Economic integration of immigrants' children

Boris Palameta

Much has been written about the ever-widening gap in earnings and low-income rates between recent immigrants to Canada and their native-born counterparts (Picot and Hou 2003, Frenette and Morissette 2003, Aydemir and Skuterud 2004, and Picot, Hou and Coulombe 2007). However, challenges associated with the integration of immigrants often extend beyond the first generation. If the children of immigrants—the second generation—experience similar impediments to social and economic integration as their parents did, then low socioeconomic status may persist, risking the creation of persisent underclasses. For example, in some European cases, low educational attainment and low socioeconomic status in the parental generation is linked to relatively low educational attainment among immigrants' children, leading to less successful labour market outcomes (Osterberg 2000, Nielsen, Rosholm, Smith and Husted 2001, and Van Ours and Veenman 2002, 2003). Second-generation disadvantage is also postulated in the case of some immigrant communities in the United States (Zhou 1997), although empirical evidence has been limited by lack of information on parental birthplace.

For several good reasons such scenarios of second-generation disadvantage may not apply to Canada. First, immigrants are on average just as educated or more educated than the native-born, largely because education weighs heavily in the criteria used for admission into Canada. Second, the educational attainment of immigrants' children tends to exceed that of their peers with two native-born parents (Boyd and Grieco 1998, Boyd 2002, and Hansen and Kučera 2004). Third, Canada is one of only two OECD countries (Australia is the other) where the second generation performs as well as those with native-born parents on standardized math and reading tests given to 15–year–olds (OECD 2007).[1] Fourth, the correlation between parental earnings and the eventual earnings of their children tends to be low in Canada—for immigrants and non-immigrants alike (Aydemir, Chen and Corak 2005). Therefore, even if immigrant earnings deficits in relation to the native-born are increasing, it does not necessarily mean that immigrants' children will be worse off than the children of Canadian-born parents.

The high educational attainment of the second generation in Canada—sometimes termed the 'main legacy of immigration'—is often used to explain the higher earnings and wages enjoyed by the second generation, relative to those of third generation and higher Canadians (Hum and Simpson 2004). Returns on education may, however, vary by parental region of origin (Aydemir, Chen and Corak 2005).

Most previous research on the second generation in Canada has focused on older cohorts, most of whose parents came from the United States, the United Kingdom or Europe prior to the changes in Canada's *Immigration Act* in the 1960s. These changes abolished national origin as a criterion of admission and ushered in a new era of immigration from non-traditional source countries, primarily in Asia. This paper focuses on young second-generation Canadians, born between 1967 and 1982, many of whose parents would have come from non-traditional source countries.

The family characteristics, geographical distribution, educational attainment, and labour force attachment of second-generation Canadians, aged 17 to 29, are compared with those of their peers with native-born parents (see *Data source and definitions*). In addition, wages and earnings are examined over a six-year period among members of the cohort who are working rather than going to school. Regression models are used to examine the role variables such as education, geography and childbirth play in explaining earnings differences between second-generation and other Canadian youth. Looking at 17– to 29–year–olds may yield a somewhat incomplete picture of new labour

Boris Palameta is with the Social Research and Demonstration Corporation (SRDC). He can be reached at 613-237-2945 or at perspectives@statcan.ca.

Data source and definitions:

The **Survey of Labour and Income Dynamics** (SLID) covers roughly 97% of the Canadian population, excluding those who live in the territories, in institutions, on Indian reserves or in military barracks. Each panel of respondents, approximately 15,000 households and 30,000 adults, is surveyed for six consecutive years. A new panel is introduced every three years, so two panels always overlap. Although three complete panels are available (1993 to 1998, 1996 to 2001, and 1999 to 2004), only the last two were used since parents' country of birth was not asked prior to 1996.

The sample (9,163) consisted of persons aged between 17 and 29 in the first year of the panel, divided into groups based on their own and their parents' place of birth:

First generation, recent immigrants, 5.5% of the population. Born outside Canada, had lived in Canada less than 10 years when the panel began. Most arrived as adolescents.

First generation, established immigrants, 5.8% of the population. Born outside Canada, had lived in Canada 10 or more years when the panel began. Most arrived under the age of 12 (although a few arrived older).

Second generation, 10.1% of the population. Born in Canada to two immigrant parents.

The '2.5 generation', 8.4% of the population. Born in Canada to one immigrant parent and one native-born parent.

Third generation and higher Canadians, 64.8% of the population. Born in Canada to two native-born parents. (Because of their different educational attainments and age/earnings profiles, aboriginals are excluded.)

The remaining 5.4% of the population was unclassified because either their own place of birth or their parents' place of birth was unknown.

In addition to descriptive statistics comparing the groups above, based on their characteristics in the first year they were interviewed, models are used to compare earnings of the groups over the six years in sample.

