Colour By Numbers: Minority Earnings in Canada 1996-2006

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Abstract

We investigate the pattern of earnings disparity across Canadian-born ethnic groups in Canada over three census years, 1996, 2001 and 2006. This extends Pendakur and Pendakur (2002) by 10 years. We find that the earnings gaps faced by Canadian-born visible minorities have not eroded since the 1990s. This is somewhat surprising given that the size of this population has radically increased over the last 20 years. Other patterns observed in the 1990s, such as the relatively poor earnings outcomes of South Asians and Blacks, particularly in Montreal and Toronto, are still evident into the 2000s. An exception to the 'bad news' outlook is that persons of Caribbean origin have seen substantial convergence in their earnings relative to majority workers.

1. **Introduction**

According to the 2006 census, over half of Canada's population reported minority origins (ethnic origins other than British, French or Canadian). Of these, about sixteen percent are members of a visible minority (a person of non-European and non-Aboriginal descent) about a third of who are born in Canada. These minorities are educated and socialized in Canada, and speak either one or both official languages accentlessly. Under any reasonable scenario, they should not therefore be subject to an earnings penalty based on any of the traditional reasons why an immigrant may face a penalty. In this paper, we investigate the patterns of earnings disparity across ethnic groups within the Canadian-born population. In the context of rapidly growing 'home-grown' minority populations, one might expect that ethnically-based gaps in labour market performance would diminish over time. We find, to our chagrin, that earnings gaps between white and visible minority workers, which first widened in the 1990s, remain very large.

A large body of Canadian research shows that visible minority immigrants can face substantial labour market disparity, which may be worsening over time (see for example, Akbari, 1992; Howland and Sakellariou, 1993; Stelcner and Kyriazis, 1995; Christofides and Swidinsky, 1994; Baker and Benjamin, 1997; Hum and Simpson, 1998; Pendakur and Pendakur, 1998; Lian and Matthews, 1998). A smaller literature has established that Canadian-born visible minorities also face labour market penalties (see Stelcner, 2000; Pendakur and Pendakur 2002). These papers have shown that both male and female visible minorities face disparity, and that certain visible minority ethnic groups drive this disparity, especially South-Asian and Black/Caribbean/African origins (see de Silva and Dougherty 1996; Baker and Benjamin 1997; Hum and Simpson 1998; Pendakur and Pendakur 2002). Further Skuterud (2010) finds that earnings gaps can remain even after three generations. Similarly, Palameta (2007) finds that gaps do not disappear for

Canadian born minorities. Conversely, Reitz, Zhang and Hawkins (2010) find that some Canadian-born visible minority ethnic groups, particularly Chinese origin men, perform better than majority workers.

There are strong patterns across Canadian cities: in particular, Pendakur and Pendakur (1998) focus attention on the high degree of disparity observed in Montreal relative to Toronto and Vancouver, which cannot be explained away by compositional differences. Pendakur and Pendakur (2002) find that these patterns have existed since at least the 1980s. Kazempur and Halli (2001) find similar patterns in minority poverty across cities.

More recent work has added some nuance to our understanding of visible minority disparity. For example, Fang and Heywood (2010) find that visible minorities in Canada do better if they are in "piece-work" or "output-based" pay settings. Hou and Coulomb (2010) show that patterns of disparity differ between the public and private sector: if one controls for job characteristics such as occupation, the wage differential faced by visible minorities in the public sector is essentially zero. This is consistent with Oreopoulous' (2010) finding that name discrimination is a much larger problem in small as compared to large firms/organisations. Taken together, these findings suggest that in settings where compensation is less rule-bound, visible minorities do worse conditional on their job assignment. Of course, the issue of what jobs visible minorities get remains relevant.

Most Canadian-born visible minorities are the children of immigrants. Skuterud (2010) compares immigrant labour market outcomes to the grandchildren of immigrants, and find evidence of inter-generational convergence. That is, the children outperform their immigrant parents, and the grandchildren outperform the children. Thus, one might expect that in a few more generations, all disparity will disappear. There are three important cautions to bear in mind. First, Skuterud (2010) does not find much convergence for Black people. Second, Ginsberg and Henry (1984) and Oreopoulous (2010) conduct audit studies which find that skin-colour and name-discrimination, respectively, are relevant factors even when all aspects of a person's resume are identical. Third, in the present paper, we find, depressingly, that even as the proportion of

Canadian-born visible minority workers has more than doubled over the past 15 years, earnings disparity is largely unchanged.

2.   Methodology

Our goal is to evaluate the scope of labour market disadvantage with three micro datasets which contain all the 'long form' records collected by Statistics Canada for the 1996, 2001 and 2006 Censuses of Canada. These datasets are very large and allow consistent definitions of variables over the period 1996 to 2006. It is thus possible to assess the degree to which Canadian-born minorities face earnings differentials, as well as the degree to which those differentials have changed over time. We concentrate on the Canadian-born population because while immigrants may face earnings differentials related to such things as language or accent penalties, non-recognition of credentials or loss of work related networks, these issues do not face ethnic minorities born in Canada. Specifically, we estimate earnings differentials between white and visible minority/ Aboriginal workers for Canada as a whole and in three large Canadian cities across three census years. In addition, we investigate earnings differentials between British-origin workers and 42 ethnic groups (both white and nonwhite) in Canada as a whole, and in Montreal, Toronto and Vancouver separately. When considering the 42-group categorization, we do *not* report on Aboriginal origins, because those are discussed in much greater detail in Pendakur and Pendakur (2010).

Our sample is restricted to workers earning more than $100 per year, whose major source of income is wages and salaries, who are aged between 25 and 64 and who are Canadian citizens by birth. All regressions are done separately for men and for women.

We estimate log-earnings equations in two ways. The first controls only for personal characteristics (age, education, marital status, official language knowledge and census metropolitan area of residence). The second controls for both personal characteristics and work characteristics (occupation, industry sector, weeks of work and full-time / part-

time status). In all regressions, the dependent variable is the natural logarithm of annual earnings from wages and salaries.[1]

There are two ways to interpret these two types of regressions. First, one could consider that one of them measures 'true' earnings discrimination across ethnic groups. In this case, one must decide whether or not discrimination occurs on the earnings (or wage) margin given work characteristics, or whether work characteristics themselves are subject to discrimination. If good work characteristics, such as high-paying occupations or lots of hours or weeks of work, are not freely available, then work characteristics are potentially subject to discrimination----controlling for work characteristics would be the wrong thing to do. Indeed, in this case, estimates which control for work characteristics would understate the true level of discrimination. In contrast, if individuals freely choose their occupation, industry, hours and weeks of work, then controlling for work characteristics would be the right thing to do. Indeed, in this case, estimates which do not control for work characteristics would reveal a mix of the effects of labour market discrimination and the effects of differences in preferences over work characteristics across ethnic groups.

