

# Earnings Gaps for Canadian-Born Visible Minorities in the Public and Private Sectors

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Dans cet article, nous comparons les salaires de deux groupes de Canadiens : les membres de minorités visibles nés au Canada, et les Blancs; nous considérons séparément les secteurs public et privé. À partir des données du recensement de 2006, nous montrons que, dans le secteur public, les membres des deux groupes reçoivent un salaire égal pour un travail égal. Par contre, dans le secteur privé, les hommes membres de minorités visibles reçoivent un salaire significativement inférieur à celui des Blancs qui occupent un emploi comparable. Si l'on compare les Blancs et les membres des minorités visibles numériquement très importantes, on observe des écarts salariaux majeurs chez les hommes noirs dans le secteur privé, et un écart majeur chez les femmes noires dans les secteurs public et privé. Dans le cas des Canadiens d'origine asiatique ou sud-asiatique, on observe un écart salarial seulement chez les hommes, dans le secteur privé.

**Mots clés :** minorités visibles, écarts salariaux, secteur public, secteur privé

This study examines earnings gaps between Canadian-born visible minorities and Whites in the public and private sectors. Based on the 2006 census data, this study shows that visible minorities and Whites receive similar pay for similar jobs in the public sector. By contrast, in the private sector visible minority men earn significantly less than observationally comparable Whites. Among large visible minority groups, Black men face a large earnings gap in the private sector while Black women face a large gap in both the public and private sectors. For Chinese and South Asians, small gaps in adjusted earnings exist only among men in the private sector.

**Keywords:** visible minorities, earnings gaps, public sector, private sector

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## INTRODUCTION

As the visible minority population increased from 1 million to 5 million over the last quarter century and continues to grow rapidly, Canadian society is facing challenges to integrate visible minorities socially and economically. Since success in the labour market is central to a group's socioeconomic status, many previous studies have examined whether visible minorities experience a

disadvantage in the workplace and, if so, the source of this disadvantage. The focus of the literature has been on the earnings differentials between visible minorities and Whites with comparable qualifications. Empirical studies, however, do not consistently assess the magnitude of visible minorities' earnings gaps and the extent to which this gap is attributable to discrimination, which is often loosely defined as lower returns for equivalent qualifications (Hum and Simpson 1999; Li 2000; Nakhaie

2006; Pendakur and Pendakur 2002; Swidinsky and Swidinsky 2002). This inconsistency found in the previous studies is largely due to differences in the treatment of immigrant status, heterogeneity among visible minority groups, and the choices of earnings measures and control variables, datasets, and time periods.

These inconsistent findings have different social and policy implications (Henry 2006; Hier and Walby 2006). For instance, Lian and Matthews (1998) found that all major visible minority groups had below-average earnings at each education level, while most groups of European ethnicity had above-average earnings. They suggested that the traditional “vertical mosaic” of ethnic differences in Canadian society has been replaced by a strong “coloured mosaic” based on visible minority status in income rewards and income benefits. In contrast, Hum and Simpson (1999) found that earnings differentials for visible minorities were mostly concentrated among immigrants. Accordingly, they argued that “policies to achieve a colour-blind Canadian labour market may have to focus more on immigrant assistance and less on traditional employment equity legislation” (379).

In the present study, we focus as a first step on the Canadian-born population, which allows us to contribute to the literature in two ways.<sup>1</sup> First, we extend previous studies on the earnings gap between Canadian-born visible minority workers and White workers with the most recent census data and the largest sample ever available in Canadian data sources. Using the 2006 census 20 percent sample master data file, we are able to provide more reliable estimates than previous studies. Earlier studies relied on survey or census data collected in the 1980s and 1990s, such as the Labour Market Activity Survey, the Survey of Labour and Income Dynamics (SLID), and the census 3 percent sample Public Use Microdata File (PUMF). These datasets often have a small sample of Canadian-born visible minorities and identify visible minorities differently.<sup>2</sup> As a result, previous studies that have examined earnings

differentials within the Canadian-born population, even by the same authors using different data or different authors using the same dataset, have come to disparate conclusions. Using the 1991 census, several studies (Baker and Benjamin 1994; Pendakur and Pendakur 1998, 2002; Stelcner 2000) found a significant earnings gap between visible minority and White men after taking into account group differences in productivity-related characteristics. In comparison, from their analysis of the 1996 census, Swidinsky and Swidinsky (2002) found that the earnings disadvantage of Canadian-born visible minority men is small and concentrated among Blacks. Hum and Simpson (1999) came to a similar conclusion based on their analysis of the 1993 Survey of Labour and Income Dynamics (SLID). With pooled 1999, 2001, and 2003 cross-sections of the Workplace and Employment Survey, Pendakur and Woodcock (2008) found no significant earnings differentials between visible minorities and the White population among men, but a significant differential (8 percent) among women.

