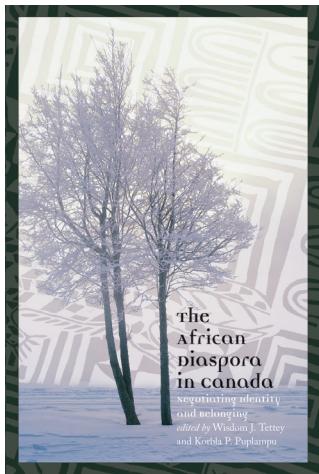# University of Calgary Press

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THE AFRICAN DIASPORA IN CANADA: NEGOTIATING IDENTITY & BELONGING
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SECTION III
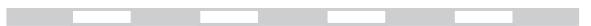
The Socio-Economic Context & Contests
of the African-Canadian Experience

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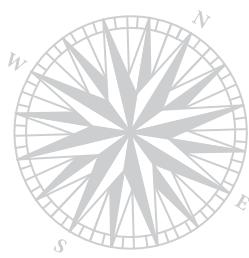
AFRICAN IMMIGRANTS & THE LABOUR MARKET:
Exploring Career Opportunities, Earning
Differentials, & Job Satisfaction[1]

Samuel A. Laryea and John E. Hayfron

INTRODUCTION

PRIOR TO 1961, the number of Africans immi-
grating to Canada was a mere trickle, under
5,000 per year. After 1970, however, the num-
ber of African immigrants arriving in Canada each
year increased dramatically. For example, during
the period 1971–2001, the number of African im-
migrant arrivals increased from 54,600 to 139,770,
bringing the number of immigrants of African
origin in Canada to 282,600 as of 2001.[2] The in-
creasing flow of immigrants into Canada from
countries in Africa, as well as from the other devel-
oping countries, was a result of changes in Canada's
immigration policies.[3] Canada's pre-1967 immigra-
tion policies, shaped by the 1953 *Immigration Act*,
were essentially discriminatory. This is because
the 1953 act gave preferences to citizens of the so-
called *desirable* source countries, namely the United
Kingdom, other West European countries, and the
United States. Thus, individuals from these geo-
political regions could easily immigrate to Canada

without necessarily being screened on the basis of educational qualifications, work experience, language fluency, etc.

In 1967, Canada introduced the *points system*, making it possible for individuals with the needed skills, regardless of the country of origin, to immigrate to Canada. This change in immigration policy was necessitated by the need to recruit skilled workers for employers in the Canadian labour market. In addition, the new *Immigration Act of 1978* also established three entry gates under which immigrants could be admitted into Canada. These were the family class, the refugee class, and a composite class involving independent applicants, entrepreneurs, and assisted relatives.

Canada increasingly relies on immigration as a source of skills and knowledge. Using data from the 2001 census, Statistics Canada reports that immigrants who landed during the 1990s and were in the labour force in 2001 account for 70 percent of the net labour force growth in Canada during 1991–2001. By the year 2011, 100 percent of the net labour force growth in Canada will emanate solely from immigration (Statistics Canada-Cat. No. 11-001-XIE, The Daily, 11 February 2003). We expect a much bigger contribution from Africa if the current trend in immigration from the African continent continues. Of course, the push factor is partly tied to the deteriorating economic conditions in several African countries, while the pull factor is also partly tied to the perceived economic opportunities in Canada. Thus, a key question is whether African-born immigrants are performing better or more poorly in the Canadian labour market. This question is somewhat difficult to answer, given the scanty information about the economic performance of African immigrants in this market.

Apart from Grant (1999), who mentioned in a footnote that African-born immigrants in Canada experience a high rate of earnings growth (assimilation), previous studies have either made inferences about the economic performances of African immigrants using information on the performances of the entire group of Black immigrants in Canada, or have mentioned them only in passing while discussing the labour market performances of visible minorities in Canada. However, as shown in studies done elsewhere (see, for example, Dodoo 1997; Butcher 1984), African/Black immigrants are a heterogeneous group with differences in culture, skills, and labour market activities. Therefore, using a dummy variable, *visible minority*, in a regression analysis to capture earnings differentials between African-born immigrants and native-born Canadians would lead to a mis-specification of the earnings equation. It should also be noted that while all groups are heterogeneous, including the African-born immigrant population in Canada, the finer the category, the better.

