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ARE DEGREES/DIPLOMAS FROM INSIDE AND OUTSIDE OF CANADA VALUED DIFFERENTLY IN THE LABOUR MARKET?

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KEY POINTS:

- Less than half (47%) of immigrants earned their highest educational credential in Canada; those who arrived prior to 1990 are the most likely to hold a Canadian degree or diploma (66%), while more recent immigrants are more likely to have foreign educational credentials.
- The vast majority of Canadian-born hold a Canadian degree or diploma (96%); foreign credentials tend to be from other English-speaking countries such as the United States, the United Kingdom or Australia, and Continental Europe.
- Credentials earned outside Canada are more likely to be Bachelor's degrees or higher, but those with foreign credentials are less likely to be working in their field of study compared to those with Canadian credentials. They also tend to earn lower wages regardless of place of work and occupation.
- Most Canadian-born and immigrants work outside their main field of study. However, there are variations according to where the highest diploma was obtained, ranging from 23.7% for people with a degree from South Asia to 46.3% for those with a degree from Canada.
- When controlling for other variables, people educated in Canada and other English-speaking countries are more likely to be employed in their field of study. They also earn more than other groups working in the same occupation in the same city.

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 (tiedi@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

Are foreign credentials discounted in Canada when looking at wages and relevance of employment?
How does place of study affect the labour market outcomes of immigrants?

BACKGROUND

Regulatory authorities, as well as individual employers, may not recognise “academic study in institutions or countries beyond their administrative supervision” (Van Damme, 2001: 436). This gives rise to the widespread issue of or non-recognition or devaluation of foreign diplomas and degrees (Van Damme, 2001: 415). In Canada, the issue is well-summarized by Li (2001: 23):

“Essentially, the problem has to do with immigrants’ educational experiences acquired outside Canada not being fully recognized as equal to those of [Canadian-born], in terms of human capital quality and accreditation standing. However, differences between the quality of credentials between immigrants and [Canadian-born] are often presumed, but employers and regulatory agencies tend to be reluctant to grant full recognition to immigrants’ credentials as equivalent to those of [Canadian-born]. Thus, the earnings for some immigrants in the Canadian labour market are lower than [Canadian-born] not necessarily as a result of their having less human capital, but of lower market value being attached to immigrants’ educational qualifications that are potentially equivalent or comparable to those of [Canadian-born].”

Empirical research on this issue has not reached a consensus. On the one hand, it has been argued that in recent decades, employment and earnings success of newly-arriving immigrants has been eroded by rising levels of native-born education, the increased significance of education in Canadian labor markets, and the increased difficulty that immigrants have had in gaining market recognition for their qualifications (Reitz, 2001: 601). On the other hand, it has also been shown that “there is no evidence of significant declines in returns to foreign education across [immigrant] cohorts” when controlling “for changes in returns to education just after entry for all workers and for changes in the source country composition” (Green and Worswick, 2004: 28).

Location of study does, however, have an impact on the valuation of degrees/diploma. In general, immigrants from the United States and the United Kingdom experience comparable returns to their education (i.e. on par with Canadian-born), whereas immigrants from other regions of origin “experience lower returns to years of schooling” (Ferrer and Riddell, 2008: 214). However, immigrants from outside the United States and the United Kingdom also experience “larger earnings gains [than Canadian-born] associated with credentials, especially postgraduate degrees”. This seems to suggest that foreign education is “less valued on one dimension and more valued on another” (Ferrer and Riddell, 2008: 214). In explaining the differences, studies find perceived educational quality in source countries appears to affect immigrants’ earnings in Canada. That is, “not all years of education at the same nominal level are equal” and “immigrants from countries with high quality education systems have higher returns” (Sweetman, 2004: 33). Sweetman estimates that educational quality variations account for a “substantial portion” of the difference in returns to foreign education, to the tune of 25% to 30% (2004: 34). Thus it is the “origin of education” that seems to matter for the valuation of foreign education (Adamuti-Trache and Sweet, 2005: 191). Generally speaking,

foreign education, especially from non-Anglophone or Francophone regions of origin, does not bring comparable earnings (Adamuti-Trache and Sweet, 2005: 19).