We believe that the work characteristics of workers — such as occupation and industry — are at least as susceptible to ethnic discrimination as the wages paid to workers. The case is made by Becker (1996), and others that in competitive labour markets, ethnic discrimination by employers, workers or customers, results not in wage differentials for workers in identical jobs but in segregation of workers into different jobs by ethnicity. With competitive product and labour markets, this segregation results in a 'separate-but-equal' type of world where ethnic discrimination results in dividing the economy into sub-economies composed of single ethnic groups with identical wage and earnings outcomes across sub-economies.

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[1] Coefficients from log-earnings can be interpreted as approximately equal to percentage disparities between the group of interest and the specified reference (i.e., "left-out") category, holding constant all the personal characteristics in the regression. In our regressions, the left-out category is "white" when considering visible minorities as a whole, and is "British" when considering the collection of 42 ethnic groupings. Thus, if a reported coefficient on visible minority is -0.05, then one could say that visible minorities earn 5 per cent less than whites with similar personal characteristics.

But, if either of these competitive assumptions is relaxed, the 'separate-but-equal' conclusions do not follow. For example, if product markets are not competitive so that some firms make excess profits which are partially shared with (possibly unionized) workers, then workers in those firms make more money than seemingly identical workers in other firms with less excess profits. Pendakur and Woodcock (2010) find evidence that immigrants end up in low-wage firms. Here, segregation results in unequal outcomes.

Alternatively, if labour markets are not competitive, a similar "separate-but-unequal" conclusion can follow. For example, consider the occupation of investment banker, which pays a lot in part because investment bankers must have something to lose if their investors are to trust them. If white workers have a better chance of getting these jobs than nonwhite workers, then occupation segregation results in earnings differentials between white and nonwhite workers.

Given that we have a strong prior belief that our regressions should not control for work characteristics, why report regressions that do control for them? We have two reasons for reporting both types of regression estimates. First, Pendakur and Pendakur (1998) provide evidence from the 1991 Census public-use sample that controlling for job characteristics (occupation, industry, weeks worked and full time/part time status) shrinks but does not eliminate earnings differentials across ethnic groups in Canada. Providing both types of regression results allows us to consider the measurement of discrimination in both a world where work characteristics are not freely available (a world which we believe we inhabit), and a world where work characteristics are freely available (a world which other social scientists believe we inhabit).

Second, Pendakur and Woodcock (2010) show that the *difference* in the estimated earnings disparity between a regression that controls for work characteristics and a regression that does not control for them is a meaningful statistic. In particular, it measures the degree to which the money value of work characteristics is correlated with

ethnic origin. Further, the hypothesis that the money value of work characteristics is uncorrelated with ethnic origin (conditional on personal characteristics) is directly testable.

Our analysis is divided into two parts. The first part focuses on the visible minority, Aboriginal versus white earnings differential at the Canada wide level as well as for the CMAs of Montreal, Toronto and Vancouver controlling for personal characteristics in each of the three census periods.[2] The second part breaks the three groups into 42 ethnic subgroups. There are 10 visible minority categories, 24 European (white) groups and 8 aboriginal categories. Here, we concentrate on the white and visible minority groups, and direct readers interested in Aboriginal incomes to Pendakur and Pendakur (2010). The earnings differentials across men and women in these groups are examined for Canada as a whole and for Montreal, Toronto and Vancouver separately.

We use a variety of independent variables to control for the personal characteristics of workers in our samples:

Age: Eight age cohorts as dummy variables (age 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 54, 55 to 59 and 60 to 64). Age 25 to 29 is the left-out dummy variable.

Schooling: We control for twelve levels of certificates as dummy variables (none, highschool, trades certificate, college certificate less than 1 year, college certificate less than 3 years, college certificate 3 or more years, university certificate less than Bachelors, Bachelors degree, BA+, medical degree, Masters degree and PhD). No certificate is the left-out dummy variable.

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[2].   A census metropolitan area (CMA) is a very large urban area (known as the urban core) together with adjacent urban and rural areas (known as urban and rural fringes) that have a high degree of social and economic integration with the urban core. A CMA has an urban core population of at least 100,000, based on the previous census (Statistics Canada, 1996).

Marital Status: Five dummy variables indicating marital status (Single– never married, married, separated, divorced, widowed). Single is the left-out dummy variable.

Household size: a dummy variable indicating a single person household and a continuous variable indicating the number of family members for other households.

Official Language: three dummy variables (English, French, bilingual– English and French). English is the left-out dummy variable. We note that because our sample is entirely Canadian-born, every observation reports speaking either English or French. This also eliminates the much variation in quality of language knowledge that plagues the estimation of earnings differentials across ethnic groups.

CMA: In regressions which pool all the cities together, we use 12 dummy variables indicating the Census Metropolitan Area / Region (Halifax, Montreal, Ottawa, Toronto, Hamilton, Winnipeg, Calgary, Edmonton, Vancouver, Victoria, or not in one of the 10 listed CMAs). Toronto is the left-out dummy variable.

Group Status: three dummy variables indicating group status (White, Visible Minority, Aboriginal person). White is the left-out dummy variable. Alternatively, 42 dummy variables indicating ethnic origin (with separate dummies for various multiple-origin groups), with British-only as the left-out ethnic origin. For these, we do not report on the 8 Aboriginal origin groups.[3]

The data and selection criteria are identical to those in Pendakur and Pendakur (2002), except for the exclusion of persons reporting less than $100 of earnings in the year. This is a very minor difference, as these observations are less than 0.1% of the sample. The controls are identical to those in Pendakur and Pendakur (2002) except for the education

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[3] For ease of comparison we use British as the comparison group of choice. However, it could be argued that using British as the comparison group in Montreal is problematic because they are not the largest group. We note that after controlling for personal characteristics, there is little difference in the earnings across the majority groups (British, French or Canadian). Thus we interpret our results as being the difference between any given group and the Canadian-born majority population.

variable. This is because the 1971 through 1996 census data used in Pendakur and Pendakur (2002) contained very detailed information on highest grade of schooling for those without postsecondary education, and much less detail on highest level of schooling for those with postsecondary education. In the 2006 data, this pattern is reversed: there is no information at all on highest grade of schooling for persons without postsecondary education. Thus, it is impossible to construct a reasonable education variable (with detail where the frequencies are high) from the available data that is comparable throughout 1971-2006. It turns out that this difference in education coding results in economic significant differences in estimated disparities in 1996 between the current paper and Pendakur and Pendakur (2002), which we will discuss below. However, the basic thrust of all our results all stand up to "downcoding" the education variable to be comparable throughout the period.

3.   Results

3.1   Descriptives

Table 1 shows weighted counts and log of earnings information by sex and ethnic origin. As per Statistics Canada guidelines, we are unable to release exact counts, but we note that weighted counts are approximately 5 times the actual numbers of observations. The key feature of Table 1 is that it shows the very large size of the data sets at our disposal. Looking at the log of wages it is also apparent that while results for European minorities are both positive and negative (i.e. there are examples of European groups earnings more and less than British origin men), the average earnings for visible minorities are generally earn lower. Our goal is to see if these differentials exist after controlling for personal characteristics such as age, education and marital status.

