

Arresting the downward trend in the earnings of new immigrants to Canada.

An analysis of the problem, and a prescription for policy.

Summary:

Beginning with the evidence of declining immigrant earnings relative to native-born, this paper proposes that this trend can be arrested by greater investment in Canadian education by immigrants. The determinants of demand for post-migration education are examined with the conclusion that the greatest marginal social benefit can be derived from encouraging refugees and other traditionally low-income immigrants to invest in short-term vocational education. Upon examination of the options available in Ontario for such education it will be argued that the province's most efficient option is to increase the transparency and accountability of Ontario's private post-secondary institutions.

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The headline on Canada's largest circulation national newspaper, *The Globe and Mail* on Wednesday, March 14, 2007 reads in part: "...future population increases will be... **All immigration by 2030.**" The story reports on Statcan findings that international migration to Canada will be the only source of net population growth by 2030 and was picked up by the Associated Press and circulated to its subscribers, appearing in national dailies across the world.

Immigration has been Canada's lifeblood since Confederation. From the first Immigration Act of 1869 Canada has pursued an aggressively expansionary immigration policy; Canada is a big country that has always been perceived by policy-makers as being short of people. Population growth through immigration was used to to claim the West before the Americans did, farm the land during the two World Wars and expand the market for domestically produced manufactured goods.

Economic growth has always been the goal, and the overriding imperative to increase the population, overcoming even the prejudice for maintaining Anglo-celtic hegemony. Early in the twentieth century attempts were made to limit immigration to citizens of the United Kingdom, but the pressure to expand meant overturning frankly racist quota systems and allowing southern, central and eastern Europeans in. The one thing McKenzie King most sought to avoid in encouraging immigration, "Large-scale immigration from the Orient..." has become a fact of life (Green and Green, 1999).

Immigration has become more important than ever for Canada's ongoing prosperity. Currently 17.4% of Canada's population is born overseas, a proportion that must rise if we are to keep the population growing. Worries about an aging population – mean age in Canada is 39 (Statcan, 2006) – and a declining fertility rate – 1.5 children per woman,

well below the replacement rate of 2.1 children per woman – mean that immigration will be a key determinant of Canada’s macroeconomic well-being for the foreseeable future.

Canada’s economic health depends now and will in the future depend even more on the success of its immigrants and thus of its immigration and settlement policy. Success in this case might be broadly defined as social and economic integration into day to day Canadian life.

The persistent downward trend since 1980 in the earnings and employment rate of recent immigrants must therefore be a cause of great concern. From 1981 to 1996 the percentage of male immigrants in Canada for less than five years who were employed fell from 86.3% to 78.8% compared to a drop of less than two percentage points for native-born Canadians. Of those immigrants who were employed, average earnings fell from 79.6% to just 60% of the average earnings of native-born Canadians (Reitz, 2001). It might be possible to dismiss the fall in employment as part of the business cycle – Canada did after all go through two recessions in that period – but the fall in relative earnings cannot be ignored.

There are a number of possible reasons for the decline, perhaps the most significant of which is the changing composition of immigrant groups by country of origin. This will be discussed in greater detail below as will recommendations for changing policy. All of the recommendations for policy that follow are predicated on two assumptions.

1. A *high* level of income inequality between immigrants (not migrant workers) and the native-born can lead to socially inefficient outcomes and public policy has a role in correcting this inefficiency.

2. In designing a policy that will benefit one group of people over another it is in the broader social interest to do so according to John Rawls' "Difference Principle"; that is, social and economic inequalities should be arranged so that they offer the greatest benefit to the most disadvantaged segment of the population being discussed.

The first assumption springs from the fact that allowing this income inequality between immigrants and native-born to become entrenched can lead to a reduction in the equality of opportunity for the children of immigrants. This can lead to problems such as the violence in Parisian *banlieues* and the growth of radical Islam in immigrant communities in Britain.