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 – July of that year. The time period leading up to the Census was marked by economic expansion, strong employment gains, and earnings growth in Canada (Lin, 2008: 5). Existing economic conditions (see table 1 for basic economic data) and government policies are time-specific and thus the data represents a historical snapshot. These contextual circumstances may in turn affect the experiences of immigrants arriving during this time period.

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 data used in this report include both Canadian-born and immigrants of working age (25-65 years) whose highest educational achievement is a trade/apprenticeship certificate or higher. Table 2 shows the distribution of respondents with credentials from different world regions by generational status. As expected, an overwhelming majority (85%) of the total population earned their highest educational credential in Canada. The rest included 3.8% from institutions based in other English-speaking nations (United States, United Kingdom, Australia, New Zealand and South Africa); 3.2% from Continental Europe; 2.1% from East Asia; 2% from South Asia; 1.5% from Southeast Asia; 1.4% from West Asia, Middle East and Africa; and 1% from the Caribbean, Central or South America. Less than half of immigrants (47.4%) earned their diploma in Canada, while the rest earned their credentials outside of Canada. The vast majority of Canadian-born respondents, on the other hand earned their highest educational credentials from Canada (96.5% for 2nd generations and 98.4% for 3rd or later generations).

Table 2: Location of institution granting highest certificate, diploma or degree by generational status, Canada

	Canada	Other English-speaking countries	Continental Europe	West Asia, Middle East and Africa	South Asia	East Asia	Southeast Asia	Caribbean, Central and South America
First generation	47.4 %	9.7 %	12.0 %	5.4 %	7.8 %	8.2 %	5.8 %	3.7 %
Second generation	96.5 %	3.0 %	0.3 %	0.1 %	0.03%	0.03%	0.01%	0.05%
Third or later generations	98.4 %	1.5 %	0.1 %	0.01%	0 %	0.01%	0 %	0.01%
Total (%)	85.0 %	3.8 %	3.2 %	1.4 %	2.0 %	2.1 %	1.5 %	1.0 %
Total (weighted N)	8, 972, 075	401, 940	336, 060	147, 930	212, 580	223, 170	158, 380	100, 610

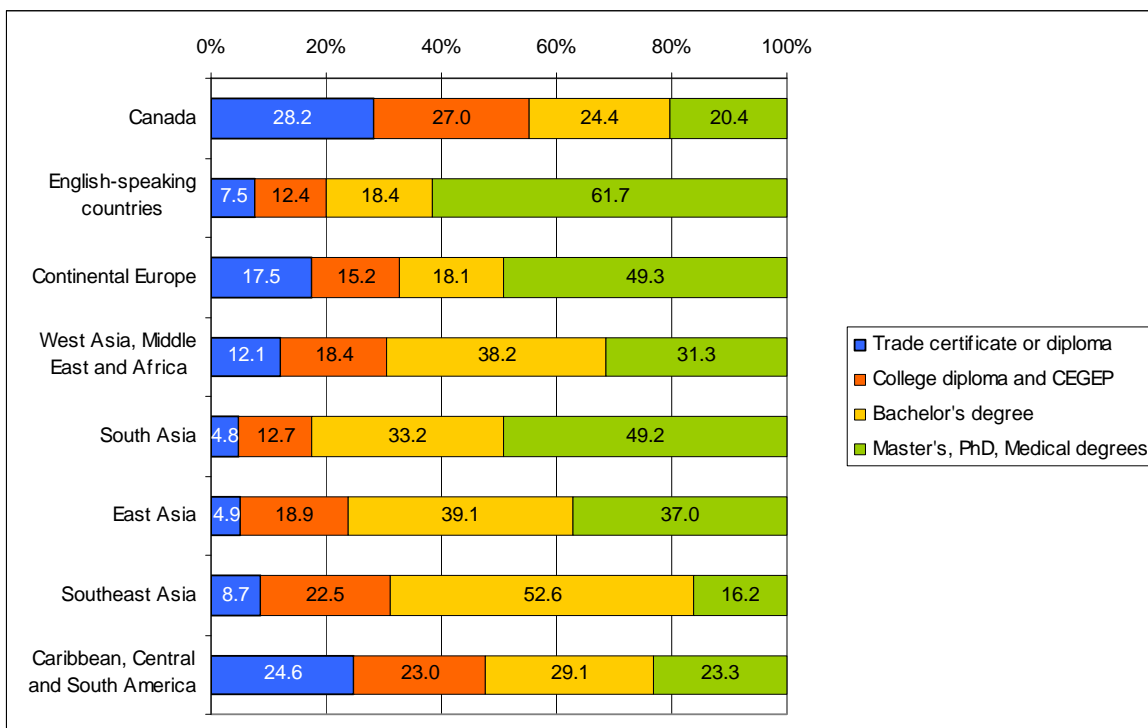
Table 3 shows the distribution of immigrant respondents with credentials from different world regions by period of immigration. Earlier arrivals are more likely to have a Canadian education (66.3% for those who immigrated in 1990 or earlier) compared to immigrants who arrived between 1991 and 2000 (34.4%) and 2001 and 2006 (12.9%).