In the United States, where there is a large population of immigrants of African origin, a number of recent studies (e.g., Dodoo 1991, 1997; Butcher 1984), have attempted to predict the economic performances of African immigrants in the American labour markets. For example, Dodoo's findings indicate

that despite their higher educational attainment, the average African immigrant in the United States receives little, if any, premium for his/her education compared to Caribbeans or their native-born African-American counterparts. The findings of the American studies add to our curiosity, hence our efforts to ascertain how African-born immigrants are faring in the Canadian labour market.

Our aim in this interdisciplinary research effort is to examine the labour market performance of African immigrants from an economic perspective, measured in terms of earnings and occupational attainments. To have a meaningful measure of the labour market performances of African-born immigrants, we must identify a reference group for comparative purposes. For this reason, we use native-born Canadians as our reference group. In other words, we examine the data to ascertain whether earnings and occupational distributions differ for African-born immigrants and native-born Canadians with similar measurable skills in the labour market, circa 1991–96. We also distinguish African immigrants from the others (including Caribbean immigrants).

The chapter is organized as follows. We proceed with a descriptive analysis of the key variables of interest in the next section. This is followed by a discussion of the results from the regression analysis. Issues pertaining to occupational attainment and job satisfaction are then explored, leading to an outline of some policy prescriptions in the conclusion.

DESCRIPTIVE STATISTICS

We employ data from the 1991 and 1996 Canadian censuses, public use microdata files, to ascertain the performance of African immigrants in the labour market vis-à-vis Canadian-born workers and other immigrant groups. Census data have some limitations in correctly identifying various ethnic/immigrant groups. For example, peoples' recollection and construction of their ethnic and cultural background could be subjective. Despite methodological problems, census questions (on ethnic origin, visible minority, language, and so on) that are used to identify various immigrant groups remain a powerful tool in describing the changing landscape of ethnocultural and linguistic diversity in Canada (Bourhis 2003). Table 6.1 presents the distribution of average earnings, by gender, of African-born immigrants, the other immigrant groups, and native-born Canadians.

In 1996, African immigrant men working full-time earned $30,828 on average, compared to $26,317 for Asians, $36,354 for U.S./Europeans, $27,666 for Caribbean/Latin Americans, and $33,119 for native-born Canadians. Contrary to our expectation, African immigrant women working full-time earned slightly more on average than their Canadian-born counterparts; $25,274 compared to $24,471. Earnings for Asian women, Caribbean/Latin American women,

Table 6.1 Earnings of African Immigrants, Other Immigrants, and
Canadian-Born Workers, 1996

Annual Earnings	Africans	Asians	Caribbean & Latin America	U.S. & Europe	Canadian Born
Men	$30,828.7	$26,317.2	$27,666.3	$36,354.6	$33,119.5
Women	$25,274.8	$20,150.3	$22,446.9	$25,304.5	$24,471.4
Total (both sexes)	$28,750.5	$23,563.2	$25,207.5	$32,103.1	$29,461.3

Source: Authors' calculations based on the 1996 Canadian census data, Public Use
Microdata Files.

and U.S./European women were $20,274, $22,446, and $25,304, respectively. However, when one considers the total population as a whole, that is, both men and women together, African immigrants working full-time earned less on average than Canadian-born workers; $28,750 compared to $29,461. The relevant questions are: Why do the native-born Canadians earn more on average than African-born immigrants in the Canadian labour market? Do the native-born Canadians have more human capital (level of education and work experience) than African-born immigrants? Do the occupational distributions differ for the native-born Canadians and African-born immigrants? These are some of the key questions we set out to address in the remainder of this chapter. To be able to answer them, we begin with a descriptive analysis of the 1996 census data (descriptive statistics of the 1991 data are not reported here, but can be obtained from the authors upon request).

Table 6.2 presents the distributions of educational levels of African immigrants, Asian immigrants, U.S./European immigrants, Caribbean/Latin American immigrants, and the Canadian-born men and women. In 1996 a higher proportion (56%) of African-born male immigrants possessed a bachelor's degree or higher, compared to 45 percent of Asian men, 26.7 percent of Caribbean/Latin American men, 29.8 percent of U.S./European men, and 26.6 percent of native-born Canadian men. Considering the men with less than a high school diploma, we find that 8.5 percent of African immigrant men have less than a high school diploma compared to 23.1 percent of Asians, 24.7 percent of Caribbean/Latin Americans, 23 percent of U.S./Europeans, and 23.7 percent of Canadian-born men.