Significance testing was conducted using bootstrap weights and SUDAAN version 9.0, to account for the complex design of SLID.

force entrants, since the outcomes of those who were in school at those ages are not captured. Nevertheless, young cohorts are often used to analyze second-generation labour market outcomes (for example, Maani 1994, Nielsen, Rosholm, Smith and Husted 2001, and Van Ours and Veenman 2002), since children of immigrants from non-traditional source countries are less represented in older samples.

Second-generation youth less spread out geographically than peers with native-born parents

All groups averaged between 23 and 24 years of age when they were first interviewed (Table 1), so differences for other characteristics are not likely to be age-related.

Almost 9 in 10 young recent immigrants—and 6 in 10 young established immigrants—had a mother tongue other than English or French. A substantial minority (40%) of second-generation Canadians also had a mother tongue other than either of the two official languages. The majority of young immigrants were part of a visible minority, as were a substantial minority (30%) of those with two immigrant parents. Linguistically and ethnically, those with only one immigrant parent resembled those with native-born parents more than they did those with two immigrant parents—only 4% were visible minorities, and less than 2% had a mother tongue other than English or French.

Immigrant and second-generation youth are much more concentrated geographically than other Canadian youth. They are more likely to live in Ontario or British Columbia, and less likely than other Canadians to live in the Atlantic provinces, Saskatchewan or Quebec. In fact, for third-generation and higher young people, Quebec has the highest numbers followed by Ontario; by far the most immigrant and second-generation youth, however, are found in Ontario, followed by British Columbia. Ontario and British Columbia are the two biggest immigrant-receiving provinces, and most of their children choose to stay there.[2]

The overwhelming majority of young immigrants and youth with two immigrant parents, as well as a slight majority of youth with one immigrant parent, live in large urban centres. By contrast, almost 3 in 10 young Canadians with native-born parents live in small towns or rural areas.

Table 1 Basic demographics of immigrants' children

	First generation		Second generation		
	Recent immigrant	Established immigrant	Two immigrant parents	One immigrant parent	Third generation and higher
Average age	23.7	23.7	22.6	22.9	23.0
			%		
Mother tongue					
English	11.7*	37.7*	57.2*	92.2*	65.5
French	1.2*	3.9*	2.9*	6.0*	33.4
Other	86.3*	58.0*	39.9*	1.7	1.1
Visible minority	74.9*	52.4*	29.5*	4.4*	0.5
Region, year 1					
Atlantic	1.0*	2.0*	1.5*	3.8*	12.2
Quebec	13.4*	14.5*	10.5*	9.5*	31.4
Ontario	53.6*	52.2*	59.7*	44.4*	27.0
Manitoba	2.5	1.8*	4.0	3.9	4.3
Saskatchewan	1.1*	0.7*	0.9*	1.8*	4.3
Alberta	7.8	10.2	8.2	12.2	10.6
British Columbia	20.6*	18.6*	15.3	24.5*	10.3
Residence, year 1					
Rural	0.8*	2.3*	2.8*	7.6*	14.8
Urban					
Less than 30,000	1.4*	3.7*	2.9*	9.0*	14.9
30,000 to 99,999	2.7*	6.6*	3.8*	11.2	12.1
100,000 to 499,999	9.4*	9.9*	12.9*	17.5	19.0
500,000 or more	85.6*	77.6*	77.5*	54.7*	39.0

* Significantly different from the third generation and higher, at the 0.05 level or less.
Note: Some categories may not sum to 100% because of missing values.
Source: Statistics Canada, Survey of Labour and Income Dynamics, 1996-2001 and 1999-2004

Second-generation youth more likely to live with parents, delay marriage and childbirth

Young men and women with two immigrant parents were more likely than those with two native-born parents to be living with their parents. Furthermore, although the majority of third-generation and higher youth who lived with their parents in year 1 moved out at some point in the next five years, most second-generation men and half of second-generation women remained with their parents for the full six years (Table 2).

Consistent with living with their parents longer, second-generation youth also delay marriage and having children relative to those with native-born parents. By the final year they were interviewed, 6 in 10 third-generation and higher women had been married at some point in their lives, and almost half had had a child. By comparison, less than half of women with two immigrant parents had been married and only one-third had had a child. Among second-generation men with two immigrant parents, 7 in 10 had never been married by the final year they were interviewed, and only 2 in 10 had had a child. These differences are not age-related, since average ages were similar.

Second-generation youth more educated, less likely to drop out of high school

The groups differed little in educational activity. Between 45 and 55% of young women were students when first interviewed, with no significant differences between groups. Among young men, only those with two immigrant parents were significantly more likely than the third generation to be students.