Table 3: Location of institution granting highest certificate, diploma or degree by period of immigration, Canada

	Canada	Other English-speaking countries	Continental Europe	West Asia, Middle East and Africa	South Asia	East Asia	Southeast Asia	Caribbean, Central and South America
1990 and prior	66.3 %	10.9 %	9.0 %	2.3 %	3.1 %	2.4 %	3.6 %	2.4 %
1991-2000	34.4 %	8.0 %	15.4 %	6.8 %	11.0 %	12.7 %	8.0 %	3.8 %
2001-2006	12.9 %	9.1 %	15.8 %	12.0 %	16.5 %	17.8 %	9.0 %	7.1 %

When looking at type of degree earned, there is variation according to place of study. Figure 1 shows that those who studied outside of Canada were more likely to hold degrees such as Bachelor's and post-graduate qualifications, while those graduating from Canadian institutions were more likely to have earned trade certificates and college diplomas. More than half of Canadian-born and immigrants who had completed their highest degree in Canada had a trade or a college diploma (28.2% and 27.0%, respectively), compared to less than 20% of those who had completed their diploma in South Asian or in other English-speaking countries. On the other hand, those who had studied in other English-speaking countries were 3 times more likely to have a post-graduate degree (Masters, PhD or medical degree) than those who had studied in Canada (61.7% vs. 20.4%, respectively). The proportion of Canadian-born and immigrants who had completed a post-graduate degree in Continental Europe or in South Asia was two and a half times the proportion of those with a Canadian education (49.3% and 49.2% vs. 20.4%, respectively).

Figure 1: Percentages of type of diploma or degree earned by place of study, Canada



Definitions:

Relative annual wage: Refers to a person's annual gross wage (i.e. before deductions) compared to the average gross wages of all those working in the same major occupation (based on the first digit of the National Occupational Classification) and in the same census metropolitan area. For example, for a mechanic working in Toronto, his relative annual wage is the difference between his wage and the average wage of all mechanics in Toronto. Wages and salaries also include 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.

Relevant employment: Refers to a person who is employed at a job in his/her (same or related) field of study. Individuals are considered to hold relevant employment if their field of study matches their broad occupational category of work. Working in the same field does not however prove the full recognition of credentials, as individuals may end up working at a lower level than their degree would warrant.

Place of study: Respondents are categorized by the location of the institution where they obtained their highest education (trade certificate or higher). The categories are 1) Canada, 2) other English-speaking countries: United States, United Kingdom, Australia, New Zealand and South Africa, 3) Continental Europe, 4) West Asia, Middle East and Africa, 5) South Asia, 6) East Asia, 7) Southeast Asia, including the Pacific Islands, 8) Caribbean, Central and South America, including Mexico.

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 arrived recently. Most immigrants were born outside Canada, but a small number were born in Canada. Non-permanent residents (visa holders or refugees and their dependants) are excluded from this category.

Census Metropolitan Area (CMA): CMAs are geographical areas mainly used by Statistics Canada that consist of one or more adjacent municipalities situated around a major urban core. CMAs used in this report include Montreal, Ottawa, Toronto, Calgary, Edmonton and Vancouver. For more information, see: <http://www12.statcan.ca/english/census06/reference/dictionary/geo009.cfm>.