The second assumption reflects the usual assumption that people derive declining marginal utility from income; a one dollar increase in hourly wage makes a much bigger difference to someone earning the minimum wage than someone earning \$100 an hour.

The policy tool most appropriate for arresting this trend of falling immigrant earnings is education. The correlation between education and increased wages is well documented and may at this juncture be safely regarded as a stylized fact. Generally speaking then some of the problem might be dealt with simply by making across-the-board improvements to education policy as it affects both the native-born and immigrants. Theoretical work by Duleep and Regets (1999) seems to indicate that greater improvements might be made by concentrating on the methods by which education is delivered specifically to immigrants. Duleep and Regets' model of human capital investment by immigrants and the empirical work they have conducted based on that

model clearly demonstrates that immigrants have higher returns to human capital investment, particularly investment in education, than do native-born citizens.

The private benefit to the immigrant population alone argues for an education policy better directed to their needs, but there is not just the private benefit to be considered. Education for immigrants has a wider social benefit aside from simply expanding the potential tax base. Education in the host country – be it Australia, Canada or the United States – can go a long way to acclimatizing new arrivals to the expectations, culture and mores of their new home.

In assessing the best way to provide education to immigrants and the most appropriate type of education a careful examination must be made of the determinants of the demand for post-immigration education. What are the factors that determine how much immigrants invest in education in their host country? To examine these factors I have consulted literature on the subject dealing with Canada, the United States and Australia. Although all three are distinct cultural and economic entities they share enough similarities as destinations for international immigration that conclusions specific to Canada may safely be drawn from studies conducted in any of the three countries.

Four factors that affect immigrant demand for post-immigration education:

1. Price and quality of schooling

Hashmi Khan's (1997) regression and probit analysis of data from the 1976 American Survey of Income and Education finds that the direct costs of education in the United States have a significant negative partial effect on both the years of schooling obtained after migration and the probability of being enrolled. According to calculations done by

Hum and Simpson (2003) based on data from the 1998 Adult Education and Training Survey, the most common reason cited by immigrants for not investing in job- or career-related education and training was that it was too expensive (in terms of both absolute price and the opportunity cost of time to attend).

Using college expenditures per student as a quality measure of the education a post-secondary institution provides, Hashmi Khan also finds that demand for education among immigrants is positively related to quality. It should be noted that in an earlier iteration of the same study – as cited in Chiswick and Miller (1994) – mean SAT scores by state were used to determine school quality. If the goal of the study were to assess school quality conclusions based on such methods should be highly suspect, but in this case making an assumption that there is a positive relationship between perceived quality of schooling available and the demand for it by all students, foreign-born or otherwise seems like a reasonable one.

Conclusion for policy: Immigrants will be more likely to invest in education the more flexible and the cheaper it becomes.

2. Age on arrival in destination country

According to the data drawn by Chiswick and Miller (1994) from Australia's 1987 Labour Force Status and Other Characteristics of Migrants survey, an immigrant's age upon arrival in the host country has a significant negative effect on immigrants' post-immigration training and education. According to their OLS estimates an immigrating

man of 45 is 17% less likely than an 18 year old to obtain an educational qualification after immigrating. The implication here is that, according to the model developed by Duleep and Regets, for the older immigrants the opportunity cost of education exceeds the expected return for the immigrant over his or her remaining working life. Hashmi Khan's (1997) empirical work confirms this but notes that although the probability of an immigrant being enrolled decreases with age, it does so at a decreasing rate.

Ferrer and Riddell (2004) also find that the earnings of those who arrive in Canada (the host country in their study) before the age of 18 lag far less than their elders behind the native-born in terms of earnings. This would imply that immigrants arriving before the age of 18 will have similar returns to education as the native-born and obtain similar amounts of education post-immigration as native-born citizens would. Reitz (2001) reaches a similar conclusion regarding immigrants who arrive before the age of 18 (and thus attend Canadian secondary school) finding that their earnings will differ very little from native-born Canadians.

