Colour My World: Have Earnings Gaps for Canadian-Born Ethnic Minorities Changed Over Time?

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En utilisant les bases principales du recensement de 1971 à 1996, nous évaluons les équations salariales des travailleurs et des travailleuses nés au Canada de manière à mesurer les différences salariales entre les blancs et les autochtones et les blancs et la minorité visible au Canada. Ces données nous permettent de nous concentrer sur les petites populations que forment la minorité visible née au Canada et les travailleurs autochtones au Canada et sur les territoires de huit grandes métropoles canadiennes. Nous définissons aussi des quasi-cohortes pour évaluer les différences salariales selon l'âge et examiner les différences dans 26 sous-groupes au sein des catégories constituées par les blancs et la minorité visible.

Il apparaît que les différences se sont réduites au cours des années 1970, se sont stabilisées durant les années 1980 et se sont accrues entre 1991 et 1996.

Using the census main bases from 1971 through 1996, we estimate earnings equations for Canadian-born female and male workers to assess the size of white–Aboriginal and white–visible minority earnings differentials in Canada. These databases allow us to focus on the small populations of Canadian-born visible minority and Aboriginal workers in Canada and on eight large Canadian metropolitan areas. We also define quasi-cohorts to assess differences in age-earnings relationships, and examine differences across 26 subgroups within the white and visible minority categories.

We find that differentials narrowed through the 1970s, were stable through the 1980s, and grew between 1991 and 1996.

INTRODUCTION

The last decade and a half has witnessed a growing flow of research devoted to examining the degree to which ethnic minorities are subject to labour market discrimination in Canada (see, for example, Akbari 1992*a*; 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). While these authors have generally concluded that immigrant groups often face significant and substantial labour market disadvantage, there is debate over the degree to which minorities born in Canada are subject to similar disadvantage (see Stelcner 2000). This debate is frustrated somewhat by the variety of empirical approaches, datasets, and time periods used in the attempts to evaluate whether or not visible minorities and Aboriginal people born in Canada are at a disadvantage in labour markets compared to white workers. In this paper, we evaluate the scope of labour market disadvantage with five specially created micro-datasets which contain all the "long form" records collected by Statistics Canada for the 1971, 1981, 1986, 1991, and 1996 censuses of Canada. These datasets are very large and allow consistent definitions of variables over the period 1971 to 1996, and allow the assessment of earnings differentials facing ethnic minorities in the Canadian-born population. 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 are not faced by ethnic minorities born in Canada.

Specifically, we estimate log-earnings equations for Canadian-born workers conditional on a variety of personal characteristics including age and education to assess the size of white–Aboriginal and white–visible minority earnings differentials in Canada as a whole and in eight large Canadian cities across five census years. The novelty of our empirical work lies in two extensions to the literature, both of which are made possible by the very large size of the census micro-databases. The long form data used are from 33 percent of Canadian households in 1971, and 20 percent of Canadian households in 1981, 1986, 1991, and 1996. These yield usable samples of several hundred thousand Canadian-born, working-age labour force partici-

pants in each sample year, and in each usable sample there are at least 6,000 Aboriginal and visible minority persons. The first extension is that we are able to look at Canadian-born minority workers back as far as 1971 and examine the change over the five census periods. Thus, direct immigration effects do not "pollute" our results on ethnicity effects. The second extension is that we are able to treat each of eight large Canadian metropolitan areas as local labour markets — and therefore as separate regression equations — with different white–Aboriginal and white–visible minority earnings differentials in each city. We then go on to look at differences among 26 ethnic groups within the white and visible-minority categories in order to examine heterogeneity of earnings differentials within the aggregate categories. This level of analysis is conducted for Canada as a whole, and for Montreal, Toronto, and Vancouver.

Generally, we find a pattern of stable or narrowing earnings differentials through the 1970s, stability through the 1980s, and enlargement of the earnings differentials between 1991 and 1996. This is the case among both men and women, for most birth cohorts, and for most of the ethnic groups constituting the white and visible-minority categories.

THE LITERATURE

In the past few years, there has been a surge of interest in labour market discrimination against Aboriginal people and visible minorities in Canada among both economists and sociologists. Researchers have used a variety of empirical approaches and public-use data from 1981, 1986, 1989, 1991, 1993, and 1996 to assess the existence and magnitude of wage and earnings differentials facing ethnic minorities in Canada. Much of this literature has also been focused on immigration effects, but here we will limit our discussion to material relating to Canadian-born ethnic minorities. In particular, we focus on a three-way classification of ethnic origin for the Canadian-born population: Aboriginal persons, visible-minority persons, and whites.

Aboriginal persons are defined as people who report at least one Aboriginal ethnic origin in their ancestry. Visible minorities are defined as non-Aboriginals who report at least one non-European ethnic origin in their ancestry. Whites are defined as non-Aboriginal people who report only European ethnic origins in their ancestry.

Previous research on data from the 1980s suggests that during this period, Aboriginal people and visible minorities faced substantial earnings differentials at the Canada-wide level. For example, Stelcner and Kyriazis (1995) use 1981 census data to examine earnings differentials across two visible-minority and 14 white ethnic groups, Howland and Sakellariou (1993) use 1986 census data to examine earnings differentials across three visible-minority ethnic groups, and Akbari (1992*b*) uses 1986 census data to examine earnings differentials among a variety of white and visible-minority ethnic groups. These three papers find that earnings gaps exist for a number of ethnic groups in Canada, especially visible-minority ethnic groups.

Research which uses data from the 1990s shows less unanimity. Three papers that use 1991 census public-use micro-data (Pendakur and Pendakur 1998; Lian and Matthews 1998; Baker and Benjamin 1997) find substantial and significant differences between British origin workers and workers in a number of visible-minority ethnic groups. Similarly, Christofides and Swidinsky (1994) use the 1989 Labour Market Activity Survey (LMAS) and find that visible-minority workers face a large wage gap compared to their white counterparts.

In contrast to these results, de Silva and Dougherty (1996) and Hum and Simpson (1998) use the 1993 Survey of Labour and Income Dynamics (SLID), and find that while a gap exists for Canadian-born black men, it does not exist for other visible-minority ethnic groups. Similarly, Kelly (1995) studies the occupation distribution of workers using 1991 census data and argues that visible minorities are well represented in managerial occu-

pations and thus not subject to labour market disadvantage.

Work on the earnings of Aboriginals in Canada has been sparse, but George and Kuhn (1994) use 1986 census data and find that Aboriginal men and women have wages 8 percent and 6 percent lower, respectively, than white men and women with similar characteristics. However, de Silva (1999) uses 1991 census data and concludes that Aboriginal–white wage differentials are mainly attributable to differences in personal characteristics rather than to labour market discrimination.

In the context of visible minority–white earnings differentials, some of the variation in findings of various researchers can be explained by differences in the data used. The public use databases for the censuses of Canada are comparatively large, but have comparatively short variable lists. In contrast, the 1989 LMAS and 1993 SLID offer far smaller samples, but more and better control variables. For example, the SLID and LMAS both offer measures of job tenure and the SLID offers information on full- and part-time labour market experience. The census database offers little information related to these important control variables but does offer sample size. Since visible minorities born in Canada and Aboriginals each make up at most 3 percent of the Canadian-born population, small samples are problematic because the associated large confidence bands around parameter estimates may lead researchers not to reject false hypotheses. Similarly, since labour market experience has an important effect on earnings independent of age, better control lists are important because missing variable bias will cause the effects of left-out correlates of ethnic origin to be attributed to ethnic origin. We are agnostic as to which data problem is more damaging, but since non-census data sources with high quality control variables and consistent ethnic-origin variables are not available prior to 1986 (the first wave of the LMAS), we use five csensus datasets to investigate the pattern over time of earnings differentials across ethnic groups.

There is at least one additional argument in favour of using census data for this type of investigation. The public-use LMAS and SLID datasets do not provide information on the name or size of the city of residence.[1] Since visible minorities are overrepresented and Aboriginals underrepresented in Canada's large cities, and since earnings are on average higher in large cities than in smaller cities and towns, leaving out information on the city of residence, at least its size, potentially biases estimates in favour of smaller earnings differentials for visible minorities and larger earnings differentials for Aboriginals. Thus, the fact that census data include city of residence is good for estimating Canada-wide earnings differentials. Since our datasets are so large, and since, in Pendakur and Pendakur (1998), we showed evidence that earnings differentials are quite different in different Canadian cities, we go one step further. We estimate earnings differentials across ethnic groups separately for eight CMAs in Canada, thus effectively treating them as eight separate labour markets.

