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Seeking Success in Canada and the United States: The Determinants of Labour Market Outcomes Among the Children of Immigrants

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..	not available for a specific reference period
…	not applicable
0	true zero or a value rounded to zero
0^s	value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p}	preliminary
^{r}	revised
x	suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E}	use with caution
F	too unreliable to be published

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Abstract

This paper reviews recent research on the determinants of the labour market outcomes of the children of immigrants in Canada and in the U.S. New research on labour market outcomes in Canada is also presented. In the aggregate, and with no controls, the labour market outcomes of the second generation—the children of immigrants—are equal to, or better than, those of the third-and-higher generations—the children of domestic-born parents. However, the story is somewhat different when the superior educational levels and the residential locations of the second generation are taken into account. In the U.S., the second generation's advantage in labour market outcomes disappears; in Canada, among second-generation members of a visible-minority group, the advantage turns marginally negative. Ethnic group/source region differences in outcomes loom large in both countries. The important determinants of the earnings gap between the second generation and the third-and-higher generations include educational attainment, residential location, ethnic background, the degree of "ethnic capital," and the educational and earnings mobility between immigrants and their children.

Executive summary

This paper reviews recent research on the determinants of the labour market outcomes of the children of immigrants in Canada and in the United States. New research on labour market outcomes in Canada is also presented. Much of the recent research focuses on outcome gaps between the children of immigrants, also referred to as the *second generation*, and the children of domestic-born parents, for whom the term *third-and-higher generations* is used. Intergenerational transmission of earnings between immigrants—the first generation—and their children is also reviewed.

In both Canada and the United States, the labour market outcomes of the children of immigrants are equal to, or better than, those of the children of domestic-born parents. On average—with no controls—the children of immigrants have higher levels of education than do the third-and-higher generations, but similar labour force participation rates and unemployment rates. Furthermore, the children of immigrants tend to have higher earnings and are more likely to be employed in professional occupations than their counterparts with domestic-born parents; again, this is before any controls are applied to account for differences in educational attainment, age, and so on.

In Canada in particular, most of the earnings advantage among individuals of the second generation relates to their higher level of education and their residential location, clustered as they are in large urban areas where wages are higher. Conditional on educational attainment and location of residence, in Canada, however, the second generation has a negative wage gap relative to the third-and-higher generations. This negative wage gap, after controlling for socio-economic differences, is observed primarily among visible-minority groups, particularly the Black population. In the U.S., conditional on education and residential location, the positive wage gap between the children of immigrants and those of American-born parents disappears; this suggests that these two factors account for the initial unadjusted positive gap between these groups.

Ethnic/source region group differences loom large in both countries. In the U.S., concern focuses on the second generation with Central American, South American, or Puerto Rican backgrounds. The "segmented assimilation" model in U.S. sociological research predicts poorer outcomes for these groups, driven by lower parental education, a higher share of single-parent families, discrimination, and other factors. The children of immigrants from Mexico and other Central/South American countries have poorer labour market outcomes—before controls—than third-and-higher-generation Whites or other second-generation groups. The much lower levels of education achieved by these groups account in part for their poorer outcomes. These educational attainment outcomes are in turn driven in part by the lower levels of educational attainment among their immigrant parents and by a relatively low level of upward educational mobility between the Mexican immigrant parents and their children. However, *conditional on their socio-economic background*, including education, second-generation Mexican-Americans register better earnings outcomes than the third-and-higher generations with comparable background characteristics. Furthermore, the negative wage gap between Mexican-American workers and third-and-higher-generation Whites is reduced considerably from the first generation to the second. However, as a result of their relatively disadvantaged economic backgrounds, negative outcome gaps persist between the children of many Hispanic/Latino, including Mexican, immigrants and the third-and-higher generations.

There is considerable variation in outcomes by ethnic group/source region background in Canada. Visible-minority groups tend to have superior educational attainment outcomes. In particular, educational levels among second-generation children with Chinese, South Asian, and African backgrounds are much above those of the third-and-higher generations. This is reflected

in superior labour market outcomes, before controls. However, conditional on background characteristics, children whose parents came from developed European countries tend to do better in the labour market. In both Canada and the U.S., even after accounting for numerous socio-economic background variables, significant differences in outcomes among second-generation groups according to ethnic/source region background persist.

Regarding the determinants of aggregate outcomes, educational attainment may account for up to half of the positive unadjusted earnings gap between the second generation and the third-and-higher generations. Other important determinants of the wage gap include location of residence and community size, ethnic group/source region background, the "degree of stickiness" in educational and earnings transmission between immigrants and their children, and "ethnic capital." The latter concept typically refers to the advantages or disadvantages bestowed on the individual by the overall level of income and educational attainment for the ethnic group as a whole.

In the aggregate, educational and labour market outcomes of the children of immigrants in Canada and the U.S. tend to be equal to, or better than, those of the third-and-higher generations. Some caveats to this overall conclusion have been noted. Economic integration may be a multi-generational process. In both countries, the wage gap—after controls—between visible minorities and third-and-higher-generation individuals who are not members of a visible-minority group falls from the first generation (immigrants), to the second generation (their children), and even to the third-and-higher generations in some cases.

1 Introduction

It is difficult to overstate the importance of the outcomes of the children of immigrants in major immigrant-receiving countries such as Canada and the United States. The second generation is a sizeable component of total population in both countries. The success of the second generation in the labour market reflects the long-term process of immigrant integration.

The size of the second-generation population depends, of course, on first-generation immigration levels. In absolute terms, the U.S. receives more immigrants than any other nation; in relative terms, the annual immigration rate has been higher in Canada than in any other country in recent years.

In Canada, in 2006, one-third of the population consisted of immigrants or their children: one in five people were immigrants, and an additional 15% were second-generation Canadians. These numbers are second only to those of Australia. Since immigration is highly geographically concentrated, the effect on some cities is considerable. In Toronto, three-quarters of the population are immigrants or their children. The economic outcomes of immigrants are therefore of importance.

In the U.S., the proportions are somewhat lower than those of Canada and Australia as a result of lower immigration rates but are more significant when viewed in absolute terms. In 2006, immigrants made up 12% of the population, a number smaller only than those of Canada and Australia; an additional 11% were second-generation Americans. In all, close to one-quarter of the U.S. population consisted of immigrants or their children.

Economic outcomes among first-generation immigrants entering Canada and the U.S. have deteriorated over much of the period since the early 1980s (Aydemir and Skuterud 2005; Borjas 2000; Chiswick, Lee, and Miller 2005; Picot and Sweetman 2005). Immigrant economic outcomes are obviously important, but one could argue that it is the outcomes of their children that truly matter. Improved economic and educational opportunities for their children are often a primary motive for immigration.

1.1 Objectives

This paper reviews the determinants of labour market outcomes of the second generation in Canada and the U.S., and includes some original research for Canada. Employment, unemployment, and earnings outcomes are included. Since the labour market outcomes of the members of the second generation depend to a considerable extent on their educational attainment, a review of the determinants of educational outcomes of immigrants' children is also included.

Labour market outcomes are addressed from two perspectives. First how do second-generation outcomes compare to those of the third-and-higher generations[1] (i.e., the children of domestic-born parents) and what are the determinants of the earnings outcome gap between these two generations? The second perspective is intergenerational. How are the children of immigrants doing, compared to their parents? This requires a longer perspective, often comparing the

1. There is significant variation in the literature regarding the definition of *second generation* and *third-and-higher generations*. The second generation may include children born to one or two immigrant parents. Typically labour market outcomes are superior for those children with two rather than one immigrant parents. The third generation comparison group may include all children of domestic born—i.e., American or Canadian—parents, or it may include only those born with one or two White parents. There is no standard in the literature, and the authors include definitions when necessary.

outcomes of the children, typically as young adults, to those of their parents twenty-five years earlier. The paper employs results from both the sociological and economics literature to address these topics.

The determinants of the "gaps" in educational and labour market outcomes are important. Societies need to know why immigrant groups are performing at levels above or below those of the domestic-born and why the performance of immigrants' children differs from that of the children with domestic-born parents. The degree of "integration" of immigrant families is typically measured in this way.

1.2 Contextual differences between Canada and the U.S.

Both Canada and the U.S. are major immigrant-receiving countries. However, in recent decades, immigration patterns have differed in many ways between the two countries, influencing outcomes for the second generation. Prior to the 1960s, both countries used country of origin as a primary determinant of immigrant selection, focusing on Western Europe. In the 1960s, both countries altered their immigration policies; this led to what many researchers refer to as the "new" immigration (Green and Green 2004; Smith and Edmonston 1997). In Canada, this has meant many more immigrants from Asia and Africa, while, in the U.S., it has meant a shift towards Mexico and other Central/South American countries.