RESULTS

a) Relevance of employment and relative wage by place of study of highest education

Table 4 shows the proportion of people who were employed in a related field of study and the variation in their relative annual wage by place of study. The population here refers to all Canadian-born and immigrants aged 25-65 across Canada whose highest education is at least a trade certificate or apprenticeship.

Table 4: Percent population in relevant employment and average relative annual wage (2005 dollars) by place of study of highest education, Canada

	Relevant employment	Average relative annual wage **
Canada	46.3%	\$1, 000
U.S., U.K., Australia, New Zealand and South Africa	44.0%	\$5, 500
Continental Europe	37.5%	- \$6, 800
West Asia, Middle East and Africa	30.6%	- \$11, 900
South Asia	23.7%	- \$11, 300
East Asia	30.0%	- \$14, 800
Southeast Asia	28.2%	- \$4, 900
Caribbean, Central and South America	32.4%	- \$8, 900

** Average wage is relative to all those working in the same major occupational category and in the same CMA

Regardless of where they earned their highest diploma or degree, most Canadian-born and immigrants worked outside their major field of study. Nevertheless, there is significant variation among places of study: 46.3% of those with Canadian education worked in their field of study, while those who completed their highest degree in South Asia were the least likely to work in their field of study (23.7%).

People educated in Canada and other English-speaking countries had comparative advantage over others in terms of earnings. Compared to others in the same occupation and in the same city, they earned up to \$5,500 more in wages and salaries. On the other hand, those educated in the non-English speaking world earned less than their colleagues working in the same occupation and the

same city. The biggest loss in relative wage went to those educated in East Asia, the West Asia/Middle East/Africa regions, and South Asia; they earned \$14,800, \$11,900, and \$11,300 less, respectively.

b) Effect of place of study on wages and odds of finding relevant employment for immigrants with university degree or trade/college diplomas

This analysis examines the impact of place of study on immigrant employment and wage, controlling for age, gender, visible minority status, period of immigration, fluency in official language (measured by whether official language is the language most spoken at home), whether working in regulated occupation or not, and census metropolitan area of residence.

Table 5 shows the impact of a foreign education (compared to a Canadian education) on relevant employment for immigrants by means of odds ratios. An odds ratio measures how strong is the relationship between foreign education and relevant employment. An odds ratio of 1 means the impact of a foreign education on relevant employment is the same as a Canadian education. An odds ratio of less than 1 means that an immigrant with a foreign education is less likely than an immigrant with a Canadian education to obtain relevant employment.

Table 5: Odds ratio of employment in relevant field of study for immigrants with foreign education (compared to immigrants with a Canadian degree), Canada

Place of study	Odds ratio of relevant employment	
	University degree	Trade/college diploma
U.S., U.K., Australia, New Zealand and South Africa	0.926	0.863
Continental Europe	0.832	0.757
West Asia, Middle East and Africa	0.669	0.545
South Asia	0.432	0.412
East Asia	0.695	0.514
Southeast Asia	0.711	0.453
Caribbean, Central and South America	0.744	0.612

Immigrants who had completed their highest degree outside of Canada were less likely to work in their field of education than immigrants who had graduated in Canada. The odds of having relevant employment for immigrants whose highest education was obtained outside of Canada were smaller than those who graduated in Canada (odds ratio less than 1) when all other factors were controlled. For immigrants with a university degree, the odds of having relevant employment was similar for those who graduated from an English-speaking country (odds ratio=0.926) and those with Canadian degrees (odds ratio=1). Those with degrees from South Asia had the lowest odds of relevant employment in comparison (odds ratio=0.432). Those with foreign-earned trade certificates or college diplomas had even lower odds of finding relevant employment compared to those who had studied in Canada.

Table 6 shows the effects of having a foreign diploma/degree (as opposed to having completed the highest diploma/degree in Canada) on the relative wages of immigrants with university degrees or

trade/college diplomas, controlling for other factors including gender, age, use of official language(s) at home, period of immigration, work status in regulated occupations, level of education and place of residence.