Conclusion for policy: educational supports for immigrants should be concentrated among younger immigrants, but without excluding older immigrants.

3. Ease of return migration.

Both Chiswick and Miller (1994) and Borjas (1982) speculate that immigrants with a high likelihood of returning to their country of origin either permanently or for long stints are far less likely to invest themselves figuratively in the culture of the host country by

investing literally in destination country education. They both observe that human capital is fairly country-specific and that immigrants who do not believe that they are settling for a very long time in the destination country will likely feel fewer incentives to invest in human capital.

Borjas estimates the demand function for education among Cubans – refugees and political exiles with no hope of return under the current regime – and finds that they have considerably higher rates of investment in American education than either Mexicans or Puerto Ricans.

He illustrates his reasoning with an appealing analogy worth repeating here. He has countries stand in for firms, with immigration approval as the firm’s hiring decision. Puerto Ricans and Mexicans have a higher “turnover” rate than Cubans due to far lower costs of return migration – they can return home without fear of instant incarceration. With expectations of “job separation” (that is returning to their country of origin) much higher for Mexicans and Puerto Ricans, human capital theory would suggest far less incentive for these “workers” (immigrants) to invest in job-specific human capital – that is post-immigration education – than Cubans who must expect a far longer tenure in the US.

Chiswick and Miller’s findings support the hypothesis that immigrants with the least likelihood of return migration tend to invest the most in destination country education. They find that of all possible categories for immigration into Australia, that of New Zealand nationals¹ has the smallest positive effect on the acquisition of post-migration

¹ As well as standard family reunification or independent skilled migration categories, Australian immigration policy has a distinct category under which citizens of New Zealand may enter the country relatively easily and stay almost indefinitely.

education. It should also be noted that the two categories with the greatest positive effect on the likelihood of investing in education in Australia were for men who arrived as partners of a principal applicant and – most tellingly – refugees, immigrants for whom return migration is, by definition, impossibly costly.

Although very difficult, perhaps impossible to prove quantitatively, Reitz (2001) postulates that besides a desire to integrate into the host country, refugees, having had to abandon all of their physical capital, alter their preferences toward investing human rather than physical capital.

Conclusion for policy: educational supports will be of most benefit to those immigrants with the least likelihood of returning to their country of origin – principally but not exclusively refugees.

4. Skill transferability; pre-immigration education and other forms of human capital.

This is perhaps the most important determinant of whether or not immigrants obtain education in the destination country. Some of the literature reports that human capital acquired before immigration has a negative effect on the acquisition of destination country education and some report a positive effect.

The direction – positive or negative – of the effect of pre-immigration education and human capital on post-immigration acquisition of education depends entirely on whether

the pre-immigration human capital acts as a substitute or as a complement to education in the destination country.

Whether education and human capital acts as a substitute or a complement to education obtained in the host country hinges on what might broadly be called the transferability of skills obtained overseas.

The transferability of skills and human capital from origin to destination.

This is the discussion that lies at the heart of the problem of the seemingly paradoxical result shown by Reitz (2001) and Green and Green (1999) that despite the arrival in Canada over the last twenty years of increasingly educated cohorts of migrants their earnings in the Canadian labour market have shown a consistent and persistent downward trend relative native-born. Skill transferability and the way in which it interacts with education received in the host country is of particular importance given Reitz (2001)'s estimate an annual loss of 2.4 billion dollars associated with the unrecognized credentials or skills of those born in another country. One thing, at least, is clear across all of the studies examined below and is worth mentioning at the start; that country of origin plays an important part in the degree to which skills are transferable. Ferrer and Riddell (2004) found that in Canada, generally speaking, human capital imported by immigrants from the UK, the US or Africa was discounted the least by Canadian employers compared with immigrants from Europe and, especially, Asia.

The mechanics of the transferability of skills across borders.