The immigration rates from these "new" source countries increased particularly in the late 1970s and in the 1980s, and many children of these immigrants are just now entering the labour market. It is still early days regarding the evaluation of the labour market outcomes and their determinants for children of this "new" immigration. The children of immigrants who entered during the 1970s would be under 40, and those of the 1980s immigrants under 30. As well, since most studies of second-generation outcomes are based on the population aged roughly 20 to 60, many of the "children" (as adults) included will stem from immigrants entering before the "new" immigration. As a result, more research has been carried out on the determinants of educational outcomes of the children of the "new" immigration than on labour market outcomes (see a companion paper by Picot and Hou (2009) summarizing educational outcomes).

Smith and Edmonston (1997) as well as Green and Green (2004) provide overviews of immigration history for the U.S. and Canada, respectively. The historical differences are discussed in Aydemir and Sweetman (2007). There are three areas of difference in the "new" immigration that are important for second-generation outcomes.

First, immigration rates have been higher in Canada than in the U.S. since the 1940s; hence, the first and second-generation populations are relatively larger in Canada than the U.S. Second, the distribution of immigration by source regions evolved very differently in the two countries. The U.S. has always had a greater share of its immigration from Mexico and other Central/South American countries. As the paper shows, this is significant, since the second-generation outcomes for these groups are often inferior to those of the other groups, such as Asians, to which Canada turned for much of its "new" immigration."

Third, the U.S. has employed family reunification as its main immigration program. In contrast, about half of immigrants to Canada now enter under the "skilled worker class," whereby immigrants are selected according to a points system. The result has been that, in general, immigrants to Canada are now more highly educated than those entering the U.S.

There is a significant American *sociological* literature on second-generation assimilation, focusing primarily on educational and other outcomes such as family formation, but less so on labour market outcomes. Much of this work is driven by the "segmented assimilation" theory,

which states that a variety of factors may lead to successful assimilation but that these factors can also lead to poorer second-generation outcomes.[2] According to this theory, determinants such as family socio-economic status, the extent of single parenthood, the social context within which immigrants are received, and discrimination, can play a major role, particularly in poorer outcomes. The theory predicts very different outcomes in the U.S. according to the ethnic group of immigrants. See Portes, Fernandez-Kelly, and Haller (2009) for a recent overview. Other overview papers include Portes and Fernandez-Kelly (2008), Zhou (1997), and Zhou et al. (2008). This theory has been largely applied to U.S. outcomes. It is rarely invoked to explain second-generation outcomes in Canada.

The *economics* literature turns to traditional determinants in order to explain gaps in labour market outcomes between the first, second, and third-and-higher generations. These include the educational attainment of the children of immigrants, which itself is driven by a number of determinants, including the educational attainment of the immigrant parents, the degree of educational mobility between immigrants and their children, the amount of "ethnic capital"[3], and the value placed on education by the ethnic/source region group. Other determinants of the labour market outcomes of the second generation include location of residence, source region or ethnicity, ethnic capital, parents' expectations, and "visible minority" (racial minority) status and discrimination. The latter variable is rarely directly addressed in the economics literature.

2. The characteristics of the assimilation pattern, including downward (poor) assimilation outcomes, are often measured in this literature by a range of outcome variables related to crime, education, etc. (Portez, Fernandez-Kelly, and Haller 2009).
3. The concept of "ethnic capital" relates to the characteristics of the ethnic group to which an immigrant and this immigrant's children belong. The effects on outcomes are above and beyond those of the individual or the family. Some ethnic groups provide an environment that increases the opportunities for the members, and leads to increased chances of success in education and in the labour market. This may relate to the existence of networks, advantageous role models, peer group effects, and so on. Other groups lack such advantages. Empirically, "social capital" is often measured by the average educational attainment and average family income of the ethnic group to which an individual belongs.

2 Labour market outcomes among the children of immigrants in Canada

2.1 Educational outcomes among the children of immigrants in Canada

Because educational attainment is such a strong predictor of earnings and other labour market outcomes, a brief review of the educational levels achieved by the children of immigrants in Canada is provided below (see Picot and Hou 2011 for more detail).

Second-generation Canadians have a significantly higher level of educational attainment than that of the third-and-higher generations. According to the 2006 Canadian Census of Population data, 36% of the children of immigrants held degrees, compared with 24% of the third-and-higher generations. Furthermore, children with two immigrant parents register a larger positive education gap than those with only one immigrant parent (Hum and Simpson 2007; Aydemir and Sweetman 2007). This higher level of achievement is most noticeable among second-generation members of a visible-minority group (Boyd 2002; Aydemir and Sweetman 2007). There is significant variation among nationalities, with the Chinese, South Asians, and African second generations registering the highest educational attainment (Abada, Hou, and Ram 2008). However, very few second-generation nationalities register lower educational levels than the third-and-higher generations.

Immigrants to Canada are more highly educated than the population as a whole. This higher education among the immigrant parents of second-generation Canadians (as compared to the third-and-higher generations) accounts for about one-half of the quantitatively positive educational attainment gap between the second generation and the third-and-higher generations (Boyd 2002; Aydemir and Sweetman 2007). Location of residence is important, as the second generation lives disproportionately in large urban areas, where educational attainment is higher. “Ethnic capital” plays a role, accounting for perhaps one-quarter of the gap (Abada et al. 2008). Parents’ expectations also play a role, often an important one (Finnie and Mueller 2010). Nevertheless, much of the gap persists even after one has adjusted the data for all of these effects, particularly among the groups with higher educational levels, such as the second generation with Chinese and South Asian immigrant parents, two of the larger immigrant groups in Canada in recent decades.

The effect of parents’ education on the educational attainment of the children is weaker among families with immigrant, rather than Canadian-born, parents (Hum and Simpson 2007). Put another way, educational mobility between the first and second generation is greater among families with immigrant parents than among families with Canadian-born parents. This result appears to be driven primarily by the observation that children from less educated immigrant families are more likely to achieve a higher level of education than are their Canadian-born counterparts from families with similar lower levels of education (Bonikowska 2008). The intergenerational persistence in years of schooling between the first and second generations is rather weak between immigrants and their Canadian-born children, only about one-third as strong as among families with Canadian-born parents. Furthermore, immigrant family income has little to do with this intergenerational educational tie (Aydemir, Chen, and Corak 2008).

Overall, these effects result in a much higher level of educational attainment among the children of immigrants than among their counterparts with Canadian-born parents.

2.2 Participation rates, unemployment rates, and occupational outcomes

Few Canadian studies have examined the employment, unemployment, and occupational outcomes of the children of immigrants[4] and the determinants of these outcomes. In the absence of such work, the following are data for 25-to-54-year-olds (prime-age workers) for May 2006, generated from the 2006 Canadian Census of Population.

Employment rates are virtually identical among the children of immigrants and the children of Canadian-born parents, for both men and women (Table 1). Overall, unemployment rates are, if anything, lower among the children of immigrants than among their counterparts with Canadian-born parents (4.4% vs. 4.9%, Table 1). However, this pattern is not evident for all groups. These data suggest that individuals who are second-generation members of a visible-minority group are not doing as well as one might expect given their educational backgrounds.

The unemployment rate "advantage" is observed only among second-generation Canadians who are not members of a visible-minority group. Among visible-minority groups (Blacks, Asians, and others), unemployment rates are higher among the second than the third-and-higher generations. Furthermore, the unemployment rates among second-generation Canadians of Asian descent are higher than those among third-and-higher-generation Canadians who are not members of a visible-minority group (5.4% vs. 4.9%), even though Asians have significantly higher educational attainment. The unemployment rates among second-generation Blacks and "other visible minorities" are even higher, at 9.2% and 8.6%, respectively.

The occupations of the children of immigrants who are employed reflect their educational attainment. These individuals are much more likely than the third-and-higher generations to be in professional or related occupations[5], and much less likely to be in the trades, transportation, manufacturing, or primary-industry jobs. This is particularly true for the second generation of Asian descent, whose educational levels are the highest (Table 2).

4. The one paper that incorporated employment and unemployment outcomes used 2001 Census of Population data, and found that employment rates in the census reference week were higher among the second generation than among either the first generation or the third-and-higher generations and that unemployment rates were roughly the same for the second generation and the third-and-higher generations (Aydemir, Chen, and Corak 2005).
5. This includes occupations in the following fields: natural and applied sciences and related fields; health; social science; education; government services; arts; culture; recreation; and sport.