White/Visible Minority/Aboriginal Disparity

Table 2 shows results from 48 regressions (regressions controlling for personal, and, personal and work characteristics for each of 3 census periods by 4 regions – Canada, Montreal, Toronto and Vancouver by sex) that measure the earnings differential faced by Canadian-born visible minority and Aboriginal men and women as compared to white men and women.

Table 2 reports coefficients from each type of regression, as well as the difference in the estimated coefficient between the regressions that include or exclude work characteristics. Pendakur and Woodcock (2010) describe how to interpret this difference: it is equal to a regression coefficient from an artificial regression with the money value of work characteristics on the left-hand side and personal characteristics on the right hand side. The money value of work characteristics is equal to the predicted value of log-earnings for a person whose personal characteristics are equal to zero. Thus, if a person is in a high-pay occupation and industry, and works 50 weeks full-time, she will have a high money value of characteristics.

Thus, the differences reported in Table 2 reveal whether or not different ethnic groups secure valuable work characteristics *given* their personal characteristics. For example, if disparity given personal characteristics is equal to -0.15, and the difference between this and the disparity given work characteristics is equal to -0.05, then the sorting of workers in this ethnic group across the various occupations and industries contributes 5 percentage points to the overall disparity of 15 percentage points that they face. These differences do not have well-defined analytical standard errors except in special situations, so we do not report their standard errors. However, a test statistic can be constructed to test the hypothesis that the difference is zero, and we report stars in the Table indicating the statistical significance of this hypothesis test.

Figures 1-4 summarize results from regressions using only personal characteristics and integrates them with similar results for 1971 to 1996 from Pendakur and Pendakur (2002). We note that the overtime comparison is best interpreted as two general comparisons, the first running from 1971 to 1996 and the second from 1996 to 2006. For this reason we provide two estimates for 1996 – the first using coefficients from Pendakur and Pendakur (2002), with full schooling information, and the second using schooling information which matches the 2006 census.

Figures 1 and 2 provide log-earnings differentials for Aboriginal men and women from 1970 – 2005 for Canada as a whole and Montreal, Toronto and Vancouver. For both men and women we see substantial earnings gaps, on the order of -0.10 to -0.40 for women and -0.05 to –0.60 for men. However it also apparent that there has been a general improvement in the earnings differentials faced since 1996 in all cities. This is particularly the case for Aboriginal men who show a decrease in the gap of about 15 to 20 percentage points. Figures 3 and 4 show results for visible minority women and men. Here, although the gaps are not as large, there has been little improvement over the past decade for men, but some improvement for women. Visible minority women living in Vancouver, for example have consistently earned more than similarly aged and schooled white women. However in the other two cities, women face earnings differential of between -0.03 and -0.10 in 2006. For men, the earnings differentials are universally negative, but smaller in Vancouver than in the other cities. Montreal in particular shows worsening differentials over most of the period, with visible minority men now facing an earnings differential of about -0.30.

Results from Table 2 provide the information in Figures 1 to 4 as well as two additional types of information. First along with regressions controlling for only personal characteristics, Table 2 also provides results for regressions controlling for both personal and work characteristics. Second, the last two columns in each year provide information on the difference between the personal and work characteristics as well as the significance level of t test statistic, which determines whether the coefficients (personal vs personal and work) are significantly different from each other.[4]

Looking first at women (top panel of Table 2) in 1995 (top right hand block) we see that Canadian-born visible minorities face a relatively small gap of 4 percentage points when only personal characteristics are included. This drops to 3 percentage points when both

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[4] The t statistic is calculated using the following Hausman test formula (see Pendakur and Woodcock 2010):

$$t = \frac{coef_{personal} - coef_{work}}{\sqrt{(se^2_{personal} + se^2_{work})}}$$

personal and work characteristics are included. However the *t* statistics suggests that there is no significant difference between the two coefficients. Looking at women in Montreal, we see that when only personal characteristics are included, visible minorities face an earnings differential of -15 percent whereas Aboriginal women face an earnings differential of -26 percent. Adding work characteristics to the model reduces the gap to -10% for visible minority women and -16% for Aboriginal women, a difference that is statistically significant for both groups.

Adding work characteristics reduces the earnings differential in all cities and in all years with the exception of visible minority women in Toronto, where the difference between the two coefficients is small and not significantly different. The case of Vancouver is of particular interest because visible minority women experience a substantial earnings bonus based on personal characteristics. This shrinks to close to zero however when work characteristics are added to the model. This suggests that although visible minority women do enjoy better work characteristics, given those work characteristics their earnings are at parity. This is not the case for men in Vancouver, whose earnings do not change significantly when work characteristics are added to the model.

Looking at the results for men (bottom panel of Table 2), we see that for Aboriginal men in particular, the earnings differentials are huge, often in excess of -0.20. However work characteristics often explain about half the earnings differential faced by Aboriginal men. For example, Aboriginal men living in Vancouver in 2006 face an earnings differential of -0.28 when only personal characteristics are included. This shrinks to -0.14 when both personal and work characteristics are included. This suggests that a substantial portion of the earnings disparity faced by Aboriginal men is a product of their sorting into less favorable work characteristics. As was detailed in the methods section, this could be a result of choice, but it could also a result of segregation – a situation in which Aboriginal men are *unable* to obtain similar types of work as compared to white men.

For visible minority men, the earnings differentials are much smaller, but not negligible. With the exception of Vancouver, adding work characteristics to the model reduces the

earnings differential by at least half. For example, at the Canada-wide level, visible minority men face an earnings differential of -0.18 when only personal characteristics are included, but -0.11 when both personal and work characteristics are included. Visible minority men fare particularly poorly in Montreal. In 2006, Canadian-born visible minority men living in Montreal face an earnings differential of -0.31 compared to similarly aged and educated white men living in Montreal. This differential shrinks to 18% when work characteristics are included, which suggests that a substantial portion of the differential is a product of Visible Minorities not obtaining the same type of work. With the exception of Vancouver, the reduction in the earnings differential when work characteristics are added to the model is statistically significant.

4.2   Disparity Among Ethnic Groups

Table 3 shows results from six regressions (one for each year – sex combination) measuring earnings disparity for the 22 European and 10 visible minority groups compared to men and women of single origin British ancestry.[5] Looking first at women we see few statistically significant differences among European groups. The exceptions are Jewish and Greek women who face earnings differentials of -8% and -4% respectively and Portuguese and Belgian women who earn about 10% more than British origin women with similar characteristics.

