

# **Native-Immigrant Differences in Inter-firm and Intra-firm Mobility – Evidence from Canadian Linked Employer-Employee Data**

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## **Abstract**

We examine how immigrants in Canada fare in terms of inter-firm and intra-firm mobility relative to Canadian-borns. We find that white immigrants experience the same probability of inter-firm and intra-firm mobility relative to white Canadian-borns. However, our results suggest that while both male and female visible minority immigrants have the same probability of moving to another firm, they are substantially less likely to have been promoted compared to white Canadian-borns. We also examine native-immigrant differences in wage growth associated with these mobility patterns and find that once promoted or moved to another firm, both groups on average experience the same wage growth.

JEL codes: J61, J71.

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## **I. Introduction**

The comparative labor market performance of immigrants and natives and the extent to which immigrants are successful in adjusting to their new labor market conditions are important components in debates concerning immigration policy. Most studies of the labor market performance of immigrants consider either wages or hiring decisions (e.g., Borjas 1993, Baker and Benjamin 1994, Green 1999, Friedberg 2000, Aydemir 2003, Ferrer and Riddell 2008, Green and Worswick 2012). Promotion outcomes, however, are one of the primary drivers of improvements in income and social status for all workers—including immigrants. Strong evidence suggests that promotions are associated with large wage increases (e.g., Milkovich 1989, Lazear 1992). McCue (1996) estimates that promotions explain as much as 15% of wage growth over the life cycle.<sup>1</sup> Promotions are particularly pertinent outcomes when examining whether the labor market experiences of immigrants and natives differ as promotion decisions in many workplaces are subject to less scrutiny than hiring decisions because of the subjective nature of the promotion process—making discrimination difficult to detect. This study contributes to the existing literature concerning differences in the labor market experiences of natives and immigrants by examining differences in promotion outcomes. To our knowledge, this is the first study to investigate differences in promotion opportunities between immigrants and their native peers.

Economists have long documented that newly arrived immigrants earn less than natives (e.g., Chiswick 1978, Bloom and Gunderson 1991). More recent studies find that more recent cohorts of immigrants experience a larger initial earnings disadvantage relative to natives and do

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<sup>1</sup> Baker et al. (1994) find evidence that workers who receive large wage increases early in their stay at one level of the job ladder are promoted more quickly to the next. This is consistent with McCue's (1996) finding of a positive relationship between high wages today and the likelihood of promotions tomorrow.

less “catching up” to natives in terms of earnings than earlier cohorts of immigrants (Borjas 1994, Baker and Benjamin 1994, Bloom et al. 1995, Waslander 2003). More recent immigrants may do less “catching up” with natives if they experience slower earnings growth by virtue of failing to keep pace with their native counterparts in “climbing the corporate ladder.”

Immigrants may be less likely to be promoted than natives with the same observed characteristics if they enjoy lower returns in Canada to their foreign education or foreign work experience, lack unobserved skills required to perform at higher levels within a firm (e.g., language skills), lack the social networks required to facilitate promotions, or if firms have a preference for promoting natives and engage in discrimination. These mechanisms could lead to economy-wide differences in promotion opportunities between observationally equivalent natives and immigrants. The economy-wide gap in promotion opportunities could operate within the same workplace or could be driven by disproportionate sorting of immigrants into firms offering fewer promotion opportunities—firms hiring workers into “dead-end” jobs—just as Aydemir and Skuterud (2008) and Pendakur and Woodcock (2010) find that immigrants to Canada sort into firms offering lower average wages.

Investigating the extent to which economy-wide differences in promotion opportunities operate between firms versus within firms requires information on the promotion outcomes of multiple workers within the same firm across many firms. To this end, we employ the Workplace and Employee Survey (WES) collected by Statistics Canada, a representative sample of employees and their employers in Canada with information concerning the promotion histories of multiple workers from each firm.

We examine differences in promotion outcomes between natives and immigrants and the extent to which these differences are driven by disproportionate sorting of immigrants into firms with fewer promotion opportunities versus differences in promotion outcomes within firms relative to natives. Specifically, we estimate models of the probability of having ever been promoted and the number of times a worker has been promoted while working for his/her current employer controlling for membership in a minority group (visible minority Canadians, white immigrants, and visible minority immigrants) and individual and job characteristics with and without firm effects. The probability that an employee has *ever* been promoted with his/her current employer is of special interest given that the first promotions received by workers with their current employers in our data are associated with larger wage increases than subsequent promotions. Estimating whether a worker has ever been promoted, however, may obscure differences in the advancement experiences of immigrants and other minority groups if workers in these groups are promoted more or less frequently with their current employers than their white Canadian-born peers. Immigrants may succeed in obtaining early promotions—particularly pro forma promotions—while still falling behind their Canadian-born peers if these peers enjoy subsequent promotions that immigrants do not. We then compare the estimated within-firm differences in promotion outcomes to the estimated economy-wide differences to identify the extent to which differences result from intra-firm differences in advancement between immigrants and natives or the sorting of immigrants into firms offering “dead-end” jobs.

Economy-wide, we find that male (female) visible minority immigrants are 4.3 (7.6) percentage points less likely to have been promoted while working for their current employer than their observationally equivalent white native peers, while white immigrants are not significantly less likely to have been promoted than their native peers. For comparison, Pergamit and Veum

(1999) find that women, blacks, and Hispanics in the 1979 National Longitudinal Study of Youth were 4, 5, and 6 percentage points less likely to be promoted than their white peers. Similarly, we find that male (female) visible minority immigrants have been promoted an estimated 0.21 (0.20) fewer times than their observationally equivalent white native peers with their current employers; white male immigrants have been promoted an estimated 0.07 fewer times than their native peers (although not statistically significant), and white female immigrants do not experience any difference in the number of times promoted relative to their white native counterparts.

Among visible minority immigrants, there is significant heterogeneity in promotion outcomes based on the number of years immigrants have been in Canada. Female visible minority immigrants in their first five years in Canada are an estimated 15.7 percentage points less likely to have been promoted and have been promoted an estimated 0.35 fewer times with their current employers than observationally equivalent white natives, and significant fractions of these differences result from being employed in firms with fewer advancement prospects.<sup>3</sup> Such sorting, however, does not appear to be significant among most other immigrants. Female visible minority immigrants with more time in Canada narrow the gaps in promotion probabilities and number of times promoted, but significant differences in promotion outcomes are still evident among them. Male visible minority immigrants in their first five years in Canada are no less likely to have been promoted but have been promoted an estimated 0.22 fewer times than their native white peers in their first five years in Canada, and this difference stems entirely from intra-firm differences in promotion outcomes rather than sorting across firms. Otherwise, we observe differences between male visible minority immigrants and comparable white natives only among immigrants who have

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<sup>3</sup> These estimates account for differences in tenure with the current employer between natives and immigrants. As reported in our appendix tables, estimates of the differences in promotion outcomes without controlling for tenure are significantly larger in magnitude.

been in Canada for more than 20 years. Male visible minority immigrants who have been in Canada for more than 20 years are an estimated 8.2 percentage points less likely to have been promoted and have been promoted an estimated 0.30 fewer times with their current employers than their native white peers—differences that stem in part from their employment in firms offering fewer advancement opportunities.

In addition to investigating heterogeneity in immigrants' promotion experiences based on years since immigration, we consider whether immigrants' promotion experiences depend on their skill levels. Oreopolous (2011) finds in a field experiment that the resumes of skilled immigrants are less likely to generate interest from potential employers than those of comparable natives. If skilled immigrants have a hard time getting "their foot in the door," they may have similar difficulty advancing. Further, skilled and unskilled immigrants potentially operate in very different labor markets. Skilled immigrants may face more significant barriers to advancement than less skilled immigrants if, for instance, human capital becomes more important for advancement on skilled jobs than for less skilled jobs and the human capital of immigrants is discounted. Alternatively, skilled immigrants may begin their careers in Canada in jobs for which they are overqualified in some unobserved sense and advance more rapidly than their less skilled counterparts as a result.

To investigate whether the labor markets for skilled and unskilled immigrants result in different promotion experiences, we estimate our models of promotion probabilities and the number of promotions received fully interacted with an indicator for whether the worker has a bachelor's degree or higher. We find that female visible minority immigrants without a bachelor's degree are much less likely to have been promoted (11 percentage points) and have been promoted fewer times (0.25 fewer times) than observationally equivalent white natives, but female visible

minority immigrants with a bachelor's degree are for the most part just as likely to have been promoted and have been promoted the same number of times as their white native counterparts. Among male immigrants, on the other hand, we find few differences across educational groups. Both groups experience small (and statistically insignificant) differences in the probability of promotion, but large differences in the number of times promoted, relative to their white Canadian counterparts.

In our data, the first promotion a worker receives with the current employer is associated with estimated wage increases of 6.8% and 6.4% for women and men, respectively.

## **II. Data**

Our study uses the Workplace and Employee Survey (WES), a longitudinal survey of employers and their employees collected by Statistics Canada between 1999 and 2006 and the only linked employer-employee database in Canada. In every year, a representative sample of approximately 6,000 employers was surveyed. The target population of employers consisted of all business locations in Canada with paid employees in March of each surveyed year.<sup>5</sup> In the 1999, 2001, 2003, and 2005 surveys, the sample of employers was refreshed with new employers from the Statistics Canada Business Register to maintain a representative cross-section. A maximum of twenty-four employees were interviewed from each sampled firm in each odd year and re-interviewed the following year.<sup>6</sup> Our analysis is based on the pooled 1999, 2001, 2003 and 2005

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<sup>5</sup> Employers in the Yukon, Nunavut and Northwest Territories and employers operating in crop production, animal production, fishing, hunting, trapping, private households, religious organizations and public administration were excluded from the sample. Public administration includes establishments primarily engaged in the enactment and judicial interpretation of laws and their pursuant regulations and the administration of programs based on them. Public administration's share of employment in Canada is around 6.5 percent (Statistics Canada, Table 281-0024).

<sup>6</sup> The number of workers interviewed from each firm was proportional to firm's size except for workplaces with fewer than four employees in which all employees were surveyed.

cross-sections. *Following other studies using the WES, data from interviews in the even-numbered years are not used to avoid the sample selection problems associated with employee attrition.* We restrict the sample to non-Aboriginal workers between the ages of 24 and 65 from firms that have at least two male or female workers sampled over the entire period they appear in the data. The restricted sample includes 32,403 women and 42,467 men from 7,531 firms. We observe between two and 63 employees from each firm; the mean (median) number is 12 (10). In total, 9.8% of observations come from male immigrants, while 7.9% of observations come from female immigrants.