Table 1
Employment and unemployment rates of the second- and the third-and-higher-generation Canadians aged 25 to 54, May 2006

	Total		Men		Women	
	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation
	rate					
Employment rates						
Total	82.8	82.9	87.0	86.9	78.7	79.0
Education attainment						
Less than a high school diploma	69.9	66.9	76.4	74.7	60.3	56.8
High school graduates	81.5	82.4	86.4	87.1	75.6	76.9
Some post secondary education	85.1	87.2	89.4	90.7	81.7	84.6
University degree	85.3	89.9	89.0	92.9	82.1	87.4
Visible minority status						
White	84.1	82.9	88.4	87.0	79.9	79.0
Black	75.6	73.7	77.9	78.5	73.3	69.5
Asian	76.1	82.8	79.5	86.0	72.7	79.5
Other visible minorities	72.2	77.1	76.5	79.0	67.8	75.5
Unemployment rates						
Total	4.4	4.9	4.2	5.0	4.7	4.8
Education attainment						
Less than a high school diploma	7.3	9.0	6.8	8.9	8.2	9.3
High school graduates	4.9	5.3	4.7	5.4	5.2	5.3
Some post secondary education	4.1	3.9	3.7	3.8	4.4	4.0
University degree	3.5	2.8	3.1	2.5	3.9	3.1
Visible minority status						
White	4.1	4.9	3.8	5.0	4.3	4.7
Black	9.2	8.6	9.0	8.8	9.3	8.5
Asian	5.4	4.6	5.1	5.0	5.7	4.1
Other visible minorities	8.6	4.5	8.4	4.7	8.8	4.4

Source: Statistics Canada 2006 Census.

Table 2
Occupational distribution of the employed second- and third-and-higher-generation Canadians aged 25 to 54, May 2006

	Second generation			Third-and-higher generation		
	Total	Men	Women	Total	Men	Women
			distribution			
Total	100.0	100.0	100.0	100.0	100.0	100.0
Management	12.9	15.5	10.2	10.8	12.8	8.6
Business, finance and administrative occupations	20.9	11.6	31.0	19.1	9.3	29.6
Professional and related occupations	29.7	25.7	34.1	25.4	19.6	31.7
Sales and service occupations	17.5	15.2	20.0	18.6	14.7	22.7
Trades, transportation, manufacturing or primary-industry occupations	19.0	32.0	4.8	26.1	43.6	7.4
Visible minority status – White	100.0	100.0	100.0	100.0	100.0	100.0
Management	13.5	16.2	10.6	10.8	12.8	8.6
Business, finance and administrative occupations	20.6	10.8	31.3	19.1	9.3	29.6
Professional and related occupations	28.8	24.3	33.8	25.4	19.6	31.7
Sales and service occupations	16.9	14.7	19.4	18.5	14.7	22.6
Trades, transportation, manufacturing or primary-industry occupations	20.2	34.0	5.0	26.2	43.6	7.4
Visible minority status – Black	100.0	100.0	100.0	100.0	100.0	100.0
Management	7.1	7.3	6.9	7.6	8.0	7.2
Business, finance and administrative occupations	26.3	19.2	33.5	19.7	10.1	29.4
Professional and related occupations	30.1	26.4	33.9	21.2	16.3	26.1
Sales and service occupations	20.8	20.7	20.9	27.4	24.2	30.5
Trades, transportation, manufacturing or primary-industry occupations	15.8	26.5	4.8	24.1	41.4	6.7
Visible minority status – Asian	100.0	100.0	100.0	100.0	100.0	100.0
Management	10.4	12.7	8.0	13.8	17.3	9.7
Business, finance and administrative occupations	21.6	16.3	27.3	21.6	13.5	31.0
Professional and related occupations	37.3	37.6	36.9	32.7	29.4	36.4
Sales and service occupations	21.1	17.5	24.9	16.6	14.8	18.7
Trades, transportation, manufacturing or primary-industry occupations	9.6	16.0	3.0	15.3	25.0	4.3
Other visible minorities	100.0	100.0	100.0	100.0	100.0	100.0
Management	7.6	7.8	7.4	8.8	10.2	7.6
Business, finance and administrative occupations	21.5	15.1	29.0	19.1	10.8	26.8
Professional and related occupations	30.6	28.0	33.5	23.7	18.1	28.8
Sales and service occupations	20.4	17.5	23.8	24.8	19.0	30.2
Trades, transportation, manufacturing or primary-industry occupations	19.9	31.7	6.3	23.6	41.9	6.7

Source: Statistics Canada 2006 Census.

Overall, about 30% of the children of immigrants (when they are aged 25 to 54), i.e., the second generation, were in professional occupations, compared to 26% of children with Canadian-born parents, i.e., third-and-higher-generation Canadians who are not members of a visible-minority group. This difference held for each of the four ethnic groups examined in Table 2 (individuals who are not members of a visible minority, Black, Asian, and other visible minorities). Fully 37% of second-generation Canadians of Asian descent were in professional occupations.

2.3 The earnings gap between the second generation and the third-and-higher generations

The high level of educational outcomes of the second generation in Canada, particularly among the visible-minority population, should set the groundwork for potentially successful earnings outcomes. Research indicates that this is largely the case. However, it is analytically difficult to focus on the children of the "new" post-1970 immigration, which has been largely from developing countries such as China and India. The children of immigrants who entered during the 1970s will be under age 40; those of the 1980s immigrants will be under age 30. Hence, many of the "children" (as adults) that are the subject of studies, which typically refer to the population aged roughly 20 to 60, will be from pre-1970s immigrant families.

When using no controls or when controlling only for age, researchers have found that the second generation has earnings above those of the third-and-higher generations. For example, Aydemir and Sweetman (2007), using 2001 Census data for 20-to-64-year-olds,[6] show average annual earnings among male second-generation Canadians[7] that are 13% above those of third-and-higher-generation Canadian males who are not members of a visible-minority group, and 22% higher among women. Aydemir, Chen, and Corak (2005) report similar results across a wider range of indicators. Including individuals aged 16 to 65 and with positive earnings, they find that the second generation has mean annual earnings 9% above those of the third-and-higher generations[8] in the 2001 Census of Population. Hum and Simpson (2007), using the 1999 Survey of Labour and Income Dynamics find similar results: the second generation has a 10% advantage in both hourly wages and annual earnings (unadjusted). Given the significant educational advantage that most of the second generation holds over the third-and-higher generations, these results should not be surprising.

The annual-earnings advantage of the second generation over the third-and-higher generations is significantly reduced when controls are applied for years of schooling, and becomes negative with the introduction of other variables (Aydemir and Sweetman 2007, Table 3). For males when both parents were immigrants, the earnings advantage falls from 18.9% to 8.7% after one controls for years of schooling. When marital status, ethnicity, and urban/rural and city location are added, this advantage becomes negative, at -5.5%. This last effect is related largely to the location variable: urban dwellers have higher earnings, and the second generation is more likely to live in large cities. Hum and Simpson (2007) also conclude that the wage and earnings advantage of the second generation is overstated when education is ignored. They find that the observed wage advantage of the second generation over the third-and-higher generations[9] tends to disappear when the education variable is introduced.

6. Including all persons aged 20 to 64 in the labour force, whether they have earnings or not. That is, Aydemir and Sweetman include the unemployed with zero earnings by assigning 1 dollar in annual earnings.
7. Where both parents were immigrants.
8. Including both individuals who are not members of a visible minority (Whites) and individuals who are members of a visible minority.
9. When employing controls for a number of variables such as community size, region, age, experience, industry, union status, and firm size, but not controlling for education.

Table 3
Percentage difference in annual earnings between the second and third-and-higher generations, Canada, 2000, population aged 25 to 65

	No controls	Add years of schooling	Add marital status ethnicity, urban/rural location
	percentage difference		
Males			
Second generation, mother immigrant	0.133	0.059	-0.045
Second generation, father immigrant	0.077	0.009 †	-0.082
Second generation, both parents immigrants	0.189	0.087	-0.055
Females			
Second generation, mother immigrant	0.095	0.021 †	-0.073
Second generation, father immigrant	0.11	0.039	-0.055
Second generation, both parents immigrants	0.299	0.186	0.016

Notes: † Not significant at p<0.05. Other numbers are significant at p<0.05. The table is based on coefficients from ordinary least square regression with log annual earnings as the dependent variable.
Source: Aydemir and Sweetman (2007). The original data are from Statistics Canada 2001 Census.

