28.0*	*24.5*
Bachelor's degree or university certificate or diploma above bachelor level	15.5	21.4	*17.3*	*27.8*	*33.4*
Degree in medicine, dentistry, veterinary medicine or optometry	0.5	1.1	*1.0*	*1.3*	*1.8*
Master's degree	3.5	7.4	*5.1*	*11.0*	*13.9*
Earned doctorate degree	0.5	1.6	*1.3*	*2.4*	*2.3*
University education (bachelor's or above)	20.0	31.5	24.7	42.5	51.4

- Immigrants have higher educational attainment than the Canadian born.
- Among immigrants, the level of the highest educational attainment increases with later cohorts.

Countries and Fields of Highest Educational Attainment, Immigrants and Canadian-born

- 98% of the Canadian-born obtained their highest degree or diploma in Canada, whereas 47% of immigrants had a Canadian degree.
- The proportion of Canadian degree holders decreases dramatically for recent and very recent immigrants.
- The shifts in country of highest educational attainment across immigrant cohorts reflect the compositional changes in source countries during the last two decades.
- Immigrants, especially recent and very recent immigrants, are more likely to have studied engineering, computer and information sciences, and social sciences.

	Canadian born	All immigrants	Established immigrants	Recent immigrants	Very recent immigrants
All postsecondary degree holders	7,784,240	2,643,895	1,735,800	391,400	516,695
Country of highest education					
Canada	98.0	47.1	62.0	26.2	12.9
China	0.0	4.6	0.9	9.7	13.2
India	0.0	5.2	2.9	8.4	10.6
Philippines	0.0	5.0	3.9	6.3	7.7
U.S.	1.4	3.9	3.8	4.1	4.3
Pakistan	0.0	1.8	0.6	3.9	4.1
U.K.	0.3	4.5	5.3	2.9	3.2
Romania	0.0	1.4	0.7	2.1	3.2
Russia	0.0	1.2	0.4	2.9	2.3
South Korea	F	1.3	0.6	3.6	1.8
France	0.1	1.4	1.0	1.8	2.5
Iran	F	0.9	0.4	2.8	1.4
Other countries	0.2	21.8	17.7	27.4	31.2
Major field of study					
Business, management, marketing and related support services	20.4	20.8	21.0	20.2	20.9
Engineering	2.8	11.7	7.9	18.3	19.5
Health professions and related clinical sciences	12.5	11.3	12.0	10.0	9.9
Computer and information sciences and support services	3.3	5.4	4.7	7.2	6.4
Education	8.1	5.4	5.8	4.4	4.6
Social sciences	3.3	4.2	4.1	4.3	4.5
Physical sciences	0.7	1.9	1.5	2.6	2.8
Visual and performing arts	2.9	2.9	3.0	2.8	2.7
Liberal arts and sciences, general studies and humanities	1.6	2	1.9	2.4	2.3
Engineering technologies/technicians	4.7	4.1	5.0	2.7	2.1
Other	39.7	30.3	33.1	25.1	24.3

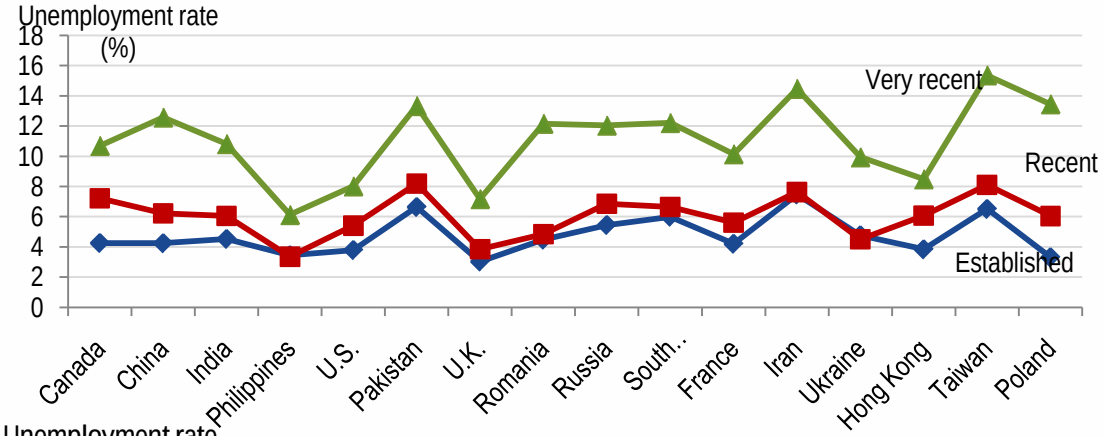
Major Field of Study, Immigrants by Main Countries of Study