The dependent variables in our study are an indicator for whether the employee has ever been promoted while working for the current employer and the number of times the employee has been promoted with the current employer. The indicator for whether the employee has ever been promoted comes from his/her response to the question, “Have you ever been promoted while working for this employer? (By promotion we mean a change in duties/responsibilities that led to both an increase in pay and the complexity or responsibility of the job.)”<sup>7</sup>

A cursory inspection of our sample suggests that immigrants sort non-randomly into different firms than their native peers. Figure 1 plots the distributions of immigrants and natives by the percentage of sampled workers at their employers who are immigrants. Consistent with studies of immigrant enclaves in the workplace (e.g., Wilson and Portes 1980, Hellerstein and Neumark 2008, Sousa 2011), immigrants are employed in firms with significantly higher concentrations of immigrants than their native peers.

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<sup>7</sup> Changes in pay and responsibilities are two distinguishing features of promotions (Pergamit and Veum 1999).



Evidence of immigrant enclaves in the workplace, however, does not necessarily imply that this sorting results in differences in advancement opportunities. Figure 2 plots the fraction of workers who have ever been promoted with the employer by the percentage of their employer's sampled workers who are immigrants. The fraction of workers who have ever been promoted is significantly lower in firms whose sampled workforces consist of more than 90% immigrants (27.4%) than in firms in which immigrants make up less than half of the sampled workforce (35-45%). Whether a worker has ever been promoted may mask differences in promotion experiences if some workers are promoted more frequently than others. Figure 3 plots the average number of promotions with the employer for workers by the percentage of their employer's sampled workers who are immigrants. Similar to figure 2, the average number of promotions declines significantly in firms whose sampled workers are predominantly immigrants. Taken together, Figures 1, 2 and 3 provide suggestive but unconditional evidence that (a) immigrants sort non-randomly across firms and (b) that workers at firms with more immigrants experience fewer promotions.<sup>8</sup>

The summary statistics in table 1, however, suggest that immigrants' promotion experiences are very heterogeneous. Differences among white and visible minority immigrants are especially evident when we examine promotion outcomes. Only 33.9% (28.8%) of male (female) visible minority immigrants have ever been promoted with their current employers relative to 40.9% (34.2%) of male (female) white immigrants, who are only slightly less likely to have been promoted than their white native peers. Further, male (female) visible minority immigrants have been promoted only 0.64 (0.47) times on average relative to 1.00 (0.71) times for white male (female) Canadian-born workers and 0.88 (0.70) times for white male (female) immigrants.

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<sup>8</sup> Warman (2007) finds that *residential* enclaves are negatively related to immigrants' wages in Canada.

Immigrants and Canadian-born workers, however, differ in a number of observable characteristics—differences which might account for the observed differences in promotion outcomes. Male and female visible minority immigrants have less labor market experience on average than their white peers (immigrants and non-immigrants), but immigrants of both genders and all races are more likely to have completed a post-secondary degree than their Canadian-born peers. Visible minority immigrants are much younger on average than white immigrants and have been in Canada for shorter periods. Immigrants are much more likely to speak a language other than English or French at home than their native peers. Furthermore, all immigrants are much more likely to be married and to have larger families than natives. Immigrants of all stripes are much less likely to move to Quebec—moving instead to Ontario—and much more likely to live in Census Metropolitan Areas than Canadian-born workers. Perhaps most important for our purposes, immigrants have considerably shorter average tenures with their current employers than native workers. This is mechanical for newly arrived immigrants: an immigrant who has been in Canada for less than five years cannot have been with his current employer for more than five years. Workers who have been with their firms longer have necessarily had more opportunities to be considered for promotion, so this difference between immigrants and natives is potentially significant in the empirical analysis.

We create indicators for being a Canadian-born visible minority, a white immigrant, or a visible minority immigrant, with white Canadian-born workers serving as the reference category. In some specifications we further break the immigrants into four additional categories based on their years since arriving in Canada (0 to 5 years, 6 to 10 years, 11 to 20 years, and 21 or more years in Canada) to account for assimilation and differences among immigrant cohorts. We additionally control for the employee's highest level of schooling (8 categories), marital status (6

categories), number of dependent children (5 categories), a quartic in years of (actual) full-time labor market experience, full-time employment, age (8 categories), languages spoken at home and at work, province of residence, residence in a Census Metropolitan Area, membership in a union or collective bargaining agreement, a quadratic function of the worker’s tenure with her employer, and the employee’s occupation (6 categories) and industry (14 categories). All of our estimates are obtained using employee sample weights provided by Statistics Canada to produce estimates representative of the Canadian working population.

### III. Empirical Methodology

We estimate models of both whether a worker has ever been promoted with his/her current employer and the number of times the worker has been promoted with the current employer. The economy-wide differences in average promotion outcomes between white natives and different groups of immigrants conditional on observed individual and job characteristics are estimated using the linear regression model:

$$E[P_i|X_i, g_i] = X_i'\beta + g_i'\delta, \tag{1}$$

where  $P_i$  is—depending on the regression—either an indicator for having ever been promoted with the current employer or the number of times promoted while working for the current employer,  $X_i$  is a vector of individual and job characteristics, and  $g_i$  is a vector of indicators for membership in a minority group (i.e., white immigrants, visible minority Canadian-borns, and visible minority immigrants).<sup>10</sup> The parameter vector  $\beta$  captures the relationships between observed characteristics

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<sup>10</sup> When  $P_i$  is an indicator for having ever been promoted with the current employer, this is a linear probability model. We also estimated the economy-wide differences in the probability of promotion between immigrants and natives using probit and logit estimators; estimates from these models were similar to those reported in table 2. We use the linear probability model for the ease of incorporating firm effects. Likewise, we estimated models of the number of times promoted using a Poisson estimator and obtained similar results to those reported in table 3.

and promotion outcomes, while  $\delta$  measures the economy-wide differences in average promotion outcomes between workers in different minority groups and white Canadian-born workers conditional on  $X_i$ .

We estimate the within-firm native-immigrant differences in average promotion outcomes by adding firm effects to (1):

$$E[P_i|X_i, g_i, f_i] = X_i'\beta + g_i'\delta + f_i'\psi, \quad (2)$$

where  $f_i$  is a vector of indicators for each firm. The vector  $\psi$  captures the firm effects representing inter-firm differences in average promotion outcomes conditional on worker and job characteristics  $X_i$  and group membership  $g_i$ .

Estimates of the economy-wide differences in average promotion outcomes between natives and immigrants in equation (1),  $\hat{\delta}$ , capture (a) any systematic sorting of minorities into firms offering fewer opportunities for advancement, (b) the correlation between minority group membership and unobserved worker characteristics related to promotion outcomes and (c) firms' preferences for promoting white Canadian-born workers relative to other workers. In contrast, the estimates of  $\delta$  in equation (2),  $\tilde{\delta}$ , measure conditional native-immigrant differences in average promotion outcomes *within firms*. If  $\hat{\delta} < 0$  for group  $g$ , then members of this group are less likely to have been promoted or have been promoted fewer times on average than their white Canadian-born peers. If  $0 \geq \tilde{\delta} > \hat{\delta}$ , then workers in this group systematically sort into jobs at firms with fewer opportunities for advancement. If  $0 > \tilde{\delta} = \hat{\delta}$ , then we infer that the average difference in promotion outcomes for workers in this group relative to white Canadian-born workers results entirely from differences in advancement *within firms* rather than systematic sorting of workers to firms with different advancement opportunities. We use a Hausman test to test the null hypothesis that there is no systematic sorting of immigrants into firms offering different opportunities for

advancement (i.e., that  $\hat{\delta} - \tilde{\delta} = 0$ ). Under the null hypothesis of no differences between immigrants and natives in sorting across firms, both specifications (1) and (2) produce consistent estimates of the promotion gap,  $\delta$ , but the estimates in the specification with firm effects are inefficient. Under the alternative hypothesis of systematic native-immigrant inter-firm sorting, only the estimates from the specification with firm effects are consistent. Pendakur and Woodcock (2010) and Javdani (2012) use similar tests for sorting in studies of immigrant-native and male-female wage differences.

## **IV. Findings**

### **IV.A Immigration and the Probability of Promotion**

Table 2 presents the estimated differences in the probability of having ever been promoted with the current employer for minority groups relative to white natives for men and women separately controlling for the individual and job characteristics detailed in table 1. Columns 1 and 4 report estimates of the economy-wide promotion differentials for men and women, respectively ( $\delta$  in equations (1)), and columns 2 and 5 report within-firm promotion differentials for men and women respectively ( $\delta$  in equations (2)). The top panel of table 2 presents estimates for visible minority Canadian-born workers, white immigrants, and visible minority immigrants relative to white Canadian-born workers, by gender, while the bottom panel further disaggregates the immigrant categories based on years since immigration.

We find no evidence that white immigrants (both males and females) are less likely to be promoted than their white Canadian-born peers. Female visible minorities, however, are significantly less likely to have been promoted with their current employers: a female visible minority Canadian-born (immigrant) worker is 7.9 (7.6) percentage points less likely to have been promoted with the current employer than an observationally equivalent white Canadian-born

worker, although the former estimate is not statistically significant. We find statistically significant evidence that female visible minority immigrants sort into firms in which they are less likely to be promoted—firms offering “dead-end” jobs—when comparing the economy-wide estimate in column 4 to the within-firm estimates in column 5. For these women, differential sorting explains 48 percent of the economy-wide promotion gap.

Again, both native and immigrant visible minorities—but not white immigrants—are less likely to have been promoted. A male visible minority Canadian-born (immigrant) worker is 9.2 (4.3) percentage points less likely to have been promoted with the current employer than an observationally equivalent white Canadian-born worker. In contrast to their female counterparts, we find no evidence of systematic sorting into firms offering fewer promotion opportunities among male visible minority immigrants, implying that the economy-wide difference in the probability of promotion is driven by worse promotion outcomes within firms compared to their white native counterparts.

Given the short time span of the data (1999-2005) and the number of observations for visible minority immigrants, it is not possible for us to disentangle the cohort effect and the assimilation effect. Contrary to what we might conclude from the upper panels, the differences in promotion probabilities between immigrants and their native peers that we observe in the lower panels of tables 2 are few. For white female immigrants, the estimated differences in the probability of promotion relative to white natives in table 2 are statistically indistinguishable from zero regardless of how long an immigrant has been in Canada. A female visible minority immigrant who has been in Canada for less than five years, however, is an estimated 15.7 percentage points less likely to have been promoted with her current employer than an observationally equivalent white Canadian-born worker. Furthermore, almost half of this estimated promotion probability

differential stems from newly arrived female visible minority immigrants being employed in firms in which there is a lower probability of promotion. After the first five years in Canada, however, this gap in promotion opportunities narrows to some extent. Female visible minority immigrants who have been in Canada between six and ten years, between eleven and twenty years, and more than twenty years, are 6.4, 5.9, and 5.3 percentage points less likely to have been promoted, respectively—though the first estimated promotion differential is not statistically significant.