Results for visible minority women are mixed, but more likely to be negative. Looking at visible minority women in 1996 we see that African, Caribbean, Black and Latin American women faced substantial penalties ranging from -0.14 to -0.30. In 2006 while Caribbean women saw substantial improvement (-0.17 in 1996 to -0.08 in 2006), and Latin American women did not face a significant earnings differential, Black and African Black women saw no improvement. Further, Arab and West Asian women who did not face a penalty in 1996 faced a small penalty in 2006. Chinese women, on the other hand

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[5] Appendix table 1 provides analogous results that include work characteristics.

can expect to earn more than similarly qualified British origin, however that bonus shrinks from 10% in 1995 to 6% in 2005.[6]

The situation for men is different. Differentials (in both directions tend to be larger than those seen for women). Amongst European origin men, German, Dutch, Ukrainian and Polish men earned more than similarly qualified British origin men across the three census periods (with coefficients ranging from 0.04 to 0.10). It should be noted however that the differential tended to be smaller in 2005 than in 1995. Greek and Spanish men faced fairly substantial earning penalties across the 10-year period (-0.18 and -0.10 respectively in 2005). For all other European groups the earnings differential was statistically insignificant.

With few exceptions, there has been a real deterioration in the prospects for visible minority men over the three census periods. In 1995, Arab, Chinese, and SE Asian men earned about the same amount as British origin men after controlling for personal characteristics. Other groups faced penalties ranging from -0.16 to -0.53. In 2005 all visible minority groups faced substantial and statistically significant earnings penalties ranging from -0.10 to -0.40. Indeed Chinese men, who ten years earlier had earnings at parity now face an earnings penalty of about 8%. Arab and West Asian men face a 13% penalty and South East Asian men a 30% penalty. At the same time, there was improvement for Caribbean men, with the differential dropping from -0.35 to -.24. Adding job characteristics (see Appendix Table 1) generally reduces the differentials by about half in most cases, leaving gaps ranging from -0.07 to -0.24.

4.3 Differences across cities

Table 4 shows results from 18 regressions for 15 selected ethnic origin groups (one for each census period by sex for Montreal, Toronto and Vancouver).[7] The goal of this table is two fold. First it provides an answer as to whether the strong penalty faced by visible minorities in Montreal is because of a composition effect – the dominant groups in

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[6] Results from Appendix table 1 suggest that this bonus is wiped out when job characteristics are added to the model.
[7] Results from Appendix table 2 provide analogous results including work characteristics.

Montreal are Caribbean and black – the same groups that face the largest penalties as compared to Vancouver where the dominant groups are Chinese and South Asian both of whom face smaller penalties, or whether, the penalty is simply larger. Second it assesses the degree to which different groups may face different penalties in different cities – i.e. the degree to which different cities act as different labour markets.

Results from table 4 suggest that composition effects are not responsible for the large penalties faced by minorities in Montreal. The worst off African origin group (i.e.: African Black, Caribbean or Black ethnic group) in Toronto enjoys a lower penalty than the best off African origin group in Montreal. Penalties are smaller still in Vancouver. Similarly, South Asians and Chinese are best off in Vancouver and worst off in Montreal.

Looking first at the results for women we see that in Montreal, results are mixed. South Asian and Chinese women earn about the same as British origin women. For Caribbean women, the differential decreased from -0.25 to -0.09.   However, for other African origin groups earnings differentials increased. In the other two cities, earnings differentials either remained roughly stable or declined over the 10-year period.

Amongst men, results are also mixed in Montreal. Greek men face a strong and growing penalty (-0.22 in 1995 and -0.35 in 2005). The fortunes of Portuguese men also fell over time. Where they earned almost the same as British origin men in 1995, they faced an 8% differential in 2005. Arab and West Asian, South Asian, Chinese and SE Asian men (groups that did not face an earnings penalty in 1995) now face differentials of between -0.21 and -0.43. Black and Caribbean men also experienced a fall in outcomes.

The situation in Toronto is also mixed. Amongst women there is almost universal improvement, with differentials declining over time. Amongst men there was a decline in the differential faced by Greek, South Asian and Caribbean men, but an increase in the differential faced by other African origin men as well as Chinese men. In Vancouver, with few exceptions minority groups enjoyed an improvement in their labour force situation or earned about the same as British origin Canadians.

5.   Conclusions

Previous research has shown that visible minorities and Aboriginals earn less than white workers, especially among men. Our goal in this paper was to show how these differentials have evolved since the mid 1990s using a consistent data set and econometric methodology.   We find that the earnings gaps faced by Canadian-born visible minorities have not eroded since the 1990s. This is somewhat surprising given that the size of this population has radically increased over the last 20 years. Other patterns observed in the 1990s, such as the relatively poor earnings outcomes of South Asians and Blacks, and the relatively poor visible minority outcomes in Montreal and Toronto, are still evident into the 2000s. An exception to the 'bad news' outlook is that persons of both Caribbean and Aboriginal origins have seen substantial convergence in their earnings relative to majority workers.

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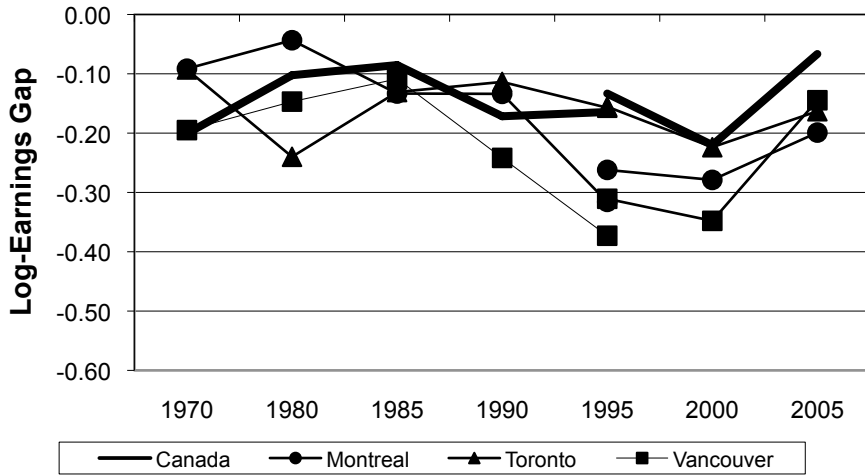
1.