Focusing on the women, the sample statistics show that a higher proportion (46%) of African women possessed a bachelor's degree or higher in 1996, compared to 41.3 percent of Asians, 24.8 percent of Caribbean/Latin Americans, 31.3 percent of U.S./Europeans, and 31.2 percent of the Canadian-born women. Just like their male counterparts, fewer female African immigrants (9.7%) have less than a high school education, compared to 23.7 percent of Asians, 20.1

Table 6.2 Highest Level of Schooling for African Immigrants, Other Immigrants, and All Canadians, 1996

	Africans	Asians	Caribbean & Latin American	U.S. & European	Canadian Born
MEN					
Less than high school (%)	8.51	23.11	24.70	22.94	23.65
High school certificate (%)	9.42	11.08	13.15	10.15	15.26
Trades certificate (%)	3.05	1.96	4.64	6.81	5.51
Other non-university (%)	23.45	18.90	30.80	30.32	28.94
University (%)	55.57	44.96	26.70	29.78	26.63
N	1,868	9,685	4,052	18,464	26,846
WOMEN					
Less than high school (%)	9.67	23.69	20.11	22.16	16.54
High school certificate (%)	12.83	13.10	13.73	14.87	17.89
Trades certificate (%)	2.88	1.64	4.07	3.50	2.95
Other non-university (%)	28.90	20.23	37.34	28.18	31.44
University (%)	45.72	41.34	24.75	31.28	31.18
N	1,076	7,814	3,540	11,588	18,332

Source: Authors' calculations based on the 1996 Canadian census data, Public Use Microdata Files.

Notes:

1. This and all following tables restrict the sample to ages 16–64.
2. In addition, the sample pertains to full time workers, excluding residents of the Atlantic provinces.
3. A 20 percent sample was used for the Canadian-born population.

percent of Caribbean/Latin Americans, 22.2 percent of U.S./Europeans, and 16.5 percent of Canadian-born women. By all accounts, African-born immigrants have a higher level of education than either the native-born Canadians or the other immigrant groups.

Having examined the educational distribution of the African immigrants, we now turn to their occupational distribution. As shown in Table 6.3, African immigrants are well represented in all the occupational categories or skill levels. Our interest is in knowing what proportion of the highly qualified, African-born immigrants are employed in professional or managerial positions (Skill level IV) relative to native-born Canadians with the same level of education.

As can be observed in Table 6.3, 43.4 percent of African-born immigrant men are employed in high-skilled occupations (skill level IV), compared to 29.1 percent of Asian men, 30.8 percent of U.S./European men, 19 percent of Caribbean/Latin American men, and 25.3 percent of Canadian-born men. The distribution in the low-skilled occupation (skill level I) shows that 8.4 percent

Table 6.3 Occupational Distribution of Men and Women Aged 20–64

Occupations	Africans	Asians	Caribbean & Latin America	U.S.A. & Europe	Canadian Born
MEN					
Skill Level IV (%)	43.42	29.09	19.03	30.77	25.29
Skill Level III (%)	22.48	26.7	29.1	36.36	34.28
Skill Level II (%)	25.7	31.79	37.61	23.15	29.91
Skill Level I (%)	8.4	12.42	14.26	9.72	10.52
WOMEN					
Skill Level IV (%)	32.06	19.81	19.12	26.35	26.52
Skill Level III (%)	22.03	18.44	19.38	25.79	26.92
Skill Level II (%)	36.34	45.89	46.78	37.02	37.98
Skill Level I (%)	9.57	15.86	14.72	10.83	8.58

Source: Authors' calculations Based on the 1996 Canadian Census, Public Use Microdata Files.
Notes:
1. Level IV Occupations: Senior Managers; Middle and other Managers; Professionals.
2. Level III Occupations: Semi-professional and Technicians; Supervisors; Foremen/women; Administrative and Senior Clerical; Sales and Service.
3. Level II Occupations: Clerical Workers; Sales and Service; Semi-skilled Manual Workers.
4. Level I Occupations: Sales and Service; Other Manual Workers.

of African immigrant men are employed in low-skilled occupations, compared to 12.4 percent of Asian men, 9.7 percent of U.S./European men, 14.3 percent of Caribbean/Central American men, and 10.5 percent of Canadian-born men.