Among male immigrants, white immigrants are actually more likely to have been promoted compared to their white Canadian counterparts. The only exception are white immigrants who have been in Canada for more than 20 years who are 3 percentage points less likely to have been promoted (none of the estimates are statistically significant though). We find no evidence that visible minority male immigrants are less likely to have been promoted than their white native peers except for visible minority male immigrants who have been in Canada for more than 20 years who are an estimated 8.2 percentage points less likely to have been promoted. The reappearance of the “promotion gap” among male and female visible minority immigrants who have been in Canada for more than 20 years is consistent with these immigrants encountering a “glass ceiling” blocking their further ascent up the job ladder.<sup>18</sup> This could be due to mechanisms that prevent immigrants from fully assimilating into the labor market such as discrimination or smaller social networks, but it could also be driven by changes in the “quality” of immigrant cohorts in terms of their unobservable attributes that might result from changes in immigration policies (Chiswick 1978; Borjas 1985). Because we use pooled cross-sections over just a six year period, we are unable to distinguish between these two scenarios.

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<sup>18</sup> Pendakur and Woodcock (2011) find that visible minority immigrants in Canada are under-represented at the top of the wage distribution conditional on their characteristics—evidence of a “glass ceiling” in terms of wages.

#### **IV.B Immigration and the Number of Promotions Received**

While we observe differences in promotion probabilities relative to white natives only for some groups of immigrants, these estimates might obscure differences in promotion experiences if immigrants are promoted less often than their white native peers. Table 3 reports the estimated differences in number of promotions received with the current employer for minority groups relative to white Canadian-born workers for female and male workers. A female (male) visible minority immigrant has received an estimated 0.207 (0.225) fewer promotions with the current employer than an observationally equivalent white Canadian-born worker. Among visible minority Canadian-born workers, we find that men have been promoted 0.29 fewer times than their white native peers, but no such evidence for women (the estimated gap is 0.08 and statistically insignificant). We also find no evidence that white immigrants have been promoted fewer times than their Canadian-born counterparts. We find evidence of systematic sorting into firms that promote workers less often among both male and female visible minority immigrants.

We find no evidence that white immigrants fall behind their native peers by receiving fewer promotions with their current employers except among white male immigrants who have been in Canada for more than 20 years, who have received an estimated 0.116 fewer promotions than their native peers. Among visible minorities, the patterns are similar to those observed for the probability of promotion. Female visible minority immigrants who have been in Canada for less than six years have received an estimated 0.354 fewer promotions than an observationally equivalent white Canadian-born peer. Using the within-firm estimator in column 5, these women have received an estimated 0.231 fewer promotions than their white Canadian-born peers, confirming that newly arrived female visible minority immigrants sort into firms offering fewer promotions than the firms in which their white Canadian-born peers are employed. We do not find



much evidence however that this sorting persists. Female visible minority immigrants who have been in Canada between six and ten years, eleven to twenty years, and more than twenty years have received an estimated 0.139 (statistically insignificant), 0.179, and 0.20 fewer promotions, respectively, than their white native peers, but these economy-wide differences are driven almost entirely by within-firm differences in promotion outcomes. The sorting of female visible minority immigrants into firms offering “dead-end” jobs is an issue among newly arrived immigrants, but within-firm differences in the number of promotions received exist for all female visible minority immigrants.

Newly arrived male visible minority immigrants were not less likely to have been promoted with their current employer according to the estimates in table 2, but they received an estimated 0.223 fewer promotions with their current employers than have observationally equivalent white natives. Unlike newly arrived female visible minority immigrants, these men do not appear to sort into firms offering fewer promotion opportunities; firms simply promote them less often. Male visible minority and white immigrants who have been in Canada for more than 20 years have received an estimated 0.302 and 0.116 fewer promotions with their current employers, respectively, than have observationally equivalent white natives; among male visible minority immigrants this is in part due to sorting into firms offering fewer promotion opportunities. As before, the re-emergence of a promotion outcome differential among immigrants who have been in Canada for more than 20 years may either reflect a failure to assimilate in the labor market or unobserved changes in immigrant cohort quality.

#### **IV.C Immigration, Promotion Outcomes, Education, and Labour Market Experience**

To account for the possibility that not all immigrants operate in the same labor market, we estimate the models of the probability of promotion and the number of times promoted interacting all of the

regressors with an indicator for whether the worker has a bachelor's or higher degree. The underlying assumption is that the labor markets for high-skilled and low-skilled workers (as proxied by education) may treat immigrants differently. Tables 4a and 4b report the estimated promotion probability differentials for women and men, respectively, by education category. Striking differences exist among female visible minority immigrants. Female visible minority immigrants with less than a bachelor's degree are an estimated 19.8 percentage points less likely to have been promoted than observationally equivalent white Canadian-born women in their first five years in Canada—a gap which is driven almost entirely by the sorting of these women into firms offering fewer promotion opportunities. Further, while the sorting into firms offering fewer promotion opportunities abates among less educated female visible minority immigrants who have been in Canada for more than 5 years, these women continue to be around 10 percentage points less likely to have been promoted than their white Canadian-born peers. University-educated female visible minority immigrants, on the other hand, are not statistically less likely at any point to have been promoted than comparable white Canadian-born women.

Using the number of times promoted as the dependent variable in tables 5a and 5b, female visible minority immigrants without a bachelor's degree who have been in Canada for less than 5 years have received an estimated 0.397 fewer promotions than their white native peers, and this is largely due to their being employed in firms that promote workers less often. This gap shrinks somewhat but remains statistically significant for less educated female visible minority immigrants who have been in Canada for more than 10 years, but among these immigrants intra-firm differences in promotion outcomes rather than systematic sorting into firms offering “dead-end” jobs account for the promotion outcome differential. Newly arrived university-educated female visible minority immigrants have received an estimated 0.211 fewer promotions than their white

native peers—entirely the result of intra-firm differences in promotion outcomes—but other university-educated female visible minority immigrants have not been promoted fewer times than their white native peers. Taken together, the estimates in tables 4a and 5a suggest that the promotion outcome differentials we observe in tables 2 and 3 largely reflect the advancement experiences of non-university educated female visible minority immigrants.

For male visible minority immigrants, we only find evidence of lower probability of promotion among those who have been in Canada for more than twenty years - both educated and less educated groups are 8.6 and 7.5 percentage points less likely to have been promoted compared to their Canadian-born counterparts. Male visible minority immigrants who have been in Canada more than 20 years (regardless of their education), and more educated ones that have been in Canada for less than six years, all experience 0.3 fewer promotions compared to their native peers.

Among white immigrants, less educated male immigrants are estimated to be between 10 and 20 percentage points more likely to have been promoted in their first 20 years in Canada, while other white male immigrants of both education types are equally likely to have been promoted as their white native counterparts. Likewise, non-university educated male white immigrants in their first twenty years in Canada have been promoted more often than their white native peers while similar university-educated white immigrants have been promoted—if anything—fewer times than their white native peers.

Because our regression include controls for age, we are comparing promotion opportunities of Canadians and immigrants of the same age. Therefore, immigrants might never catch up with their Canadian peers in terms of promotion opportunities since a Canadian will be always earlier in her Canadian career than an immigrant of the same age. Therefore, we also consider whether immigrants who have been in Canada for more/less than 10 years experience differences in

promotion opportunities with Canadians with more/less than 10 years of potential labour market experience (defined as age minus six minus years of schooling). We also extend this analysis to natives and immigrants with different levels of education.

We also examine differences in the probability of promotion and the number of times promoted comparing Canadian-born workers with more(less) than ten years of potential labour market experience and immigrants with more(less) than ten years of arrival. Table 6a and 6b report these estimates for the probability of promotion for women and men, respectively, while tables 7a and 7b report these estimates for the number of times promoted for women and men, respectively. The results in the top right panels of tables 6a and 6b suggest that female (male) immigrants who have been in Canada for more than ten years experience an estimated 6.3(3.3) percentage points lower probability of promotion compared to equivalent white Canadian-borns who have more than ten years of potential labour market experience (although the latter estimate is statistically insignificant). We also find that 38 percent of the economy-wide gap in the probability of promotion experienced by the former group is driven by their disproportionate sorting into firms offering “dead-end jobs”. These results are similar to the estimates reported in table 2 for the sample of all male and female workers. The estimates reported in the top left panels of tables 6a and 6b suggest however that female (male) visible-minority immigrants who have been in Canada for less than 10 years are 11.4 (15.8) percentage points less likely to have been promoted compared to equivalent white Canadian-borns who have less than 10 years of potential labour market experience, gaps that are twice as large and five times as large compared to females and males with more than ten years of arrival, respectively. We find no evidence that either group of white immigrant males (females) with more/less than ten years of arrival experience a lower probability

of promotion compared to white male (female) Canadian-borns with more/less than ten years of potential labour market experience.

Further breaking down the sample by education level, similar patterns emerge looking at visible-minority female (male) immigrants without a university degree. Females (males) with more than ten years of arrival are 8.9 (2.8) percentage points less likely to have been promoted compared to similar white Canadian-borns with more than years of potential labour market experience, estimates that are similar to the sample of all female (male) workers without a university degree reported in tables 4a and 4b. White immigrant counterparts of these two groups, however, are not less likely to have been promoted, similar to all male and female white immigrants without a university degree. Female (male) visible minority immigrants and female white immigrants without a university degree who have been in Canada for less than ten years are significantly less likely to have been promoted (17.2 , 16.2 and 12.4 percentage points, respectively) compared to their white Canadian-born counterparts with less than ten years of potential labour market experience, gaps that are significantly larger to gaps faced by their counterparts with more than 10 years of arrival (8.9, 2.8, and 0, respectively).

Both groups of university-educated female visible minority immigrants with more/less than ten years of arrival experience no gaps in the probability of promotion with their white Canadian-born peers with more/less than ten years of potential labour market experience. These results are similar to those for the sample of all university-educated female workers reported in table 4a. University-educated male visible minority immigrants, however, do not experience similar gaps when compared based on years of arrival - those with more than ten years of arrival are 3.5 percentage points less likely to have been promoted, while those with less than ten years of arrival are 11.6 percentage points less likely to have been promoted. The results of the former group are

more similar to the sample of all university-educated male visible minority immigrants who are 5.8 percentage points less likely to have been promoted.<sup>19</sup>

Tables 7a and 7b report the estimates for similar groups using the number of times promoted as the dependent variable. Both groups of female visible minority immigrants with more/less than ten years of arrival experience gaps in the number of times promoted (0.204 and 0.189 fewer times, respectively) similar to the sample of all female visible minority immigrants reported in table 3 (0.207 fewer times). For males, while the gap is similar between those with more than ten years of arrival and all visible minority male immigrants (0.223 and 0.215, respectively), it is around 20 percent larger for male visible minority immigrants with less than ten years of arrival (0.27 fewer times). White immigrant counterparts of both male and female groups, however, face no statistically significant gap in the number of times promoted with their white Canadian-born peers.