Fig 1: Aboriginal Women, 1970-2005
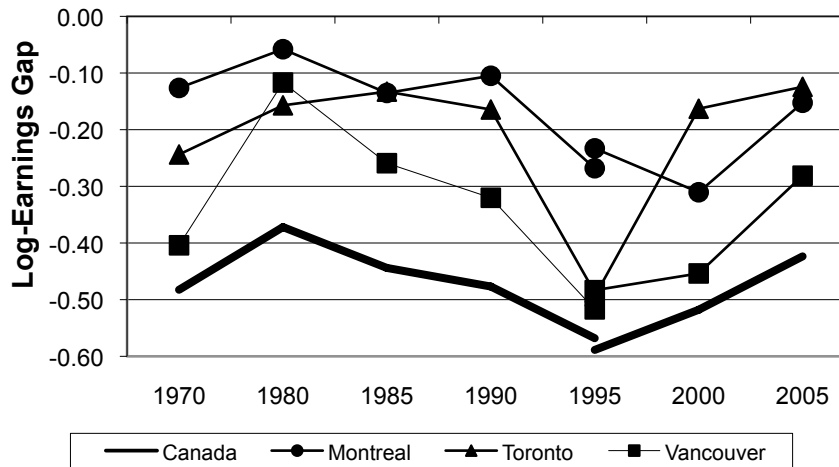

Fig 2: Aboriginal Men, 1970-2005
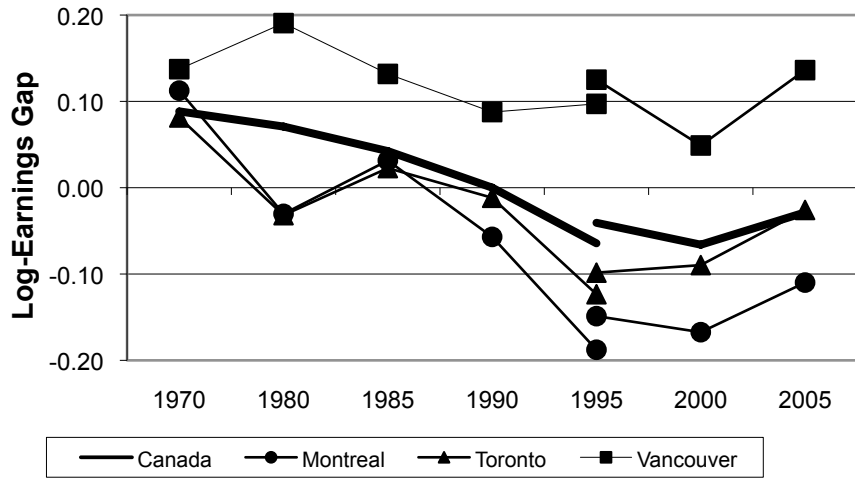
Fig 3: Visible Minority Women, 1970-2005

Fig 4: Visible Minority Men, 1970-2005

Table 1
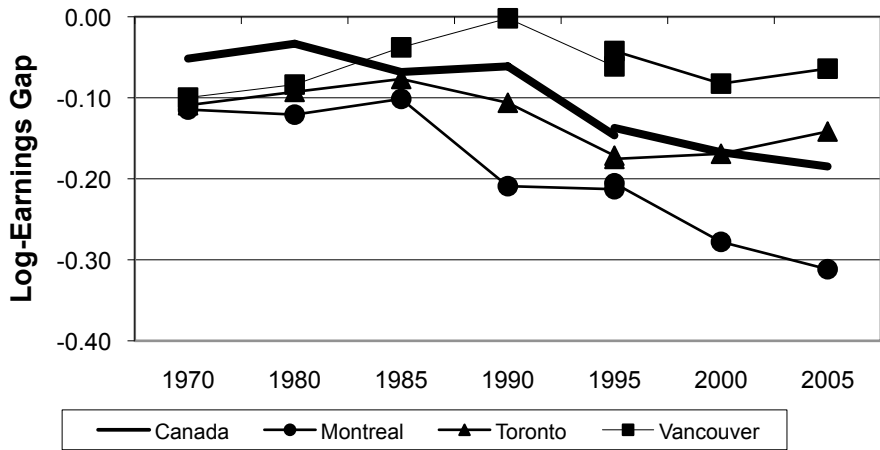Descriptives: Frequencies and log of earnings for selected groups, Canada, 1996 - 2006

	Females						Males					
	1995		2000		2005		1995		2000		2005	
Ethnic Group	count	Log of wages	count	Log of wages	count	Log of wages	count	Log of wages	count	Log of wages	count	Log of wages
British	402,605	9.69	377,485	9.97	385,880	10.14	506,445	10.24	460,370	10.48	459,265	10.63
French	240,735	9.59	199,390	9.96	242,110	10.13	249,685	10.07	234,310	10.39	273,020	10.53
Canadian	614,515	9.56	1,125,400	9.85	1,046,795	10.04	683,255	10.12	1,243,655	10.33	1,102,735	10.50
Br/Fr/Can multiple	819,020	9.75	1,188,650	9.98	1,262,540	10.17	794,410	10.31	1,154,010	10.47	1,185,845	10.63
Amer Aust NZ	1,090	9.60	1,570	9.97	2,080	10.10	1,375	10.24	2,125	10.44	2,905	10.56
Austrian + German	85,475	9.67	89,650	9.94	90,775	10.15	100,000	10.29	104,980	10.52	104,265	10.71
Scandinavian	20,520	9.69	20,240	9.94	20,685	10.17	24,670	10.28	24,475	10.51	23,425	10.67
Belgian	3,195	9.70	3,950	10.06	4,550	10.24	3,415	10.29	4,345	10.44	5,140	10.63
Dutch	33,170	9.69	38,470	9.95	41,670	10.15	38,390	10.33	42,775	10.59	44,550	10.79
Baltic	2,760	10.06	3,490	10.33	3,500	10.45	3,070	10.52	3,405	10.75	3,435	10.89
Polish	16,020	9.84	18,535	10.13	19,330	10.30	17,485	10.36	19,800	10.57	20,465	10.75
Russian	4,720	9.75	5,675	9.92	6,590	10.13	4,620	10.30	5,880	10.52	7,535	10.65
Czech /Slovak	3,705	9.84	4,125	10.05	4,030	10.27	4,235	10.43	4,555	10.54	4,285	10.68
Jewish	12,095	10.01	17,810	10.26	11,790	10.35	10,265	10.49	16,525	10.79	10,520	10.88
Hungarian	8,070	9.77	8,870	10.03	8,905	10.21	8,980	10.29	9,765	10.51	10,010	10.71
Ukrainian	53,665	9.79	51,565	10.02	48,980	10.23	57,335	10.31	57,360	10.50	51,380	10.74
Portuguese	5,110	9.79	11,775	10.01	18,210	10.19	5,715	10.10	13,000	10.37	19,255	10.53
Italian	50,380	9.89	92,195	10.14	102,435	10.34	57,520	10.29	95,685	10.53	104,385	10.75
Greek	6,550	9.81	14,440	10.06	17,075	10.25	6,845	9.96	14,530	10.24	17,280	10.50
Spanish	550	9.78	1,440	9.90	2,230	10.17	825	9.98	1,910	10.29	2,775	10.44
Balkan	7,490	9.92	10,735	10.20	15,305	10.34	7,850	10.29	11,605	10.52	16,060	10.73
Oth European	6,425	9.76	6,020	10.04	3,985	10.12	8,175	10.28	6,820	10.50	5,305	10.59
white multiple	515,425	9.75	613,765	9.99	790,705	10.17	515,970	10.33	591,025	10.53	751,260	10.69
Spanish Latin	210	9.25	950	9.73	2,460	10.03	205	9.76	1,225	10.07	2,430	10.29
Arab w Asia	1,965	9.74	5,375	10.00	8,465	10.15	2,205	10.11	5,885	10.38	8,555	10.46
Black	895	9.51	1,880	9.78	1,345	9.92	1,140	9.83	1,765	10.09	1,400	10.07
Caribbean	3,860	9.61	10,060	9.88	16,545	10.11	4,170	9.83	10,060	10.12	15,305	10.25
African Black	765	9.61	1,590	9.82	2,880	9.95	990	9.85	1,590	10.07	3,160	10.20
SE Asia	6,660	10.05	3,125	9.90	1,525	10.01	7,390	10.36	3,175	10.21	1,585	10.13
S. Asian	3,250	9.86	9,155	10.01	18,945	10.21	3,915	10.09	9,625	10.21	19,165	10.38
Chinese	11,760	10.06	17,560	10.27	25,490	10.42	12,980	10.26	19,090	10.47	27,505	10.62
Other Asia	55	9.86	6,960	10.29	13,235	10.33	120	9.88	7,170	10.58	13,420	10.51
vismin w white	13,085	9.70	24,380	10.00	39,615	10.13	13,515	10.16	23,330	10.32	38,465	10.48