Table 6: Effects of place of study on relative annual wages for immigrants with university degree and college/trade diplomas

	University degree	Trades/college diploma
U.S., U.K., Australia, New Zealand and South Africa	0.030	0.014
Continental Europe	- 0.013	- 0.008
West Asia, Middle East and Africa	- 0.039	- 0.030
South Asia	- 0.036	- 0.018
East Asia	- 0.043	- 0.030
Southeast Asia	0.016	0.024
Caribbean, Central and South America	- 0.010	- 0.008

Without going through the statistical complexity behind their derivation, the numbers in the table can only be interpreted in relative terms. The numbers in the table are comparable across place of study and education – but they do not, in themselves represent a measure of income. They indicate how much lower or higher immigrant wages are according to where the highest degree was obtained, compared to the wages of those who obtained their highest education in Canada. The negative sign indicates a devaluation of foreign credential. For example, all other things being equal, a university degree from South Asia is devalued by twice the amount as a trades or college diploma from South Asia – holding occupation and city constant (-0.036 vs. -0.018), and a university degree from West Asia, Middle East or Africa is devalued by three times as much as a degree from Continental Europe (-0.039 vs. -0.013).¹

In general, the effect of a foreign university degree on wages was greater than that of a foreign trade certificates or college diploma when compared to a similar credential obtained in Canada. For immigrants, obtaining their highest education in the United States, the United Kingdom, Australia, New Zealand and South Africa has a positive effect on earnings (compared to those with Canadian education working in the same occupation and city). Except for university degrees obtained in Southeast Asia, credentials obtained from non-English-speaking countries had negative effects on wages. Controlling for other factors, the greatest negative effect is for degrees and diplomas from East Asia, closely followed by West Asia/Middle East/Africa and South Asia. The smallest negative effects on wages are degrees/diplomas from the Caribbean, Central and South America and Continental Europe.

The only exception to this was qualifications from Southeast Asia. Both university degrees and trades/college certificates from Southeast Asia had a positive impact on wages.

¹ Due to the complexity of comparing the wages of immigrants working in different occupations across Canada by their location of study, relative wages have been standardized and expressed as standard scores (also known as z-scores), which converted each occupation in each CMA into a normal distribution where all averages equal zero and the dispersion of each individual around the average is the same. A regression analysis was conducted using those standardized scores. The numbers in Table 6 therefore allow the easy comparison of wages by location of study, regardless of city of residence and occupation.

CONCLUSIONS

Clearly only tentative conclusions can be derived from the data compiled in this report. In part this is because education, age, gender, country of birth (or place of study), period of immigration, and fluency in official languages are only some of many factors that might contribute to labour market outcomes.

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

- Less than half (47%) of Canada's immigrants earned their highest educational credential in Canada; those who arrived prior to 1990 are the most likely to hold a Canadian degree or diploma (66%), while more recent immigrants are more likely to have foreign educational credentials.
- The vast majority of Canadian-born hold a Canadian degree or diploma (96%); foreign credentials tend to be from other English-speaking countries such as the United States, the United Kingdom, Australia, or New Zealand, and Continental Europe.
- Credentials earned outside Canada are more likely to be Bachelor's degrees or higher compared to those with Canadian credentials. They also tend to earn lower wages regardless of place of work and occupation.
- Most Canadian-born and immigrants work outside their major field of study. However, there are variations according to where the highest diploma was obtained.
- People educated in Canada and other English-speaking countries are more likely to be employed in their field of study and they earn more than other groups working in the same occupation in the same city.
- Immigrants who completed their highest degree outside of Canada were less likely to work in their field of education than immigrants who graduated in Canada.

APPENDIX

RELEVANT QUESTIONS FROM SURVEY QUESTIONNAIRE:

1. 11: Is this person now, or has this person even been a landed immigrant?
2. 12: In what year did this person first become a landed immigrant?
3. 15: What language does this person speak most often at home?
4. 25: Where was each of this person's parents born?
5. 27-29: Has this person completed a Registered Apprenticeship or other trades certificate or diploma? Has this person completed a college, CEGEP, or other non-university certificate or diploma? Has this person completed a university degree, certificate or diploma?
6. 30: What was the major field of study of the highest degree, certificate or diploma that this person completed?
7. 31: In what province, territory or country did this person complete his/her highest degree, certificate or diploma?
8. 52: During the year ending December 31, 2005, did this person receive any income from the sources listed below? PAID EMPLOYMENT: (a) 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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