Further breaking down the samples by university degree, while nonuniversity-educated visible minority female immigrants with more/less than ten years of arrival experience similar gaps in the number of times promoted (0.255 and 0.22 fewer times) to all nonuniversity-educated females in table 5a (0.257 fewer times), the gap for university-educated visible-minority female immigrants with less than ten years of arrival, judging by its face value, is twice as large (0.14 fewer times) relative to the gap faced by all university-educated female visible-minority immigrants in table 5a (0.075 fewer times), although both estimates are statistically insignificant. None of the white immigrant counterparts of these visible minority immigrant groups receive

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<sup>19</sup> All three estimates are statistically insignificant, but the within-firm estimates for university-educated male visible minority immigrants with more than 10 years of arrival and the sample of all university-educated male visible minority immigrants are statistically significant and quite similar (7.7 and 6.7 percentage points).

lower number of promotions compared to their white Canadian-born peers. Only white immigrants with a university degree and with more than 10 years of arrival experience lower number of promotions (0.213 fewer times), consistent with lower number of promotions received by the sample of all university-educated white immigrants.

The same patterns emerge for visible minority male immigrants. Those without a university education and with more/less than ten years of arrival experience the same gap in the number of times promoted (0.22 and 0.21 fewer times, respectively) relative to the gap faced by all nonuniversity-educated male visible minority immigrants (0.196 fewer times). However, for the university-educated group, while the gap experienced by those with more than ten years of arrival (0.226 fewer times) is similar to all university-educated male visible minority immigrants (0.238 fewer times), it is considerably larger those with less than ten years of arrival (0.328 fewer times). For white immigrants, only those with a university degree and less than ten years of arrival are promoted fewer times (0.178 fewer times), although the estimate is not statistically significant.

Overall, estimates reported in tables 5a and 5b seem to suggest that comparing visible minority immigrants with different years of arrival to an arguably more appropriate group of white Canadian-borns, based on their potential Canadian labour market experience, produces similar results when comparing those with large potential Canadian labour market experience (i.e. more than ten years of arrival or potential labour market experience). However, when we look at those with less than ten years of arrival/potential labour market experience, visible minority immigrants seem to experience larger gaps compared to their white Canadian-born peers. This suggests that the estimated gap in the probability of promotion experienced by relatively more recently arrive immigrants could be underestimated when we do not compare them with a reasonably comparable group of white Canadian-borns. The estimates in tables 6a and 6b confirm the same conclusion for

male and female visible minority immigrants with a university degree and with less than 10 years of arrival. Once comparing these groups to a more reasonable comparison group (white Canadian-born counterparts with less than ten years of potential labour market experience), the estimated gap in the number of times promoted becomes larger for these immigrants.

## **V. Discussion & Conclusion**

We examine economy-wide differences between immigrants and natives in the probabilities of having been promoted and the number of times promoted for a linked sample of employers and employees in Canada between 1999 and 2005. We find little evidence of significant differences in promotion outcomes for white immigrants relative to white natives. Male and female visible minority immigrants, on the other hand, are an estimated 4.3 and 7.6 percentage points less likely to have been promoted and have received 0.215 and 0.207 fewer promotions with their current employer, respectively, than observationally equivalent white Canadian-born workers. Immigrants' promotion experiences are very heterogeneous: primarily newly arrived immigrants and immigrants who have been in Canada for more than 20 years experience adverse promotion outcomes. Immigrants' education levels are also related to their promotion experiences. Female visible minority immigrants without a bachelor's degree are less likely to have been promoted and receive fewer promotions while university-educated female visible minority immigrants experience similar promotion outcomes relative to observationally equivalent white natives. By contrast, non-university educated white male immigrants in their first ten years in Canada are actually more likely to have been promoted and have been promoted more times than observationally equivalent white natives relative to university-educated white male immigrants. Similarly, newly arrived, non-university-educated male visible minorities have been promoted more often than newly-arrived, university-educated male visible minorities. Finally, when



comparing immigrants and Canadian-borns with comparable potential Canadian labour market experience, the gaps in the probability of promotion and the number of times promoted seem to grow larger for immigrants who have spent less than ten years in Canada.

Previous evidence suggesting that immigrants sort systematically into different firms in terms of wages than natives led us to investigate whether immigrants are disproportionately employed in firms offering “dead-end” jobs. We find some evidence that suggests female visible minority immigrants—especially newly arrived female visible minority immigrants—are indeed disproportionately employed in firms offering limited opportunities for advancement.

Moving up on the job is an important contributor to wage growth over the life cycle. Aydemir and Skuterud (2008) and Pendakur and Woodcock (2010) provide evidence that the average economy-wide wage gaps experienced by male and female immigrants found in the previous literature result both from the disproportionate sorting of immigrants into lower-paying firms and from immigrants earning less than their peers within these firms. These findings provide support for employment equity policies that aim to help immigrants “get a foot in the door” at firms offering better wage prospects and pay equity policies that target wages within firms.

Our finding that immigrants—particularly newly arrived visible minority immigrants—are less likely to be promoted in the economy as a whole because they are less likely to be promoted within any given employer suggests that these policies may prove insufficient. Employment equity policies promoting equal employment opportunities at firms for all workers do not address a primary mechanism through which immigrants may fall behind in terms of wages: the failure to keep pace with their native peers in climbing the corporate ladder *within firms* once they have their “foot in the door.” Similarly, pay equity policies do little to benefit immigrants if immigrants—even while earning equal pay for equal work—are less able to move up the ladder to more

demanding—and higher paying—jobs. Existing antidiscrimination policies will be insufficient *if* these promotion outcome differentials are the result of discrimination. If discrimination is to blame for the adverse promotion experiences of immigrants and visible minorities more generally, then antidiscrimination policies must ensure that such workers face a level playing field *within firms* when competing for promotions. Our findings thus suggest that policy-makers seeking to assist immigrants should focus on within-firm processes that govern advancement on-the-job.

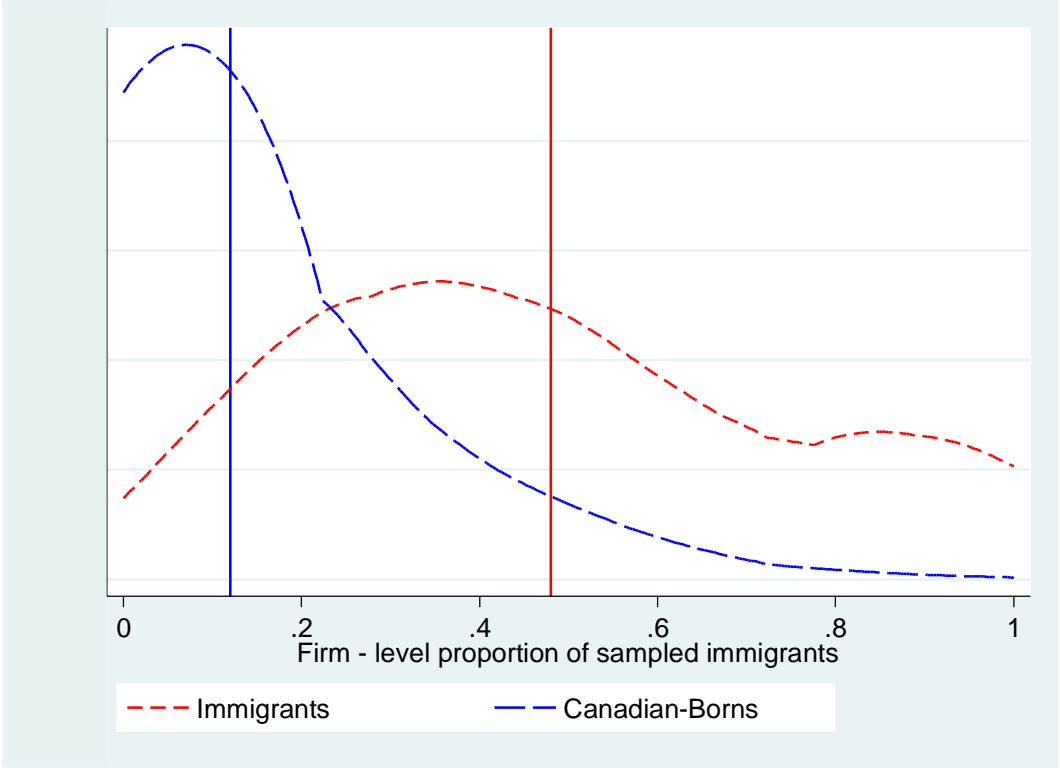
## References

- Aydemir, Abdurrahman and Mikal Skuterud. 2008. "The Immigrant Wage Differential Within and Across Establishments." *Industrial and Labor Relations Review*, 61(3), 334-352.
- Aydemir, Abdurrahman. 2003. "Effects of business cycles on the labour market assimilation of immigrants." in *Canadian Immigration Policy for the 21st Century*, Ed. Charles Beach and Alan Green (Kingston: Queen's University Press)
- Baker, Michael and Dwayne Benjamin. 1994. "The Performance of Immigrants in the Canadian Labor Market." *Journal of Labor Economics* 12(3), 369-405.
- Baker, G., M. Gibbs, and B. Holmstrom. 1994. "The Wage Policy of a Firm." *Quarterly Journal of Economics*, 109(4), 921-955.
- Borjas, George. 1985. "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants." *Journal of Labor Economics*, 3, 463-89.
- Borjas, George. 1994. "The Economics of Immigration." *Journal of Economic Literature*, 32(4), 1667-1717.
- Bloom, D., and M. Gunderson. 1991. "An Analysis of the Earnings of Canadian Immigrants." In *Immigration, Trade and the Labor Market*, ed. J. Abowd and R. Freeman (Chicago: University of Chicago Press for the National Bureau of Economic Research).
- Bloom, D., Gilles Grenier, and M. Gunderson . 1995. "The Changing Labour Market Position of Canadian Immigrants." *Canadian Journal of Economics*, 28(4b): 987-1005.
- Chiswick, Barry. 1978. "The Effect of Americanization on the Earnings of Foreign-Born Men." *Journal of Political Economy* 86, 897-922.
- Ferrer, Ana and W. Craig Riddell. 2008. "Education, credentials, and immigrant earnings." *Canadian Journal of Economics*, 41(1), 186-216.
- Friedberg, Rachel M. 2000. "You Can't Take It with You? Immigrant Assimilation and the Portability of Human Capital." *Journal of Labor Economics*, 18, 221-252.
- Green, David. 1999. "Immigrant Occupational Attainment: Assimilation and Mobility over Time." *Journal of Labor Economics*, 17(1), 49-79.
- Green, David A. & Worswick, Christopher. 2012. "Immigrant earnings profiles in the presence of human capital investment: Measuring cohort and macro effects." *Labour Economics*, 19(2), 241-259.