Discrimination in Labour Markets

In what sense can the presence of a significant earnings differential between white and visible-minority workers or between white and Aboriginal workers point to discrimination against minorities in labour markets? The differentials we report control for a variety of personal characteristics including age and education, but do not control for any job characteristics such as occupation, industry, or work hours. Thus, even if all workers in the same occupation and industry groupings get the same earnings regardless of their ethnicity, our empirical strategy might find earnings differentials due to the concentration of white workers in higher paying occupations and industries compared to non-white workers.

We believe that the job characteristics of workers — such as occupation and industry — are at least as susceptible to ethnic discrimination as the wages paid to workers. In fact, 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 subeconomies composed of single ethnic groups with identical wage and earnings outcomes across subeconomies.

If either of these competitive assumptions are 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 (see, for example, Dickens and Lang 1986). If ethnic discrimination on the part of employers, workers or customers results in white workers ending up in the high-profit firms and non-white workers ending up in the low-profit firms, then the segregation of workers across firms by ethnicity results in differential outcomes. An alternative example may be seen by relaxing the restriction that labour markets are competitive (see, for example, Shapiro and Stiglitz 1984). For example, consider the occupation of investment banker. This job might pay well because investment bankers must have something to lose if their investors are to trust them. Since these jobs perform well relative to the alternatives, there are more workers who want the job than there are jobs. If white workers have a better chance of getting these "good jobs" than non-white workers, then occupation segregation results in earnings differentials between white and non-white workers. However, these earnings differentials will only be observed if the researcher does *not* control for job characteristics such as occupation and industry, because these are the very factors affected by ethnic discrimination.

Thus, to the extent that ethnic discrimination may manifest *both* in the allocation of workers to jobs and the remuneration commensurate with those jobs, it seems to us prudent to estimate models that do not control for job characteristics.[2] A second reason to exclude job characteristics is that the occupational coding in the census main bases changed dramatically between 1981 and 1996. A consistent occupational coding structure useable across all the census periods would capture only about 40 percent of workers — the other 60 percent would be in a category called "other occupations."

In Pendakur and Pendakur (1998) we 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. The 1971 to 1996 data do not support consistent controls for occupation and industry, but do allow consistent controls for weeks worked and full-time/part-time status. Although we do not report results using them, the models below have been run with these variables added to the control list. The results are similar in spirit to those presented — estimated earnings differentials with additional controls are somewhat smaller in absolute value, but follow similar patterns. These findings reassure us that our estimation results are meaningful.

DATA AND METHOD

Our data consist of five customized micro-data files which initially contained information from all the long-form records collected for the 1971, 1981, 1986, 1991, and 1996 censuses of Canada.[3] The population examined consists of 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 who did not report any income.

Table 1 shows weighted counts for our sample by geographic area, sex, and ethnic origin. As per Statistics Canada guidelines, we are unable to release exact counts, but we note that weighted counts are approximately five times the actual numbers of observations for 1981 to 1996 and three and a half times the actual numbers of observations for 1971. The key feature of Table 1 is that it shows the very large size of the datasets at our disposal.

Our analysis is divided into three parts. The first part uses a Canada-wide sample and then looks at eight census metropolitan areas (CMAs)[4] separately in each of the five census periods (Halifax, Montreal, Ottawa, Toronto, Winnipeg, Calgary, Edmonton, and Vancouver). The second part is a quasi-cohort analysis that pools all the data and interacts Aboriginal/visible-minority status with birth cohorts. The third part breaks the three groups into 26 ethnic subgroups (six visible minority, 19 white groups plus one Aboriginal category). The differentials as compared to British-origin men and women are examined for Canada as a whole and the three largest CMAs (Montreal, Toronto, and Vancouver).

The dependent variable in all regressions is the natural logarithm of earnings from wages and salaries. The logarithmic function de-skews the distribution of earnings, which is useful because it decreases the influence of very high earnings reporters. However, it also increases the influence of very low earnings reporters. We note that regressions run dropping all observations with less than $100 in annual earnings yield qualitatively identical results.

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.

TABLE 1
Weighted Frequency Counts of Ethnic Group by Sex and Selected Geographic Area, 1971 to 1996

Sex	Region	Group	1971	1981	1986	1991	1996
Females	Canada	White	1,505,455	2,522,035	3,028,740	3,323,710	3,781,420
		Visible Minorities	9,680	16,910	28,655	40,455	46,675
		Aboriginal Persons	10,870	47,770	73,140	119,800	109,060
	Halifax	White	20,465	37,090	45,305	50,495	57,570
		Visible Minorities	220	555	1,165	1,845	1,955
		Aboriginal Persons	25	270	525	1,070	480
	Montreal	White	207,795	321,215	376,905	428,225	470,550
		Visible Minorities	1,125	1,345	2,125	3,585	3,455
		Aboriginal Persons	670	2,375	3,990	8,285	2,865
	Ottawa-Hull	White	57,290	95,470	122,570	137,925	155,315
		Visible Minorities	200	455	865	1,755	1,725
		Aboriginal Persons	125	960	2,520	5,630	3,065
	Toronto	White	187,985	268,395	350,010	356,915	391,710
		Visible Minorities	2,545	4,000	7,205	10,185	12,905
		Aboriginal Persons	695	2,540	5,845	6,885	3,545
	Winnipeg	White	50,175	70,710	80,965	79,465	90,615
		Visible Minorities	275	485	810	1,010	1,055
		Aboriginal Persons	370	2,010	3,365	4,855	6,290
	Calgary	White	33,615	69,615	92,880	96,690	114,515
		Visible Minorities	220	745	1,230	1,820	2,215
		Aboriginal Persons	175	1,160	2,150	3,405	3,120
	Edmonton	White	40,695	75,765	103,165	102,615	117,760
		Visible Minorities	270	500	1,015	1,440	1,785
		Aboriginal Persons	360	2,000	3,245	5,145	4,705
	Vancouver	White	81,975	127,970	147,690	161,770	189,135
		Visible Minorities	1,880	3,540	5,340	7,720	9,950
		Aboriginal Persons	565	2,385	4,305	6,120	5,300

TABLE 1
(Continued)

Sex	Region	Group	1971	1981	1986	1991	1996
Males	Canada	White	2,837,325	3,419,815	3,696,510	3,723,390	4,068,945
		Visible Minorities	16,375	21,160	33,260	43,000	49,125
		Aboriginal Persons	27,560	73,630	90,385	128,970	118,515
	Halifax	White	37,660	49,050	54,485	56,035	60,285
		Visible Minorities	400	695	1,340	1,665	1,515
		Aboriginal Persons	55	410	745	1,090	515
	Montreal	White	412,600	431,350	455,340	459,575	486,435
		Visible Minorities	1,700	1,475	2,195	3,415	3,650
		Aboriginal Persons	1,515	3,420	4,370	7,750	3,395
	Ottawa-Hull	White	95,245	119,180	141,475	147,135	160,300
		Visible Minorities	410	650	1,190	1,915	1,820
		Aboriginal Persons	220	1,150	2,510	5,230	2,915
	Halifax	White	286,425	307,230	377,750	367,000	387,260
		Visible Minorities	3,960	4,515	7,555	10,195	12,885
		Aboriginal Persons	900	3,020	5,765	6,280	3,500
	Winnipeg	White	76,305	84,490	92,085	83,975	94,370
		Visible Minorities	510	715	900	1,075	1,040
		Aboriginal Persons	600	2,615	3,460	5,000	6,775
	Calgary	White	54,695	89,245	105,750	107,795	125,070
		Visible Minorities	360	870	1,505	2,135	2,425
		Aboriginal Persons	265	1,705	2,125	3,475	2,760
	Edmonton	White	66,780	95,250	119,520	114,185	126,340
		Visible Minorities	390	755	1,235	1,765	1,760
		Aboriginal Persons	535	2,615	3,485	4,745	4,980
	Vancouver	White	134,085	156,360	169,750	176,995	200,730
		Visible Minorities	2,810	4,220	5,885	7,935	10,610
		Aboriginal Persons	800	3,050	4,070	6,135	4,820

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 without any earnings.