Second, this study examines the earnings of Canadian-born visible minorities relative to White workers in the public and private sectors. These sectors are embedded in a different institutional environment on equality of opportunity. The public sector is required and often has the resources to implement employment equity regulations. In comparison, private industries face more obstacles to implement such regulations, particularly among small firms. In evaluating the application of proactive gender pay equity legislation to the private sector in Ontario in the early 1990s, Baker and Fortin (2004) found substantial lapses in compliance with and implementation of the law in the private sector where the majority of workers work in small firms. As a result, Ontario’s pay legislation had an empirically insignificant effect on the male/female wage gap. They suggest that pay equity policies are most effective in labour markets where wage-setting is centralized or there are extensive collective agreements. Furthermore, the public sector is sensitive to its public image as a non-discriminating employer

while private industries, particularly small employers, are likely less subject to public scrutiny in this regard.

In addition to employment equity regulations and policies, the public and private sectors differ in other aspects of the institutional environment that are supportive of equal opportunity, including union coverage, firm size, and standardized human resource development and operations systems. Previous US and Canadian studies have shown that union status tends to be associated with narrower wage gaps between visible minorities and Whites (Ashenfelter 1972; Reitz and Verma 2004; Wunnava and Peled 1999). This is likely due to the “equalization effect” whereby unions attempt to obtain equal absolute increases in wages for all union members, and union wage policies reduce pay dispersion by truncating the lower tail of the wage distribution (Metcalf, Hansen, and Charlwood 2009).<sup>3</sup> The public sector is characterized by larger establishment size on average than the private sector, and thus is more likely to have the resources to implement pay equity programs than the private industries (Baker and Fortin 2004). Standardized human resource systems in the public sector also ensure equal pay for the same job. For these reasons, we would expect the earnings gap between visible minorities and Whites with similar human capital and work characteristics to be smaller in the public sector than in the private industries if discrimination is the main cause of the earnings gap.

On the other hand, there are factors that might work in favour of visible minorities in the private sector. More standardized human resource systems in the public sector might institutionalize systemic barriers to professional advancement for visible minorities (Beck, Reitz, and Weiner 2002). Such barriers would affect mostly the kinds of jobs that minorities hold, but are less likely to lead to differential pay for the same job. Theories of taste-based discrimination suggest that the private sector is under a profit constraint, and competition should eventually eliminate employer discrimination

(Becker 1971). Studies on gender wage differentials have shown that the discriminatory gap is smaller in competitive environments (see the review by Gunderson 2006). However, as Altonji and Blank (1999) pointed out, the process of competitive market forces has been slow in reducing the persistent Black-White wage gap in the United States. If employee and consumer discrimination as well as statistical discrimination were more consequential than employer discrimination, we would still observe a larger earnings gap in the private sector than in the public sector since these forms of discrimination are likely to be more prevalent in the private sector. Previous empirical studies on gender wage gaps have suggested that factors leading to a smaller gap in the public sector than in the private sector tend to outweigh factors leading to a larger gap in the public sector. Mueller (1998, 2000) found that females in general and individuals at the lower tail of the wage distribution received a wage premium in the public sector on average compared with their observationally-equivalent counterparts in the private sector.

In this paper, we do not attempt to isolate the impact of employment equity policies from other aspects of the institutional environment since our data are not sufficient for such a purpose. We also cannot identify various forms of discrimination and distinguish the effect of discrimination from any unobserved factors that may be responsible for the earnings gap between visible minorities and Whites. The purpose here is to identify patterns of earnings differentials by visible minority status across industrial sectors. The findings will be instrumental in directing future research and policy efforts that deal with the sources of disadvantage experienced by visible minorities in the labour market.

## DATA AND METHODS

We study only the Canadian-born because the declining economic outcomes among immigrants have been well documented, and the debate in the

literature on earnings gaps between Whites and visible minorities has been concentrated among the Canadian born. To compare the earnings of visible minorities with those of Whites, some previous studies used pooled samples of the Canadian born and immigrants with or without controls for immigration status. This practice of not conducting separate analyses for immigrants and the Canadian born likely overestimates the earnings gap found between visible minorities and Whites (Hum and Simpson 1999), because major visible minority groups consist mostly of recent immigrants who tend to receive lower returns for their qualifications than non-immigrants. Furthermore, visible minority immigrants are likely to experience barriers in transferring skills and credentials acquired abroad because of difficulties related to language, culture, education quality, and social networks (Bloom, Grenier, and Gunderson 1995; Picot and Hou 2003; Reitz 2007). Because these factors are not relevant among the Canadian born, discrimination emerges as a possible underlying explanation of earnings differentials by visible minority status (Reitz 2004).

We will examine the Canadian-born visible minority population as a whole and conduct separate analyses for the three largest visible minority groups: Blacks, Chinese, and South Asians (e.g., Indian, Pakistani, and Sri Lankan). Together, these three groups accounted for over two-thirds of the total employed visible minority workforce in Canada in 2006. We do not have adequate sample size for other, smaller visible minority groups by industrial sectors.