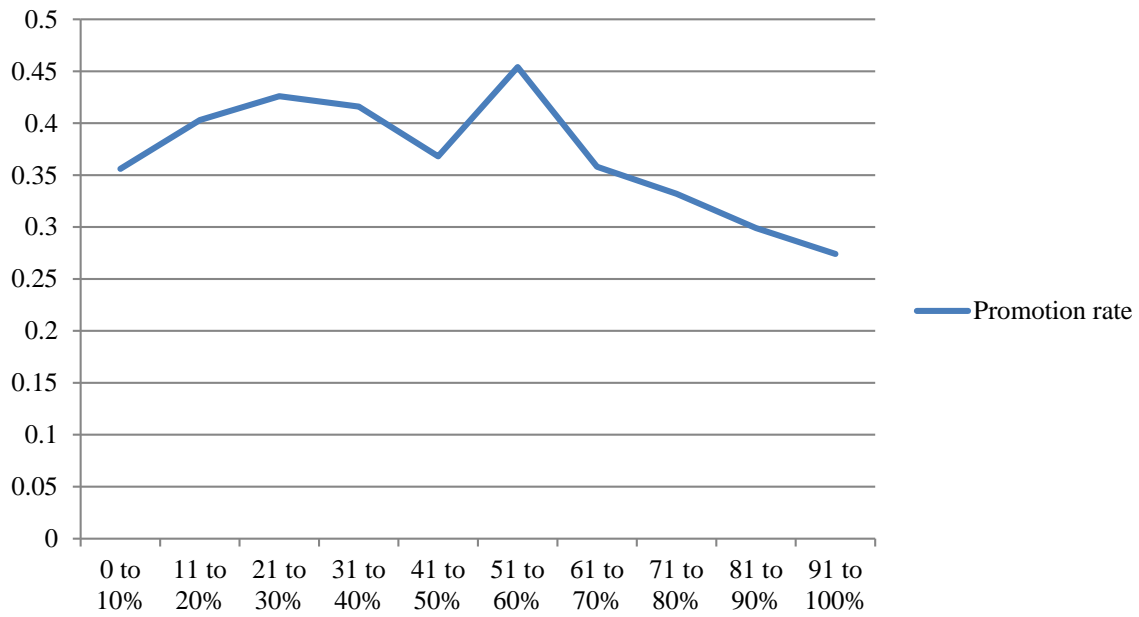
- Greenhaus, J. H., Parasuraman, S., and Wormley W. M. 1990. "Effect of Race on Organizational Experience, Job Performance Evaluations, and Career Outcomes." *Academy of Management Journal*, 33, 64-86.
- Hellerstein, Judith and David Neumark. 2008. "Workplace Segregation in the United States: Race, Ethnicity, and Skill." *Review of Economics and Statistics*, 90(3), 459-477.
- Hersch, Joni and W. Kip Viscusi. 1996. "Gender Differences in Promotions and Wages." *Industrial Relations*, 35(4), 461-72.
- Javdani, Mohsen. 2012. "Glass Ceilings or Glass Doors? The Role of Firms in Male-Female Wage Disparities." Working paper.
- Lazear, Edward. 1992. "The Job as a Concept," in *Performance Measurement, Evaluations, and Incentives*, W. Bruns, ed. (Boston, MA: Harvard University Press, 1992), pp. 183–215.
- MacDonald, James Ted and Christopher Worswick. 1998. "The Earnings of Immigrant Men in Canada: Job Tenure, Cohort, and Macroeconomic Conditions." *Industrial and Labor Relations Review*, 51(3), 465-482.
- McCue, Kristin. 1996. "Promotions and Wage Growth." *Journal of Labor Economics*, 14(2), 175-209
- Gerhart, B., and G. Milkovich. 1989. "Salaries, Salary Growth, and Promotions of Men and Women in a Large, Private Firm," in *Pay Equity: Empirical Inquiries*, R. Michael, H. Hartmann, and B. O'Farrell, eds. (Washington, DC: National Academy Press, 1989), pp. 23–43.
- Nkomo, S. M. and Cox. T. Jr. 1990. "Factors Affecting the Upward Mobility of Black Managers in Private Sector Organizations." *Review of Black Political Economy*, 19, 39-57.
- Olson, Craig A. and Brian E. Becker. 1983. "Sex Discrimination in the Promotion Process." *Industrial and Labor Relations Review*, 36(4), 624-641.
- Oreopoulos, Philip. 2011. "Why Do Skilled Immigrants Struggle in the Labor Market? A Field Experiment with Six Thousand Résumés" *American Economic Journal: Economic Policy*, 3(4), 148-171.
- Pergamit, Michael R. and Jonathan R. Veum. 1999. "What is a Promotion?" *Industrial and Labor Relations Review*, 52(4), 581-601.
- Pendakur, Krishna and Simon Woodcock. 2010. "Glass Ceilings or Glass Doors? Wage Disparity Within and Between Firms." *Journal of Business & Economic Statistics*, 28(1), 181-189.

- Sousa, Liliana D. 2011. "Human Capital Traps? Enclave Effects Using Linked Employer-Household Data." Working paper.
- Warman, Casey. 2007. "Ethnic Enclaves and Immigrant Earnings Growth." *Canadian Journal of Economics*, 40(2), 401-422.
- Waslander, Bert. 2003. "The Falling Earnings of New Immigrant Men in Canada's Large Cities." In *Canadian Immigration Policy for the 21st Century*, Ed. C. Beach, A. Green and J. Reitz. John Deutsch Institute for the Study of Economic Policy (Kingston: Queen's University Press)
- Wilson, Kenneth L. and Alejandro Portes. 1980. "Immigrant Enclaves: An Analysis of the Labor Market Experience of Cubans in Miami." *The American Journal of Sociology*, 86(2), 295-319

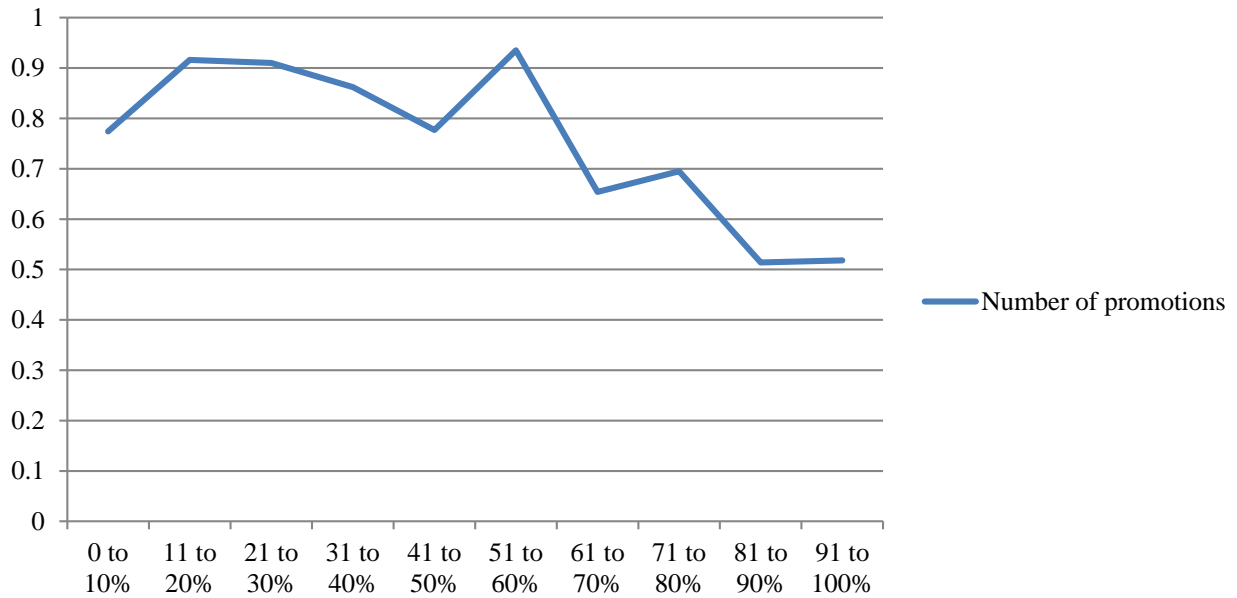
**Figure 1: Distributions of immigrants and natives by proportion of employer's sampled employees who are immigrants**