Source: 1971, 1981, 1986, 1991 and 1996 census main base.

Schooling: Twelve levels of schooling as dummy variables (less than five years of school, five to eight years of school, nine to ten years of high school, more than ten years of high school (includes high school graduates), some postsecondary schooling without a certificate, postsecondary certificate, trades certificate, some university without a certificate, some university with a trades or other certificate, a university diploma below the bachelor level, bachelor's degree, first professional degree, master's degree or doctorate).[5] Less than five years of schooling is the left-out dummy variable.

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 much of the variation in quality of language knowledge that plagues the estimation of earnings differentials across ethnic groups.

CMA: In regressions that pool all the cities together, we use 11 dummy variables indicating the census metropolitan area/region (Halifax, Montreal, Ottawa, Toronto, Hamilton, Winnipeg, Calgary, Edmonton, Vancouver, Victoria, and a flag for not living in one of the ten 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.

Group status (white, visible minority or Aboriginal) is the primary independent variable of interest.[6] These three groups are quite coarse, and are chosen because of their use in federal employment equity policy. There are at least two possible issues arising from the use of such course groups. First, as we noted in Pendakur and Pendakur (1998), coarse groupings may mask important within-group heterogeneity. Not all white ethnic groups are advantaged and not all visible minority groups are disadvantaged. We explore this issue below by breaking group status into 22 single-ethnic origin categories, and assessing how earnings differentials evolved across these ethnic groups over time. Second, since multiple-origin people have become much more numerous, their treatment in these broad categories merits assessment. That is, is the treatment of a person with one British-origin parent and one Caribbean-black parent similar to that of a white or visible-minority person? We found (Pendakur and Pendakur 1998) some evidence that multiple origin men with one visible-minority parent were about as disadvantaged as "full" visible-minority men. We assess this issue below by evaluating the pattern of earnings for multiple-origin people over time.

Discussion

Table 2 shows results from 90 separate regressions. A separate model was run for Canada as a whole and for eight CMAs in each of five census periods for each of two genders. The coefficients are approximately equal to the percentage difference in annual wages and salaries between Canadian-born white and Aboriginal or visible-minority persons, holding personal characteristics constant. For large coefficients (especially those larger in absolute value than 0.10) this approximation will overestimate the percentage difference for negative coefficients and underestimate the percentage difference for positive coefficients.

TABLE 2

Selected Coefficients from Log-Earnings Regression Models, with Ethnicity Dummies, 1971 to 1996

Sex	Group	City	1971		1981		1986		1991		1996	
Females	Aboriginal	Canada	−0.20	***	−0.10	***	−0.09	***	−0.17	***	−0.16	***
		Halifax	−0.42		−0.01		−0.01		−0.10		−0.23	*
		Montreal	−0.09		−0.04		−0.13	***	−0.13	***	−0.32	***
		Ottawa-Hull	−0.19		−0.02		−0.01		−0.06	**	−0.14	***
		Toronto	−0.09		−0.24	***	−0.13	***	−0.11	***	−0.16	***
		Winnipeg	−0.18	**	−0.27	***	−0.25	***	−0.34	***	−0.29	***
		Calgary	−0.24	*	−0.24	***	−0.22	***	−0.26	***	−0.37	***
		Edmonton	−0.32	***	−0.31	***	−0.25	***	−0.36	***	−0.41	***
		Vancouver	−0.19	***	−0.15	***	−0.11	***	−0.24	***	−0.37	***
	Visible Minority	Canada	0.09	***	0.07	***	0.04	***	0.00		−0.06	***
		Halifax	−0.33	***	−0.05		−0.17	**	−0.16	***	−0.14	**
		Montreal	0.11	**	−0.03		0.03		−0.06	*	−0.19	***
		Ottawa-Hull	0.21	*	−0.16		0.03		−0.19	***	−0.15	***
		Toronto	0.08	**	−0.03		0.02		−0.01		−0.12	***
		Winnipeg	0.10		0.08		−0.02		0.04		−0.12	*
		Calgary	0.03		0.17	**	0.17	***	0.06		0.02	
		Edmonton	0.05		0.12		0.07		0.07		−0.04	
		Vancouver	0.14	***	0.19	***	0.13	***	0.09	***	0.10	***
Males	Aboriginal	Canada	−0.48	***	−0.37	***	−0.44	***	−0.48	***	−0.57	***
		Halifax	0.15		−0.23	***	−0.23	***	−0.03		−0.35	***
		Montreal	−0.13	***	−0.06	**	−0.14	***	−0.10	***	−0.27	***
		Ottawa-Hull	−0.05		−0.09	**	−0.14	***	−0.10	***	−0.27	***
		Toronto	−0.24	***	−0.16	***	−0.13	***	−0.16	***	−0.49	***
		Winnipeg	−0.36	***	−0.37	***	−0.39	***	−0.42	***	−0.55	***
		Calgary	−0.24	***	−0.26	***	−0.30	***	−0.34	***	−0.35	***
		Edmonton	−0.41	***	−0.19	***	−0.36	***	−0.51	***	−0.63	***
		Vancouver	−0.40	***	−0.12	***	−0.26	***	−0.32	***	−0.52	***
	Visible Minority	Canada	−0.05	***	−0.03	***	−0.07	***	−0.06	***	−0.15	***
		Halifax	−0.17	***	−0.30	***	−0.41	***	−0.19	***	−0.24	***
		Montreal	−0.11	***	−0.12	***	−0.10	***	−0.21	***	−0.21	***
		Ottawa-Hull	0.02		0.03		−0.03		−0.08	**	−0.08	*
		Toronto	−0.11	***	−0.09	***	−0.08	***	−0.11	***	−0.17	***
		Winnipeg	−0.08	*	0.01		−0.06		−0.08		−0.16	***
		Calgary	−0.04		0.04		−0.10	**	0.10	**	−0.18	***
		Edmonton	−0.09		−0.01		−0.11	**	−0.08	*	−0.16	***
		Vancouver	−0.10	***	−0.08	***	−0.04		0.00		−0.06	***

Notes: Variables in model include: 8 age cohorts, 12 dummies for schooling, 5 dummies for marital status, household size, 3 dummies for official language ability and 3 for group status. The Canada-wide regression includes 13 dummies for region (10 CMAs, a small CMA identifier and non-CMA identifier).
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 without any earnings.
Significance: ***: 0.01, **: 0.05, *: 0.1

Source: 1971, 1981, 1986, 1991 and 1996 census main base.

Results for Females

Aboriginal Women

Looking first at the results for Aboriginal women (top panel of Table 2), the coefficient for the Canada-wide regression in 1971 is –0.20. This suggests that on average, an Aboriginal female may expect to receive annual earnings from wages and salaries 20 percent lower than a white female who has similar age, official language ability, schooling, and marital status characteristics.[7] By 1996, this differential had shrunk somewhat to about 16 percent (and the hypothesis that the difference across those years is zero is rejected at the 1 percent level of significance). We see that the gap decreased greatly between 1971 and 1986, but then reversed direction after 1986, almost reaching its 1971 high point. In the urban areas, the picture is somewhat different. Regardless of census period, the confidence intervals are substantially wider, suggesting that the point estimate is not tight. Further, in 1971, only in the western CMAs are the estimates significantly different from zero (ranging from –32 percent in Edmonton to –18 percent in Winnipeg). In the period between 1971 and 1996, the point estimates for all the CMAs held at about the same magnitude, but the confidence intervals tighten up over time. By 1996, the gaps are large and statistically significant in all regions (ranging from –14 percent in Ottawa-Hull to –41 percent in Edmonton).

Visible-Minority Women

The picture for visible-minority women is very different. At the Canada-wide level (Table 2, lower panel of females) in 1971, among Canadian-born women, visible minorities earn about 9 percent *more* than white women with similar age, marital status, official language, and education characteristics. This pattern of positive (or at least non-negative) earnings differentials also holds for all of the CMAs examined except Halifax.

By 1981, however, much of the earnings advantage for visible-minority women disappeared. Although the point estimates are still positive, in about half the cases they are insignificant, which implies that for many cities, we cannot reject the hypothesis that white and visible-minority women earn the same amount. Only in Calgary and Vancouver do visible-minority women enjoy a significant earnings advantage in comparison to white women.