Considering the distribution for women, Table 6.3 shows that 32.1 percent of African-born immigrants are employed in high-skilled occupations, compared to 19.8 percent of Asians, 19.1 percent of Caribbean/Latin Americans, 26.4 percent of U.S./Europeans, and 26.5 percent of native-born Canadians.

Similarly, 9.6 percent of African-born immigrants are employed in low-skilled occupations (skill level I), compared to 15.9 percent of Asians, 10.8 percent of U.S./Europeans, 14.7 percent of Caribbean/Latin Americans, and 10.5 percent of the Canadian born. The descriptive analysis of the raw data provides useful information about the distribution of earnings and human capital endowments among the immigrant groups and the native-born Canadians. For example, the analysis shows that despite the fact that African-born immigrants, particularly men, have a higher average level of education and work in high-skilled occupations, they still earn less than the native-born Canadians.

Nevertheless, it should be noted that the descriptive statistics only provide a partial explanation for why observed earnings differ for African-born immigrants and native-born Canadians in the Canadian labour market. For this reason, we employ a multivariate framework to analyze the earnings disparities more formally.

REGRESSION RESULTS

The pooled regression for immigrants and the Canadian born and the data used to estimate the earnings function are discussed in the appendix. In what follows, we interpret the results from the multiple regression analysis. The estimated coefficients from both the reduced model and the full model and t statistics are reported in Table 6.4a (columns 1–3).

Overall, most of the estimated coefficients are of the expected signs and have t statistics that are statistically significant at conventional levels (1% and 5%).

Beginning with the estimated earnings function for men aged 20–64, the results in column (1) show that the coefficient estimates of all the region of origin dummy variables except for U.S./European have negative signs and are statistically different from zero. For example, the coefficient of the African dummy variable (–0.126) implies that African-born male immigrants earn, on average, 12.6 percent less than Canadian-born men. As expected, male immigrants from Europe and the United States earn 11.4 percent more than Canadian-born men on average. The coefficients of the remaining region of origin dummy variables can be interpreted in a similar fashion. It is not clear what the region of origin dummy variables are capturing. However, if region of origin plays an important role in earnings determination in Canada, then the significantly negative coefficient of the African dummy variable will imply a kind of discrimination. Of course, the argument for discrimination is not strong, since we have not controlled for other socioeconomic variables.

In column 3, we introduce the interaction terms in addition to the socio-economic variables. Before we discuss the estimated coefficients of the interaction terms, we discuss briefly the estimated rate of return to some key variables of interest. The results in column 3 show that the rate of return to potential experience for an average immigrant is 3.2 percent in the first year and 2.9 percent after five years. This is consistent with the human capital theory, which holds that earnings rise with experience at a diminishing rate. The cohort dummy variables measure the earnings penalty experienced by newly arrived immigrants, while the years since migration (*YSM*) variable measures the return to length of stay in Canada. For example, immigrant men who arrived in Canada between 1991 and 1996 earned 29.7 percent less than those counterparts who arrived before 1955 (*the reference category*). However, the earnings of these immigrants are predicted to increase by 1.3 percent with an

Table 6.4a Regression Results for Annual Earnings, Immigrants and Canadian-Born Men, Pooled 1991 and 1996 Data