**Figure 2: Promotion rate by proportion of firm's sampled employees who are immigrants**



**Figure 3: Number of promotions by proportion of firm's sampled employees who are immigrants**



**Table 1: Summary Statistics**

	Male				Female			
	Canadian-Born		Immigrant		Canadian-Born		Immigrant	
	White	Visible Minority	White	Visible Minority	White	Visible Minority	White	Visible Minority
Number of observations	34,797	625	4,265	2,780	26,276	516	3,147	2,464
Hourly wage	24.082	22.998	25.727	20.216	18.827	17.793	19.275	17.451
Ever promoted	0.420	0.373	0.409	0.339	0.353	0.314	0.342	0.288
Number of times promoted (including never promoted)	0.996	0.743	0.879	0.637	0.705	0.700	0.702	0.471
<b>Personal Characteristics:</b>								
Years of experience	20.493	14.134	22.595	15.423	16.871	13.411	18.347	13.899
Years since Immigration			26.269	16.103			27.580	17.063
0 to 5 years (% in category)			6.93	17.20			6.89	15.66
6 to 10 years (% in category)			8.85	18.30			7.37	18.59
11 to 20 years (% in category)			19.36	30.71			18.17	27.15
21 or more years (% in category)			64.87	33.79			67.57	38.60
Age	41.836	35.708	45.493	41.796	41.958	35.565	45.176	41.445
25-29 (% in category)	11.56	36.87	6.77	7.48	11.95	28.13	7.48	11.29
30-34 (% in category)	14.88	16.71	10.46	17.65	12.99	22.76	9.32	14.09
35-39 (% in category)	16.41	15.04	12.64	19.87	16.12	20.51	13.85	17.21
40-44 (% in category)	17.46	14.33	15.67	18.56	18.64	13.75	13.84	19.18
45-49 (% in category)	15.64	8.27	15.16	15.66	16.80	6.83	18.48	17.47
50-54 (% in category)	12.87	3.75	17.09	10.79	12.61	4.40	17.79	11.89
55-59 (% in category)	8.07	2.60	14.90	6.35	7.81	2.33	12.74	6.30
60-65 (% in category)	3.11	2.43	7.32	3.65	3.07	1.30	6.50	2.56
<b>Highest educational attainment</b>								
Ph.D., Master's, or M.D	0.040	0.037	0.093	0.083	0.036	0.040	0.068	0.073
Other graduate degree	0.018	0.010	0.034	0.026	0.021	0.044	0.033	0.029
Bachelor's degree	0.119	0.302	0.153	0.249	0.131	0.198	0.160	0.229
Some university	0.082	0.105	0.076	0.076	0.086	0.122	0.079	0.063
Completed college	0.164	0.158	0.171	0.196	0.255	0.221	0.246	0.253
Some college or trade certificate	0.263	0.196	0.236	0.168	0.218	0.129	0.178	0.159
High school diploma	0.175	0.116	0.135	0.118	0.176	0.233	0.143	0.132
Less than high school*	0.135	0.072	0.098	0.079	0.074	0.008	0.090	0.057
<b>Marital Status</b>								
Married	0.595	0.484	0.717	0.796	0.570	0.439	0.661	0.676
Common law	0.165	0.113	0.088	0.035	0.148	0.110	0.085	0.032
Separated	0.024	0.022	0.030	0.017	0.036	0.028	0.031	0.030
Divorced	0.038	0.023	0.027	0.019	0.079	0.033	0.076	0.060
Widowed	0.005	0.001	0.003	0.002	0.014	0.001	0.021	0.017
Single*	0.170	0.354	0.131	0.128	0.151	0.386	0.123	0.181
<b>Number of Dependent Children</b>								
Zero*	0.483	0.662	0.464	0.332	0.506	0.582	0.518	0.430
One	0.173	0.131	0.189	0.223	0.177	0.167	0.170	0.231
Two	0.245	0.128	0.247	0.313	0.233	0.162	0.211	0.260
Three	0.076	0.065	0.073	0.102	0.067	0.076	0.080	0.060
Four or more	0.020	0.012	0.025	0.027	0.014	0.010	0.019	0.017
<b>Language most often spoken at home</b>								
French	0.290	0.067	0.073	0.047	0.255	0.050	0.046	0.023
English	0.698	0.835	0.669	0.364	0.731	0.777	0.692	0.414
Other	0.010	0.096	0.257	0.587	0.012	0.171	0.260	0.561

Notes: \* indicates the reference category for regressions. All means are computed using sample weights provided in the data. Statistics Canada does not permit reporting these means without using the weights.



**Table 1 continued: Summary Statistics**

	Male				Female			
	Canadian-born		Immigrant		Canadian-born		Immigrant	
	White	Visible Minority	White	Visible Minority	White	Visible Minority	White	Visible Minority
<b>Geography</b>								
Atlantic	0.076	0.034	0.017	0.002	0.087	0.022	0.019	0.005
Quebec	0.296	0.157	0.157	0.129	0.258	0.111	0.108	0.081
Ontario*	0.337	0.374	0.549	0.587	0.366	0.451	0.584	0.595
Manitoba	0.036	0.036	0.033	0.035	0.040	0.022	0.032	0.023
Saskatchewan	0.036	0.007	0.007	0.011	0.033	0.016	0.006	0.003
Alberta	0.111	0.098	0.096	0.077	0.099	0.082	0.087	0.115
British Columbia	0.105	0.291	0.137	0.157	0.113	0.291	0.161	0.175
Census Metropolitan Area (CMA)	0.650	0.854	0.853	0.938	0.643	0.835	0.832	0.936
<b>Job Characteristics:</b>								
Fulltime	0.866	0.871	0.892	0.876	0.545	0.631	0.632	0.717
Member of Union or CBA	0.289	0.222	0.256	0.194	0.303	0.199	0.237	0.191
Tenure with current employer	10.111	6.279	10.111	6.987	8.976	6.691	8.722	6.673
0 to 5 years since immigration			2.721	1.931			2.092	2.244
6 to 10 years since immigration			4.658	4.872			3.865	4.847
11 to 20 years since immigration			6.946	6.776			5.764	6.314
21 or more years since immigration			12.589	10.900			10.724	9.603
<b>Language most often spoken at work</b>								
French	0.276	0.074	0.098	0.076	0.246	0.047	0.069	0.041
English	0.716	0.913	0.875	0.832	0.747	0.942	0.906	0.864
Other	0.006	0.011	0.025	0.091	0.006	0.009	0.023	0.094
Home and work language not the same	0.031	0.015	0.026	0.018	0.027	0.011	0.021	0.009
<b>Occupation</b>								
Manager	0.183	0.180	0.217	0.162	0.094	0.122	0.085	0.090
Professional	0.134	0.250	0.203	0.172	0.218	0.199	0.203	0.213
Technical/Trades	0.535	0.366	0.438	0.459	0.321	0.336	0.354	0.351
Marketing/Sales	0.026	0.063	0.030	0.040	0.093	0.087	0.073	0.073
Clerical/Administrative	0.057	0.082	0.049	0.080	0.223	0.219	0.200	0.176
Production Worker*	0.065	0.059	0.063	0.087	0.051	0.037	0.085	0.097
<b>Industry</b>								
Resource	0.031	0.011	0.010	0.006	0.005	0.002	0.005	0.018
Labor intensive tertiary manufacturing	0.052	0.069	0.064	0.101	0.032	0.049	0.071	0.086
Secondary product manufacturing	0.051	0.036	0.068	0.080	0.018	0.008	0.021	0.040
Capital intensive tertiary manufacturing	0.068	0.076	0.115	0.128	0.028	0.008	0.032	0.031
Construction	0.082	0.060	0.060	0.018	0.015	0.009	0.003	0.006
Transportation, warehousing, wholesale	0.160	0.151	0.121	0.100	0.070	0.073	0.066	0.063
Communication and other utilities	0.030	0.014	0.015	0.013	0.012	0.005	0.011	0.007
Retail trade and consumer services	0.163	0.195	0.151	0.189	0.213	0.337	0.181	0.244
Finance and insurance	0.027	0.051	0.022	0.051	0.071	0.089	0.047	0.072
Real estate, rental and leasing operations	0.017	0.023	0.018	0.007	0.017	0.006	0.019	0.014
Business services	0.095	0.101	0.140	0.159	0.097	0.119	0.141	0.150
Education and health services	0.113	0.143	0.127	0.089	0.371	0.242	0.347	0.234
Information and cultural industries	0.037	0.050	0.038	0.016	0.034	0.033	0.036	0.019
Primary product manufacturing*	0.067	0.013	0.045	0.036	0.012	0.012	0.014	0.008

Notes: \* indicates the reference category for regressions. All means are computed using sample weights provided in the data. Statistics Canada does not permit reporting these means without using the weights.

**Table 2: Estimated Relationships between Minority Status and Probability of Promotion**

	Males			Females		
	Economy-wide (1)	Within firms (2)	Sorting (3)	Economy-wide (4)	Within firms (5)	Sorting (6)
Visible Minority Canadian Born	-0.092** (0.040)	-0.118*** (0.039)	0.025** [0.017]	-0.079 (0.056)	-0.066 (0.049)	-0.013 [0.638 ]
White Immigrant	0.004 (0.019)	-0.006 (0.018)	0.011 [0.114]	-0.007 (0.023)	0.001 (0.023)	-0.008*** [0.000]
Visible Minority Immigrant	-0.043* (0.023)	-0.050** (0.022)	0.007 [0.323]	-0.076*** (0.025)	-0.039 (0.024)	-0.037*** [0.000]
	Males			Females		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
Visible Minority Canadian Born	-0.088** (0.040)	-0.116*** (0.039)	0.027*** [0.001]	-0.080 (0.056)	-0.066 (0.049)	-0.013 [0.626 ]
White Immigrant after 0 to 5 years	0.114 (0.074)	0.140* (0.083)	-0.026 [0.506]	-0.007 (0.072)	-0.007 (0.068)	0.000 [0.994]
White Immigrant after 6 to 10 years	0.078 (0.049)	0.047 (0.047)	0.030** [0.014]	0.003 (0.062)	0.007 (0.056)	-0.003 [0.905]
White Immigrant after 11 to 20 years	0.079 (0.048)	0.042 (0.039)	0.037 [0.197]	-0.009 (0.042)	0.002 (0.047)	-0.012 [0.575]
White Immigrant after 21 years	-0.030 (0.020)	-0.033 (0.022)	0.002 [0.728]	-0.008 (0.028)	0.001 (0.027)	-0.009* [0.080]
Visible Minority Immigrant after 0 to 5 years	-0.046 (0.043)	-0.056 (0.050)	0.009 [0.720]	-0.157*** (0.047)	-0.070 (0.044)	-0.087*** [0.000]
Visible Minority Immigrant after 6 to 10 years	0.066 (0.043)	0.035 (0.049)	0.031 [0.182]	-0.064 (0.053)	-0.043 (0.049)	-0.020 [0.365]
Visible Minority Immigrant after 11 to 20 years	0.000 (0.037)	-0.009 (0.037)	0.009 [0.245]	-0.059* (0.033)	-0.019 (0.036)	-0.04*** [0.003]
Visible Minority Immigrant after 21 years	-0.082*** (0.029)	-0.076** (0.030)	-0.005 [0.477]	-0.063** (0.031)	-0.038 (0.033)	-0.024** [0.015]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 3: Estimated Relationships between Minority Status and Number of Times Promoted**