The variation in earnings among visible minority groups has raised concern over whether visible minorities should be treated as a homogeneous group (Hum and Simpson 1999; Pendakur and Pendakur 1998). At issue is whether the earnings disadvantage is experienced similarly by all visible minority groups or only by specific visible minority groups. Among studies focusing on the Canadian born, Hum and Simpson (1999) and Swidinsky and Swidinsky (2002) both have shown that only Black men have significantly lower earnings than

comparable Whites. In comparison, Pendakur and Pendakur (1998, 2002) found that Chinese and South Asian men also have significantly lower earnings when compared to White men of British origin. In a large national survey conducted in 2002, Blacks reported the highest level (32 percent) of experiencing discrimination and unfair treatment during the previous five years, compared with 21 percent among South Asians and 18 percent among Chinese. For all minority groups, the majority of those who had experienced discrimination or unfair treatment gave race or skin colour as the reason (Statistics Canada 2003). A field study conducted in Montreal in the 1980s showed that landlords were much less likely to rent to Blacks than to Asians and Italians (Hilton, Potvin, and Sachdev 1989). A widely cited study that used field tests found that in applying for the same jobs and presenting the same qualifications, Whites received three times as many job offers as Blacks (Henry and Ginsberg 1985). Although self-reported experience of discrimination and the existing field tests do not deal directly with earnings, they tend to suggest that Blacks are more likely to be the target of discrimination than other visible minority groups. If discrimination is an underlying cause of earnings disadvantages, we would expect to find that Blacks have the largest earnings disadvantage, followed by South Asians and Chinese.

This study uses microdata from the 2006 Canadian census 20 percent sample file. In all analyses, we include only non-institutional residents aged 25 to 64 who were paid workers, had no self-employment income, had positive earnings, and worked at least one week in the year prior to the census year.

In the analysis, we examine the weekly earnings gap of visible minorities in the public and private sectors. The public sector in this study includes the federal public service, provincial and local governments, educational institutions, and hospitals.<sup>4</sup> The remaining industries are in the private sector. The share of workers employed in the public sector was about 23 percent in the 2006 census. Visible minorities accounted for 2.4 percent of the employed

Canadian-born workforce in the public sector and 2.6 percent in the private sector.

We first examine the differences between visible minorities and White workers in two key human capital variables: potential years of work experience and educational level. We then present the raw (unadjusted) and adjusted weekly earnings gap between visible minorities and the White population by industrial sector and sex.<sup>5</sup> Ideally, we would like to examine hourly wage rates, which more accurately capture the price of labour.<sup>6</sup> However, the census collects information only on annual earnings and weeks worked, but not on usual hours worked during the year prior to the census year.

Previous studies are not consistent in the control variables they used when comparing earnings of Whites and visible minorities. Some only controlled for demographic variables (e.g., Pendakur and Pendakur 2002); others also controlled for work characteristics, such as working time, occupation, and industry (e.g., Hum and Simpson 1999; Swidinsky and Swidinsky 2002). When controls for work characteristics were included, any earnings gaps experienced by visible minorities were manifested only through differential earnings structures within jobs. The corresponding assumption is that occupation allocation and working time are not differentially constrained across groups. By contrast, when controls for work characteristics were not included, any earnings disadvantage of visible minorities would reflect both differential job allocation and earnings structures within jobs. If discrimination in part involves sorting into low-paying occupations and part-time jobs, then controlling for work characteristics would underestimate the overall disadvantage of visible minorities. To understand the impact of various model specifications on the adjusted earnings gaps, we present the results from two models. Model 1 controls for sociodemographic and human capital variables, including potential years of work experience, educational level, official language ability, generation status, geographic location, and marital status. Model 2 adds work

characteristics—full-time status and detailed occupations.

Potential work experience is defined as “age – years of education – 6.”<sup>7</sup> We use the quartic function in years of work experience in the model.<sup>8</sup> Education includes five categories: graduate degree, university degree, some post-secondary, high school graduation, and less than high school. Official language ability includes English only, French only, and bilingual. Generation status contrasts the second generation (whose both parents were immigrants) and the third-and-higher generation (at least one parent was Canadian born). This variable is used to take into account the fact that the majority of visible minorities belong to the second generation while the majority of Whites are third-and-higher generation. A previous study suggests that the earnings gap between visible minorities, particularly Black men, and Whites narrows from the second generation to the third-and-higher generation (Skuterud 2009). Geographic location is coded as 26 categories: each census metropolitan area is a dummy variable with the entire non-metropolitan area as the common reference. The coding of this variable is meant to capture the fact that visible minorities are much more concentrated in metropolitan areas than are Whites. Marital status is measured by whether an individual is married or not. Full-time status is defined as working 30 hours or more per week for most of the weeks worked in the year prior to the census year.<sup>9</sup> Occupation is based on 47 two-digit occupational categories in the 1991 Standard Occupation Classification system.