Source:	1996, 2001 and 2006 census mainbase
Selection	All Canadian-born residents of Canada, 25 to 64 years of age, whose primary source of income is from wages and salaries. People without any schooling were dropped from the sample as were those earning less than $100 per year

Table 2

% Difference in earnings between selected groups of Canadian-born Visible Minority and Aboriginal men and women compared to British origin men and women, 1995 - 2005

			1995						2000						2005					
			personal		work		personal-work		personal		work		personal-work		personal		work		personal-work	
sex	region	variable	coef.	s.e.	coef.	s.e.	coef.	sig	coef.	s.e.	coef.	s.e.	coef.	sig	coef.	s.e.	coef.	s.e.	coef.	sig
female	Canada	Observations	806,880		806,880				840,887		840,887				923,350		923,350			
		R2	0.14		0.56				0.14		0.51				0.16		0.55			
		Visible minority	-0.04	0.01	-0.03	0.01	-0.01		-0.07	0.01	-0.06	0.01	-0.01		-0.03	0.01	-0.04	0.00	0.01	***
		Aboriginal	-0.13	0.01	-0.10	0.00	-0.04	***	-0.22	0.00	-0.12	0.00	-0.10	***	-0.07	0.00	-0.08	0.00	0.02	***
	Montreal	Observations	93,640		93,640				97,780		97,780				106,209		106,209			
		R2	0.12		0.50				0.13		0.46				0.16		0.53			
		Visible minority	-0.15	0.04	-0.10	0.03	-0.05	**	-0.17	0.03	-0.11	0.02	-0.06	***	-0.11	0.02	-0.08	0.01	-0.03	**
		Aboriginal	-0.26	0.06	-0.16	0.04	-0.11	***	-0.28	0.05	-0.19	0.04	-0.08	***	-0.20	0.03	-0.12	0.02	-0.08	***
	Toronto	Observations	79,130		79,130				84,383		84,383				88,583		88,583			
		R2	0.10		0.54				0.09		0.48				0.12		0.53			
		Visible minority	-0.10	0.02	-0.06	0.01	-0.04	***	-0.09	0.01	-0.05	0.01	-0.04	***	-0.03	0.01	-0.04	0.01	0.01	
		Aboriginal	-0.16	0.04	-0.05	0.03	-0.11	***	-0.22	0.03	-0.12	0.02	-0.10	***	-0.16	0.03	-0.13	0.02	-0.04	*
	Vancouver	Observations	42,505		42,505				43,692		43,692				46,477		46,477			
		R2	0.09		0.54				0.07		0.50				0.10		0.49			
		Visible minority	0.13	0.02	0.03	0.02	0.10	***	0.05	0.02	-0.01	0.01	0.06	***	0.14	0.02	0.05	0.01	0.09	***
		Aboriginal	-0.31	0.03	-0.15	0.02	-0.16	***	-0.35	0.03	-0.21	0.02	-0.14	***	-0.14	0.02	-0.11	0.02	-0.04	**
male	Canada	Observations	884,835		884,835				891,695		891,695				941,613		941,613			
		R2	0.18		0.49				0.18		0.44				0.18		0.48			
		Visible minority	-0.14	0.01	-0.08	0.01	-0.06	***	-0.17	0.01	-0.10	0.01	-0.07	***	-0.18	0.01	-0.11	0.00	-0.08	***
		Aboriginal	-0.59	0.00	-0.25	0.00	-0.34	***	-0.52	0.00	-0.23	0.00	-0.29	***	-0.42	0.00	-0.22	0.00	-0.20	***
	Montreal	Observations	97,430		97,430				98,418		98,418				103,038		103,038			
		R2	0.17		0.44				0.16		0.39				0.16		0.48			
		Visible minority	-0.21	0.03	-0.12	0.03	-0.09	***	-0.28	0.03	-0.13	0.02	-0.14	***	-0.31	0.02	-0.18	0.01	-0.13	***
		Aboriginal	-0.23	0.05	-0.13	0.04	-0.10	***	-0.31	0.05	-0.24	0.04	-0.07	***	-0.15	0.03	-0.09	0.03	-0.06	***
	Toronto	Observations	79,140		79,140				83,999		83,999				86,640		86,640			
		R2	0.19		0.50				0.19		0.43				0.21		0.47			
		Visible minority	-0.18	0.02	-0.06	0.01	-0.11	***	-0.17	0.01	-0.11	0.01	-0.06	***	-0.14	0.01	-0.10	0.01	-0.04	***
		Aboriginal	-0.49	0.04	-0.21	0.03	-0.28	***	-0.16	0.03	-0.09	0.03	-0.08	***	-0.12	0.03	-0.04	0.02	-0.08	***
	Vancouver	Observations	45,185		45,185				45,096		45,096				47,132		47,132			
		R2	0.17		0.50				0.16		0.46				0.16		0.45			
		Visible minority	-0.04	0.02	-0.05	0.01	0.00		-0.08	0.02	-0.08	0.01	0.00		-0.06	0.01	-0.06	0.01	0.00	
		Aboriginal	-0.48	0.03	-0.21	0.02	-0.27	***	-0.45	0.02	-0.22	0.02	-0.23	***	-0.28	0.02	-0.14	0.02	-0.14	***

Source: 1996 2001 and 2006 census mainbases

Note: age cohorts, schooling, marital status, household size, official language ability, group status. Canada level regressions include 13 dummies for region (10 CMAs, a small CMA identifier and non-work model controls include all personal controls as well as occupation, industry, full-time/part time status and weeks worked

Selection All Canadian-born residents of Canada, 25 to 64 years of age, whose primary source of income is from wages and salaries. People without any schooling were dropped from the sample as were