The crux of the problem is this; the more transferable human capital is from the country of origin to the destination country, the greater the opportunity cost for migrants of investing in destination country human capital and therefore the less likely the immigrant will be to invest in destination country human capital.

Human capital that is not transferable thus not a substitute for destination country human capital can complement destination country education. This complementarity is explained by Ferrer and Riddell (2004) as arising out of the fact that skill transferability is not an immutable quantity and that post-immigration acquisition of human capital increases the transferability of skills acquired in the country of origin. In effect, education or human capital acquired in the destination country provides a signal to employers in the destination country of the quality and local applicability of previously obtained human capital. Destination country acquired human capital can also provide a country- or culture-specific element to human capital obtained overseas.

Substitutes or Complements?

Despite finding that Cubans invest more in education than most other Hispanic immigrants to the United States, Borjas (1982) finds what he interprets to be an unambiguous negative effect of pre-immigration years of education obtained by Cubans on their demand for American education. It is important to note that he uses years of education only rather than some broader measure of human capital. His results seem to imply that – up until the early 1980s at least – Cuban education was recognised by some American employers as having value. It is also worth noting the pre-immigration education obtained by Cubans who arrived in the US before 1959 (when Castro came to

power) had a much greater negative effect on the likelihood of obtaining post-immigration education than for Cubans who arrived later.

Hashmi Khan (1997) identifies the two possibilities – the complementarity and substitutability of pre-immigration education – and discusses them discretely. Hashmi Khan elaborates on plausible explanations and interactions that might determine whether an immigrants' skills have some kind of international transferability, but what the author has to say amounts to qualitative judgements; that it is better to arrive from an English-speaking country with general rather than country-specific skills, and not to arrive in a cohort of immigrants with fairly homogenous skills. Hashmi Khan hypothesises as discussed above that the greater advantage an immigrant arrives with – that is the greater his skill transferability – the less he will invest in education because of a lower rate of return, but that if skills are not easily transferable they will nonetheless still lead to the immigrant having a higher return on investment for education obtained in America than that of a native-born citizen without the untransferable skills.

Hashmi Khan examines the effect that the number of years of pre-immigration education has on years of schooling obtained in the new country. The author uses two American data-sets: the 1976 Survey of Income and Education and the 1980 Census of Population Data. For the 1976 SIE the author finds that the substitution effect dominates, having a substantial depressing effect on post-immigration education. Hashmi Khan also finds that it is non-linear and that post-immigration education decreases at a decreasing rate as the quantity of pre-immigration education increases. The empirical analysis of the Census yields a different conclusion: that post-immigration schooling *increases* with pre-

immigration education, but at a decreasing rate. She does not address this inconsistency or what might have caused it.

An Australian study - Cobb-Clark, Connolly and Worswick (2001) - approaches skill transferability from a more dynamic standpoint, one implied by Hashmi Khan's discussion but set out explicitly here, arguing that investment in destination country human capital increases the skill transferability of the existing stock. This could explain the result found by Hashmi Khan's analysis of the 1980 Census data: that investment in education will increase with greater pre-immigration skills, but as this process makes pre-immigration skills more transferable the opportunity cost of more education will rise, leading to the decreasing rate at which it is acquired.

Using the Longitudinal Survey of Immigrants to Australia for their empirical analysis, Cobb-Clark et al find that, as with the 1980 Census used by Hashmi Khan, more years of education in the country of origin increase the probability of an immigrant's enrolment in education in the destination country. Under the reasonable assumption that an immigrant arriving on a visa for skilled migrants rather than say, a visa for a partner of a primary immigrant or a humanitarian visa, they use visa status as a dependent variable in the estimation equation as a way of pinning down skill transferability. They found that male immigrants who were sponsored by an employer in Australia – those who already had a job on arrival – had lower estimated enrolment probabilities than men let in on other visa categories. The authors found themselves surprised at the high number of immigrant men who arrived on an “Independent” visa – those arriving on the strength of their skills but without a sponsor to employ them – who enrolled in education soon after migration. This would seem to indicate that even skills thought by the authorities to be readily

transferable to the domestic labour market are insufficient to meet the immigrant's reserve wage without a "boost" from some destination country education.