Because the education of many in the sample was ongoing, differences in educational attainment were examined only for those who were not full- or part-time students. Consistent with previous studies on older cohorts, children of immigrants tended to be more educated than those with native-born parents. Although the results on educational attainment are based on the first year in sample, and thus represent only those who were not in school at the time (less than half of the population), a similar pattern is found if year 6—by which time the majority of the population had completed their schooling—is used.

Male children, with either one parent or both parents being immigrants, were significantly less likely than the third generation to drop out of high school, although no significant differences were seen between groups in the proportion of university graduates.[3]

Young women with two immigrant parents had a remarkably low rate of dropping out of high school, significantly lower than all other groups; but again, no significant differences were seen for university graduation.[4]

Table 2 Family and educational characteristics of immigrants' children

	First generation		Second generation		Third generation and higher
	Recent immigrant	Established immigrant	Two immigrant parents	One immigrant parent	
			%		
Men					
Living with parents, year 1	70.4*	66.1*	73.4*	61.1	51.8
Moved out in the subsequent 5 years	16.9*	36.5*	31.8*	50.5*	64.5
Single/never married, year 6	58.5	61.5	70.5*	59.3	51.9
Ever had, adopted or raised a child, year 6	31.2	24.7	18.7*	25.0	32.4
Women					
Living with parents, year 1	39.2	52.5	65.8*	42.9	43.5
Moved out in the subsequent 5 years	40.3*	34.4*	50.7*	58.3	64.5
Single/never married, year 6	34.6	45.7	53.3*	43.7	39.3
Ever had, adopted or raised a child, year 6	60.9*	38.0	33.3*	37.8*	47.2
Educational activity, year 1[1]					
Men	57.3	52.5	59.8*	53.4	46.2
Women	51.5	54.3	53.4	53.9	48.8
Educational attainment[2]					
Men					
Less than high school	25.1	16.1	10.7*	9.0*	20.5
High school diploma	20.5	25.2	28.2	32.9	25.8
Some postsecondary	11.0	16.9	13.2	25.1	16.4
Non-university certificate	31.3	26.5	30.8	17.8	27.3
University degree	12.2	15.3	16.2	14.8	9.9
Women					
Less than high school	19.6	13.5	1.7*	12.0	14.4
High school diploma	30.1	21.4	25.9	19.2	22.5
Some postsecondary	20.8	7.2*	17.4	18.9	18.2
Non-university certificate	19.8	36.1	32.5	29.3	31.3
University degree	8.2	21.8	21.2	18.7	13.3
Years of schooling[2]					
Men	13.0	13.4	13.8*	13.1	12.8
Women	12.4	13.8	14.6*	13.9	13.3

* Significantly different from the third generation and higher, at the 0.05 level or less.
1 Full- or part-time students.
2 Excluding full- and part-time students.
Note: Some categories may not sum to 100% because of missing values.
Source: Statistics Canada, Survey of Labour and Income Dynamics, 1996-2001 and 1999-2004

Overall, both male and female youths with two immigrant parents averaged one more year of education than their counterparts with native-born parents.

Second-generation women more likely to be employed, have higher earnings

Three measures of labour force participation were compiled: the proportion employed all year during the first year in sample, the proportion with at least one spell of unemployment during the year, and the proportion who did not work (were unemployed or not in the labour force) all year. Full-time and part-time students were excluded (Table 3).

No significant differences existed between groups of young men, for any of the three measures. For young women, on all three measures, those with two immigrant parents did significantly better than those with native-born parents—they were more likely to work all year, less likely to have a period of unemployment, and less likely not to work all year.

Table 3 Labour force participation and earnings of immigrants' children

	First generation		Second generation		
	Recent immigrant	Established immigrant	Two immigrant parents	One immigrant parent	Third generation and higher
Men			%		
Employed all year	65.2	73.9	66.7	66.5	67.1
Unemployed at least once in year	19.9	16.1	27.0	25.0	24.9
No work all year[1]	F	F	4.0	8.8	6.9
Median earnings			2004 $		
Hourly, main job	11.03	13.59	14.12	14.07	13.08
Annual, all jobs ('000)	23.8	27.2	28.7	25.9	25.5
Women			%		
Employed all year	32.2*	71.2	75.7*	59.0	55.6
Unemployed at least once in year	25.8	13.3	9.6*	26.6	21.9
No work all year[1]	48.8*	13.9	9.8*	12.1	20.2
Median earnings			2004 $		
Hourly, main job	9.28*	14.58	15.92*	12.37	11.26
Annual, all jobs ('000)	15.4	23.6	27.5*	21.5	18.2

* Significantly different from the third generation and higher, at the 0.05 level or less.
1 Unemployed or not in the labour force.
Note: First year in sample and excluding full- and part-time students.
Source: Statistics Canada, Survey of Labour and Income Dynamics, 1996-2001 and 1999-2004

Hourly (main job) and annual (all jobs) earnings were tabulated for all groups, for the first year they were interviewed. Full-time and part-time students, and those with self-employment earnings, were excluded. No significant differences were found for young men for either hourly or annual earnings. For women, however, the pattern seen in educational attainment and labour force participation repeated—those with two immigrant parents did better, with significantly higher earnings.