From 1986 to 1996 we see a pattern for visible-minority women that can be described as "losing ground." In 1996, only in Vancouver do visible minority women enjoy a statistically significant earnings advantage. In all other CMAs, visible-minority women have earnings either insignificantly different from or significantly less than the earnings of white women. For example, in Montreal and Toronto, visible-minority women earn 19 percent and 12 percent less, respectively, than white women with identical personal characteristics.

Patterns over time for specific cities are illuminating. In Halifax, the negative earnings differential faced by visible minority women in comparison with white women was fairly stable over the later years, equal to about 15 percent in 1986, 1991, and 1996. In contrast, in Montreal, this earnings differential changed fairly smoothly from an earnings advantage of 11 percent in 1971 to insignificantly different from zero percent in 1986 to an earnings disadvantage of 19 percent less in 1996. Toronto shows a pattern similar to that of Montreal, but Vancouver stands out as different. In Vancouver, visible minority women earn significantly more than white women in each of the census years, varying from a 9 percent earnings advantage in 1991 to a 19 percent earnings advantage in 1981.

Overall, for non-white women, the period 1981 through to 1996 has been one of worsening relative earnings outcomes. Aboriginal women have seen their fortunes go from bad to worse, while visible-minority women have seen their position decline from one of earnings advantage or parity to one of overall earnings disadvantage.

Results for Males

Aboriginal Men

For Canada as a whole, the results for Aboriginal men are similar to those for Aboriginal women (see Table 2). However, the negative earnings differentials are much larger for men than for women. At the Canada-wide level in all of the census years, Aboriginal men receive about half the earnings of white men with similar characteristics.

Aboriginal people are concentrated outside the CMAs and in a few of Canada's large CMAs, making the situation in most of Canada's largest CMAs not quite as bleak. The negative earnings differentials are neither as large nor as tightly estimated. In 1971, Aboriginal men living in Montreal, Toronto, or Vancouver earn substantially less than white men with similar attributes. The coefficients for these three cities are –0.13, –0.24, and –0.40 respectively. In 1981, the earnings differentials shrink in these three large CMAs. However, by 1996, the negative earnings differentials faced by Aboriginal men in these three CMAs had grown to be even larger than they were in 1971. The coefficients for Montreal, Toronto, and Vancouver in 1996 are –0.27, –0.49, and –0.52 respectively.

In the smaller CMAs a similar pattern of decline can be seen; however, the pattern is different across CMAs with Aboriginal men facing relatively smaller negative earnings differentials in Ottawa-Hull and Halifax through the 1970s and 1980s, but then increasing through the 1990s. In the other CMAs, the negative earnings differentials are more consistent and remain lower. The pattern over time for Aboriginal men in Canada's labour markets is depressing. Although there was some improvement in their relative position between 1971 and 1981, this was entirely undone by declining relative performance in the 1980s and 1990s. By 1996, Aboriginal men again faced huge negative earnings differentials, earning as little as half of what white workers earn in some cities.

Visible-Minority Men

Table 2 shows the pattern of earnings differentials among Canadian-born men between whites and visible minorities with similar characteristics in different geographic areas from 1971 to 1996. In 1971 for Canada as a whole, visible-minority workers faced a significant negative earnings differential of 5 percent in comparison with white workers. This differential was between 3 percent and 7 percent through 1991. However, the relative position of visible-minority men worsened in the early 1990s. By 1996, that negative earnings differential had grown to about 15 percent.

Looking first at Montreal, Toronto, and Vancouver we see that the 1970s and 1980s might be characterized by stability or improvement in the relative labour market performance of visible-minority men compared with white men. In Montreal and Toronto, the negative earnings differentials were approximately –10 percent in 1971, 1981, and 1986. In Vancouver, there was some improvement: the negative earnings differential shrank from 10 percent in 1971 to insignificantly different from zero in 1986. In contrast, the period after 1986 is one of decline in the relative performance of visible-minority men in all three CMAs. In Montreal and Toronto, the negative earnings differential grew by about ten percentage points between 1986 and 1996, and in Vancouver, the insignificant earnings disadvantage found in 1986 turned to a significant negative earnings differential of –6 percent in 1996.

In the smaller CMAs, the estimated earnings differentials are in most cases not as pronounced and do not vary to the same degree. The pattern of improvement in the relative earnings of visible-minority men is not as evident in the smaller CMAs as it is in the larger CMAs. In fact, in Halifax, the negative earnings differential more than doubles between 1971 and 1986 and then decreases by 1996 to –24 percent. However, the general pattern of declining relative earnings by visible minorities between 1991 and 1996 noted for the larger CMAs is strongly evident in the smaller CMAs.[8]

Overall, the pattern for non-white men (as was the case for women), from 1981 to 1996 was one of worsening outcomes. The severe disadvantage for Aboriginal men got even worse and the relatively small disadvantage for visible-minority men grew from –3 percent in 1981 to –15 percent in 1996.

Quasi-Cohort Analysis

Table 2 offers insight into the evolution of Aboriginal and visible-minority earnings differentials over time. However, we know that for individuals, age increases as time passes. Age is related to earnings because earnings typically increase with age up to a point and then decrease. As well, earnings tend to increase slowly over time with productivity growth. Thus, these two phenomena should be treated together. Ideally, we could address this by analyzing a panel of individuals over time and asking whether or not their birth cohort and age affect the structure of the ethnic origin differentials. However, our data do not permit exact panel analysis. One solution is to use quasi-panel methods, which involve estimating ethnic origin differentials for each birth cohort and age group in each period, and then drawing out the actual history of earnings differentials by age for different birth cohorts over time.

Quasi-cohort analysis has a big advantage if we are concerned about the generational composition of the Canadian-born visible-minority population. The immigration flow of visible minorities to Canada was relatively high in the late nineteenth century and early twentieth century, low until the 1960s and high thereafter (see Pendakur 2001). Thus one might think that working-age, Canadian-born visible minorities in the 1970s were probably children of other Canadian-born visible minorities, but working-age, Canadian-born visible minorities in the 1990s were more likely to be children of immigrants. If immigration effects carry across the generations (see, for example, Trejo 1998), then comparison of these populations is invalid. However, if we hold constant the birth cohort of Canadian-born, working-age visible minorities, then we are implicitly holding constant the generational

composition of these populations. Thus, if quasi-cohort analysis reveals the same patterns as the simple analysis in Table 2, then the results are probably not driven by changes in the generational composition of the Canadian-born visible-minority population.

Figures 1 through 4 summarize results from log-earnings regressions by sex in which ethnic origin is interacted with five-year-wide age groups. For example, Figure 1 shows how earnings differentials for Aboriginal females in six birth cohorts have evolved over time. The eldest cohort is born between 1932 and 1936, and women in this cohort faced a negative earnings differential of –8 percent in 1971, –4 percent in 1981, –1 percent in 1986, –5 percent in 1991 and a positive earnings differential of 3 percent in 1996. This good-news story is characteristic of outcomes for the eldest cohorts. However, when we look at younger cohorts of Aboriginal women, we see the opposite pattern over time. For these Aboriginal women, negative earnings differentials shrank between 1971 and 1981, but then enlarged between 1986 and 1996.

For Aboriginal men, the wage disparities tend to be deeper. In 1971, Aboriginal men born in the 1930s could expect about half the earnings of their white male counterparts (see Figure 2). Although there was some improvement during the 1970s, this was followed by a retrenchment of disparity during the 1980s and 1990s. The pattern for other birth cohorts is broadly similar.