While not completely solving the problem, Ferrer and Riddell (2004) go a long way to suggesting what might be behind the apparently contradictory results found by Hashmi Khan and, unlike all of the above, they are specifically concerned with immigrants to Canada. The contradiction raised by Hashmi Khan is potentially resolved in the way that Ferrer and Riddell break down pre-immigration human capital into three discrete categories; years of schooling, type or level of scholarly credential and all other human capital. In distinguishing between years of schooling and credentials received the authors are able to estimate "sheepskin" effects, a term they use to define the increase in earnings associated with the receipt of a credential, controlling for years of schooling. By learning what effect each of the three different groups of skills has on post-immigration earnings – how transferable across nations they are – they are able to determine what effect pre-immigration human capital of all kinds will have on post-immigration investments in education.

The most surprising result found by Ferrer and Riddell is of the effect of credentials acquired abroad. Contrary to what might be expected, immigrants arriving as adults in Canada actually derive similar or indeed higher returns from their degrees than do native-born Canadians (see Figure 1). This holds across the board for all types of credential but is most dramatic in the case of post-graduate degrees where, for example in 1992 native-born Canadians were found to see only a 4.5% (cumulative with that of other credentials) return on a post-graduate degree compared with 16% return for immigrants. It must be made clear that this does not mean that immigrants are earning more than native-born

Canadians – 1992 was a recession year that saw immigrant earnings fall considerably more than those of the native-born (Reitz, 2001) widening the existing earnings gap. In the authors' words, they conclude that the finding that immigrants have a much higher return to education than native-born Canadians implies “that the gap in earnings between immigrants and the native-born is narrowed ... by the completion of educational programs” (Ferrer and Riddell, 2004). The negative entry effect of immigration on immigrant earnings cited by Hashmi Khan, Reitz and others means that the base measure of earnings starts much lower than for native-born Canadians. Any absolute gain in earnings obtained by immigrants, even if comparable to that of the native-born, will show up as a much larger relative increase in earnings and thus higher return to pre-immigration education.

For years of schooling and other human capital obtain before immigration, Ferrer and Riddell's findings are more in line with what one would expect given the results obtained by the other authors. Canadian employers seem to steeply discount work experience and years of schooling obtained abroad (see Figure 2) – they find that for native-born Canadians the return to work experience ranges from 3.5% - 4% per year of experience during the early part of a career compared with only 2.2% - 2.4% per year of experience for immigrants. Interestingly, given the “sheepskin” results mentioned above, years of pre-immigration schooling seem to be discounted even more than work experience by Canadian employers. The gain in earnings associated with an additional year of school for native-born Canadians ranges between 5% and 6% whereas for immigrants an additional year of schooling will only result in an earnings increase of between 2.2% and 2.6%.

From the above, it is evident that in terms of skill transferability credentials are the most easily transferable, followed by years of schooling and other forms of human capital. This observation, along with the less ambiguous effects of the other three factors that influence the investment in education in the destination country allows us to draw two important conclusions about the direction of immigration policy.

Two conclusions and the implications for policy:

1. Admission into Canada

The first conclusion to be drawn from the above is that when assessing the skills of potential immigrants to Canada, it is best to regard skills and training unaccompanied by a credential as signals of potential productivity rather than as human capital that can be transferred usefully to the Canadian labour market.

From 1962 until 1993 the criteria on which the “assessed inflow” – as opposed to the humanitarian and family reunification streams – of immigrants were judged as desirable new Canadians were constantly updated to reflect perceptions of Canada’s absorptive capacity for certain types of skills and experience. That is, federal authorities sought to use immigration as a way of “filling in the gaps” and maintaining a stable short-run domestic labour market.