Higher earnings are commonly attributed to higher levels of education. However, in this case, other variables such as geography need to be investigated. Ontario and British Columbia, where second-generation youths are concentrated, may provide better-paying jobs in larger firms. Although the differences in educational attainment between second- and third-generation women are not that large, the former women might be getting a higher return on their education because of where they live.

Other important factors might be marital status and presence of children. Delaying marriage and childbirth generally has positive effects on women's earnings, and second-generation young women were less likely to have ever been married or had children than their third- and higher generation counterparts.

In order to investigate these possibilities, multilevel growth models were specified. Like regression models, multilevel models allow the effect of any one variable to be examined while all other variables are held constant. They offer the additional advantage of estimating the dependent variable not just at one point in time, but also its rate of change over time. For example, second- and third-generation Canadians can be compared not only in terms of their average earnings at the start point (year 1) but also their average rates of earnings growth over the full six-year period (see *Multilevel growth models*).

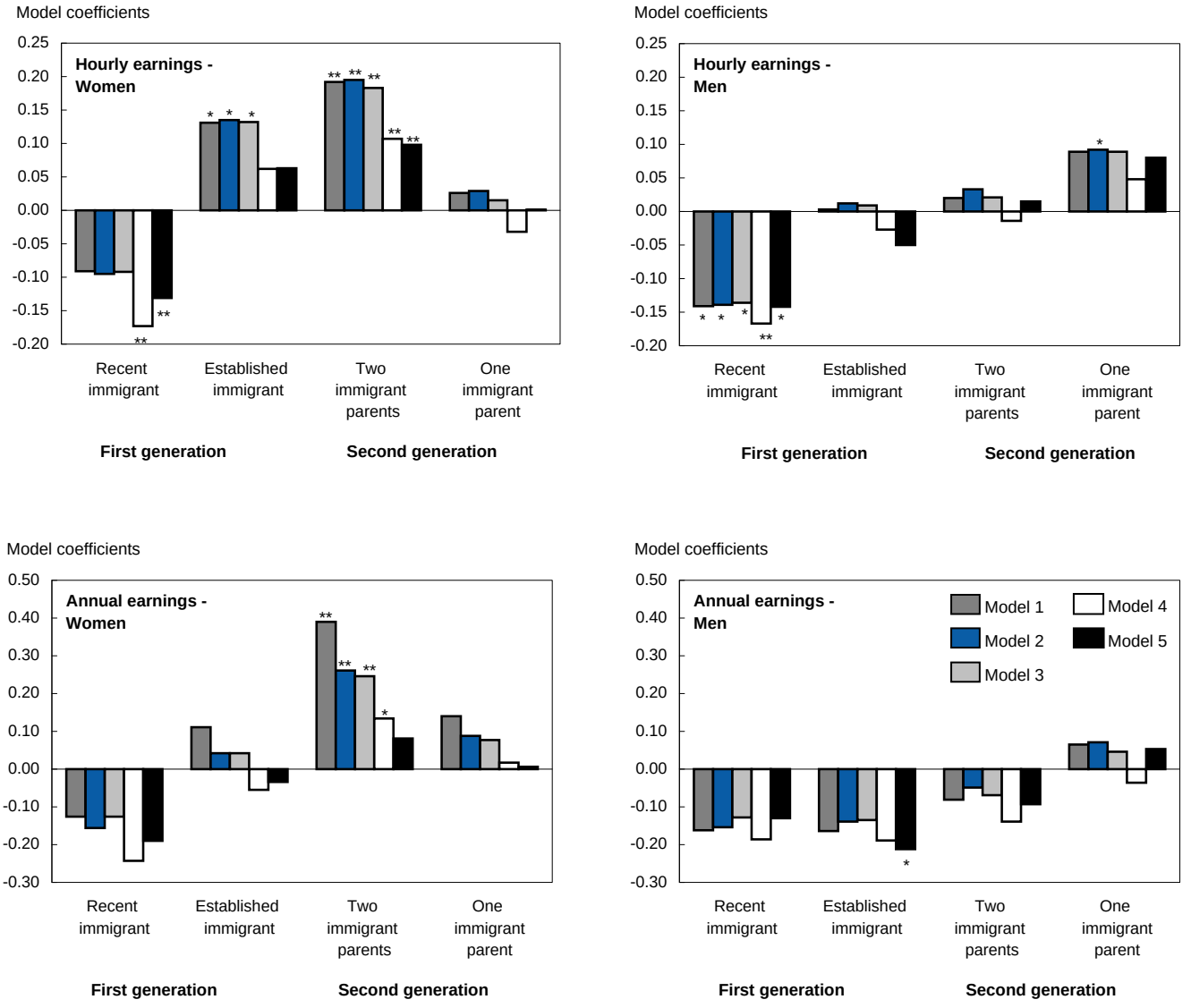
Earnings advantage for young women with two immigrant parents