It should be noted that these results assume that the returns to years of schooling are identical for immigrants, whether of the second or the third-and-higher generations. In a different model specification, Aydemir and Sweetman relax this assumption. They find lower returns to schooling for the second generation, compared to the third-and-higher generations (9.8% vs. 11.5% return for each additional year of schooling for males; 12.6% vs. 16.7% for females). This possibility of lower returns to higher education may be part of the explanation of the negative wage gap observed after one has accounted for educational and locational differences between the second generation and the third-and-higher generations, and likely deserves more attention.

Evidence from the 2006 Census of Population, which provides a large enough sample to support more detailed analysis, suggests a more subtle picture. Consistent with the above-mentioned research, the second generation of males has weekly earnings about 6% higher than those of the third-and-higher generations, with controls for age only (Table 4). However, this positive wage gap is driven entirely by second-generation Canadian males who are not members of a visible-minority group, which have a 9% lead over their third-and-higher-generation counterparts. Among visible-minority males, the gap is -5%, in spite of the fact that they have higher educational attainment than do second-generation and third-and-higher-generation Canadians who are not members of a visible-minority group. In addition, there is significant variation among visible-minority groups, with the largest gap being registered by Blacks (-21%), and a small positive gap recorded among the Chinese.

Controlling for education results in a larger negative wages gap between second-generation members of a visible-minority group and third-and-higher-generation Canadians who are not members of a visible minority group, as one would expect given visible minorities' higher level of education. Controlling for location also results in a larger negative gap. Once hours of work and other controls for language and marital status are added, the wage gap between second-generation members of a visible-minority group and third-and-higher generations of Canadians who are not members of a visible-minority group decreases to between -5% and -14%, and the wage gap between second-generation immigrants who are not members of a visible-minority group and third-and-higher generations of Canadians decreases to about zero.

The story for women is very similar, except that the initial gaps are positive everywhere as a result of the very high levels of education achieved by second-generation females, particularly among visible-minority females. Location is a very important variable, accounting for much of the positive wage gap, along with education.

This evidence suggests that the unadjusted (except for age) second-generation positive wage gap is associated primarily with men who are not members of a visible-minority group and with women. Among the visible-minority population, the wage gap is due largely to the very high levels of education that visible minorities have and to their location. After accounting for these differences, negative wage gaps with the third-and-higher generations of Canadians who are not members of a visible-minority group develop.

Table 4
Gap in weekly wages between the second generation and the third-and-higher-generation non-visible minorities, 2005, Canada

	Controlling for					
	Age, age squared	Column 1 plus education	Column 2 plus location	Column 3 plus language marital status	Column 4 plus part/full time status	Column 5 plus occupation, industry
	difference (in log points)					
Men						
Second generation (all)	5.6	0.6	-5.4	-3.0	-1.6	-1.1
Second generation White	8.5	4.3	-1.8	-0.4	0.1	0.5
Second generation visible minority	-4.9	-13.0	-19.8	-12.2	-9.5	-8.6
Black	-21.2	-24.1	-29.7	-25.4	-17.7	-13.5
Chinese	4.1	-7.9	-15.7	-9.5	-4.5	-4.9
South Asian	0.8	-9.2	-16.9	-12.6	-6.7	-8.6
Other visible minority	-8.6	-14.2	-20.2	-15.7	-10.7	-8.7
Women						
Second generation (all)	14.1	6.9	-1.6	-0.5	0.9	0.4
Second generation White	13.7	7.7	-0.3	0.7	1.7	1.7
Second generation visible minority	15.8	4.4	-7.1	-5.7	-2.7	-5.2
Black	6.1	-1.0	-13.0	-12.6	-7.9	-10.0
Chinese	24.7	8.8	-3.1	-0.7	1.1	-2.3
South Asian	19.0	4.7	-6.9	-4.9	-2.3	-5.7
Other visible minority	11.3	3.8	-6.8	-5.2	-2.4	-3.5

Note: Coefficients from ordinary least squares regression with log weekly wages as the dependent variable.
Source: Statistics Canada, 2006 Census.

In a review of the literature, no other papers were found that addressed the determinants of second-generation labour market outcomes in Canada. However, there is a significant body of research asking whether there is a wage gap between members of a visible-minority group and individuals who are not members of a visible-minority group in Canada. For a review of this research, see Hou and Coulombe (2010). Results in this area have been mixed: some papers find a wage gap between members of a visible-minority group and individuals who are not members of a visible-minority group (Baker and Benjamin 1994; Pendakur and Pendakur 1998; Stelcner 2000), while others find no wage gap among men or one restricted to the Black population (Hum and Simpson 1999; Pendakur and Woodcock 2008). However, the largest samples from the census data suggest that there is indeed a negative wage gap between members of visible-minority groups and individuals who are not members of a visible-minority group, even in the raw data. This is consistent with the research reported above on the earnings

gaps between the second generation and the third-and-higher generations and with the important role played by visible-minority status.

Other work based on ethnic groups who have received their education in Canada[10] suggests that, not only do levels of educational attainment vary significantly among ethnic groups, as noted earlier, but there is also large variation in the economic returns to an additional year of schooling among ethnic groups (Sweetman and Dicks 1999). Both of these factors would influence earnings outcomes among ethnic groups, but more importantly, even after controlling for education and other variables, researchers found that differing returns to education would contribute to difference wage levels among ethnic groups.

Economic integration among visible minorities in Canada may be a multi-generational process. Skuterud (2010), using data from the 2001 and 2006 censuses, focus on the weekly earnings gap across generations. He finds, after including a number of controls, that the earnings gap between visible-minority groups and third-and-higher-generation Canadians who are not members of a visible-minority group diminishes from the 1.5 generation (those who came to Canada at age 12 or younger, to the second generation, and to the third-and-higher generations of visible minorities. More specifically for purposes of this study, he finds, after conditioning on a large number of variables, including educational attainment,[11] that second-generation males in all visible-minority groups earned less than the third-and-higher-generation Canadians who were not members of a visible-minority group. In 2005, the weekly earnings gap ranged from -.14 log points (roughly -14%) among Blacks to -.033 among the Chinese.[12]

2.4 The intergenerational transmission of earnings among immigrant families

The extent to which earnings are transmitted between immigrants and their children is of interest. If the degree of transmission (correlation) is strong, whatever the mechanism by which this takes place, this fact would hold economic implications for the outcomes of future cohorts of the children of immigrants given the significant downturn in economic outcomes of entering immigrants since the 1980s. Not surprisingly, earnings transmission between the first and second generations is closely tied to the degree of intergenerational transmission of education.

The educational attainment of the second generation is perhaps the most important determinant of its labour market outcomes. It in turn is driven to a considerable extent by, first, the educational attainment of the immigrant parents, and, second, the educational mobility between the immigrant parents and the children. Ideally, children from immigrant families with less educated parents (or parents with low incomes) would display considerable upward intergenerational mobility (little intergenerational transmission of educational attainment), achieving higher levels of education.

Aydemir, Chen, and Corak (2005) concentrate on the earning mobility between the first and second generations in Canada. They find that, on average, the second generation earned more than its immigrant parents at comparable points in the life cycle. However, the fathers' earnings

10. This includes the 1.5 generation (immigrated to Canada at age 12 or younger) as well as second-generation and third-and-higher-generation Canadians (Bonikowska and Hou 2011).
11. More specifically, potential labour market experience, years of schooling, highest educational credential, part-time/full-time job status, marital status, language, location of residence, city/province, and detailed occupation and industry.
12. While negative, these gaps are significantly smaller than those reported by Aydemir and Sweetman (2007). However, the fact that the Skuterud's paper did not allow returns to education to vary across generations and included many more detailed controls, may account for some of the difference.

are somewhat correlated with those of the sons; the sons' earnings are about 2.7% higher for each 10% increase in the fathers' earnings (an intergenerational income elasticity of .27), a relatively low correlation. This correlation is roughly twice as high in the U.S. as it is in Canada. This means that earnings mobility is greater in Canada than in the U.S. Furthermore, the extent to which the sons' earnings are correlated with the fathers' is about the same for immigrant families as for the Canadian-born. By international standards, this is a fairly high degree of earnings mobility. It is comparable to that of the Nordic countries overall, and well above that of the U.S. and the U.K. The fathers' earnings are less of a predictor of the earnings of the sons in Canada than is the case in many countries, among both immigrant and Canadian-born families.

As noted, educational attainment of the children is the most obvious mechanism for intergenerational earnings mobility. Aydemir, Chen, and Corak (2005) ask to what extent the higher educational attainment of the second generation drove the degree of intergenerational earnings mobility observed. They find that, for Canada, education of the children is not the main pathway driving the intergenerational elasticities. They find that the relationship between fathers' income and sons' educational attainment is weak. This is consistent with the earlier findings reported above. It is not family income that drives the educational attainment of the children.