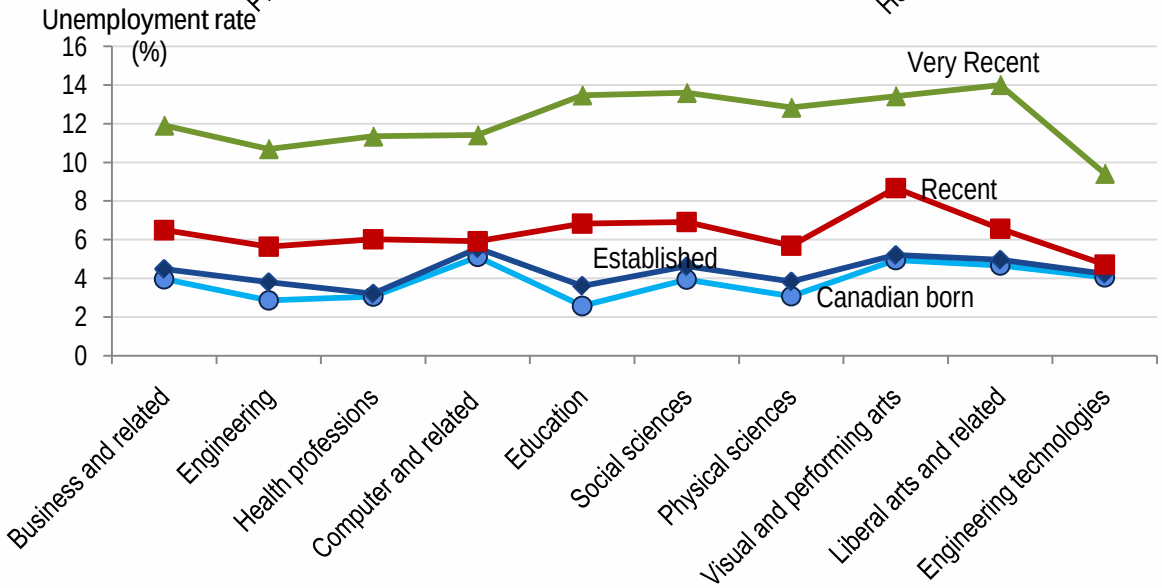
	Total	Canada	China	India	Philippines	U.S.	Pakistan	U.K.	Romania	Russia	Other
All fields of study	2,643,895	47.1	4.6	5.2	5.0	3.9	1.8	4.5	1.4	1.2	25.4
Business, management, marketing and related support services	550,405	50.4	3.8	4.8	7.1	3.7	1.4	4.4	0.5	0.3	23.6
Engineering	308,905	26.5	12.7	6.1	6.8	3.4	2.2	4.2	4.6	3.3	30.1
Health professions and related clinical sciences	297,755	52.4	3.4	3.0	9.2	3.6	1.2	5.0	0.9	0.9	20.5
Computer and information sciences and support services	142,135	58.4	7.5	3.4	2.6	3.9	1.6	2.8	1.3	1.0	17.5
Education	141,465	44.1	2.7	5.1	6.9	6.6	1.6	3.4	0.6	1.4	27.7
Social sciences	111,295	45.1	3.6	8.4	3.0	4.3	3.2	2.7	1.7	1.6	26.4
Engineering technologies/technicians	108,360	56.5	1.9	2.7	2.8	1.1	0.7	8.5	0.8	0.6	24.5
Other	983,575	48.1	3.1	6.0	2.6	4.2	2.0	4.7	1.1	1.0	27.2

- Over-representation of China, India, Romania and Russia in particular major fields (e.g. engineering and computer and information sciences)
- A relatively lower share of immigrants studied engineering in Canada, compared to the overall proportion of immigrant Canadian degree holders.
- Immigrants who studied in the Philippines are over represented among those with health related degrees.