Each model compares hourly and annual earnings of each of the various immigrant and second-generation groups with those of their third-generation and higher counterparts, once other factors (such as age, education and province) have been taken into account.[7]

With only age and panel taken into account (Model 1), established immigrant women, as well as women with two immigrant parents, have significantly higher year 1 hourly earnings than their counterparts with two native-born parents—roughly 13% and 19% higher, respectively (Chart A).[8] Furthermore, since rates of earnings growth among the various groups are not significantly different from one another, these initial advantages are maintained over the six-year period.[9]

Which factors are responsible for the relative hourly earnings advantage among established immigrant women and women with two

Chart A Among women aged 17 to 29, those with two immigrant parents had the best earnings



* Significantly different from third generation and higher at the 0.05 level or less.
** Significantly different from third generation and higher at the 0.01 level or less.
Note: First year in sample and excluding full- and part-time students.
Source: Statistics Canada, Survey of Labour and Income Dynamics, 1996-2001 and 1999-2004

immigrant parents? The advantage present in Model 1 is maintained when marital status and children are added (Model 2)—meaning that the advantage cannot be explained by differences between groups in marital status or presence of children. When education is added (Model 3), advantage dips slightly (from 19% to 18%) for young women with two immigrant parents, perhaps reflecting their lower high school dropout rate.

However, when geographic variables (province/region, rural/urban, and urban size) are added (Model 4), the earnings advantage of established immigrant women is no longer statistically significant, and among women with two immigrant parents it drops to about 10%. Thus, a little under half of the wage advantage among young women with two immigrant parents can be accounted for by their tendency to cluster in large urban centers in Ontario and British Columbia, while young women with native-born parents are more evenly distributed, with sizeable populations living in smaller cities and rural areas in less economically prosperous regions such as Quebec and Atlantic Canada.

Geographic clustering also resulted in higher hourly earnings among young recent immigrant women than they would have had, had they been more evenly distributed. In Models 1 through 3, their wages are not significantly different from those of women with native-born parents. However, when geographic clustering is accounted for in Model 4, their disadvantage becomes evident.

Young women with two immigrant parents also had a large annual earnings advantage relative to those with native-born parents. With nothing other than age and panel accounted for (Model 1), their earnings were on average 39% greater. Furthermore, the rates of growth in annual earnings were not significantly different for the two groups, meaning that the advantage was maintained for the entire six-year period of the study.

A large part of the annual earnings advantage arises because women with two immigrant parents are less likely to have children than their third-generation and higher counterparts. When marital status and the presence of children are accounted for, the earnings advantage drops from 39% to 26%.[10] It drops slightly to 25% when education is added, but drops sharply to 13% when geographic variables are added, indicating once again the effect of geographic clustering. Job and employer characteristics, such as working full-time, working in a large firm, unionization, occupation and industry, also account for some of the earnings advantage. When these characteristics are added (Model 5), the difference between young women with two immigrant parents and their counterparts with native-born parents is no longer statistically significant.

Among young men, few differences between those with immigrant or native-born parents

Apart from a 9% advantage in Model 2 among young men with one immigrant parent, no significant differences in hourly earnings were seen between young men with immigrant parents and those with native-born parents. Young recent immigrant men, however, had a 14 to 17% hourly earnings disadvantage compared with those with native-born parents. Since rates of growth are no different for the two, this disadvantage persisted throughout the six-year period.

Little evidence was found for statistically significant differences in annual earnings between the groups. Earnings coefficients were consistently large and negative among immigrants—both recent and established—and young men with two immigrant parents, but the large variability in earnings within each of these groups prevented the results from attaining statistical significance. With all other variables accounted for (Model 5), established immigrant men had significantly lower year 1 annual earnings (roughly 21% lower) than those with native-born parents. However, this was offset by the roughly 5% higher rate of earnings growth among established immigrant men, allowing them to catch up with their third-generation and higher counterparts.

Some young visible minority men with two immigrant parents at earnings disadvantage

Some census data suggest that earnings returns to education among 25– to 37–year–old Canadian men with immigrant parents vary by parental region of origin (Aydemir, Chen and Corak 2005). For example, those with parents from Eastern or Southern Europe, and those with parents from the Caribbean, Central and South America or Oceania earned 8% and 28% less, respectively, than those with parents from traditional source countries in North America, and Northern or Western Europe, despite having almost equal levels of education. Furthermore, those with parents from Africa or Asia also earned 8% less than those with parents from traditional source countries, despite having nearly twice the rate of university graduation. Among women, earnings were more in line with education—those with parents from Africa or Asia had the highest rates of university graduation and also earned the most.