Significance: *: 0.10, **: 0.05, ***: 0.01

Table 3: Difference in earnings between Minority men and women compared to British origin men and women, controlling for personal characteristics, Canada, 1995 - 2005

	female									male								
	1995			2000			2005			1995			2000			2005		
	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.
Observations	806,880			840,887			923,350			884,835			891,695			941,613		
R2	0.14			0.14			0.16			0.19			0.18			0.19		
French	0.02	0.01	***	-0.01	0.01	*	-0.01	0.01	***	0.02	0.00	***	-0.01	0.01	**	-0.01	0.00	***
Canadian	0.00	0.00		-0.02	0.00	***	-0.01	0.00	*	0.01	0.00	***	-0.02	0.00	***	0.00	0.00	
Br/Fr/Can. Multiple	-0.01	0.00	***	-0.03	0.00	***	-0.01	0.00	***	0.03	0.00	***	0.00	0.00		0.00	0.00	
American/Aust/NZ	-0.03	0.06		0.02	0.05		-0.03	0.04		0.00	0.05		-0.04	0.04		-0.01	0.03	
Baltic	0.02	0.04		-0.03	0.04		-0.01	0.03		0.04	0.03		0.03	0.03		0.03	0.03	
Austrian/German	0.01	0.01		0.01	0.01		0.01	0.01		0.08	0.01	***	0.05	0.01	***	0.06	0.01	***
Czech/Slovak	0.03	0.03		0.01	0.03		0.03	0.03		0.10	0.03	***	0.01	0.03		-0.01	0.03	
Scandinavian	0.00	0.01		0.02	0.02		0.02	0.01		0.03	0.01	***	0.06	0.01	***	0.04	0.01	***
Dutch	0.01	0.01		-0.01	0.01		-0.02	0.01		0.10	0.01	***	0.08	0.01	***	0.08	0.01	***
Polish	0.06	0.02	***	0.04	0.02	**	0.04	0.01	**	0.08	0.01	***	0.02	0.01	*	0.04	0.01	***
Jewish	-0.08	0.02	***	-0.10	0.02	***	-0.12	0.02	***	0.02	0.02		0.05	0.02	***	0.01	0.02	
Hungarian	0.05	0.02	**	0.01	0.02		-0.01	0.02		0.03	0.02		0.01	0.02		0.02	0.02	
Russian	0.04	0.03		-0.05	0.03		-0.04	0.03		0.03	0.03		0.08	0.02	***	0.02	0.02	
Portuguese	0.09	0.03	***	0.06	0.02	***	0.09	0.02	***	0.01	0.02		0.00	0.02		0.02	0.01	
Italian	0.07	0.01	***	0.02	0.01	*	0.04	0.01	***	0.03	0.01	***	-0.04	0.01	***	0.00	0.01	
Greek	-0.04	0.02		-0.08	0.02	***	-0.07	0.02	***	-0.17	0.02	***	-0.22	0.02	***	-0.18	0.01	***
Balkan	0.04	0.02	*	0.08	0.02	***	0.05	0.02	***	0.06	0.02	***	0.01	0.02		0.01	0.02	
Spanish	0.08	0.07		-0.13	0.06	**	-0.05	0.04		-0.10	0.05	*	-0.08	0.05	*	-0.10	0.04	***
Ukrainian	0.06	0.01	***	0.04	0.01	***	0.05	0.01	***	0.05	0.01	***	0.02	0.01	**	0.07	0.01	***
Belgian	0.10	0.03	***	0.09	0.03	***	0.09	0.03	***	0.04	0.03		0.01	0.03		0.04	0.03	
White multiple	0.01	0.00	**	-0.01	0.00	***	0.00	0.00		0.06	0.00	***	0.03	0.00	***	0.04	0.00	***
Arab w Asian	0.03	0.04		-0.07	0.03	**	-0.05	0.02	**	-0.02	0.03		-0.06	0.03	**	-0.13	0.02	***
S. Asian	-0.02	0.04		-0.11	0.02	***	0.00	0.02		-0.16	0.03	***	-0.24	0.02	***	-0.19	0.01	***
Chinese	0.10	0.02	***	0.04	0.02	**	0.06	0.01	***	0.02	0.02		-0.07	0.01	***	-0.08	0.01	***
SE. Asian	0.06	0.03	**	-0.11	0.04	***	-0.04	0.05		0.03	0.02		-0.13	0.03	***	-0.30	0.05	***
Other Asian	-0.19	0.25		0.06	0.03	**	0.06	0.02	***	-0.19	0.17		0.02	0.02		-0.08	0.02	***
African Black	-0.14	0.07	*	-0.27	0.05	***	-0.21	0.04	***	-0.28	0.06	***	-0.27	0.05	***	-0.32	0.03	***
Black	-0.16	0.07	**	-0.17	0.05	***	-0.19	0.05	***	-0.26	0.05	***	-0.30	0.05	***	-0.40	0.05	***
Caribbean	-0.17	0.03	***	-0.19	0.02	***	-0.08	0.02	***	-0.35	0.03	***	-0.23	0.02	***	-0.24	0.02	***
Spanish Latin	-0.30	0.13	**	-0.25	0.07	***	-0.05	0.04		-0.53	0.11	***	-0.26	0.06	***	-0.15	0.04	***
Vismin w white	-0.08	0.02	***	-0.07	0.01	***	-0.07	0.01	***	-0.07	0.02	***	-0.12	0.01	***	-0.10	0.01	***

Variables in model include: age cohorts, schooling, marital status, household size, official language ability, group status

Source	1996 2001 and 2006 census mainbase.
Selection	All Canadian-born residents of Canada, 25 to 64 years of age, whose primary source of income is from wages and salaries. People without any schooling were dropped from the sample as were
Significance	*: 0.1 **: 0.05 ***: 0.01

Table 4: Difference in earnings between selected minority groups compared to British origin by sex, controlling for personal characteristics, Canada, 1995 - 2005