Unemployment rates differed by landing period, country of study and field of study

- Large gaps in unemployment rate between very recent and recent and established cohorts
- Significant variance in unemployment rate across countries and fields of study:
  - Immigrants who studied in the US, UK and France have lower unemployment rates.
  - Immigrants with Filipino degrees have very low unemployment rates.
  - Immigrants who attained their highest education in Iran, Pakistan and China have relatively high unemployment rates.
  - Better employment outcomes observed for immigrants who studied in engineering-related fields and computer sciences





Occupational Skill Level/Education Match Rates, Immigrants and Canadian-born

- The Canadian-born have a higher occupation-education match rate than any immigrant landing cohort.
- Occupation-education mismatch largely exists for all cohorts.
- The occupation-education match increases with higher levels of educational attainment.
- Very recent and recent immigrants show the weakest occupation-education match rates.

		All skill levels	NOC O,A&B
Canadian-born	Trades or college diploma	4,593,350	64.5
	Bachelor's degree	1,874,400	85.4
	Degree in medicine, dentistry, veterinary medicine or optometry	61,675	97.6
	Master's degree	419,040	93.8
	Earned doctorate degree	64,235	95.7
	Total	7,012,700	72.4
Established Immigrants	Trades or college diploma	892,620	60.6
	Bachelor's degree	435,370	77.7
	Degree in medicine, dentistry, veterinary medicine or optometry	25,010	92.4
	Master's degree	130,035	88
	Earned doctorate degree	34,465	95.4
	Total	1,517,505	69.2
Recent Immigrants	Trades or college diploma	133,995	50
	Bachelor's degree	134,785	66.7
	Degree in medicine, dentistry, veterinary medicine or optometry	6,120	79
	Master's degree	55,435	80.4
	Earned doctorate degree	12,140	92.9
	Total	342,475	63.5
Very Recent Immigrants	Trades or college diploma	132,145	46.1
	Bachelor's degree	186,490	56.8
	Degree in medicine, dentistry, veterinary medicine or optometry	8,995	67.5
	Master's degree	80,130	69.7
	Earned doctorate degree	13,960	89.7
	Total	421,715	57.2

Working in Skilled Occupations (NOC O, A or B), Immigrants with Degrees in the Top Major Fields of Study

	Business, Management and Related	Engineering	Health Professions and Related	Computer and Information Sciences	Social Sciences
Total	473,110	278,720	254,310	**127,245**	95,040
All Countries	59.1	75.5	63.3	72.1	64.8
Canada	64.6	87.7	62.5	73.1	74.7
U.S.	77.6	85.8	82.3	81.9	80.7
U.K.	68.7	90.2	79.8	82.6	77.7
France	66.6	87.4	79.5	87.0	77.3
Russia	60.8	71.3	60.3	84.0	66.3
Romania	51.8	77.4	63.1	85.8	59.3
China	48.2	66.4	61.8	71.9	54.5
South Korea	68.7	72.7	71.4	71.9	72.5
India	48.2	66.6	56.9	54.0	40.6
Pakistan	50.4	56.4	56.4	58.1	41.6
Philippines	35.5	50.5	51.4	43.4	36.6
Other countries	51.8	73.9	64.8	70.6	55.3

Summary of Descriptive Results

Key findings:

Descriptive results:

- Educational characteristics differ between immigrants and the Canadian-born population, and across different immigrant landing periods.
- Significant disparities in employment and occupational outcomes exist across countries of study and fields of study.
- Positive prospects are found for:
  - Immigrants with a Canadian postsecondary degree
  - Immigrants with degrees from the U.S., U.K. and France for all major fields
  - Immigrants in natural and physical sciences, e.g. ***engineering*** and ***computer and information sciences and support services***, even for those educated in non-traditional source countries.
- Groups with more barriers:
  - Immigrants with Filipino degrees are more likely to find employment, but more often in a low-skilled occupation.
  - Immigrants from China, India and Pakistan trained in fields other than engineering and computer sciences, such as ***social sciences***
- The advantage of a Canadian credential is more apparent in the fields of business and management and social sciences.

- Multivariate analysis confirms findings from descriptive analysis.

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Thank You

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Annex

National Occupational Classification (NOC) 2006

Sill Level	Required Education	Example of occupation
O (Managerial)	Not assigned to a skill level; Treated as A or B in the current study	Managers in retail trade; Managers in financial and business service
A (Professionals)	University education	Professional occupations in natural and applied sciences
B (Skilled and technical)	College education or apprenticeship training	Technical occupations related to natural and applied sciences
C (Intermediate and clerical)	Secondary school and /or occupation-specific training	Assisting occupations in support of health services
D (Elemental and labourers)	On-the-job training (No formal education needed)	Trades helpers, construction labourers and related occupations