Multilevel growth models

The sample

To investigate differences in hourly and annual earnings among the different groups, a sub-sample of non-students with paid employment in year 1 was selected from the original sample of 17– to 29–year–olds. This sub-sample had high labour force attachment, with an average of around five years of paid employment over the six-year period and little variability between groups.

Average number of years of paid employment

	Men	Women
Recent immigrant	4.7	4.8
Established immigrant	5.2	4.9
Native-born		
Two immigrant parents	5.0	5.0
One immigrant parent	5.1	5.2
Native-born parents	5.2	5.1

Multilevel models

Multilevel models are ideal for investigating continuous outcomes (like earnings) whose values change systematically over time.

Why multilevel? At the first level are individual growth trajectories—in the simplest case of linear growth, each person's trajectory can be described with an intercept (starting point) and a slope (linear rate of change). At the second level are average trajectories, with individual and group deviations from the average. This allows differences in intercept and slope to be examined.

For example, consider the following linear growth model for hourly earnings (wage):

Level 1:

$Y_{ij} = \beta_{0i} + \beta_{1i}(TIME_{ij}) + \varepsilon_{ij}$

where Y_{ij} is logwage, β_{0i} is the intercept (person i's initial logwage), TIME represents the number of years since the initial interview and β_{1i} is the slope (the rate of change in logwage from year to year).

Level 2:

$\beta_{0i} = \gamma_{00} + \mu_{0i}$

where γ_{00} is the mean logwage and μ_{0i} is person i's deviation from the mean.

$\beta_{1i} = \gamma_{10} + \mu_{1i}$

where γ_{10} is the mean slope (growth in logwage) and μ_{1i} is person i's deviation from the mean.

Combining level 1 and level 2:

$Y_{ij} = (\gamma_{00} + \mu_{0i}) + (\gamma_{10} + \mu_{1i})TIME_{ij} + \varepsilon_{ij}$

Multiplying and rearranging:

$Y_{ij} = [\gamma_{00} + \gamma_{10}(TIME_{ij})] + [\mu_{0i} + \mu_{1i}(TIME_{ij})] + \varepsilon_{ij}$

$[\gamma_{00} + \gamma_{10}(TIME_{ij})]$ represents the average trajectory → fixed effects

$[\mu_{0i} + \mu_{1i}(TIME_{ij})]$ represents individual deviations from the average trajectory → random effects

Adding time-invariant predictors:

Let IMMPAR = 0 if Canadian-born parents, 1 if immigrant parents.

Level 1: $Y_{ij} = \beta_{0i} + \beta_{1i}(TIME_{ij}) + \varepsilon_{ij}$

Level 2: $\beta_{0i} = \gamma_{00} + \gamma_{01}(IMMPAR_i) + \mu_{0i}$

where γ_{00} is the mean intercept for people with Canadian-born parents and $(\gamma_{00} + \gamma_{01})$ is the mean intercept for people with immigrant parents

$\beta_{1i} = \gamma_{10} + \gamma_{11}(IMMPAR_i) + \mu_{1i}$

where γ_{10} is the mean slope for people with Canadian-born parents and $(\gamma_{10} + \gamma_{11})$ is the mean slope for people with immigrant parents

Combining levels 1 and 2, multiplying and rearranging:

$Y_{ij} = [\gamma_{00} + \gamma_{10}(TIME_{ij}) + \gamma_{01}(IMMPAR_i) + \gamma_{11}(IMMPAR_i \bullet TIME_{ij})] + [\mu_{0i} + \mu_{1i}(TIME_{ij})] + \varepsilon_{ij}$

Focusing on the fixed effects:

γ_{00} = the average intercept for those with Canadian-born parents

γ_{10} = the average slope for those with Canadian-born parents

γ_{01} = the average difference in intercept between those with Canadian-born parents and those with immigrant parents

γ_{11} = the average difference in slope between those with Canadian-born parents and those with immigrant parents

Adding time-varying predictors:

Let UNIV = 0 if not a university graduate, 1 if a university graduate.