	(1)		(2)		(3)	
Variable	ESTIMATE	T-VALUE	ESTIMATE	T-VALUE	ESTIMATE	T-VALUE
Intercept	10.298	2,531.53	6.268	223.57	6.274	219.79
Region of origin – *Canadian born (reference)*						
U.S./Europeans	0.114	18.27	–0.129	–3.93	–0.123	–3.67
Africans	–0.126	–30.24	–0.173	–4.80	–0.225	–5.07
Asians	–0.249	–30.24	–0.206	–5.87	–0.228	–6.31
Caribbean/Latin Americans	–0.226	–20.03	–0.182	–5.19	–0.195	–5.30
Others	–0.283	–16.15	–0.196	–5.40	–0.221	–5.27
Education – *High school or less (reference)*						
Trades			0.102	10.57	0.087	6.30
Post–secondary education			0.128	24.13	0.127	16.66
University BA			0.268	32.90	0.255	21.60
University MA			0.336	32.18	0.337	20.09
University Ph.D.			0.481	24.91	0.321	7.23
Experience			0.032	43.14	0.032	43.14
Experience squared			–0.00053	–35.42	–0.00054	–35.48
Married			0.146	28.91	0.145	28.81
Years since migration (YSM)			0.014	6.90	0.013	6.76
YSM squared			–0.00022	–5.38	–0.00022	–5.26
Visible minority			–0.109	–9.11	–0.107	–8.86
Year of immigration – *Before 1955 (reference)*						
Cohort 1956–60			–0.049	–3.05	–0.049	–3.03
Cohort 1961–65			–0.048	–2.29	–0.049	–2.33
Cohort 1966–70			–0.052	–2.28	–0.053	–2.29
Cohort 1971–75			–0.057	–2.26	–0.057	–2.25
Cohort 1976–80			–0.067	–2.47	–0.066	–2.40
Cohort 1981–85			–0.077	–2.68	–0.075	–2.59
Cohort 1986–90			–0.164	–5.36	–0.163	–5.34
Cohort 1991–96			–0.297	–8.83	–0.297	–8.83
Language ability – *Neither English nor French (reference)*						
English only			0.081	4.66	0.076	4.28
French only			–0.006	–0.32	–0.012	–0.60
Both English and French			0.080	4.32	0.076	4.02
Log of weeks worked			0.853	163.57	0.853	163.52
Hours worked – *40–44 hours (reference)*						
30–39 hours			0.007	1.07	0.007	1.07
45 hours or more			0.068	13.59	0.069	13.64

Table 6.4a (continued)

Other CMAs and non–CMA (reference)				
Montreal		−0.051	−6.44	−0.051	−6.49
Toronto		0.105	18.84	0.105	18.83
Vancouver		0.076	9.64	0.077	9.72
Census time period – *Census 1991 (reference)*				
Census 1996		−0.055	−11.29	−0.055	−11.26
Interactions terms – *Canadian born* all education levels (reference)*				
U.S./European* trade				0.023	1.08
U.S./European* PSE				−0.011	−0.95
U.S./European* university BA				0.004	0.23
U.S./European* university MA				−0.042	−1.86
U.S./European* university Ph.D.				0.166	3.28
African* trade				0.018	0.24
African* PSE				0.039	1.11
African* university BA				0.081	1.99
African* university MA				0.124	2.54
African* university Ph.D.				0.207	2.27
Asian* trade				0.135	3.18
Asian* PSE				0.018	1.11
Asian* university BA				0.032	1.66
Asian* university MA				0.042	1.56
Asian* university Ph.D.				0.224	3.66
Caribbean/Latin American* trade				−0.048	−1.09
Caribbean/Latin American* PSE				0.009	0.44
Caribbean/Latin American* university BA				0.070	2.15
Caribbean/Latin American* university MA				0.032	0.73
Caribbean/Latin American* university Ph.D.				0.345	3.30
Sample size (N)	109362	109362		109362	
R – squared	0.022	0.389		0.389	

Sources: Canadian census data, Public Use Microdata Files, 1991 and 1996.

Notes: 1. Dependent Variable = Natural Log of Annual Earnings.
  2. The sample is based on individuals aged 20–59 years in 1991 and 25–64 in 1996, working full–time. The full immigrant sample was used, as opposed to 20 percent for the Canadian–born population.
  3. The regression also controls for occupation and the industry of employment. Full regression estimates are available upon request from the authors.

Table 6.4b   Regression Results for Annual Earnings, Immigrants and Canadian-Born
             Women, Pooled 1991 and 1996 Data