## RESULTS

### **Group Differences in Education and Work Experience**

Differences in the human capital of Canadian-born visible minorities and Whites are an important factor underlying the observed earnings gaps. Visible minorities had a much higher education attainment than Whites (Table 1). In 2005, about 58 percent

of visible minority men and 61 percent of visible minority women in the public sector had university degrees. Only 42 percent of White men and 39 percent of White women did so. The relative advantage of visible minorities was particularly large among those employed in the private sector, where their share with a university degree was twice as large as the share among Whites. About 33 percent of visible minority men and 38 percent of visible minority women had university degrees in the private sector, compared with only 15 percent of White men and 16 percent of White women. The younger age structure of visible minority groups does not account for their advantage. Even within narrowly defined age groups (e.g., 25 to 34 years), university completion rates were similarly higher among visible minorities than Whites (table not shown).

A particularly large percentage of Canadian-born Chinese and South Asians had a university degree—over 66 percent of men and women in the public sector and over 40 percent of men and women in the

private sector. Blacks tended to have similar levels of education attainment as Whites in the private sector, but in the public sector a smaller share of Black men had a university degree than White men.

The Canadian-born visible minority workers also had fewer years of work experience than their White counterparts (Table 1). Visible minorities had 9 to 10 fewer years of work experience than Whites depending on sex and industrial sector. Among the three large minority groups, Blacks had the most years of experience while South Asians had the least. For example, South Asian men on average had fewer than 9 years of potential work experience in the public sector, compared with an average of 23 years among White men. Canadian-born visible minorities consist mostly of young adults who are children of the first large wave of visible minority immigrants who came after the points system was adopted to select immigrants in the late 1960s. With a much younger age structure, plus more years spent pursuing higher education, visible minorities have

TABLE 1  
Education and Work Experience of Canadian-Born Workers by Visible Minority Status and Industrial Sector, 2005

	% with University Degree		Potential Years of Experience		Sample Size	
	Men	Women	Men	Women	Men	Women
<b>Public sector</b>						
All visible minorities	57.5	60.5	13.2	13.3	2,369	4,300
Blacks	35.3	42.3	16.4	14.8	805	1,617
Chinese	72.0	70.9	13.6	14.9	922	1,499
South Asians	66.9	68.1	8.5	9.0	642	1,184
Whites	42.2	39.4	22.8	22.4	131,555	258,634
<b>Private sector</b>						
All visible minorities	32.5	38.3	13.6	12.9	12,659	10,694
Blacks	16.2	23.9	15.2	14.4	4,435	4,190
Chinese	46.5	52.1	14.6	13.8	4,747	3,740
South Asians	40.5	48.1	9.8	8.9	3,477	2,764
Whites	15.1	16.0	23.1	22.8	704,937	555,433

Note: The sample includes people aged 25 to 64 with positive wages and positive weeks worked, and without self-employment income.  
Source: Statistics Canada 2006 Census.



much fewer years of work experience. This has a large impact on their earnings.

Whites. The difference in log weekly earnings (when multiplied by 100) can be interpreted as approximate percentage differences in weekly earnings.<sup>10</sup>

**Gaps in Weekly Earnings by Industrial Sector**

Table 2 presents unadjusted and adjusted differences in log weekly wages between visible minorities and

In terms of the unadjusted earnings (the column titled “Raw Gap”), the gap between visible minority and White men was about 17 percent in 2005

TABLE 2  
Gaps in Log Weekly Earnings between Visible Minority and White Workers, 2005

	Raw Gap	Gap Adjusted for	
		Sociodemographic and Human Capital Variables	+ Work Characteristics
<b>Men</b>			
All sectors			
All visible minorities	-0.168 ***	-0.106 ***	-0.075 ***
Blacks	-0.338 ***	-0.234 ***	-0.142 ***
Chinese	-0.013	-0.041 ***	-0.044 ***
South Asians	-0.168 ***	-0.054 ***	-0.055 ***
Public sector			
All visible minorities	-0.176 ***	-0.032 **	-0.019
Blacks	-0.243 ***	-0.129 ***	-0.046 *
Chinese	-0.074 ***	0.025	-0.009
South Asians	-0.270 ***	-0.018	-0.040
Private sector			
All visible minorities	-0.166 ***	-0.123 ***	-0.085 ***
Blacks	-0.355 ***	-0.256 ***	-0.157 ***
Chinese	-0.003	-0.057 ***	-0.052 ***
South Asians	-0.149 ***	-0.066 ***	-0.058 ***
<b>Women</b>			
All sectors			
All visible minorities	0.085 ***	-0.028 ***	-0.033 ***
Blacks	-0.080 ***	-0.131 ***	-0.097 ***
Chinese	0.257 ***	0.047 ***	0.015
South Asians	0.118 ***	-0.001	-0.024 *
Public sector			
All visible minorities	0.001	-0.016	-0.029 ***
Blacks	-0.133 ***	-0.104 ***	-0.081 ***
Chinese	0.082 ***	0.006	-0.024
South Asians	0.037	0.043 *	0.009
Private sector			
All visible minorities	0.134 ***	-0.033 ***	-0.038 ***
Blacks	-0.042 **	-0.150 ***	-0.109 ***
Chinese	0.341 ***	0.071 ***	0.027 *
South Asians	0.160 ***	-0.023	-0.044 **

Note: \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Source: Statistics Canada 2006 Census.

for the two sectors combined. The raw gap was slightly larger in the public sector (17.6 percent) than in the private sector (16.6 percent). Among the large visible minority groups, Black men faced a smaller earnings gap in the public sector (24.3 percent) than in the private sector (35.5 percent). Conversely, the raw earnings gap was larger in the public sector than in the private sector for Chinese and South Asian men.