Visible-minority men and women tend to face smaller earnings differentials than Aboriginal workers regardless of age cohort (see Figures 3 and 4). The other trend that is apparent is a general worsening of earnings differentials between 1991 and 1996 among men, regardless of cohort. Among women, there are a number of cohorts whose members actually make comparatively more than their white female counterparts. However, even here, there is a decline in advantage between 1991 and 1996 for most visible minority cohorts. That a

FIGURE 1

Earnings Differentials by Age Cohorts and Year, Aboriginal Females, Canada, 1971 to 1996
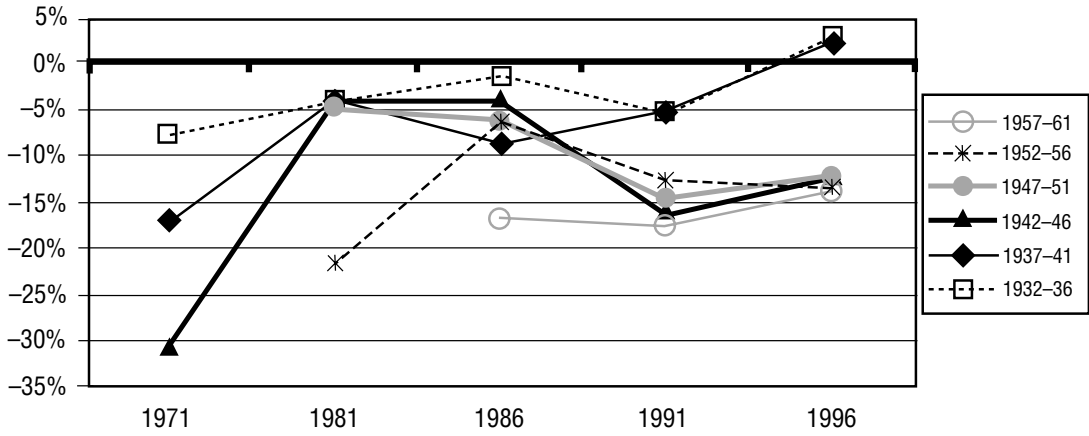

FIGURE 2

Earnings Differentials by Age Cohorts and Year, Aboriginal Males, Canada, 1971 to 1996
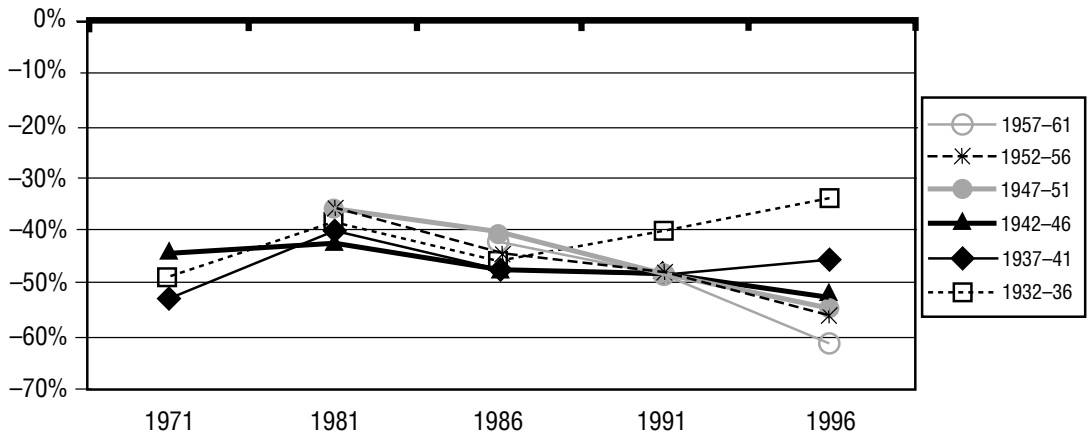
FIGURE 3

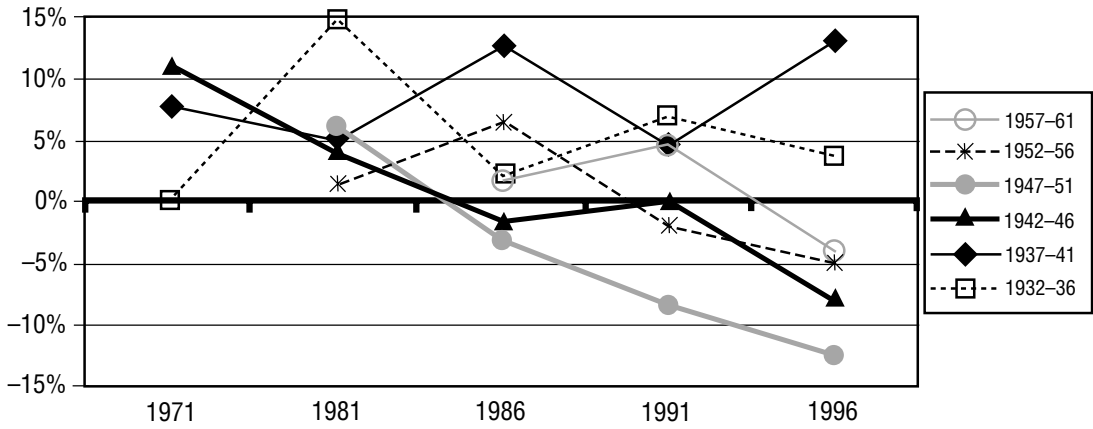Earnings Differentials by Age Cohorts and Year, Visible-Minority Females, Canada, 1971 to 1996
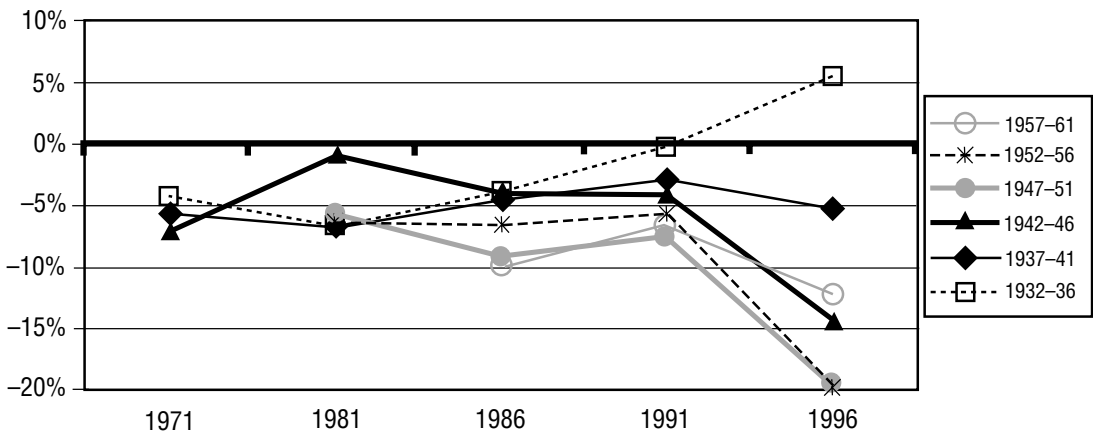

FIGURE 4

Earnings Differentials by Age Cohorts and Year, Visible-Minority Males, Canada, 1971 to 1996

decline in relative outcomes is observed for men and women for all birth cohorts suggests that compositional changes are not driving the decline seen in Table 2 because composition does not change within a birth cohort.

Earnings Differentials by Detailed Group

So far the analysis suggests that as a group, Canadian-born visible-minority and Aboriginal peoples face a significant earnings penalty compared to whites, after controlling for personal characteristics. However, the visible minority category is an amalgam of many distinct non-European groups including Chinese, South Asian, and black. In the same way, the white grouping is the aggregate of all people of European origin. If there are substantial differences in the pattern of earnings differentials across subgroups, we may be overstating the size of the disadvantaged group, for example, if visible-minority disadvantage is driven mainly by one ethnic subgroup in the visible-minority aggregate. In this case, we would also understate the earnings differential for the most disadvantaged subgroup(s).

This section explores the degree to which labour market disadvantage is unevenly distributed across 27 ethnic groups over the five census periods. In this way we may ask, for example, whether blacks have higher or lower earnings differentials as compared to Chinese, or whether, there are disadvantaged groups within the European (white) category.

The selection of groups is largely determined by the 1971 census coding structure which is the most restrictive and allows only a single ethnic origin to be reported. For 1971 and 1981, 27 single-origin ethnic groups are defined (19 white groups, seven visible-minority groups, and one Aboriginal category).[9] For 1986, 1991, and 1996, five groups are added to include those with more than one ethnic origin. Four of these multiple-origin groups are comprised of combinations of either British, or French with another origin. A final category includes people

with more than one origin other than British or French. Thus, coefficients are directly comparable between 1986 and1996, but less comparable in 1971 and 1981 because of changes in data collection and coding.