	(1)		(2)		(3)	
Variable	ESTIMATE	T-VALUE	ESTIMATE	T-VALUE	ESTIMATE	T-VALUE
Intercept	9.937	2044.57	5.882	192.24	5.850	186.04
Region of origin – *Canadian born (reference)*						
U.S./Europeans	0.023	2.97	–0.135	–3.30	–0.119	–2.87
Africans	–0.025	–1.21	–0.108	–2.41	–0.115	–2.17
Asians	–0.201	–21.68	–0.126	–2.92	–0.106	–2.40
Caribbean/Latin Americans	–0.121	–9.98	–0.144	–3.34	–0.133	–2.98
Others	–0.185	–7.92	–0.150	–3.32	–0.156	–3.04
Education – *High school or less (reference)*						
Trades			0.038	2.65	0.058	2.78
Post–secondary education			0.119	19.44	0.129	14.76
University BA			0.284	31.05	0.321	24.57
University MA			0.358	28.46	0.418	21.22
University Ph.D.			0.519	13.38	0.533	6.50
Experience			0.024	29.61	0.024	29.74
Experience squared			–0.00044	–25.05	–0.00045	–25.19
Married			0.005	0.95	0.005	0.94
Years since migration						
(YSM)			0.014	6.16	0.015	6.25
YSM squared			–0.00024	–4.87	–0.00025	–4.90
Visible minority			–0.052	–3.75	–0.052	–3.72
Year of immigration – *Before 1955 (reference)*						
Cohort 1956–60			–0.059	–2.89	–0.059	–2.91
Cohort 1961–65			–0.072	–2.79	–0.071	–2.75
Cohort 1966–70			–0.064	–2.23	–0.060	–2.10
Cohort 1971–75			–0.084	–2.63	–0.080	–2.51
Cohort 1976–80			–0.079	–2.30	–0.075	–2.20
Cohort 1981–85			–0.115	–3.18	–0.111	–3.08
Cohort 1986–90			–0.139	–3.66	–0.133	–3.49
Cohort 1991–96			–0.267	–6.42	–0.258	–6.21
Language ability – *Neither English nor French (reference)*						
English only			0.104	6.10	0.114	6.54
French only			0.0005	0.02	0.013	0.66
Both English and French			0.124	6.68	0.133	7.02
Log of weeks worked			0.855	161.5	0.855	161.46
Hours worked – *40–44 hours (reference)*						
30–39 hours			0.046	8.10	0.047	8.25
45 hours or more			0.081	10.6	0.080	10.50

Table 6.4b   (continued)

Other CMAs and non–CMA (reference)				
Montreal	0.00083	0.09	–0.0003	–0.03
Toronto	0.174	27.74	0.173	27.39
Vancouver	0.130	14.45	0.128	14.24
Census time period – Census 1991 (reference)				
Census 1996	–0.004	–0.76	–0.005	–0.87
Interactions terms – Canadian born* all education levels (reference)				
U.S./European* trade			–0.029	–0.90
U.S./European* PSE			–0.028	–2.12
U.S./European* university BA			–0.056	–2.79
U.S./European* university MA			–0.065	–2.44
U.S./European* university Ph.D.			–0.004	–0.04
African* trade			–0.152	–1.62
African* PSE			0.009	0.24
African* university BA			–0.004	–0.07
African* university MA			–0.026	–0.40
African* university Ph.D.			–0.086	–0.37
Asian* trade			–0.072	–1.41
Asian* PSE			–0.0003	–0.02
Asian* university BA			–0.081	–3.84
Asian* university MA			–0.175	–5.18
Asian* university Ph.D.			–0.043	–0.34
Caribbean/Latin American* trade			0.030	0.59
Caribbean/Latin American* PSE			–0.015	–0.75
Caribbean/Latin American* university BA			–0.071	–1.99
Caribbean/Latin American* university MA			–0.098	–1.89
Caribbean/Latin American* university Ph.D.			–0.002	–0.01
Sample size (N)	78243		78243	78243
R – squared	0.008		0.424	0.424

Notes: 1. Dependent Variable = Natural Log of Annual Earnings.
2. The sample is based on individuals aged 20–59 years in 1991 and 25–64 in 1996, working full-time. The full immigrant sample was used as opposed to 20 percent for the Canadian-born population.
3. The regression also controls for occupation and the industry of employment. Full regression estimates are available upon request from the authors.

extra year of residence in Canada, implying that the initial adjustment costs in adapting to conditions in the Canadian labour market dissipate over time.

The pooled regression presupposes that the socioeconomic characteristics, such as education, potential experience, et cetera, are the same for native-born Canadians and immigrants. In this case, the statistically significant coefficients of the interaction terms *(country of origin * educational level)* are of interest to us, since they measure the earnings differentials between native-born Canadians and immigrants across educational levels. For example, the results show that the estimated return to a bachelor's degree is 25.5 percent for Canadian-born men, 13.6 percent for U.S./European immigrant men, 11.1 percent for African immigrant men, 5.9 percent for Asian immigrant men, and 13 percent for Caribbean/Latin American immigrant men. The estimated return for a master's degree is 33.7 percent for Canadian-born men, 17.2 percent for U.S./European immigrant men, 23.6 percent for African immigrant men, 15.1 percent for Asian immigrant men, and 17.4 percent for the Caribbean/Latin American immigrant men. Similarly, the estimated return for a doctorate is 32.1 percent for Canadian-born men, 36.4 percent for U.S./European immigrant men, 30.3 percent for African immigrant men, 31.7 percent for Asian immigrant men, and 47 percent for Caribbean/Latin American immigrant men.