Turning to the issue of "ethnic capital" introduced by Borjas (1992), Aydemir, Chen, and Corak (2005) find that the average level of paternal education in the immigrant community is important. They hypothesize that more educated communities are able to steer their children through the barriers they may face in broader society in a way that gives them an advantage.

2.5 Summary of Canadian labour market outcomes

One would expect labour market outcomes to reflect the significant educational advantage held by the second generation over the third-and-higher generations in Canada, and, in the aggregate, they do. Unadjusted (raw) employment, unemployment, and earnings data suggest that, on average, the children of immigrants are doing as well as, or better than, the children of Canadian-born parents. The employment rates of children of immigrants and those of the third-and-higher generations are similar. As well, unemployment rates are lower, and earnings are higher, among the children of immigrants than among the third-and-higher generations. However, these raw aggregate data mask important differences between the generations.

Employment and unemployment data suggest greater employment difficulties among second-generation members of a visible-minority group. The occupational data reflect the second generation's educational attainment: those among the second generation who are employed are more likely to be in professional occupations, and less likely to be in blue-collar occupations, than the third-and-higher generations.

Among those employed, average earnings of second-generation Canadians surpass those of the children of Canadian-born parents, with no controls. Educational attainment accounts for more than half of the earnings advantage. Location of residence is also important. Immigrants and their children tend to live in large urban centres, where wages are higher.

However, this situation does not apply to second-generation male members of a visible-minority group. On average, they earn less than third-and-higher-generation Canadians who are not members of a visible-minority group, in spite of the fact that they are more likely to live in large centres and that they have higher levels of educational attainment. After accounting for these differences, including that they are less likely to work in full-time jobs, and after controlling for other demographic and work characteristics, the wage gap between this group and third-and-higher-generation non visible minorities is in the -5% to -14% range.

It may be that economic integration is a multi-generational process. The earnings gap for visible minorities (relative to third-and-higher-generation Canadians who are not members of a visible minority) is reduced across generations; it is greatest among the first generation, decreases with the second, and falls even more among the third. This may be related to a very long-term acculturation process.

There is considerable intergenerational earnings mobility between the first and second generations. Intergenerational earnings mobility in Canada is about the same among immigrant families as among Canadian-born families, and is greater than that among immigrants or the American-born in the U.S. Ethnic capital is an important determinant of this process in Canada. It not only accounts for part of the educational outcomes of the second generation, but is also an important factor in the transmission of earnings from the first to the second generation, above and beyond its effect on the education of the second generation.

3 Labour market outcomes among the children of immigrants in the U.S.

3.1 Educational outcomes among the children of immigrants in the U.S.

Since educational attainment is such an important variable regarding labour market outcomes, the following is a brief summary of second-generation educational outcomes from a review paper by Picot and Hou (2011).

American children with immigrant parents have unadjusted educational attainment levels roughly equal to, or marginally higher than, those of the children of American-born parents (Card, DiNardo, and Estes 2000; Chiswick and DebBurman 2004). After accounting for differences in parents' educational attainment, residential location, family status, and other variables, it is found that the second generation achieves higher educational levels than the third-and-higher generations (Card et al. 2000; OECD 2006).

However, as in Canada, there are significant ethnic group/nationality differences. In the U.S., the second generation whose parents were immigrants from Mexico or other Central/South American countries have significantly fewer years of schooling than do third-and-higher-generation Whites. While Americans whose parents were immigrants from Europe, Asia, and Africa register more. Much of this inter-ethnic group difference is related to differences in the educational attainment of the parents.

The sociological literature finds that parents' education and socio-economic status are important, but, even after accounting for these factors, differences in educational outcomes among ethnic groups persist, as they do in Canada (e.g., Rumbault 2005). Parental expectations regarding educational attainment may play a role, as does family structure; second-generation children from intact families are found to have superior outcomes. As well, the incidence of lone parenthood is greater among some ethnic groups than among others.

The degree of "stickiness" between the educational attainment of the immigrant parents and that of their children is greater in the U.S. than in Canada (Card et al. 2000; Card 2005). That is, the correlation between the parents' and their child's educational attainment is higher. There may be dimensions of the Canadian education system that result in higher levels of educational mobility between generations. More is said of this later. Encouragingly, as in the Canadian case, some research suggests that the major gains of the second generation over the third-and-higher generations are made by children whose parents have very low levels of education. Also, as seen in Canada, it is the fathers' education, not the fathers' income, that is the primary determinant of educational outcomes of the children.

Much of the concern regarding educational outcomes in the U.S. focuses on the Mexican and other Hispanic/Latino immigrant communities. However, significant gains in relative educational attainment are made by these groups across generation from the immigrants (first generation), to their children, and even to the third-and-higher generations (Smith 2003). Blau and Kahn (2005) found significant intergenerational gains in educational attainment between the first and second Mexican generations, but not beyond. Fry and Lowell (2005) also conclude that assimilation progress among Mexicans appears to stall after the second generation.

3.2 Participation rates, unemployment rates, and occupational outcomes

As was the case for Canada, very few American studies have focused on the determinants of employment, unemployment, and occupational outcomes among the children of immigrants. Mosisa (2006) produced descriptive results based on data from March 2005 Current Population Survey.

Among 25-to-54-years-olds, labour force participation rates are about the same for the children of immigrants as among the third-and-higher generations of Americans, at around 80% (Table 5). There are differences between ethnic groups: second-generation Asians and Blacks had rates around 80%. Hispanics and Latinos had somewhat higher rates, at 83%, as did Whites, at 85%. Unemployment rates were also very similar between the second generation and the third-and-higher generations (at 4.6%).

The marginally higher educational attainment of the second generation as a whole in the U.S. is reflected in the occupational outcomes (Table 6). Overall, the children of immigrants aged 25 to 54 were more likely to be in professional occupations than the third-and-higher generations (27%, compared to 23%). However, there was considerable difference by ethnic group, again reflecting to some extent educational attainment. Among the children of immigrants, Asians had the highest proportion in professional occupations, at 36%, followed by Whites and Blacks, among whom around 30% were in professional occupations in 2005. Americans of Hispanic/Latino origin were least likely to be in professional occupations, at around 19%. They also had the smallest share holding degrees, at around 21%.The children of Black immigrant families were much more likely to be in the professions than their Black third-and-higher-generation counterparts (at 17%); this is likely because their educational attainment was much higher. Thirty-seven percent of second-generation Blacks held degrees, compared to only 18% of third-and-higher-generation Blacks.

Table 5
Labour force participation and unemployment rates of the second- and third-and-higher-generation Americans aged 25 to 54, March 2005

	Total		Men		Women	
	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation	Second generation	Third-and-higher generation
	rate					
Labour force participation rates						
Total	79.6	79.2	84.9	84.7	74.0	74.0
Education attainment						
Less than a high school diploma	68.9	63.6	77.0	72.2	59.0	53.8
High school graduates	79.1	80.5	86.7	86.9	69.6	73.6
Some post secondary education	85.5	84.4	92.4	90.5	78.6	79.5
University degree	87.6	89.4	93.1	95.3	82.4	84.1
Race and Hispanic or Latino ethnicity						
White non-Hispanic or Latino	84.5	84.2	90.9	90.9	77.7	77.7
Blacks	79.9	78.7	85.1	79.7	74.9	77.9
Asians	80.9	80.3	84.1	87.2	77.0	73.7
Hispanic or Latino	82.8	78.8	90.5	85.5	75.2	72.5
Unemployment rates						
Total	4.6	4.6	5.5	4.9	3.6	4.2
Education attainment						
Less than a high school diploma	8.3	11.9	6.5	10.7	11.2	13.8
High school graduates	6.4	5.8	8.4	6.2	3.3	5.2
Some post secondary education	4.6	4.3	6.4	4.5	2.5	4.2
University degree	3.1	2.2	2.7	2.4	3.5	2.0

Source: Mosisa (2006).

In spite of their higher levels of education and their higher proportion in professional occupations, the median annual earnings of second-generation *males* were about the same as those of the third-and-higher generations ($44,000 and $43,000, respectively). The unadjusted (raw) data suggested that second-generation women earned more than their third-and-higher-generation counterparts. Not surprisingly, here too there were significant differences by ethnic groups. Second-generation Asians earned the most (at $47,000), followed by second-generation Whites, Blacks, and Hispanics/Latinos (the latter at $33,000). This in part reflects education and occupation differences. Notably, second-generation Blacks earned significantly more than their third-and-higher-generation counterparts ($40,000 vs. $30,000).