Canadian-born visible minority women were in a better relative position than their male counterparts in unadjusted weekly earnings. There was little difference in earnings in the public sector. In the private sector, visible minority women earned more than White women. The exception is Black women who earned less than Whites in both the public and private sectors.

To what extent can the observed earnings gap be accounted for by group differences in human capital and work characteristics? For the two sectors combined, the weekly earnings gap between visible minority and White men narrowed to 10.6 percent controlling for sociodemographic and human capital variables, then to 7.5 percent after controlling for work characteristics. In the public sector, the earnings gap narrowed from 17.6 percent to 3.2 percent after controlling for sociodemographic and human capital variables, and to essentially zero after controlling for work characteristics. In the private sector about one-half of the observed earnings gap remained when group differences in all control variables were included in the model. Thus, adjusting for group differences in human capital factors and work characteristics eliminates the observed earnings gap in the public sector but has smaller effects in the private sector. As a result, the fully adjusted earnings gap between visible minority and White men was not statistically significant in the public sector, but remained sizeable at 8.5 percent in the private sector.

In the public sector, the fully adjusted earnings gaps were small or insignificant for the three major

visible minority groups, but for different reasons. For Chinese and South Asian men, it is sociodemographic and human capital variables that account for their lower observed earnings compared to White men. For Black men, however, work characteristics also play an important role. In the private sector, the fully adjusted earnings gap between visible minority and White men was statistically significant for each of the three major visible minority groups, but it was more substantial for Black men at 16 percent.

Among women, the advantage of visible minorities in unadjusted earnings disappeared after controlling for group differences in human capital variables and work characteristics. In particular, in the private sector visible minority women had a 13.4 percent lead in unadjusted weekly earnings over their White counterparts. After adjusting for sociodemographic and human capital variables, they faced a 3.3 percent disadvantage instead.

As with men, visible minority women's relative earnings position varied significantly across groups. In the public sector, only Black women faced a significant gap in adjusted weekly earnings. In the private sector, Black women faced the largest adjusted earnings gap at 11 percent, followed by South Asian women at 4 percent. In comparison, Chinese women's unadjusted weekly earnings were 34 percent higher than White women's, and their adjusted earnings remained marginally higher than those of White women.

### **Factors Contributing to the “Explained” Earnings Gap for Visible Minorities**

To better understand the extent that various observed characteristics affect the earnings differentials between Whites and visible minorities, we further examine the relative contributions of sociodemographic, human capital, and work characteristics to visible minorities' “explained earnings gap.”<sup>11</sup> In Table 3, the first column shows the total explained earnings gap, which is the difference between the observed earnings gap and fully adjusted gap as shown in Table 2.<sup>12</sup> A negative explained gap means



that a portion of the earnings gap is attributable to a minority group's disadvantage in sociodemographic and work characteristics relative to Whites. A positive explained gap means that a group's earnings would be lower than those observed if its advantage in some sociodemographic and work characteristics

were accounted for. The remaining columns in Table 3 show how the total explained gap is attributable to six factors: experience, education, location of residence, other demographic variables (marital status, language, and generation status), full-time status, and occupation.

**TABLE 3**  
Decomposition of Visible Minority Groups' Observed Gaps in Log Weekly Earnings, 2005

	Total Explained Earnings Gap	Sources					
		Experience	Education	Location	Other Demographic Variables	Full-Time Status	Occupation
<b>Men</b>							
Log points							
All sectors							
All visible minorities	-0.093	-0.133	0.063	0.053	-0.031	-0.038	-0.006
Blacks	-0.196	-0.092	0.008	0.039	-0.034	-0.055	-0.063
Chinese	0.030	-0.115	0.101	0.061	-0.026	-0.020	0.030
South Asians	-0.113	-0.208	0.089	0.062	-0.034	-0.040	0.018
Public sector							
All visible minorities	-0.157	-0.170	0.040	0.031	-0.022	-0.038	0.001
Blacks	-0.196	-0.083	-0.015	0.019	-0.019	-0.047	-0.053
Chinese	-0.065	-0.169	0.073	0.038	-0.023	-0.013	0.029
South Asians	-0.230	-0.288	0.065	0.039	-0.023	-0.053	0.030
Private sector							
All visibles	-0.081	-0.124	0.065	0.056	-0.031	-0.037	-0.011
Blacks	-0.198	-0.091	0.012	0.043	-0.035	-0.055	-0.072
Chinese	0.049	-0.105	0.105	0.065	-0.025	-0.021	0.030
South Asians	-0.091	-0.191	0.093	0.066	-0.034	-0.037	0.013
<b>Women</b>							
All sectors							
All visible minorities	0.118	-0.120	0.076	0.076	0.008	0.020	0.058
Blacks	0.017	-0.089	0.028	0.061	0.004	0.013	0.001
Chinese	0.242	-0.104	0.112	0.087	0.011	0.029	0.107
South Asians	0.141	-0.183	0.111	0.089	0.011	0.023	0.090
Public sector							
All visibles	0.030	-0.128	0.065	0.039	0.003	0.015	0.035
Blacks	-0.052	-0.090	0.013	0.028	0.001	0.005	-0.008
Chinese	0.105	-0.103	0.088	0.039	0.005	0.023	0.053
South Asians	0.029	-0.179	0.087	0.042	0.004	0.022	0.052
Private sector							
All visibles	0.172	-0.109	0.079	0.096	0.011	0.023	0.073
Blacks	0.067	-0.085	0.036	0.081	0.006	0.016	0.012
Chinese	0.314	-0.094	0.117	0.112	0.015	0.032	0.133
South Asians	0.204	-0.165	0.114	0.113	0.014	0.023	0.106