	Males			Females		
	Economy-wide (1)	Within firms (2)	Sorting (3)	Economy-wide (4)	Within firms (5)	Sorting (6)
Visible Minority Canadian Born	-0.292*** (0.113)	-0.330** (0.130)	0.038 [0.554]	-0.084 (0.107)	-0.039 (0.080)	-0.045 [0.525]
White Immigrant	-0.073 (0.056)	-0.116** (0.046)	0.042 [0.199]	-0.007 (0.062)	-0.029 (0.042)	0.021 [0.640]
Visible Minority Immigrant	-0.215*** (0.060)	-0.171*** (0.062)	-0.044*** [0.000]	-0.207*** (0.050)	-0.172*** (0.044)	-0.035 [0.154]
	Males			Females		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
Visible Minority Canadian Born	-0.286** (0.113)	-0.350*** (0.132)	0.064 [0.348]	-0.085 (0.107)	-0.049 (0.093)	-0.036 [0.493]
White Immigrant after 0 to 5 years	0.016 (0.104)	-0.082 (0.143)	0.099 [0.311]	0.031 (0.165)	0.103 (0.167)	-0.071*** [0.005]
White Immigrant after 6 to 10 years	0.022 (0.110)	-0.023 (0.126)	0.046 [0.450]	-0.002 (0.129)	-0.008 (0.122)	0.005 [0.887]
White Immigrant after 11 to 20 years	0.034 (0.125)	-0.017 (0.148)	0.051 [0.517]	-0.062 (0.076)	-0.114 (0.104)	0.051 [0.462]
White Immigrant after 21 years	-0.116* (0.066)	-0.074 (0.070)	-0.041 [0.101]	0.002 (0.078)	-0.026 (0.073)	0.028 [0.311]
Visible Minority Immigrant after 0 to 5 years	-0.223*** (0.083)	-0.246** (0.107)	0.023 [0.732]	-0.354*** (0.080)	-0.231** (0.103)	-0.123* [0.056]
Visible Minority Immigrant after 6 to 10 years	-0.050 (0.092)	-0.032 (0.098)	-0.017 [0.615]	-0.139 (0.104)	-0.122 (0.099)	-0.017 [0.556]
Visible Minority Immigrant after 11 to 20 years	-0.119 (0.106)	-0.070 (0.129)	-0.048 [0.506]	-0.179** (0.071)	-0.135 (0.082)	-0.044 [0.271]
Visible Minority Immigrant after 21 years	-0.302*** (0.074)	-0.234*** (0.085)	-0.068 [0.117]	-0.200*** (0.060)	-0.205*** (0.070)	0.005 [0.888]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 4a: Estimated Relationships between Minority Status and Probability of Promotion by Education Level for Women**

	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.061 (0.071)	-0.068 (0.065)	0.006 [0.817]	-0.117* (0.065)	-0.065 (0.052)	-0.051 [0.183]
White Immigrant	-0.009 (0.028)	-0.004 (0.028)	-0.005** [0.018]	0.000 (0.037)	0.012 (0.036)	-0.011** [0.039]
Visible Minority Immigrant	-0.110*** (0.029)	-0.055* (0.030)	-0.054*** [0.000]	0.007 (0.042)	0.000 (0.042)	0.006 [0.293]
	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
Visible Minority Canadian Born	-0.062 (0.071)	-0.066 (0.066)	0.004 [0.877]	-0.112* (0.065)	-0.063 (0.051)	-0.048 [0.217]
White Immigrant after 0 to 5 years	-0.127 (0.101)	-0.109 (0.095)	-0.018 [0.580]	0.148 (0.089)	0.111 (0.089)	0.037*** [0.001]
White Immigrant after 6 to 10 years	0.002 (0.087)	-0.003 (0.069)	0.006 [0.906]	0.057 (0.086)	0.046 (0.099)	0.010 [0.825]
White Immigrant after 11 to 20 years	-0.021 (0.053)	-0.002 (0.053)	-0.018** [0.041]	0.015 (0.061)	0.004 (0.085)	0.011 [0.849]
White Immigrant after 21 years	-0.000 (0.033)	0.001 (0.033)	-0.002 [0.493]	-0.049 (0.046)	-0.015 (0.044)	-0.034** [0.010]
Visible Minority Immigrant after 0 to 5 years	-0.198*** (0.059)	-0.019 (0.047)	-0.178*** [0.000]	-0.050 (0.067)	-0.095 (0.080)	0.045 [0.286]
Visible Minority Immigrant after 6 to 10 years	-0.091 (0.064)	-0.066 (0.063)	-0.025*** [0.000]	0.020 (0.087)	0.008 (0.070)	0.012 [0.807]
Visible Minority Immigrant after 11 to 20 years	-0.091** (0.039)	-0.052 (0.045)	-0.038* [0.095]	0.037 (0.063)	0.059 (0.058)	-0.022 [0.342]
Visible Minority Immigrant after 21 years	-0.105*** (0.036)	-0.061 (0.040)	-0.043** [0.017]	0.038 (0.059)	0.018 (0.058)	0.019* [0.057]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 4b: Estimated Relationships between Minority Status and Probability of Promotion by Education Level for Men**

	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.083* (0.044)	-0.104** (0.047)	0.020 [0.199]	-0.115 (0.078)	-0.138** (0.055)	0.023 [0.674]
White Immigrant	0.016 (0.023)	0.007 (0.021)	0.008 [0.350]	-0.022 (0.032)	-0.029 (0.031)	0.006 [0.235]
Visible Minority Immigrant	-0.033 (0.028)	-0.041 (0.032)	0.008 [0.555]	-0.058 (0.038)	-0.067** (0.032)	0.009 [0.645]
	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
Visible Minority Canadian Born	-0.078* (0.045)	-0.101** (0.047)	0.022 [0.156]	-0.113 (0.077)	-0.135** (0.055)	0.022 [0.685]
White Immigrant after 0 to 5 years	0.216** (0.109)	0.236* (0.126)	-0.02 [0.751]	-0.011 (0.070)	0.043 (0.053)	-0.054 [0.243]
White Immigrant after 6 to 10 years	0.148*** (0.056)	0.148*** (0.051)	0.000	-0.028 (0.079)	-0.088 (0.071)	0.060* [0.082]
White Immigrant after 11 to 20 years	0.096* (0.055)	0.049 (0.049)	0.046* [0.064]	0.044 (0.086)	0.044 (0.083)	0.000
White Immigrant after 21 years	-0.025 (0.024)	-0.025 (0.024)	0.000	-0.037 (0.038)	-0.039 (0.039)	0.001 [0.837]
Visible Minority Immigrant after 0 to 5 years	-0.025 (0.051)	-0.049 (0.062)	0.024 [0.483]	-0.067 (0.070)	-0.034 (0.075)	-0.032 [0.239]
Visible Minority Immigrant after 6 to 10 years	0.096* (0.055)	0.059 (0.088)	0.036 [0.598]	0.006 (0.070)	-0.013 (0.057)	0.019 [0.621]
Visible Minority Immigrant after 11 to 20 years	0.012 (0.045)	-0.006 (0.046)	0.019* [0.078]	-0.027 (0.067)	-0.013 (0.062)	-0.013 [0.598]
Visible Minority Immigrant after 21 years	-0.075** (0.036)	-0.059 (0.041)	-0.016 [0.384]	-0.086* (0.046)	-0.117*** (0.038)	0.030 [0.229]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 5a: Estimated Relationships between Minority Status and Number of Times Promoted by Education Level for Women**

	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.028 (0.135)	-0.011 (0.123)	-0.017 [0.757]	-0.169 (0.160)	-0.095 (0.125)	-0.073 [0.463]
White Immigrant	0.013 (0.076)	-0.032 (0.064)	0.046 [0.253]	-0.094 (0.092)	-0.060 (0.103)	-0.033 [0.450]
Visible Minority Immigrant	-0.257*** (0.056)	-0.213*** (0.064)	-0.044 [0.144]	-0.075 (0.097)	-0.087 (0.101)	0.011 [0.639]
	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.028 (0.135)	-0.009 (0.124)	-0.019 [0.717]	-0.165 (0.159)	-0.094 (0.125)	-0.070 [0.471]
White Immigrant after 0 to 5 years	-0.051 (0.287)	0.054 (0.288)	-0.105*** [0.000]	0.184 (0.164)	0.215 (0.168)	-0.031 [0.394]
White Immigrant after 6 to 10 years	0.035 (0.177)	-0.042 (0.163)	0.077 [0.261]**	-0.008 (0.164)	0.096 (0.182)	-0.105 [0.182]
White Immigrant after 11 to 20 years	-0.046 (0.089)	-0.085 (0.091)	0.039 [0.055]*	-0.162 (0.137)	-0.263 (0.232)	0.101 [0.589]
White Immigrant after 21 years	0.031 (0.093)	-0.024 (0.078)	0.055 [0.271]	-0.159 (0.128)	-0.086 (0.146)	-0.072 [0.304]
Visible Minority Immigrant after 0 to 5 years	-0.397*** (0.101)	-0.120 (0.121)	-0.277*** [0.000]	-0.211* (0.127)	-0.271 (0.169)	0.06 [0.590]
Visible Minority Immigrant after 6 to 10 years	-0.118 (0.132)	-0.131 (0.117)	0.013 [0.831]	-0.154 (0.156)	-0.099 (0.171)	-0.054 [0.438]
Visible Minority Immigrant after 11 to 20 years	-0.230*** (0.071)	-0.210** (0.091)	-0.02 [0.722]	-0.031 (0.164)	0.037 (0.155)	-0.069 [0.197]
Visible Minority Immigrant after 21 years	-0.285*** (0.067)	-0.265*** (0.087)	-0.02 [0.716]	0.024 (0.124)	-0.047 (0.120)	0.071** [0.022]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 5b: Estimated Relationships between Minority Status and Number of Times Promoted by Education Level for Men**

	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.171 (0.148)	-0.264 (0.169)	0.093 [0.254]	-0.486*** (0.155)	-0.447** (0.178)	-0.039 [0.655]
White Immigrant	-0.064 (0.063)	-0.044 (0.073)	-0.020 [0.569]	-0.081 (0.105)	-0.097 (0.093)	0.015 [0.746]
Visible Minority Immigrant	-0.195** (0.075)	-0.162* (0.096)	-0.033 [0.575]	-0.238** (0.095)	-0.171* (0.090)	-0.067** [0.025]
	Highest Degree Completed < Bachelor's			Highest Degree Completed ≥ Bachelor's		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.162 (0.148)	-0.260 (0.169)	0.098 [0.229]	-0.486*** (0.155)	-0.442** (0.178)	-0.044 [0.615]
White Immigrant after 0 to 5 years	0.157 (0.140)	0.017 (0.223)	0.139 [0.421]	-0.120 (0.120)	-0.136 (0.105)	0.016 [0.783]
White Immigrant after 6 to 10 years	0.161 (0.125)	0.153 (0.138)	0.008 [0.891]	-0.165 (0.186)	-0.223 (0.190)	0.058 [0.134]
White Immigrant after 11 to 20 years	0.092 (0.157)	0.022 (0.200)	0.069 [0.572]	-0.038 (0.166)	-0.027 (0.189)	-0.010 [0.906]
White Immigrant after 21 years	-0.133* (0.068)	-0.074 (0.077)	-0.058* [0.095]	-0.061 (0.149)	-0.061 (0.122)	-0.000 [0.998]
Visible Minority Immigrant after 0 to 5 years	-0.100 (0.113)	-0.238 (0.145)	0.138 [0.128]	-0.303** (0.125)	-0.126 (0.150)	-0.177** [0.032]
Visible Minority Immigrant after 6 to 10 years	0.016 (0.119)	0.013 (0.137)	0.002 [0.965]	-0.131 (0.128)	-0.088 (0.132)	-0.042 [0.186]
Visible Minority Immigrant after 11 to 20 years	-0.105 (0.133)	-0.088 (0.170)	-0.016 [0.873]	-0.169 (0.154)	-0.008 (0.145)	-0.160*** [0.001]
Visible Minority Immigrant after 21 years	-0.298*** (0.085)	-0.213** (0.108)	-0.085 [0.195]	-0.303** (0.135)	-0.306** (0.128)	0.003 [0.944]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 6a: Estimated Relationships between Minority Status and Probability of Promotion by Potential Labour Market Experience for Women**