Table 6
Occupational distribution of the employed second- and third-and-higher-generation Americans aged 25 to 54, March 2005

	Second generation			Third-and-higher generation		
	Total	Men	Women	Total	Men	Women
			distribution			
Total	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations	17.6	16.7	18.8	16.3	17.2	15.4
Professional and related occupations	27.1	22.4	32.8	22.8	17.7	28.3
Sales and service occupations	37.0	30.8	44.4	37.8	27.0	49.4
Blue collar: construction, transport, production, etc.	18.2	30.1	4.0	23.1	38.2	6.9
White non-Hispanic or Latino	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations	20.8	21.2	20.2	17.5	18.7	16.2
Professional and related occupations	30.0	23.7	37.7	24.0	18.7	29.9
Sales and service occupations	32.3	26.9	38.8	36.0	25.6	47.8
Blue collar: construction, transport, production, etc.	16.8	28.2	3.3	22.5	37.0	6.3
Blacks	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations	12.1	8.2	15.9	10.6	8.5	12.3
Professional and related occupations	30.3	30.0	30.6	17.4	11.6	22.1
Sales and service occupations	44.8	36.3	53.3	45.9	34.7	54.9
Blue collar: construction, transport, production, etc.	12.8	25.6	0.3	26.1	45.3	10.7
Asians	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations	19.0	14.3	25.3	19.2	19.9	18.4
Professional and related occupations	36.7	37.9	35.1	31.1	26.6	35.8
Sales and service occupations	32.9	30.5	36.2	39.7	38.1	41.4
Blue collar: construction, transport, production, etc.	11.4	17.3	3.4	10.0	15.4	4.3
Hispanic or Latino ethnicity	100.0	100.0	100.0	100.0	100.0	100.0
Management, business, and financial operations	12.3	10.5	14.4	12.7	12.5	12.9
Professional and related occupations	19.2	13.7	25.7	16.5	12.7	20.8
Sales and service occupations	45.2	37.6	54.2	45.6	33.4	59.3
Blue collar: construction, transport, production, etc.	23.3	38.2	5.7	25.2	41.5	7.0

Source: Mosisa (2006).

3.3 The earnings gap between the second generation and the third-and-higher generations

As noted above, absent any controls, the labour market outcomes of second-generation Americans at any point in time are very similar to those of third-and-higher-generation Whites and are superior to those of third-and-higher-generation members of a visible-minority group. Using data from the early 2000s, Aydemir and Sweetman (2007) find employment and unemployment rates and earnings that are very similar between the second generation and the third-and-higher generations (Table 7).[13] After controlling for age, they find that second-generation immigrants earn more than their third-and-higher-generation counterparts. Card (2005) finds that, after controlling for age, second-generation immigrants have 8%-higher wages. Borjas (2006) finds a 7%-to-9% gap in 2000.

13. Aydemir and Sweetman compute estimates for various types of second-generation and third-and-higher-generation Americans. See Table 11 to 13 in their paper.

Table 7
Labour market outcomes of second- and third-and-higher-generation Americans, 1998 to 2004, no controls, population aged 25 to 65

	Immigrant		Second generation			Third-and-higher generation	
	Age at immigration ≥ 12 years	Age at immigration ≤ 11 years	Father only	Mother only	Both	White	Other
Males							
Employed (%)	85.4	86.2	81.4	84.9	82.5	84.6	74.6
Unemployed (%)	4.6	4.4	3.4	4.1	3.8	3.3	6.2
Annual earnings (thousands of dollars)	32.3	36.9	43.6	44.5	40.8	42.1	27.5
Females							
Employed (%)	58.2	71.4	69.9	74.6	69.9	71.5	68.5
Unemployed (%)	4.3	3.1	2.7	3.0	3.3	2.3	4.8
Annual earnings (thousands of dollars)	14.5	22.2	22.3	23	21.5	21.2	18.4

Source: Aydemir and Sweetman (2007) with data from Current Population Survey.

As noted in much of the literature, the source region of the parent (immigrant) is an important determinant of these wage differentials. In 2000, second-generation members with parents from Mexico, Nicaragua, Haiti, El Salvador, and the Dominican Republic had wage gaps in the order of -4% to -19% (age-adjusted, compared top the third-and-higher generations as a whole), while those whose parents were from countries such as Canada, Germany, Greece, India, Poland, and the U.K. had large positive gaps in the range of 17% to 27% (Borjas 2006). This is an important finding given the increase in the share of immigrants from Mexico and other Central and South American countries.

The overall relative wage advantage of the second generation has been declining through time in the U.S. Borjas (2006) shows that the wage advantage of second-generation males over their third-and-higher-generation counterparts (age-adjusted only) has declined from 18% in 1940, to 15% in 1970, and to just 6% in 2000. Just as relative earnings among immigrants have been declining, certainly since the late 1970s, so too have relative wages among the children of immigrants. Changing source regions of immigrants and factors correlated with this change, such as educational attainment, may be a significant part of the explanation of this decline in the gap (Borjas 2006).

Most of the wage gap between the second generation and the third-and-higher generations at a point in time can be accounted for by where the second generation lives and by its higher educational attainment. Borjas (2006) finds that controlling for both education and age reduces the gap between second-generation and third-and-higher-generation males to 3% from 6%. In a separate study, Card (2005) controls for region of residence and reduces the gap between the second generation and the third-and-higher generations to around 3% from 8% (Table 8). Adding controls for education reduces this figure yet again, to around 1.5%. These two variables (educational attainment and location of residence) are important in explaining the wage gap in Canada as well.

However, these specifications assume identical returns to education for second and third-and-higher generations. Some Canadian research and some U.S. research, shown below, suggest lower returns for second-generation members of a visible-minority group in particular.

Table 8
Hourly wage gap between second- and third-and-higher-generation Americans, 1995 to 2002, population aged 21 to 64

Coefficient	Controls for: Age	Column 1 plus region/urban	Column 2 plus education	Column 3 plus race/ethnicity
		percentage differences		
Men	8.0	3.6	1.5	2.3
Women	8.3	3.0	1.2	1.9

Note: Virtually all coefficients are statistically significant.
Source: Card (2005). Original data are from Current Population Survey.

The research of Aydemir and Sweetman (2007) (and others) suggests that educational attainment reduces the gap (Table 9). However, as with the Canadian case, there is evidence that the returns to education are lower among second-generation Americans than among third-and-higher-generation Americans. Returns to years of schooling are seen to be 14.0% for each additional year among the third-and-higher generations and 12.6% among second-generation males. Similar differences are observed for females, although the rates of return are higher for females than for males. While the differences in the rates of return are not statistically significant, they are of the same order of magnitude as in the Canadian case, where they are statistically significant as a result of the larger sample size.

Table 9
Percentage differences in annual earnings between the second and third-and-higher generations, United States, 1998 to 2004, population aged 25 to 64

	No controls	Column 1 plus years of schooling	Column 2 plus add marital status ethnicity, urban/geographic location
		percentage differences	
Males			
Second generation, mother immigrant	0.014	-0.015	0.004
Second generation, father immigrant	-0.026	-0.068	-0.068
Second generation, both parents immigrants	0.021	-0.009	0.001
Females			
Second generation, mother immigrant	0.077	0.055	0.006
Second generation, father immigrant	0.023	-0.019	-0.072
Second generation, both parents immigrants	0.088 *	0.077	-0.026

* Statistically significant.
Note: The table is based on coefficients from ordinary least square regression with log annual earnings as the dependent variable.
Source: Aydemir and Sweetman (2007). Original data are from Current Population Survey.

3.4 The intergenerational transmission of earnings among immigrant families

As in Canada, there is concern in the U.S. about the intergenerational transmission of earnings, given that earnings have declined among entering immigrants since the 1980s. If intergenerational transmission between immigrants and their children is strong, then wage declines among immigrant parents in the 1980s and 1990s may be passed on to future generations of their children.

Borjas (2006) focuses on the intergenerational transmission of earnings and on the factors affecting it. Wages of the second generation are seen to be 5% to 10% higher than those of the immigrant parents. Rising intergenerational educational attainment levels appear to be responsible for much of the intergenerational wage gain, since the intergenerational wage gain largely disappears once the data are adjusted for differences in educational attainment between generations. Borjas estimates an intergenerational wage correlation, after controlling for age, of around 0.56 for men and of 0.28 for women over the 1970-to-2000 period. That is, in the case of men, about half of the wage advantage or disadvantage of the parent is passed on to the offspring. These correlations are higher than in Canada which suggests that wages are "stickier" between immigrant generations in the U.S than in Canada, and that there is less intergenerational wage mobility in the U.S. than in Canada.