Source: Statistics Canada 2006 Census.

Among men, visible minorities' disadvantages in potential years of work experience and working time outweigh their advantages in education and location of residence and are the major contributors to the "explained" portion of the total earnings gap they face, particularly in the public sector. Among women, visible minorities' advantages in education, location of residence, and occupation overcome their disadvantage in potential years of work experience, particularly in the private sector.

The three major visible minority groups are very different in the factors that affect their earnings relative to Whites. While the disadvantage in work experience is the most important factor leading to lower earnings for all three visible minority groups, its effect was the strongest among South Asians, particularly in the public sector. The disadvantage in full-time status affects mostly Black and South Asian men in both the public and private sectors. Occupation concentration leads to higher earnings among Chinese and South Asian men and women, but it leads to lower earnings among Black men in both the public and private sectors. Chinese and South Asians benefit largely from their high educational levels, while education explains little of Blacks' earnings disadvantage as Blacks have education levels similar to or lower than Whites. Geographic concentration in large metropolitan areas leads to higher earnings for all three visible minority groups, but the effect is weaker among Blacks.

Overall, Chinese men and women's advantage in education, geographic location, and occupational concentration either partially offsets or completely overcomes their disadvantage in work experience and lower price for their labour (only among men in the private sector). As a result, Chinese men face the smallest unadjusted earnings gap in the public sector and no gap in the private sector. Chinese women have higher unadjusted earnings than White women in both sectors. Similarly, among South Asian women, factors leading to higher earnings tend to outweigh factors leading to lower earnings.

Among South Asian men, the large disadvantage in work experience and in full-time status is only partially offset by their high levels of education and geographic concentration, resulting in a large negative unadjusted earnings gap.

For Black men, the disadvantage is multifaceted: fewer years of work experience, smaller share of full-time workers, higher concentration in low-paying occupations, and lower pay for similar jobs (large adjusted earnings gap in the private sector) relative to White men add up to a large unadjusted earnings gap in both the public and private sectors. In particular, the earnings gap that is attributable to disadvantage in full-time status and occupation is much larger than the adjusted earnings gaps in the public sector and only slightly smaller than the adjusted earnings gaps in the private sector. This suggests that the disadvantage in accessing "good" jobs undermines Black men's earnings as much as the lower pay they receive for the same jobs. In our study sample, about 12.5 percent of Black men in the public sector worked part-time, compared with 6.5 percent of White men. In the private sector, the difference is between 12.1 percent and 5.2 percent. While less than 5 percent of Black men in the public sector worked in managerial occupations, 11 percent of White men did so. In the private sector, the difference is between 8 percent among Blacks and 14 percent among Whites. For Black women, the disadvantage in work experience is partially offset in the public sector and overcome in the private sector by their advantage in other factors, but their adjusted gaps remain substantial in both the public and private sectors.

## CONCLUSION AND DISCUSSION

This study examines the earnings gaps between Canadian-born visible minorities and Whites across two industrial sectors that are embedded within a different institutional environment on equality of opportunity. We find that industrial sectors matter a lot for the relative earnings position of visible

minorities, at least for visible minority men. Visible minorities and Whites in general receive similar pay for similar jobs in the public sector. By contrast, in the private sector visible minority men and Black women earn significantly less than observationally comparable Whites. These findings suggest that future gains in the efforts to mitigate visible minorities' earnings disadvantage would come mostly from private industries, although previous studies suggest that it is more difficult to implement employment equity policies in the private sector than in the public sector (e.g., Baker and Fortin 2004).

We also find that the three major visible minority groups are very different in their relative earnings position. After adjusting for differences in sociodemographic, human capital, and work characteristics, Chinese had a significant earnings disadvantage compared to Whites only among men in the private sector. Chinese women even had slightly higher adjusted earnings than Whites in the private sector. South Asian men and women faced no significant earnings gap in the public sector, and a small although statistically significant gap in the private sector. In comparison, Black men faced the largest earnings gap in the private sector, and Black women faced the largest earnings gaps in both the public and private sectors.