Regressions are run separately for men and women and the comparison group is males or females of British (single-origin) ancestry. As with previous analyses, controls include age groups, highest level of schooling, marital status, census metropolitan area, household size, and official language ability. In recognition of the fact that labour markets are local and that different groups may face varying levels of labour market advantage or disadvantage depending on where they live, separate regressions are also run for Canada's largest three CMAs: Montreal, Toronto, and Vancouver.

This section contains a large quantity of estimated coefficients, but, we think, they can be summarized fairly simply. In previous research (Pendakur and Pendakur 1998), we found that the white ethnic grouping contained substantial heterogeneity in labour market outcomes using 1991 public-use data. In particular, we noted that southern European ethnic groups, especially Greeks, fared relatively poorly in Canadian labour markets. We saw less heterogeneity among the visible-minority ethnic groups in the 1991 public use data. In particular, we concluded that the visible-minority ethnic groups for whom we had sufficient numbers of observations — blacks and Chinese — earned significantly less than British-origin men.

In this section, we show that the results we saw in the 1991 data for European ethnic groups are largely reproduced in the larger sample and other census years. There is heterogeneity among European ethnic groups in their labour market performance, but it seems to have little pattern over time. There is one exception. Those with Spanish ethnic origins saw steadily worsening labour market outcomes over the five census periods. It is notable that this ethnic group was comprised almost entirely

of European-origin people in 1971, but by 1996, was made up of a majority of Latin-American-origin people.

We also show that the results we saw in the 1991 public-use data for visible-minority ethnic groups are largely reproduced in the larger sample and other census years. However, it seems that for most visible-minority groups, the negative earnings differential has grown between the 1980s and 1990s. A notable exception concerns those with Chinese ethnic origin, whose labour market disadvantage has shrunk to essentially zero by 1996 at the Canada-wide level.

Results for Females

Table 3 shows estimated earnings differentials for 27 ethnic groups estimated at the Canada-wide level. Table 4 shows estimated earnings differentials for ten selected ethnic groups for each of Canada's three largest cities. Looking first at Table 3, we see that among women in 1971, seven ethnic groups faced significant negative earnings differentials and nine enjoyed positive earnings differentials compared to British-origin women. Scandinavian, Dutch, Jewish, black, and Aboriginal women all faced earnings disadvantages ranging from –3 percent (for Scandinavian women) to –19 percent (for Aboriginal women). Six European groups (French, Baltic, Polish, Italian, Balkan, and Ukrainian) and three visible-minority groups (Arab, Chinese, and Japanese) earning significantly more than British-origin women (ranging from 3 percent more for French origin women to 18 percent more for Japanese-origin women).

In 1986, women in only a few ethnic groups had earnings significantly different from British-origin women. Jewish- and Greek-origin women faced negative earnings differentials of –7 percent and –19 percent, respectively. Women in some ethnic groups fared better than British-origin women. French, German, Italian, and Japanese women earned between 4 percent and 29 percent more than British-origin women with similar credentials.

Among people reporting more than one origin, those reporting British in combination with another origin faced significant earnings disadvantage.

The pattern of negative and positive earnings differentials in 1996 is similar to that in earlier years, but the differentials tend to be larger in magnitude. In 1996, among European-origin women, Jewish and Greek women faced significant negative earnings differentials of –11 percent and –4 percent, respectively. Among non-European-origin women, South Asian, black, and Aboriginal women faced earnings disadvantage compared to British-origin women ranging from –8 percent to –35 percent.

Males

Earlier results for men suggest that the situation for visible minority and Aboriginal males worsened steadily over the five census periods. This pattern is mirrored at the level of individual groups. In 1971, for example, of the six groups who earned less than British-origin men, three were from non-European origins. Chinese, black, and Aboriginal men faced earnings differentials of –12 percent, –17 percent and –48 percent, respectively. French-, Portuguese- and Spanish-origin men also had lower earnings, facing earnings differentials of –3 percent, –13 percent, and –6 percent, respectively. Notably, the disadvantaged visible-minority groups fared worse than the disadvantaged European groups in 1971. We see a similar pattern of disadvantage across ethnic groups in 1986. Two new features emerged. Japanese-origin men earned more than British-origin men in 1986. Spanish-origin men earned about the same as British-origin men in 1986. Finally, the results for European groups in 1986 show that no European ethnic group was characterized by higher earnings than British origin.

By 1996, the pattern of earnings differentials across groups seems to have changed. Among European-origin men, many groups have higher earnings than men of British origin (French, Polish, Dutch, German, Czech/Slovak, Balkan, and Ukrainian). Two groups have substantially lower earnings — Greek-

TABLE 3
Earnings Differentials by Detailed Ethnic Origin, Canada, 1986 to 1996

Sex	Group	1971	1981	1986	1991	1996
Females	French	0.03 ***	0.06 ***	0.04 ***	0.04 ***	0.03 ***
	Scandinavian	−0.03 ***	0.01	0.02	0.01	0.01
	Baltic	0.11 **	0.08 *	−0.07	0.03	0.03
	Polish	0.09 ***	0.08 ***	0.01	0.04 ***	0.06 ***
	Dutch	−0.06 ***	−0.03 **	−0.02	−0.02 *	0.00
	German	−0.01 *	0.03 ***	0.08 **	0.01 *	0.02 **
	Russian	−0.02	0.04	−0.15	−0.02	0.01
	Hungarian	0.04	0.06 **	−0.15 *	0.02	0.06 **
	Czech/Slovak	0.05 *	0.04	−0.03	0.07 **	0.02
	Jewish	−0.05 ***	−0.09 ***	−0.07 ***	−0.06 ***	−0.11 ***
	Portuguese	−0.10	0.05	0.24	0.11 ***	0.07 **
	Italian	0.06 ***	0.07 ***	0.10 ***	0.07 ***	0.06 ***
	Greek	−0.02	−0.04	−0.19 **	−0.10 ***	−0.04 *
	Balkan	0.09 **	0.15 ***	0.10	0.10 ***	0.09 ***
	Ukrainian	0.09 ***	0.09 ***	0.04	0.07 ***	0.06 ***
	Spanish	−0.05	0.11	0.25	−0.06	0.01
	Arab	0.10 **	0.04	0.17 *	0.01	−0.01
	Japanese	0.18 ***	0.17 ***	0.29 **	0.15 ***	0.14 ***
	Chinese	0.10 ***	0.10 **	0.03	0.14 ***	0.10 ***
	South Asian	0.04	0.10	0.09	0.00	−0.08 **
	Black	−0.10 **	0.03	0.02	−0.11 ***	−0.22 ***
	Aboriginal Origins	−0.19 ***	−0.10 ***	−0.04	−0.19 ***	−0.15 ***
	Br., Fr. & Other			−0.09 ***	−0.07 ***	−0.05 ***
	British & French			−0.01	−0.02 ***	0.00
	British & Other			−0.07 ***	−0.03 ***	−0.01 **
	French & Other			−0.01	−0.02 *	−0.03 ***

... continued

TABLE 3
(Continued)

Sex	Group	1971		1981		1986		1991		1996	
Males	French	−0.03	***	0.00		−0.04	***	−0.01	**	0.00	
	Scandinavian	0.04	***	0.09	***	−0.04		0.05	***	0.04	***
	Baltic	0.03		−0.06	**	0.01		0.04		0.04	
	Polish	0.01		0.03	***	−0.01		0.04	***	0.06	***
	Dutch	0.00		0.02	**	−0.03		0.08	***	0.08	***
	German	0.01	***	0.05	***	−0.02		0.04	***	0.06	***
	Russian	−0.01		0.05	***	−0.02		0.02		0.01	
	Hungarian	−0.02	*	0.05	***	−0.04		0.01		0.01	
	Czech/Slovak	0.05	***	0.08	***	0.08		0.09	***	0.08	***
	Jewish	0.08	***	−0.01		0.01		0.05	***	0.00	
	Portuguese	−0.13	***	0.08		−0.40	***	−0.02		−0.01	
	Italian	0.02	***	0.05	***	−0.03	*	0.03	***	0.01	
	Greek	0.00		−0.10	***	−0.14	**	−0.17	***	−0.19	***
	Balkan	0.07	***	0.02		0.01		0.06	***	0.08	***
	Ukrainian	0.00		0.04	***	0.00		0.05	***	0.02	**
	Spanish	−0.06	**	−0.06		0.06		−0.14	***	−0.17	***
	Arab	0.02		0.02		0.07		−0.03		−0.06	*
	Japanese	0.00		0.09	***	0.22	**	0.10	***	0.06	**
	Chinese	−0.12	***	−0.07	***	−0.17	**	−0.05	***	0.00	
	South Asian	0.04		−0.07		−0.16		−0.10	**	−0.22	***
	Black	−0.17	***	−0.22	***	−0.16	**	−0.25	***	−0.36	***
	Aboriginal Origins	−0.48	***	−0.51	***	−0.45	***	−0.64	***	−0.63	***
	Br. Fr., & Other					−0.15	***	−0.03	***	−0.02	***
	British & French					−0.07	***	−0.01		−0.02	***
	British & Other					−0.05	***	0.02	***	0.01	
	French & Other					−0.07	***	−0.03	***	−0.07	***