Once again, education appears to account for much of the "stickiness" in wages between generations in the U.S. After controlling for both age and education, the authors find that these intergenerational correlations decline by about half, to 0.25 for men, for example. Much of the intergenerational transmission of wages reflects intergenerational transmission of education. The estimate of the (age-adjusted) intergenerational wage correlation of 0.56 for men, for example, is higher than that typically observed among the U.S. population as a whole (between 0.2 and 0.4). Thus, wage "stickiness" between immigrants and their children is relatively high.

Borjas (2006) argues that this greater degree of intergenerational "stickiness" is associated with "ethnic capital." That is, a child's outcome depends not only on his or her parents' socio-economic status and activities, but also on the environment in which the child is raised. An advantaged environment, where most parents have a university education, for example, provides the children with valuable charcateristics that improve their outcomes later in life, independent of family effects. An environment where most members have not completed high school may have the opposite effect. Borjas points to a number of studies that suggest that "ethnic capital" can have such an effect (Borjas 1995; Cutler et al. 2005). Canadian research also suggests that "ethnic capital" is an important component of the intergenerational transmission of wages (Aydemir, Chen, and Corak 2005).

The concern regarding wage "stickiness" seems to be related largely to the low wages and educational levels among immigrants with Hispanic/Latino, notably Mexican, backgrounds. Will these lower levels be characteristics of their children? Smith (2003) addresses the issue of intergenerational educational attainment and wage transmission for Hispanic/Latino (including Mexican) father-son pairs. He finds rapid decreases in the wage gap with the third-and-higher generations from the first to the second generation. For example, Mexican *immigrants* born between 1940 and 1944 had a wage gap (deficit) of 35% with third-and-higher-generation Whites, age-adjusted. Among their sons, the gap was reduced to 18%.

Much of this wage gap is due to the fact that the educational attainment among Mexicans, no matter of which generation, is less than among third-and-higher-generation Whites. Hence, one would expect them to earn less. Focusing on the gap between second-generation Mexicans and third-and-higher-generation Whites, Smith (2003) concludes that these differences in educational attainment account for slightly less than half of the gap. This gap falls from 17% to 10% when adjusted for educational attainment. Hence, while educational attainment counts for some of the wage gap, much remains after adjusting for that factor.

Fry and Lowell (2005) come to a similar conclusion when focusing on the wage gap between second-generation Hispanic/Latino (Mexican, Puerto Rican, and other Central/South Americans) workers and third-and-higher-generation Whites. They find that more than half of the negative wage gap is accounted for by the lower educational attainment and potential experience of second-generation Hispanic/Latino Americans.

Smith (2003) finds intergenerational transmission elasticity of 0.46 between those of Mexican extraction of the first and second generations. This result is somewhat on the high side, compared to estimates for non-immigrant populations in the U.S., which tend to be in the 0.2 to 0.4 range. There is a considerable degree of "stickiness" in the intergenerational transmission of wages among Mexicans. As stated above, this "stickiness" was noted by Borjas (2006), who argues that "ethnic capital" may be responsible. The disadvantages apparent among the immigrant parents are passed on to a greater extent than among non-immigrant families.

3.5 Summary of labour market outcomes in the U.S.

Participation rates and unemployment rates among the children of immigrants and among the children of American-born parents are roughly the same. As a result of the second generation's somewhat higher levels of education, a larger share of second-generation than of third-and-higher-generation Americans work in professional occupations. Particularly high levels of concentration in professional occupations are observed among the children of immigrants of Asian background. Second-generation Blacks also have a relatively high share in professional occupations, equal that of second-generation Whites and much above that of third-and-higher-generation Blacks.

Second-generation Americans earn, on average, about the same as, or somewhat more than, their third-and-higher-generation counterparts (age-adjusted). However, this positive wage gap has declined over the last few decades.

There is significant variation in the gap between the second and third-and-higher generations by ethnic group/nationality. Children of immigrant parents from Mexico and other Central/South American countries earn significantly less than the third-and-higher generations as a whole, while those with parents from Canada, Western Europe, and Northern Europe earn more. The share of immigrants, and hence the share of the second generation as well, from Central and South American countries has been rising since the 1980s.

Much of the economics research in the U.S. focuses on the intergenerational transmission of wages between immigrants and their children. The children do experience higher average wages than their immigrant parents, largely as a result of higher educational attainment. Nevertheless, the intergenerational transmission of wages is found to be "stickier" among immigrant families than among the U.S. population as a whole.

Immigrant ethnic groups with a wage advantage pass on this advantage to their children more than is the case for American families overall, and those with a wage disadvantage also pass this on to a considerable extent and more than is the case among Canadians, whether immigrants or not. Intergenerational transmission of educational attainment is also relatively "sticky" among immigrant families in the U.S., and some of the "stickiness" in wages reflects this "stickiness" in educational attainment. Much of it also likely reflects the effect of "ethnic capital," part of which is the educational attainment of the community as a whole.

However, the economics literature suggests that there is positive assimilation along the wage dimension among Hispanics, including Mexicans, in the U.S. Wages are higher among second-generation children belonging to these groups than among their immigrant parents. Perhaps more importantly, the negative wage gap with third-and-higher-generation Whites is large among immigrants in these ethnic groups, but narrows considerably among the second generation (their children), and is even smaller among the third generation. This progression is partly related to higher levels of education among successive generations.

Economic integration may be a multi-generational process in the U.S. as in Canada. Nonetheless, even though there are on average intergenerational gains in relative wages, even among Hispanics, including Mexicans, the low levels of educational attainment and wages among the immigrant parents and the relatively “sticky” intergenerational processes mean lower wages among the second generation. The share of immigrants and of second-generation Americans in these groups has risen over the last 30 years.

4 A summary of the determinants

The research reviewed above suggests that the determinants of *earnings* outcomes (notably earnings gaps) for the second generation include:

- Years of schooling

  An important determinant of wages in any wage model, this variable accounts for perhaps one half of the positive wage gap between the second generation and the third-and-higher generations in Canada, and perhaps for most of the intergenerational gain in wages between the first and second generations in the U.S. However, some preliminary research suggests that in Canada the second-generation visible-minority population had lower returns to education than the third-and-higher generations which had the effect of reducing the importance of this variable on the earnings of the second generation.

- Place of residence

  This variable is an important determinant of the observed wage gaps. Wages tend to be higher in large urban areas than elsewhere, and it is here that immigrants and their children (as adults) tend to live. Place of residence accounts for almost as much of the difference in the wage gap between the second generation and the third-and-higher generations as years of schooling.

- Ethnic group/source region

  Even after controlling for variables such as education and residential location, ethnic group differences in earnings among the second generation persist. In Canada, second-generation Blacks tend to earn less, while the second-generation Chinese tend to earn more than other visible-minority groups. As well, there are significant differences in the economic returns to education across ethnic groups which will influence earnings outcomes.

- The "stickiness" of wages between the first and second generations

  Since first-generation immigrants often find themselves with low wages (relative to the third-and-higher generations), wage mobility between these immigrants and their children (as adults) is important. Generally speaking, wage mobility is greater among immigrant families in Canada than in the U.S. This Canada–U.S. difference is also evident among the population as a whole, not just among immigrants. Much of the higher level of "stickiness" in intergenerational *wage* mobility in the U.S. is a reflection of the higher intergenerational "stickiness" of *educational* outcomes also observed in the U.S. In the U.S., intergenerational wage transmission is particularly "sticky" among Mexicans, although those of Mexican origin of the second generation do, on average, outperform their immigrant parents.

- Ethnic capital

  This variable plays a role in the intergenerational transmission of wages (from the first to the second generation). In Canada, the average level of educational attainment of the ethnic community is an important determinant of the wages of the second generation. In the U.S., the lower intergenerational wage mobility is due in part to a lack of "ethnic capital" among some groups, notably Mexican immigrant communities.

5 Conclusion and discussion

Overall, the children of immigrants in both Canada and the United States, along with those of immigrants in Australia and the U.K., register very positive educational and labour market outcomes when compared to the third-and-higher generations. In the aggregate, employment and unemployment rates are equal to, or better than, those of the third-and-higher generations, and among those employed, earnings are superior. The second generation is more likely to work in professional occupations than the third-and-higher generations, reflecting the higher levels of education of members of the second generation.

There are two caveats regarding this overall picture.

The first caveat is that there are significant differences in outcomes among ethnic/source region groups. Basically, second-generation *Canadians* whose parents originate from developing nations such as China, India, and Africa have higher educational outcomes, whereas those with backgrounds from developed regions such as Europe, the U.S., and Australia have better economic and labour market outcomes (controlling for differences in background characteristics). The second-generation visible-minority population does as well as, or better than, the third-and-higher generations economically, in large part as a result of its very high education attainment. However, after accounting for differences in educational attainment, residential location, and other variables, they tend to earn somewhat less than the third-and-higher generations.