Because of the large sample size, it is not difficult to find a statistically significant earnings gap between population groups. To put our observed gaps in perspective, it is useful to compare our results with the situation in the United States where the unadjusted weekly earnings gap between Black and White men aged 18 to 64 decreased from about 33 percent in the 1980s to about 27 percent by the end of the 1990s. The earnings gap, after adjusting for human capital and work attributes, decreased from about 22 percent in the 1980s to slightly under 20 percent by the end of the 1990s (Couch and Daly 2003, 2004). Thus, the unadjusted weekly earnings gap between Black and White men was larger in Canada than in the United States in the early 2000s, but the adjusted weekly earnings gap in

Canada was about 5 to 6 percentage points smaller than that in the United States. In the United States, American-born Asians tend to have higher education attainment and average earnings than Whites. When adjusting for human capital and work attributes, there is generally no difference in earnings between American-born Whites and Asians including both Chinese and South Asians (Zeng and Xie 2004). Similarly, in Canada, Canadian-born Chinese and South Asian men face a small adjusted earnings disadvantage relative to White men while Chinese and South Asian women have similar adjusted earnings as White women.

It is important to note that focusing on adjusted weekly earnings certainly masks the different nature of the disadvantages experienced by various major visible minority groups. For Black men, their disadvantages are cumulative. They work disproportionately in low-paying occupations and part-time jobs. They also receive lower pay than Whites in similar jobs. In the public sector, the earnings disadvantage of Black men results twice as much from working in low-paying occupations and part-time jobs than from lower pay for the same job. In the private sector, job sorting plays a similar role as lower pay for the same job in Black men's earnings disadvantage. Black women's earnings disadvantage originates mostly from lower pay for the same job. In comparison, the young age structure (thus fewer years of potential work experience) is the primary factor leading to lower earnings for Chinese and South Asians. The effect of this factor will naturally diminish as these groups age. With their extremely high levels of education and concentration in high-paying occupations, Chinese men are able to partially offset their age disadvantage in the public sector and achieve average earnings similar to those of Whites in the private sector. Chinese women have much higher average earnings than White women in both sectors. To a lesser extent, education and occupational distribution help South Asian men to partially offset their age disadvantage and unequal pay for the same job, and South Asian women on average earn more than White women.

Some US scholars argue that the colour lines in American society are shifting from a Black/White divide to a Black/non-Black divide with Asian and Latino Americans falling into the non-Black category since they are becoming closer to Whites in terms of socioeconomic status, interracial marriage, and multiracial identification (Gans 2005; Lee and Bean 2007; Quillian and Campbell 2003). In Canada, in terms of education attainment, occupational distribution, and average earnings, Canadian-born Chinese and South Asians are very different from Blacks and even outperform Whites. The large gaps in average earnings between Blacks, particularly Black men, and Whites are striking. These individual-level earnings disadvantages could be amplified at the family level since most conjugal unions are formed between individuals with similar education and economic status and within a racial group (Rosenfeld 2005). These differences among visible minority groups raise questions about whether visible minorities should be treated as a homogeneous group in implementing employment equity programs and whether more targeted employment equity programs should be in place.

## NOTES

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<sup>1</sup> We continue the study to look at immigrants in another paper (see Hou 2009).

<sup>2</sup> For instance, in the study by Hum and Simpson (1999), the SLID data had only 200 visible minority men—immigrants and the Canadian born combined. Among the Canadian born, there were probably fewer than 100 men who belonged to a visible minority and fewer than 20 on average in each of the five identified visible minority groups. Similarly, among the 16 visible

minority groups identified from the 1991 census PUMF in the study by Pendakur and Pendakur (1998), only four groups had a sample size over 100, and five groups had a sample size fewer than 12. The small sample size may reduce the reliability of the estimates. Pendakur and Pendakur (2002) and Swidinsky and Swidinsky (2002) both used the 1996 census data but reached different conclusions. A possible reason is that the former used the 20 percent sample master file while the latter used the 3 percent sample PUMF.

<sup>3</sup> However, unions can also be a source of discriminatory actions particularly in terms of gatekeeping of unionized jobs. Reitz and Verma (2004) show that visible minorities have lower rates of unionization than Whites. But it is possible that this gatekeeping effect manifests itself primarily in sorting into different occupations and jobs and not in differential payment for the same job.

<sup>4</sup> To identify public sector industries, we used the North American Industry Classification System (2002). At the four-digit level (total 307 categories), we identified the following industries in the public sector: federal government public administration; provincial and territorial public administration; local, municipal, and regional public administration; elementary and secondary schools; community colleges and CEGEPs; universities; and hospitals. This classification is more restricted than that used by Statistics Canada for its quarterly releases on public sector employment, which also include government business enterprises that are institutional units controlled by government, but that operate as commercial corporations in the marketplace. In the initial stage of our analysis, we divided the private sector into federally regulated private industries (banking, communications, and transportation) and other private industries. Since the sample size for visible minorities is small in federally regulated private industries, and the adjusted earnings gaps are similar in federally regulated and other private industries, we combined the two types of industries to simplify the presentation.