Notes: Controls include age groups, schooling, marital status, census metropolitan area, household size, and official language ability. Canadian, Other European, Other Asian, Other Single origins and Other Multiple origins were included as controls, but have been omitted from the table.
Significance: ***: 0.01, **: 0.05, *: 0.1.

and Spanish-origin men face earnings differentials of –19 percent and –17 percent, respectively. The outcomes for Spanish-origin men seem to have worsened substantially over the 25-year period.

Among visible-minority men, the relative labour market performance of Chinese men improved substantially. By 1996, Chinese men earned about the same as British-origin men. Japanese men earned slightly more than British-origin men. However, outcomes for other visible-minority groups worsened between 1986 and 1996. Although Arab and South Asian men had earnings insignificantly different from British-origin men prior to 1996, by 1996, these groups faced differentials of –6 percent and –22 percent, respectively. The relative earnings of black and Aboriginal men also declined, so that they faced earnings differentials of –36 percent and –63 percent, respectively, in 1996.

In previous research (Pendakur and Pendakur 2001), we found some evidence suggesting that earnings differentials related to ethnicity could be correlated with the ethnic group composition of the local population. Different cities have different ethnic group compositions, so we may expect to see different patterns of earnings differentials across cities. In particular, in that research, we found that members of large ethnic communities in particular cities seemed to fare better than members of small ethnic communities in those same cities. In the next section, we try to assess how earnings differentials across ethnic groups vary across Canada's largest cities over the 25-year period.

Females in Montreal, Toronto, and Vancouver
Table 4 shows estimated earnings differentials for ten selected ethnic origins in Canada's three largest CMAs for 1971, 1986, and 1996. First, consider earnings differentials among women in Montreal. In 1971, French and Italian women earned 2 percent and 8 percent more, respectively, than British women. In contrast, Greek women earned 15 percent less than British women. By 1986, the pattern of differentials had changed little except that in this

year, Jewish women also earned significantly less than British-origin women. By 1996, black and Aboriginal women also faced statistically significant earnings disadvantage.

A similar pattern can be seen in Toronto. In 1971, Jewish, Portuguese, and Italian women faced negative earnings differentials. In 1986, Aboriginals were added to the disadvantaged groups. And in 1996, South Asian and black women also faced significant earnings disadvantage. Further, by 1996, among European-origin women, only Jewish women earned less than British-origin women. Broadly speaking, for women in Montreal and Toronto, the disadvantaged ethnic groups became less European and more visible minority over time.

In Vancouver, the pattern over time is different. Aboriginal women earned much less than British-origin women in every year, but women in visible-minority ethnic groups do not (although the earnings differential for black women in 1971 is marginally significantly negative).

Males in Montreal, Toronto, and Vancouver
In Montreal, of the ten selected ethnic groups in 1971, only Jewish men earned significantly more than British-origin men. French men, men of southern European and non-European origin all earned significantly less than British-origin men. Portuguese, Italian, and Greek men faced earnings gaps of –22 percent, –10 percent, and –9 percent, respectively. Chinese, South Asian, black, and Aboriginal men faced earnings gaps of –32 percent, –41 percent, –28 percent and –19 percent respectively. Here, the visible-minority and Aboriginal groups on the whole fare worse than even the disadvantaged European ethnic groups. These patterns in earnings differentials across ethnic groups in Montreal are fairly stable over time, except that the earnings gap faced by French men disappears by 1996. It is also worth noting that over time, the earnings gap faced by Chinese men shrinks, but the gap facing black men grows.

TABLE 4
Earnings Differentials by CMA and Year, for Selected Ethnic Groups, Montreal, Toronto and Vancouver, 1971, 1986, 1996

		Montreal			Toronto			Vancouver		
		1971	1986	1996	1971	1986	1996	1971	1986	1996
Sex	Group	Coef sig	Coef sig	Coef sig	Coef sig	Coef sig	Coef sig	Coef sig	Coef sig	Coef sig
Female	French	0.02 *	0.03 **	0.04 **	0.00	0.07 ***	0.03	0.01	0.01	-0.03
	Dutch	0.07	-0.03	0.02	-0.06	-0.07 *	-0.01	0.00	0.05	0.00
	Jewish	-0.03	-0.06 **	-0.07 **	-0.06 ***	-0.10 ***	-0.10 ***	0.02	0.03	-0.05
	Portuguese	0.25	0.18	-0.05	-0.56 ***	0.15	0.00	-0.01	0.04	0.05
	Italian	0.08 ***	0.08 ***	0.01	-0.05 *	0.10 ***	0.02	0.04	0.15 ***	0.09 **
	Greek	-0.15 *	-0.19 **	-0.18 ***	0.05	-0.07	0.01	0.04	-0.32 *	0.02
	Chinese	0.09	0.21	0.12	-0.06	0.09	0.00	0.12 *	0.24 ***	0.15 ***
	S. Asian	0.28	0.26	-0.21	-0.14	0.00	-0.21 ***	0.18	0.14	0.04
	Black	0.03	-0.03	-0.26 ***	-0.01	-0.08	-0.27 ***	-0.40 *	0.03	-0.08
	Aboriginal	-0.08	-0.09	-0.29 ***	-0.10	-0.24 ***	-0.17 **	-0.19 **	-0.07	-0.46 ***
Male	French	-0.09 ***	-0.03 ***	0.01	-0.04 ***	-0.05 ***	0.00	-0.03 **	-0.05 *	-0.03
	Dutch	0.02	-0.15 *	0.16	-0.01	-0.04	0.06 *	0.00	-0.01	0.08 **
	Jewish	0.09 ***	0.05 *	0.02	0.01	-0.05 ***	-0.05 **	0.04	-0.05	-0.08
	Portuguese	-0.22 ***	-0.19	-0.08	-0.33 ***	0.06	-0.03	0.04	-0.35 *	0.01
	Italian	-0.10 ***	-0.02	-0.07 ***	-0.04 ***	0.04 **	-0.03 **	0.05 *	0.05	0.05
	Greek	-0.09 **	-0.24 ***	-0.27 ***	-0.11 ***	-0.10 *	-0.18 ***	0.04	0.04	-0.14
	Chinese	-0.32 ***	-0.24 **	-0.19 **	-0.25 ***	-0.22 ***	-0.09 ***	-0.17 ***	-0.08 **	0.01
	S. Asian	-0.41 ***	0.40	-0.44 **	-0.07	-0.49 ***	-0.30 ***	-0.06	-0.02	-0.20 ***
	Black	-0.28 ***	-0.27 ***	-0.41 ***	-0.14 ***	-0.36 ***	-0.41 ***	-0.21 *	-0.31 **	-0.19 **
	Aboriginal	-0.19 ***	-0.14 ***	-0.18 ***	-0.25 ***	-0.34 ***	-0.87 ***	-0.41 ***	-0.40 ***	-0.68 ***

Notes: Variables in model include: 8 age cohorts, 12 dummies for schooling, 5 dummies for marital status, household size, and 3 dummies for official language ability.
Significance: ***: 0.01, **: 0.05,   *: 0.1.

Source: 1971, 1981, 1986, 1991 and 1996 census main base.