	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.169*** (0.047)	-0.136** (0.058)	-0.033 [0.338]	-0.019 (0.078)	-0.015 (0.067)	-0.004 [0.921]
White Immigrant	-0.014 (0.056)	0.047 (0.057)	-0.061*** [0.000]	-0.010 (0.025)	-0.001 (0.026)	-0.008* [0.085]
Visible Minority Immigrant	-0.114** (0.055)	-0.020 (0.059)	-0.093*** [0.000]	-0.063** (0.026)	-0.038 (0.027)	-0.025*** [0.000]
	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
<b>Highest Degree Completed &lt; Bachelor's</b>						
Visible Minority Canadian Born	-0.211*** (0.051)	-0.235*** (0.082)	0.024 [0.708]	0.002 (0.089)	-0.010 (0.079)	0.012 [0.767]
White Immigrant	-0.124** (0.060)	-0.027 (0.061)	-0.097*** [0.000]	0.000 (0.030)	0.002 (0.030)	-0.002 [0.701]
Visible Minority Immigrant	-0.172*** (0.061)	-0.039 (0.060)	-0.132*** [0.000]	-0.089*** (0.031)	-0.059* (0.034)	-0.029** [0.045]
<b>Highest Degree Completed ≥ Bachelor's</b>						
Visible Minority Canadian Born	-0.124 (0.077)	-0.060 (0.071)	-0.064** [0.033]	-0.064 (0.111)	-0.036 (0.075)	-0.028 [0.730]
White Immigrant	0.109 (0.081)	0.136 (0.090)	-0.027 [0.482]	-0.051 (0.041)	-0.025 (0.038)	-0.025 [0.112]
Visible Minority Immigrant	0.000 (0.078)	0.013 (0.093)	-0.012 [0.793]	0.012 (0.048)	0.010 (0.048)	0.001 [0.753]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).



**Table 6b: Estimated Relationships between Minority Status and Probability of Promotion by Potential Labour Market Experience for Men**

	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.147* (0.078)	-0.207*** (0.062)	0.06 [0.206]	-0.074* (0.044)	-0.081* (0.046)	0.007 [0.628]
White Immigrant	-0.071 (0.053)	-0.055 (0.047)	-0.016 [0.496]	0.002 (0.021)	-0.010 (0.019)	0.013 [0.147]
Visible Minority Immigrant	-0.158*** (0.055)	-0.134** (0.059)	-0.024 [0.217]	-0.033 (0.026)	-0.034 (0.025)	0.001 [0.878]
	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Highest Degree Completed &lt; Bachelor's</b>						
Visible Minority Canadian Born	-0.099 (0.090)	-0.211** (0.087)	0.111*** [0.000]	-0.071 (0.051)	-0.069 (0.055)	-0.001 [0.950]
White Immigrant	-0.019 (0.065)	-0.001 (0.065)	-0.018* [0.072]	0.007 (0.025)	0.000 (0.022)	0.007 [0.541]
Visible Minority Immigrant	-0.162** (0.066)	-0.161** (0.069)	-0.001 [0.960]	-0.028 (0.032)	-0.020 (0.031)	-0.007 [0.305]
<b>Highest Degree Completed ≥ Bachelor's</b>						
Visible Minority Canadian Born	-0.162 (0.116)	-0.157** (0.076)	-0.005 [0.954]	-0.113 (0.080)	-0.140* (0.072)	0.027 [0.443]
White Immigrant	-0.099 (0.082)	-0.091 (0.065)	-0.008 [0.862]	0.006 (0.036)	-0.024 (0.039)	0.031** [0.018]
Visible Minority Immigrant	-0.116 (0.085)	-0.076 (0.082)	-0.039* [0.080]	-0.035 (0.045)	-0.077* (0.040)	0.041* [0.051]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 7a: Estimated Relationships between Minority Status and Number of Times Promoted by Potential Labour Market Experience for women**

	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.243** (0.103)	-0.204* (0.114)	-0.039 [0.424]	0.046 (0.147)	0.090 (0.132)	-0.044 [0.496]
White Immigrant	0.052 (0.105)	0.207* (0.113)	-0.154*** [0.000]	-0.024 (0.071)	-0.060 (0.070)	0.036*** [0.000]
Visible Minority Immigrant	-0.189* (0.101)	-0.054 (0.112)	-0.134*** [0.005]	-0.204*** (0.058)	-0.195*** (0.066)	-0.009 [0.773]
	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
<b>Highest Degree Completed &lt; Bachelor's</b>						
Visible Minority Canadian Born	-0.228 (0.157)	-0.265 (0.194)	0.037 [0.745]	0.075 (0.168)	0.089 (0.153)	-0.014 [0.835]
White Immigrant	-0.054 (0.127)	0.190 (0.138)	-0.244*** [0.000]	0.016 (0.085)	-0.042 (0.072)	0.058 [0.200]
Visible Minority Immigrant	-0.220* (0.126)	0.025 (0.139)	-0.245*** [0.000]	-0.255*** (0.063)	-0.251*** (0.077)	-0.004 [0.928]
<b>Highest Degree Completed ≥ Bachelor's</b>						
Visible Minority Canadian Born	-0.275** (0.134)	-0.186 (0.129)	-0.089** [0.014]	0.127 (0.352)	0.120 (0.267)	0.007 [0.975]
White Immigrant	0.148 (0.148)	0.254 (0.184)	-0.106 [0.332]	-0.213* (0.112)	-0.177 (0.135)	-0.036 [0.632]
Visible Minority Immigrant	-0.140 (0.141)	-0.115 (0.180)	-0.025 [0.823]	-0.025 (0.126)	-0.005 (0.132)	-0.020 [0.611]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Table 7b: Estimated Relationships between Minority Status and Number of Times Promoted by Potential Labour Market Experience for Men**

	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
	(1)	(2)	(3)	(4)	(5)	(6)
Visible Minority Canadian Born	-0.420** (0.182)	-0.398** (0.179)	-0.022 [0.503]	-0.178 (0.144)	-0.292* (0.174)	0.114 [0.243]
White Immigrant	-0.116 (0.106)	-0.139 (0.111)	0.023 [0.485]	-0.082 (0.064)	-0.061 (0.068)	-0.020 [0.369]
Visible Minority Immigrant	-0.270*** (0.101)	-0.199 (0.126)	-0.071 [0.345]	-0.223*** (0.070)	-0.157** (0.079)	-0.066* [0.076]
	Potential Years of Labour Market Experience ≤ 10			Potential Years of Labour Market Experience > 10		
	Economy-wide	Within firms	Sorting	Economy-wide	Within firms	Sorting
<b>Highest Degree Completed &lt; Bachelor's</b>						
Visible Minority Canadian Born	-0.099 (0.326)	-0.257 (0.209)	0.157 [0.528]	-0.154 (0.162)	-0.231 (0.209)	0.077 [0.559]
White Immigrant	-0.027 (0.151)	0.031 (0.158)	-0.058 [0.205]	-0.083 (0.069)	-0.042 (0.076)	-0.040 [0.196]
Visible Minority Immigrant	-0.211 (0.154)	-0.125 (0.182)	-0.086 [0.375]	-0.220*** (0.083)	-0.149 (0.102)	-0.071 [0.222]
<b>Highest Degree Completed ≥ Bachelor's</b>						
Visible Minority Canadian Born	-0.569*** (0.157)	-0.342 (0.224)	-0.227 [0.155]	-0.394 (0.311)	-0.566** (0.284)	0.172 [0.174]
White Immigrant	-0.178 (0.153)	-0.246 (0.150)	0.068** [0.024]	-0.032 (0.133)	-0.101 (0.112)	0.068 [0.337]
Visible Minority Immigrant	-0.328** (0.134)	-0.308* (0.159)	-0.02 [0.815]	-0.226* (0.131)	-0.204* (0.119)	-0.022 [0.687]
Number of observations	42467	42467		32403	32403	

Notes: Standard errors are in parentheses; p-values for the Hausman test of the equality of the economy-wide and within-firm estimates are in brackets. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada. Controls include the personal characteristics, job characteristics, and geography controls detailed in Table 1 (excluding industry and occupation).

**Appendix Table 1: Estimated Relationships between Minority Status and Probability of Promotion with Alternative Controls**

	Females				Males			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Visible Minority Canadian Born	-0.038 (0.068)	-0.085 (0.057)	-0.087* (0.050)	-0.092** (0.044)	-0.046 (0.038)	-0.084** (0.040)	-0.080* (0.045)	-0.074* (0.040)
White Immigrant	-0.010 (0.016)	-0.026 (0.017)	-0.016 (0.016)	-0.013 (0.018)	-0.010 (0.016)	-0.007 (0.019)	-0.003 (0.018)	-0.007 (0.019)
Visible Minority Immigrant	-0.064*** (0.021)	-0.095*** (0.030)	-0.075** (0.030)	-0.089*** (0.027)	-0.080*** (0.018)	-0.060*** (0.020)	-0.047** (0.019)	-0.054*** (0.019)
Number of Observations	32,403	32,403	32,403	32,403	42,467	42,467	42,467	42,467
Geography and year dummies	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Personal Characteristics	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Job Characteristics	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Tenure with employer	No	No	Yes	No	No	No	Yes	No
Occupation	No	No	No	Yes	No	No	No	Yes
Industry	No	No	No	Yes	No	No	No	Yes

Notes: Standard errors are in parentheses. The reference group for all regressions is white Canadian-born. \*\*\* indicates statistically significant at 1%, \*\* indicates statistically significant at 5%, and \* indicates statistically significant at 10%. All coefficients are estimated using sampling weights provided by Statistics Canada and all the standard errors are computed using 100 sets of bootstrap weights provided by Statistics Canada. Controls refer to the personal characteristics, job characteristics, and geography controls detailed in Table 1.