Level 1: $Y_{ij} = \beta_{0i} + \beta_{1i}(TIME_{ij}) + \beta_{2i}(UNIV_{ij}) + \beta_{3i}(UNIV_{ij} \bullet TIME_{ij}) + \varepsilon_{ij}$

Level 2: $\beta_{0i} = \gamma_{00} + \gamma_{01}(IMMPAR_i) + \mu_{0i}$
$\beta_{1i} = \gamma_{10} + \gamma_{11}(IMMPAR_i) + \mu_{1i}$
$\beta_{2i} = \gamma_{20}$
$\beta_{3i} = \gamma_{30}$

The composite model would be:

$Y_{ij} = [\gamma_{00} + \gamma_{10}(TIME_{ij}) + \gamma_{01}(IMMPAR_i) + \gamma_{11}(IMMPAR_i \bullet TIME_{ij}) + \gamma_{20}(UNIV_{ij}) + \gamma_{30}(UNIV_{ij} \bullet TIME_{ij})] + [\mu_{0i} + \mu_{1i}(TIME_{ij})] + \varepsilon_{ij}$

Focusing on the fixed effects:

γ_{00} = the average initial (log)wage for non-university graduates with Canadian-born parents

$\gamma_{00} + \gamma_{01}$ = the average initial wage for non-university graduates with immigrant parents

$\gamma_{00} + \gamma_{20}$ = the average initial wage for university graduates with Canadian-born parents

$\gamma_{00} + \gamma_{01} + \gamma_{20}$ = the average initial wage for university graduates with immigrant parents

γ_{10} = the average rate of wage growth for non-university graduates with Canadian-born parents

$\gamma_{10} + \gamma_{11}$ = the average rate of wage growth for non-university graduates with immigrant parents

Multilevel growth models (concluded)

γ_{10} + γ_{30} = the average rate of wage growth for university graduates with Canadian-born parents

γ_{10} + γ_{11}+ γ_{30} = the average rate of wage growth for university graduates with immigrant parents

Initial levels and growth rates in both hourly (pure wage rate) and annual earnings (wage rate plus hours worked) were estimated. Because men and women tend to have different rates of earnings growth, their outcomes were estimated separately. Each of the four outcomes (men's hourly and annual earnings, and women's hourly and annual earnings) was estimated with five models.

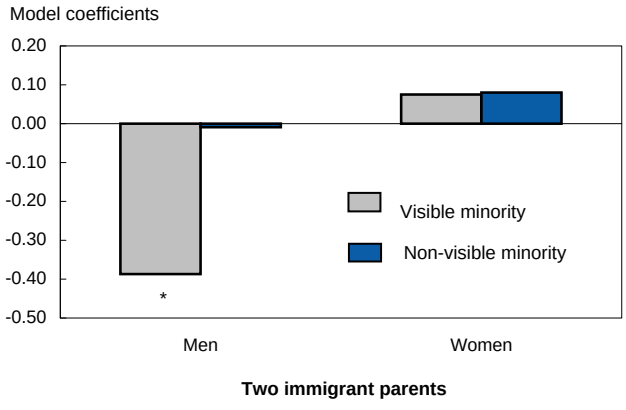
Model 1 used the predictors generations in Canada, age in year 1, and panel (1996 to 2001 or 1999 to 2004). Subsequent models added time-varying predictors: **Model 2**, marital status (and, for women, the presence of children[5]); **Model 3**, education; **Model 4**, geographic characteristics (province/region, rural/urban residence, and urban size); and **Model 5,** job/employer characteristics (firm size, unionization, occupation, industry, and full-/part-time status).

In addition to new variables, each model kept all of the variables of the one preceding it, so that Model 5 contained the full set of predictors. Each of the models also included a term testing for linear growth (time) and interactions between each of the other variables and time to test for differences in growth rates. A quadratic term (time squared) was added to each model to test for decelerating rates of growth.[6] Possible interactions between generations in Canada and other predictors such as education, province, urban size and presence of children were investigated, but interaction terms were not statistically significant and so were discarded from the models. For each model, only fixed effects are reported since random effects cannot be estimated accurately using weighted data from a complex survey design.

Small sample sizes in the current study prevent dividing those with two immigrant parents into groups based on parental region of origin. However, visible minority status is a useful proxy, since most of those with parents from non-traditional source countries other than Eastern or Southern Europe are likely to be visible minorities; in contrast, most of those with parents from traditional source countries are not likely to be visible minorities.

With all other variables accounted for (Model 5), young visible minority men with two immigrants parents earned roughly 38% less in year 1 than their counterparts with native-born parents (Chart B).[11] Men with two immigrant parents who were not visible minorities, on the other hand, were no different from those with native-born parents. Among young women with two immigrant parents, magnitudes of earnings coefficients were very similar between visible minorities and those who were not visible minorities—neither was significantly different from those with native-born parents.