In Toronto, we see broadly similar patterns. French men earned significantly less than British men in 1971, but earned the same by 1996. Italian and Greek men earned less than British men in all three years. Chinese men earned 25 percent less than British men in 1971, but by 1996 earned only 9 percent less. The opposite trend is evident for black men. In 1971, they faced an earnings differential of –14 percent which grew to –41 percent by 1996. South Asians earned insignificantly less than British men in 1971, but by 1996 earned 30 percent less. Outcomes for Aboriginal men deteriorate drastically. The estimated coefficient dropped from –.25 in 1971 to –.87 in 1996.

In Vancouver, the time trends for the different ethnic groups are similar to those observed in Montreal and Toronto, but the magnitude of earnings differentials is smaller. On the whole, European ethnic groups do not tend to face earnings gaps compared to British men. French men faced a –3 percent earnings gap in 1971, but earned the same as British men by 1996. Among non-Europeans, we see some significant earnings differentials. Chinese men earned 17 percent less than British men in 1971, but by 1996 faced no earnings gap. Black men earned significantly less than British men throughout the period, facing earnings gaps of approximately –20 percent in both 1971 and 1996. Outcomes for South Asian and Aboriginal men deteriorated somewhat over the period. South Asian men faced no gap in 1971, but earned 20 percent less than British men in 1996. The estimated coefficients for Aboriginal men in 1971 and 1996 are –0.41 and –0.68 respectively.

Assessing the Visible-Minority Category

We show that the aggregate categories of white, visible minority, and Aboriginal hide some variability across their constituent subgroups. A number of European ethnic groups faced earnings gaps in each time period, a pattern that was hidden when examination was limited to looking at just the aggregate groups. Similarly, some visible-minority groups seem not to face labour market disadvantage. For example, Japanese-origin workers do not earn less

than British-origin workers in any year. We also find that different groups experience different degrees of earnings disadvantage depending on where they live. Thus, the groups that face earnings gaps in Montreal are not necessarily the same as those that face gaps in Vancouver.

Two questions emerge about the usefulness of the visible-minority category as an identifier of labour market disadvantage: How does it change over time and how does it vary across place? Thinking first about how the labour market performance of the groups comprising the visible-minority category changed over time, we saw in Table 3 that the pattern of disadvantage did change. In 1971, Arab, Japanese, and South Asian men were not disadvantaged at all. Spanish men were somewhat disadvantaged and Chinese and black men were very disadvantaged. At the time the *Employment Equity Act* was passed in 1986, Japanese men earned more than British-origin men. However, by 1996, Arab and South Asian men joined the disadvantaged groups while Chinese men faced no earnings disadvantage at the Canada-wide level. Given that in 1986 almost half of Canadian-born working-age, visible minorities were of Chinese or Japanese origin, this suggests that the visible-minority category is somewhat blunt. On the other hand, South Asians and blacks, who also comprise about half the population, face very large earnings differentials.

For women, the pattern is similar, but the magnitudes are smaller and the starting point is one of higher, rather than lower earnings. In 1971, only black women earned significantly less than white women, while Arab, Japanese, and Chinese women earned more. By 1996, Japanese and Chinese continued to earn more, but South Asian and black women earned significantly less than white women. This latter case may be evidence of a double negative.

One might think there is cause to develop a new categorization aimed at disadvantage that excludes Japanese- and Chinese-origin workers. However, examination of earnings disadvantage across CMAs

reveals that such a strategy may be ill-advised. In 1996, South Asian and black men faced substantial earnings disadvantage in Montreal, Toronto, and Vancouver. In contrast, Chinese men faced gaps in Montreal and Toronto, but not in Vancouver (where they are concentrated). Thus, the case for the bluntness of the category is partially driven by the heterogeneity of earnings differentials across cities. In Montreal and Toronto, the visible-minority category may adequately identify disadvantaged men. In Vancouver it may not. Considering that two-thirds of Canadian-born Chinese and Japanese workers are in Vancouver, this suggests to us that the ethnic composition of a city is important to the outcomes faced by minority workers (see also Pendakur and Pendakur 2002).

CONCLUSIONS

Previous research using data from the 1990s has shown that visible minorities and Aboriginal persons earn less than white workers, especially among men. Our goal in this paper is to show how these differentials have evolved over a long period of time using a consistent dataset and econometric methodology. We find that for both broad ethnic categories studied — Aboriginals and visible minorities — there was stasis or mild improvement in relative earnings compared to white workers between 1971 and 1981, stasis through 1991, and then decline in relative earnings between 1991 and 1996. This finding is broadly true for Aboriginal and visible-minority persons, regardless of sex or city of residence.

We find some important differences across sex. In particular, as noted in previous work (Baker and Benjamin 1995, Pendakur and Pendakur 1998), the pattern of earnings differentials among women is quite different from that among men. The earnings differentials faced by Aboriginal and visible-minority women in comparison with white women are smaller and sometimes positive. However, the pattern of erosion of relative standing over the 1990s

is evident among both men and women. We also find some important differences across our broad ethnicity categories. In particular, among both men and women, Aboriginals fare less well than visible minorities. This reinforces results from previous research (e.g., George and Kuhn 1994; Pendakur and Pendakur 1998).

From a policy perspective these findings are troubling. A decade after the implementation of employment equity programming, inequity is seen to be on the rise at the same time as larger and larger numbers of Canadian-born minorities can be seen entering the labour market. It appears that the labour market may be neither colour blind nor moving toward employment equity.

NOTES

The opinions expressed here are those of the authors and do not necessarily reflect those of the Department of Canadian Heritage.

[1]Researchers should note that the LMAS and SLID master files, which are available free of charge to academic researchers through the research data centres, have much better geographical information than the public-use files.

[2]For the same reason, we do not include hours of work, weeks of work, and full-time/part-time status.

[3]The 1971 long form was given to 33 percent of all households. In subsequent census periods, the long-form data were collected from 20 percent of households.

[4]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).

[5]The 1971 census question on schooling does not include a flag for high school. We therefore combine the categories for ten years of high school or more for 1971 through to 1996.

[6]For the purposes of Employment Equity, Aboriginal persons are people who claim any Aboriginal origin, regardless of other origins claimed. Thus, someone claiming both British and North American Indian origins is an Aboriginal person. Bill C32, which allowed people with Aboriginal ancestry to reclaim their Aboriginal rights, resulted in a substantial increase in Aboriginal reporting. Essentially, more people who would have reported European origins in 1986 reported Aboriginal origins in 1991 and 1996. The definition of a visible-minority person is someone who is non-Aboriginal and has at least one non-European origin (including British settler societies such as Canada, the United States, Australia, and New Zealand). White is defined as those people with only European origins. In 1971, only a single ethnic origin was collected from each respondent. We used this to define group status. Thus, the 1971 group status definition is the most restrictive, yielding smaller proportions of visible-minority and Aboriginal persons. There are visible-minority flag variables on the 1981, to 1996 censuses. We note that Statistics Canada imputes visible-minority status based on ethnic origin, as well as, religion, mother tongue, home language, and place of birth.

[7]We note that in 1971, only about 42 percent of the women in our sample were labour force participants. This rate rose greatly over the 25-year period studied. Unfortunately, adequate treatment of the participation decision is not possible with these Census data.

[8]We also ran these regressions including controls for weeks worked and full-time/part-time status, which are the only job characteristics that permit consistent definitions over time. These results are presented in the table below.

Clearly, including these controls does make a difference to the estimated earnings differentials. For Aboriginal women, the earnings differentials that control for weeks and full-time status, show a pattern of increased earnings disadvantage over time, with the dif-

ferential going from +2 percent in 1971 to –2 percent in 1981 to –6 percent in 1996. Compared with the results from Table 2, the pattern over the 1970s is different, but the pattern between 1981 and 1996 is similar, though smaller in magnitude. Turning to visible-minority women, the pattern of declining relative earnings outcomes over the entire period shows up even when these new controls are added. Considering Aboriginal men, the pattern is of large persistent earnings differentials even with these additional controls. However, the differentials are smaller in absolute size, suggesting that part of the differentials faced by Aboriginal men is accounted for by differences in weeks and hours worked. Finally, adding these additional controls makes essentially no difference for visible-minority men between 1971 and 1991, but the large increase in the differential in 1996 seen in Table 2 is somewhat attenuated.

[9]In 1971, only a single ethnic origin was collected. In 1981, although only one ethnic origin was solicited, it was possible to provide two responses, both of which would be collected. Thus, 1981 represents a transition year for the collection of ethnic origin data.

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