<sup>5</sup> Alternatively, we could examine annual earnings. Visible minority men worked fewer weeks than Whites in 2005 and, as a result, the unadjusted gap in annual earnings between visible minority men, particularly Blacks and South Asians, and White men was larger than the unadjusted gap in weekly earnings. However, controlling for the same sociodemographic, human capital, and work

characteristics, as well as weeks worked, the adjusted gaps in annual earnings were very close to the adjusted gaps in weekly earnings (tables are available upon request).

<sup>6</sup> Hourly wage rates reflect group gaps in received pay offers under the assumption that working time is unconstrained. A recent study has found significant differences between the wage- and earnings-based gender compensation ratios, suggesting that gender differences in weekly hours of work are part of the gender earnings gap (Baker and Drolet 2009). The difference in weekly hours may also affect the earnings gap between visible minorities and Whites, although the reasons for differences in working hours by visible minority status may not be the same as the gender difference. It is conceivable that the gender gap in working time to a large extent is related to women's heavier load of childrearing and other family responsibilities. In comparison, the difference in working time by visible minority status is less likely to be related to preferences and more likely to be due to unfair treatment of employers. Accordingly, gaps in hourly wages would not capture the disadvantage of visible minorities in working hours.

<sup>7</sup> Information on years of schooling was not collected in the 2006 census. We had to impute years of schooling for the 2006 census based on estimated median years of schooling by the highest level of certificate or degree for individuals aged 25 to 64 from the 2001 census. These estimated median years of schooling were then assigned to corresponding levels of certificate or degree in the 2006 census as follows: none – 10 years of schooling; high school graduation certificate – 12 years; other trades certificate or diploma, registered apprenticeship certificate or diploma, college, CEGEP or other non-university certificate or diploma from a program of three months to less than one year in duration – 13 years; college, CEGEP, or other non-university certificate or diploma from a program of one to two years – 14 years; college, CEGEP, or other non-university certificate or diploma from a program of more than two years – 15 years; certificate or diploma below bachelor – 16 years; bachelor's degree – 17 years; certificate or diploma above bachelor – 18 years; degree in medicine, dentistry, veterinary medicine, or optometry – 20 years; master's degree – 19 years; earned doctorate degree – 22 years. Using the 2001 census data, we found that the estimated visible minority earnings gaps remained the same no matter whether we used imputed or self-reported years of schooling (and the corresponding derived years of experience).

<sup>8</sup> Lemieux (2006) shows that the quadratic function (i.e., the linear and quadratic terms) in the standard Mincer equation tends to understate the effect of work experience on the earnings of young workers, based on US earnings data observed in the 1990s. Using the quartic function (including the linear, quadratic, cubic, and quartic terms) is important for the estimate of earnings gaps among Canadian-born visible minorities who have significantly fewer years of potential work experience than Whites. For example, the adjusted earnings gap between South Asian and White men would be 2 percentage points larger using the quadratic function than using the quartic function.

<sup>9</sup> This is based on the census question for those who worked at least one week in the year prior to the census year: "During most of those weeks, did this person work full time or part time?" The respondents were given two choices: full time (30 hours or more per week), and part time (less than 30 hours per week).

<sup>10</sup> The logarithm transformation reduces the influence of very high earnings and increases the influence of very low earnings compared with raw data. The extent to which the difference in log annual earnings between two groups approximates the percentage difference in actual earnings depends on the size of the difference as well as the wage distribution of each group. Large log wage differences (especially those in absolute value larger than 0.10) often overestimate the percentage difference.

<sup>11</sup> This was done following one variation of the Oaxaca decomposition method (Oaxaca and Ransom 1999). In this approach, a group's earnings gap can be decomposed as the sum of the differences between variable means of the group and the variable means of all groups, with the differences weighted by the model coefficients of the pooled sample. We also conducted the conventional Oaxaca decomposition by estimating two separate regression models for Whites and a minority group. Using Whites' regression coefficients as the weights, the decomposition results are very close to the results we present. Using visible minority wage structure would produce smaller adjusted male earnings gaps in the public sector but larger adjusted earnings gaps in the private sector than the results we present.

<sup>12</sup> The fully adjusted gap is often referred to as the "unexplained gap" in a conventional Oaxaca decomposition. It is due to group differences in model coefficients



or returns to observed characteristics. Some researchers further disaggregate the “unexplained gap” into the separate contributions of the constituent variables. However, disaggregating the “unexplained gap” is not invariant to the choice of the reference group for categorical variables and to certain transformations of continuous variables. A “normalized” regression approach has been used to deal with categorical variables (Yun 2008). This approach is equivalent to taking the simple average of the decomposition results from a series of decompositions in which the categories are used one after another as the reference. But the issues with continuous variables remain unsolved. Locational transformations (e.g., age versus age-18) and adding higher orders (quadratic or cubic terms) of a continuous variable would dramatically change the intercept term and the contribution of this variable to the “unexplained gap” (Oaxaca and Ransom 1999). For this reason, we did not disaggregate the “unexplained gap” in our study.

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