	Montreal 1995			2000			2005			Toronto 1995			2000			2005			Vancouver 1995			2000			2005		
variable	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.	coef.	s.e.	sig.
female Observations	93,640			97,780			106,209			79,130			84,383			88,583			42,505			43,692			46,477		
R2	0.12			0.13			0.16			0.11			0.09			0.12			0.09			0.07			0.10		
French	0.01	0.02		0.02	0.02		0.03	0.02		0.02	0.02		-0.06	0.03	**	0.04	0.03		-0.04	0.04		-0.01	0.04		0.02	0.04	
Dutch	-0.02	0.12		0.17	0.11		-0.01	0.11		0.00	0.03		-0.05	0.03		0.01	0.03		-0.04	0.04		-0.13	0.04	***	-0.09	0.04	**
Jewish	-0.06	0.04	*	-0.11	0.04	***	-0.10	0.04	**	-0.06	0.02	***	-0.05	0.02	**	-0.10	0.03	***	0.00	0.07		-0.02	0.07		-0.02	0.09	
Portuguese	-0.04	0.08		0.02	0.06		0.08	0.04	*	0.04	0.04		0.03	0.03		0.08	0.03	***	0.10	0.10		0.02	0.08		0.17	0.07	**
Italian	-0.02	0.03		0.03	0.02		0.05	0.02	**	0.05	0.01	***	-0.03	0.01	**	0.04	0.01	***	0.11	0.04	***	0.02	0.04		-0.01	0.04	
Greek	-0.17	0.04	***	-0.12	0.04	***	-0.10	0.03	***	0.03	0.03		-0.09	0.03	***	-0.03	0.03		0.01	0.09		0.07	0.09		-0.05	0.08	
Arab w Asian	0.01	0.07		0.02	0.06		-0.01	0.04		0.08	0.09		-0.10	0.06		-0.13	0.05	**	0.40	0.22	*	-0.15	0.17		-0.10	0.12	
S. Asian	-0.28	0.16	*	-0.25	0.12	**	-0.01	0.07		-0.14	0.06	**	-0.16	0.04	***	-0.01	0.03		0.12	0.06	*	-0.01	0.04		0.17	0.03	***
Chinese	0.09	0.09		0.05	0.08		0.00	0.06		0.01	0.04		-0.01	0.03		0.06	0.02	***	0.15	0.03	***	0.12	0.03	***	0.18	0.03	***
SE. Asian	-0.14	0.14		-0.40	0.16	**	-0.19	0.08	**	-0.04	0.04		-0.09	0.06		0.02	0.12		0.16	0.05	***	0.06	0.09		-0.01	0.17	
African Black	-0.07	0.24		0.07	0.15		-0.16	0.09	*	-0.48	0.13	***	-0.30	0.08	***	-0.25	0.06	***	0.36	0.30		-0.22	0.18		0.19	0.21	
Black	-0.16	0.21		0.09	0.15		-0.26	0.13	**	-0.27	0.11	**	-0.23	0.08	***	-0.12	0.10		-0.56	0.38		-0.06	0.26		-0.68	0.45	
Caribbean	-0.25	0.08	***	-0.25	0.05	***	-0.09	0.03	***	-0.15	0.04	***	-0.21	0.03	***	-0.06	0.02	***	-0.12	0.14		-0.34	0.15	**	-0.16	0.13	
Spanish Latin	-0.08	0.33		-0.21	0.16		0.02	0.09		-0.35	0.24		-0.29	0.10	***	-0.06	0.07		-0.49	0.30	*	-0.34	0.32		0.04	0.18	
Vismin w white	-0.20	0.05	***	-0.09	0.04	**	-0.10	0.03	***	-0.18	0.04	***	-0.15	0.03	***	-0.06	0.02	***	-0.11	0.05	**	-0.06	0.04		-0.06	0.03	*
male Observations	97,430			98,418			103,038			79,140			83,999			86,640			45,185			45,096			47,132		
R2	0.17			0.16			0.17			0.19			0.19			0.21			0.17			0.17			0.16		
French	0.05	0.02	***	0.00	0.02		-0.02	0.02		0.00	0.02		0.03	0.02		0.02	0.03		-0.03	0.03		0.02	0.03		0.02	0.04	
Dutch	0.21	0.11	*	-0.05	0.11		-0.09	0.09		0.06	0.03	*	0.08	0.03	***	0.05	0.03	*	0.06	0.03	*	0.00	0.03		0.06	0.03	*
Jewish	0.06	0.03	*	0.05	0.04		-0.07	0.04	*	-0.02	0.02		0.03	0.02		0.01	0.03		-0.07	0.06		0.05	0.06		0.13	0.08	
Portuguese	-0.02	0.07		-0.10	0.05	**	-0.08	0.04	**	-0.04	0.04		-0.04	0.03		0.04	0.02		0.00	0.09		0.10	0.07		0.09	0.06	
Italian	-0.05	0.02	**	-0.14	0.02	***	-0.12	0.02	***	0.00	0.01		-0.08	0.01	***	-0.01	0.01		0.07	0.03	**	-0.02	0.03		0.11	0.03	***
Greek	-0.22	0.04	***	-0.35	0.04	***	-0.35	0.03	***	-0.15	0.03	***	-0.20	0.03	***	-0.13	0.02	***	-0.17	0.08	**	-0.11	0.07		-0.18	0.06	***
Arab w Asian	0.05	0.07		-0.02	0.05		-0.12	0.04	***	-0.10	0.09		-0.05	0.06		-0.08	0.05		-0.18	0.14		-0.32	0.13	**	-0.05	0.14	
S. Asian	-0.06	0.18		-0.33	0.10	***	-0.40	0.06	***	-0.27	0.05	***	-0.21	0.03	***	-0.14	0.02	***	-0.09	0.05	*	-0.20	0.04	***	-0.10	0.03	***
Chinese	-0.11	0.07		-0.10	0.07		-0.21	0.05	***	-0.05	0.03		-0.12	0.03	***	-0.11	0.02	***	0.03	0.03		-0.03	0.03		-0.02	0.02	
SE. Asian	0.24	0.15		-0.07	0.13		-0.43	0.09	***	0.00	0.04		-0.14	0.05	***	-0.33	0.11	***	-0.01	0.04		-0.07	0.08		0.14	0.15	
African Black	-0.74	0.24	***	-0.20	0.14		-0.43	0.09	***	-0.48	0.12	***	-0.24	0.08	***	-0.43	0.06	***	0.02	0.17		-0.63	0.22	***	-0.11	0.16	
Black	-0.56	0.18	***	-0.47	0.16	***	-0.98	0.13	***	-0.15	0.11		-0.14	0.08	*	-0.21	0.09	**	-0.38	0.19	**	-0.19	0.21		-0.35	0.29	
Caribbean	-0.26	0.08	***	-0.40	0.05	***	-0.31	0.03	***	-0.45	0.04	***	-0.23	0.03	***	-0.20	0.02	***	-0.18	0.12		0.11	0.11		0.03	0.09	
Spanish Latin	-0.73	0.23	***	-0.36	0.12	***	-0.31	0.08	***	-0.62	0.17	***	-0.34	0.10	***	-0.09	0.07		-0.94	0.42	**	-0.14	0.18		-0.11	0.15	
Vismin w white	-0.21	0.05	***	-0.09	0.04	**	-0.16	0.03	***	-0.11	0.03	***	-0.19	0.03	***	-0.13	0.02	***	-0.13	0.04	***	-0.15	0.04	***	-0.03	0.03	

Variables in model include: age cohorts, schooling, marital status, household size, official language ability, and group status.

Source   1996 2001 and 2006 census mainbase.

Selection All Canadian-born residents of Canada, 25 to 64 years of age, whose primary source of income is from wages and salaries. People without any schooling were dropped from the sample as were those earning less than $100 per year

Significance   *: 0.1 **: 0.05 ***: 0.01