Green and Green (1999) convincingly show that the expense involved of such micro-management far exceeded the expenditures required to fill such gaps through education rather than immigration. The inefficiency is even more apparent when keeping in mind –

as shown above – that skills acquired abroad that are not accompanied by a credential are not worth as much as in Canada as they are in the country of origin.

This was recognised in a series of 1995 proposals *Into the 21st Century: A strategy for Immigration and Citizenship* which stated that filling occupational niches may not be “effective in meeting long-term needs” (quoted in Green and Green, 1999) and emphasised the need to move policy goals from trying to import specific skill sets to concentrating on types of workers or occupational classes.

2. Educational Supports for Immigrants.

The implication then is that policy has shifted assessment away from human capital and toward signalling theory. From what we have seen of the generally favourable way in which credentials obtained overseas are judged by Canadian employers it can be assumed that those credentialed immigrants should adapt and integrate relatively quickly into the Canadian labour market and society.

Educational supports for immigrants to Canada should therefore be concentrated on the remainder – assessed immigrants with relatively untransferable human capital (uncredentialed years of education, and most importantly work experience), those arriving as part of Canada’s commitment to family reunification² and refugees. It is reasonable to suggest that the education most likely to benefit such immigrants – on top of basic language instruction if required – would be vocational training that might take advantage of previously obtained human capital. Colleges offering short-duration programs in skills that might immediately be applied to the labour market have been

² To the credit of policy-makers, family-reunification has been the top priority of immigration policy since Confederation (Green and Green, 1999).

shown to have higher returns than university education, mostly due to the much smaller time commitment required (Boothby and Drewes, 2004).

Demand for post-secondary education continues to grow fast, particularly in urban centres where the vast majority of immigrants find themselves upon their arrival in Canada even as public funding is being cut back. Ryerson University still maintains many vocational programs from its days as a polytechnic institute and offers hundreds of continuing education courses aimed at adult learners; it might be seen as a weather-vane for the results of the boom in demand for post-secondary education. Currently investing \$210 million in new buildings (Ryerson, 2007) it has in the past been compelled to hold lectures in local movie theatres for want of space (Ocampo, 2003).

There are too few public post-secondary vocational training institutions specializing in adult education to satisfy the quantity demanded by both native-born and new Canadians. Into this gap are rushing private vocational institutions or “private career colleges” as they are called by the Ontario Ministry of Training Colleges and Universities (MTCU). There is very little public information about these institutions. The MTCU says that there are “over 500” in the province³, well over twenty times as many public colleges of “applied arts and technology” (MTCU, 2007). Recognition of the facts on the ground has led to the provincial government’s laudable attempts to support immigrant education by making financial assistance – OSAP – available to students attending private career colleges. The only qualifications seem to be that the program must be registered with the MTCU, twelve weeks or longer and require students to have Grade 12 or an equivalent.

³ These can range from institutions comparable in size to public colleges – The International Academy of Design – to very small and quite informal schools like A Great Toronto Truck Driving School.

The potential for abuse in this system seems enormous. The barriers to entry for creating private career college are miniscule. Although any private college wishing to call itself such and offer vocational training must be registered with the Private Institutions Branch of the MTCU, registration is inexpensive: initial registration fees can amount to less than \$4,000 (MTCU, 2007) for a small program with annual fees only a fraction of that. The Private Institutions Branch of the MTCU although responsible for monitoring these colleges as well as registering them, has only five “Program Consultants”⁴ on staff to ensure institutional accountability. Despite a new Private Career Colleges Act passed by the Ontario legislature in 2005 designed to improve accountability and quality the branch has little real power because it still has so little information. Although in principle it has the power to revoke program registration and compel institutions to refund tuition, the process to do so is time-consuming and administered by the same five bureaucrats and a small administrative support staff. With such low barriers to entry and a relatively powerless monitoring and regulatory body it seems probable, given human nature, that these institutions are often making it more difficult, not less for immigrants to improve their earnings and integrate effectively into Canadian society.