Chart B Visible minority men aged 17 to 29 had the lowest annual earnings



* Significantly different from third generation and higher at the 0.05 level or less.
Note: First year in sample and excluding full- and part-time students.
Source: Statistics Canada, Survey of Labour and Income Dynamics, 1996-2001 and 1999-2004

Conclusion

Young second-generation Canadians aged 17 to 29—that is, young men and women born in Canada to two immigrant parents—differ from those with two native-born parents in several ways. Some of these differences may influence their earnings as they enter the labour market. Consistent with previous research on older populations, young men and women with two immigrant parents had more years of schooling than their counterparts with native-born parents, largely as a result of significantly lower high school dropout rates. However, differences in earnings between young second-generation men and women

and their third- and higher generation counterparts were largely accounted for by factors other than education in a sub-population with a high rate of labour force participation over the six-year period of the study.

With education accounted for, young women with two immigrant parents still had significantly higher hourly and annual earnings than those with native-born parents, over the entire six-year period. Roughly half of the hourly earnings advantage can be explained by geographic distribution. Three-quarters of young Canadians with two immigrant parents are concentrated in Ontario and British Columbia, and more than three-quarters live in large urban centres—in contrast, half of their counterparts with native-born parents live in less economically prosperous regions such as Atlantic Canada, Quebec, Manitoba and Saskatchewan, and about 60% live in smaller cities, small towns and rural areas.

A large part of the annual earnings advantage among young women with two immigrant parents is also a likely product of geographic clustering. However, another large part is because they were less likely to have been married or had children. By the end of the six-year period (when they had reached the ages of 22 to 34), less than half of women with two immigrant parents had ever been married, and only a third had given birth to, adopted, or raised children. In contrast, over 60% of those with native-born parents had been married, and close to half had had children.

The situation is quite different for young-second generation men. They displayed little evidence of an hourly or annual earnings advantage relative to their third- and higher generation counterparts. In fact, generalizations about young second-generation men are difficult to make, since they tend to be more heterogeneous in terms of earnings than their female counterparts. Part of the extra heterogeneity arises because visible minority status has no bearing on women's earnings, but it has a large effect on men's earnings.

Among young men born in Canada to two immigrant parents, visible minorities fare markedly worse—everything else being equal, their annual earnings are significantly lower than those of young men with native-born parents. Second-generation men who are not visible minorities, on the other hand, are no different from those with native-born parents—in fact, some evidence suggests that the hourly earnings of those with one immigrant parent might be higher. These results are consistent with census findings on an older population (aged 25 to 37), which showed that second-generation men whose parents came from Africa, Asia, the Caribbean, or Central and South America, and most of whom are visible minorities, had equal or greater levels of education but lower earnings than those with parents from traditional source countries in North America, and Northern and Western Europe (Aydemir, Chen and Corak 2005).

Explanations of lower earnings among visible minority immigrants usually centre on language deficits and lack of recognition of foreign educational credentials or work experience. These explanations are unlikely to apply to their children, born and educated in Canada. Other possible explanations based on cultural barriers, job networks and systemic discrimination are outside the scope of this paper because data are difficult to obtain (however see Beck, Reitz and Weiner 2002). Statistics Canada's Ethnic Diversity Survey shows that on many indicators of social cohesion and integration (such as trust, sense of belonging and perceived discrimination), visible minorities score lower in the second generation than they did in the first, suggesting that even if economic prospects are improving for many in the second generation, social inclusion is not improving (Reitz and Banerjee 2007).

Perspectives

Notes

1 Performance deficits among second-generation students relative to their peers with native-born parents are particularly high in Germany, Belgium, the Netherlands, Switzerland, Austria and France.

2 The regional distribution of the sub-population of young people living apart from their parents is similar to that shown in Table 1.

3 Although the magnitude of difference between some pairs of groups appears to quite large, a large error is associated with these estimates, due to small sample size.

4 The pattern of no significant differences in university graduation between those with two immigrant parents and those with two native-born parents continued to hold through year 6. In addition, even when only degrees higher than a bachelor's were considered, no significant differences were found between groups in year 1 or year 6.

5 For men, the presence of children was very closely correlated with marital status.

6 The time-squared term was not significantly different from zero in the models estimating women's hourly and annual earnings growth, and therefore was removed from these models.

7 For the sake of brevity and presentation, coefficients associated with other factors in the models are not presented. In general, they tend to conform to familiar patterns of results. For example, older age groups tend to have higher initial hourly earnings, but slower rates of growth, while university education is associated with both higher initial hourly earnings and faster growth. Complete results of all models are available from the author.

8 When logwage is estimated, the coefficient associated with a particular group is a good approximation of the average percentage difference in wage between that group and the reference group.

9 Since rates of earnings growth rarely differ significantly between groups, they are not presented, but are available from the author.

10 Having children had little or no effect on hourly earnings, but a large negative effect on hours worked (and therefore annual earnings).

11 The relatively large coefficient associated with visible minority earnings growth (.060) suggests that some members of this group may catch up somewhat in subsequent years. However, the heterogeneity within the group was sufficient to prevent the result from achieving statistical significance.

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