This observed negative wage gap (compared to non-visible minority third-and-higher generations and conditional on background and job-related characteristics) is most evident among the Black population, with wage gaps of around -10% to -15%. The Black population is a relatively small population in Canada; 6.7% of immigrants, 3.2% of the second generation, and 1.1% of the third-and-higher generations were Black in 2006.

Wage discrimination may or may not be a contributing factor. Relatively little Canadian economics research has been carried out on this issue. In a randomized Canadian field experiment, Oreopoulis (2008) did find that job applicants with English-sounding names and Canadian experience were much more likely to be called for an interview (all other job and personal characteristics identical) than applicants with Asian-sounding names and foreign experience.

In the *United States,* concerns in the sociological literature regarding poorer outcomes focus on the children of Central and South American immigrants. This literature suggests that low educational attainment among the parents, larger numbers of single parent families, and other factors combine to produce poorer outcomes for the Hispanic/Latino second generation. It is important to recall that the economics literature indicates that, on average at least, there are significant improvements intergenerationally among Hispanic, including Mexican, immigrant families. Furthermore, the children from Mexican immigrant families outperform the third-and-higher generations with similar family characteristics. However, the educational attainment of the immigrant parents is low; hence, in spite of this higher level of outcome (conditional on background characteristics), unconditional outcomes among the children tend to be low. The lower level of intergenerational educational and earnings mobility observed among Mexican immigrant families also plays a role.

The second caveat relates to the fact that the results reported are derived primarily from the children of immigrants who entered North America before the 1980s. Immigrants entering since the 1980s differ in two important ways from their predecessors. First, their background characteristics are different: they are more highly educated and came from somewhat different

source countries. Second, their economic outcomes tended to be poorer. It is too early to tell whether these factors will influence the educational and labour market outcomes of their children in the years to come.

Canada displays considerable mobility in the intergenerational transmission of education and labour market outcomes among immigrants and among the population as a whole. Coming from a less educated immigrant family or a poor one does not necessarily mean that the children will have poor educational or labour market outcomes. The "stickiness" in the intergenerational transmission of education is much lower among immigrant families than among Canadian-born families, and is lower among Canadian families than American ones, immigrant or not. A child from a less educated immigrant family is more likely to achieve a higher level of education than a child from a similarly educated family with Canadian-born parents. In addition, declining incomes among the more highly educated families may have little effect, since educational outcomes of the children are driven more by the educational attainment of the parents than by their parents' incomes. There is some evidence based on the 1.5 generation, children entering Canada at age of 12 or younger to support this view (Bonikowska and Hou 2011).

Regarding changing characteristics of immigrants, in *Canada*, as a result of the changes to the selection process for skilled economic immigrants, the educational attainment of entering immigrants rose dramatically during and after the 1990s. Various authors[14] have commented on the positive effect on the second-generation educational outcomes of selecting highly educated immigrants. In 1981, one-quarter of recently entering male immigrants[15] had a university degree; by 2006, this figure was almost 60%. The trend is similar among women, but the proportions are somewhat lower (Appendix Text table 1).

Regarding changing source regions, increasing numbers of Canadian immigrants come from China, India, and other Asian countries and these immigrants appear to place a high value on educational attainment of their children. The share of male entering immigrants aged 25 to 54 from South and East Asia (mainly China and India) rose from 16% in the late 1970s to 40% in the early 2000s. Similar trends hold for women (Appendix Text table 1). The second generation of immigrants from these groups registers high educational outcomes.

Trends among more recent immigrants—parents of future second-generation workers—are somewhat different in the *United States.* First, the educational attainment of entering immigrants did not increase over the 1980s and 1990s in the U.S. as it did in Canada (Appendix Text table 1). The share of entering immigrants with a university degree changed little, from 33% to 35%, between the late 1970s and the early 2000s. Hence, relative to that of the American-born population, educational attainment of immigrants has been falling. The fact that most immigrants to the U.S. enter through "family reunification" makes it more difficult in that country to alter characteristics such as educational attainment. As has been discussed, the educational attainment of the immigrant parents affects the educational outcomes of the children.

Second, there was a shift in immigrant source regions toward Mexico and other South and Central American countries in recent decades. About one quarter of male adult immigrants who entered the U.S. in the late 1970s were from South and Central America; by the early-2000s entering cohort, this number had risen to one-half (Appendix Text table 1). Outcomes among the second generation are less positive for these groups.

Second-generation outcomes are the result of a number of stages. A first stage is immigrant selection. The educational level, source region, language, and other characteristics of

14. E.g., Boyd 2002, Aydemir and Sweetman 2007, and Hum and Simpson 2007.
15. Aged 25 to 54 and entered during the previous five years.

immigrants affect the outcomes of their children. The points system in Canada and Australia provides a policy lever unavailable in some other countries. Of course, selection is also affected by factors such as physical proximity, Mexico to the U.S., for example. Finally, immigrants also exert a selection influence in terms of their immigration decision and destination choices.

Conditional on the characteristics of the immigrants selected, the second stage that affects second-generation outcomes is the degree of intergenerational education mobility between immigrants and their children. This aspect is particularly important for children from immigrant families with lower educational attainment.

Conditional on the educational attainment achieved, the third stage is the entry into the labour market. A number of factors can potentially influence the experience of the children of immigrants at this stage

Overall, in both Canada and the U.S. the (unconditional) educational and labour market outcomes of the children of immigrants are equal to or better than those of the third-plus generations. Some caveats to this general conclusion have been noted.

Appendix

Text Table 1
Source regions composition and educational attainment of new immigrants in the United States and Canada, aged 25 to 54

	Men				Women			
	1980	1990	2000	2005	1980	1990	2000	2005
				percent				
United States								
Source region								
North America	2.6	2.0	2.6	1.8	2.8	2.1	2.8	2.1
Carribbean	7.0	7.2	6.9	5.1	7.6	7.7	7.8	6.2
South and Central America	25.1	32.2	40.6	49.3	24.8	30.9	36.6	40.9
Northern Europe	4.4	3.9	3.3	2.6	4.4	3.5	2.7	2.1
Western Europe	2.7	2.5	3.0	2.2	3.4	2.9	2.9	2.0
Southern Europe	4.5	1.9	1.7	1.3	3.8	1.5	1.6	1.2
Eastern Europe	6.0	6.2	7.7	5.5	6.0	5.8	8.7	7.0
Africa	3.9	3.9	5.8	5.9	2.1	2.3	5.0	5.5
South Asia	5.4	5.6	8.7	8.5	4.1	4.1	7.1	7.2
Southeast Asia	13.4	9.3	5.6	5.2	16.2	13.7	8.4	9.4
East Asia	12.8	15.6	10.4	9.1	14.4	17.2	12.9	12.7
West Asia	6.4	4.4	2.9	2.5	4.8	3.7	2.6	2.6
Oceania and other	5.8	5.2	0.9	1.0	5.6	4.6	1.0	1.1
With a university degree	33.0	33.9	36.3	35.0	19.7	26.0	32.3	36.0
Canada								
Source region								
North America	6.9	2.4	1.6	1.9	7.9	3.5	2.1	2.4
Carribbean	6.8	4.5	3.0	2.9	7.2	6.0	3.6	3.2
South and Central America	6.4	8.8	4.4	7.2	6.6	9.2	5.2	7.7
Northern Europe	17.3	4.7	2.6	3.0	15.0	4.9	2.0	2.1
Western Europe	5.7	2.5	3.6	3.4	5.6	2.7	3.2	2.7
Southern Europe	7.9	5.3	5.3	2.4	7.2	4.3	4.8	2.1
Eastern Europe	5.7	12.9	10.3	9.9	5.5	11.3	11.0	10.8
Africa	6.5	8.6	9.6	12.7	5.4	5.8	7.4	9.7
South Asia	6.2	9.8	18.7	20.3	6.9	7.3	15.1	17.8
Southeast Asia	14.9	11.2	6.5	7.2	15.6	15.7	9.9	10.5
East Asia	10.0	19.2	25.1	20.4	11.9	21.4	27.9	23.1
West Asia	4.4	9.3	8.6	8.0	3.6	7.1	7.3	7.2
Oceania and other	1.5	0.7	0.6	0.8	1.5	0.7	0.5	0.6
With a university degree	26.2	28.2	52.9	59.7	16.4	21.1	41.7	51.1

Note: New immigrants include those who immigrated to Canada within the previous 5 years.
Source: Bonikowska, Hou, and Picot (2011).

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