What is so tragic about this is that these PCCs could at one stroke solve many problems. A competitive (but well-regulated and transparent) market in which colleges compete for students would allow for gains in efficiency without requiring vast increases in publicly funded education. In such a competitive market an immigrant’s choices of the kind of education he or she wants are more numerous and the sheer number of firms (PCCs) means that education itself will become cheaper and much more flexible; many

⁴ <http://www.infogo.gov.on.ca/infogo/>

PCCs are much smaller than traditional colleges and operate branches in suburbs and small towns that do not have the population to support a large publicly funded college – the most obvious example is the Academy of Learning with 32 branches across the province.

To improve the opportunities for new immigrants to Canada and Ontario – and thus the potential for Canada’s future economic growth – the manner in which immigrants are supported by policy must change. No doubt more funding for education in the forms of grants, scholarships and subsidised student loans would improve immigrant employment success soon after entry to the labour market, but greater returns on the funding already in place could be obtained correcting inefficiencies inherent to the system. Better and more frequent monitoring of private career colleges or renewed investment by government in the infrastructure of non-university post-secondary education as well as empirical research on student success would go a long way to correcting these inefficiencies, improving the chances of new immigrants to Canada and paving the way for stronger future economic growth for the country.

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Figure 1 – Based on data from Ferrer and Riddell (2004)

**"Sheepskin" effects of educational credentials on earnings.
Controlling for years of education.**

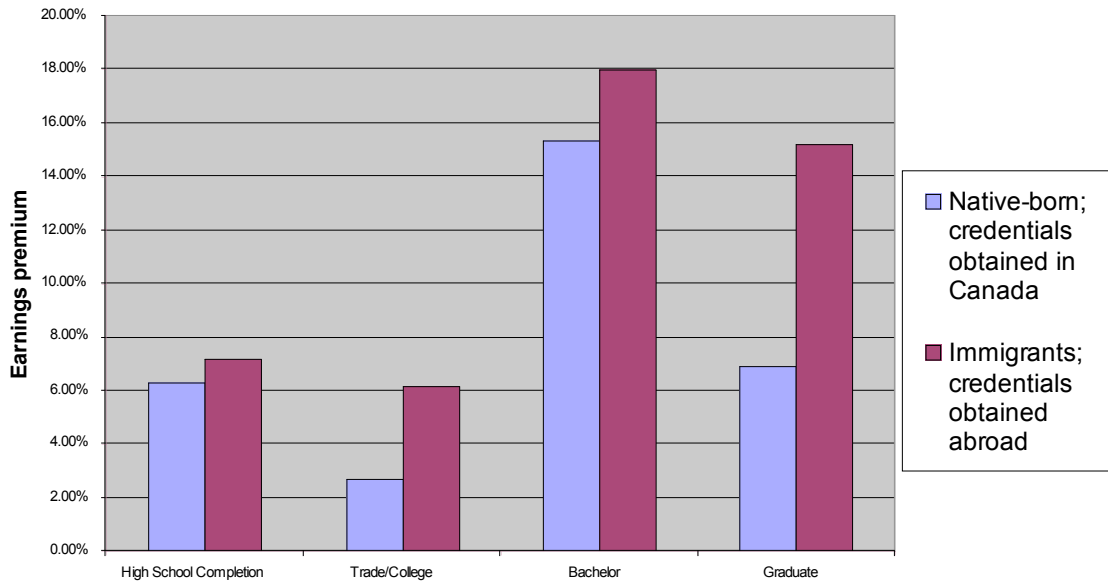


Figure 2 – Based on data from Ferrer and Riddell

(2004)

**Earnings:
Returns to types of human capital per year acquired.**