Comparing African-born immigrant men to native-born Canadian men, we find that the estimated returns to university degrees for African-born immigrant men are smaller relative to that of their Canadian-born counterparts. However, the differential rate of return narrows with increases in educational qualifications. For example, African immigrants with a bachelor's degree earn 14.4 percent less than the Canadian born with the same level of education. They earn 10.1 percent less and 1.8 percent less than their Canadian-born counterparts at the master's and doctorate degree levels, respectively. This finding is consistent with the finding in Dodoo (1991), which suggests a lower return to education for African immigrant men in the United States.

Table 6.4b shows the results for women. Women also receive positive returns (2.4%) to potential experience and length of stay in Canada (1.5%). Considering the interaction terms, the results show that the estimated return for a bachelor's degree is 32.1 percent for Canadian-born women, 14.6 percent for U.S./Europe, 20.2 percent for African-born immigrants, 13.4 percent for Asian immigrants, and 21.8 percent for the Caribbean/Central American immigrants. The estimated return for a master's degree is 41.8 percent for the Canadian born, 23.4 percent for U.S./European immigrants, 27.7 percent for African immigrants, 13.7 percent for Asian immigrants, and 18.7 percent for the Caribbean/Latin American immigrants. The estimated return for a doctorate is 53.3 percent for the Canadian born, 41.4 percent for U.S./European immigrants, 33.2 percent for African immigrants, 38.4 percent for Asian immigrants, and 39.8 percent for Caribbean/Latin American male immigrants,

respectively. Unlike their male counterparts, the differential returns to the highest level of education between African-born female immigrants and their Canadian-born counterparts increases with the level of education.

OCCUPATIONAL ATTAINMENT AND JOB SATISFACTION

In this section, we examine the individual occupational attainments for two major reasons. First, it is consistent with the human capital model that suggests a positive relationship between occupation and earnings. Second, we assume that an individual derives some degree of job satisfaction if his or her skills are properly matched to the job or occupation he or she is in. For example, an individual with an engineering degree will have a higher level of job satisfaction if they are employed as an engineer than if they work as a taxi driver.

The first assumption is captured by the inclusion of occupation dummy variables in the earnings function. The second assumption, individual job satisfaction, is psychological in nature and does not lend itself readily to direct measurement. However, we can use the odds ratio derived from the estimated coefficients in the logistic regression to make inferences about individual occupational attainments. If the odds ratio for any of the explanatory variables is greater than one, this would imply that a unit change in that variable increases the odds of an individual being employed in a specific occupational category. On the other hand, if the odds ratio is less than one, a unit change in the explanatory variable decreases the odds of an individual being employed in this particular occupational category.[4] For the purposes of our investigation, we define the odds ratio as the probability of an individual being in a high-skilled occupation divided by the probability of an individual not being in this particular occupational category.

Moreover, by comparing the odds ratios calculated for the various ethnic groups, we will, at least, be able to answer the question of whether or not African-born immigrants and Canadian-born individuals with similar observable skills have equal probabilities of finding employment in high-skilled occupations. We focus mainly on the occupational attainments of university graduates. This is not to suggest that non-degree holders are not important. However, it should be easier to document the existence of underutilization of immigrant skills if we concentrate on high-skilled individuals than on low-skilled individuals.

The calculated odds ratios are depicted in Table 6.5 for both men and women. Table 6.5 shows that the probability of employment in the high-skilled occupations differs for the male African-born immigrants, as well as the other ethnic groups. For example, an African-born immigrant with a university degree obtained at any level is less likely to work in a high-skilled occupation. In particular, the odds ratios for master's and doctorate degree holders are particularly low; 0.29 for master's degrees and 0.39 for doctorate holders.

Table 6.5 Odds Ratios of Being in Skill Level IV Occupations, Men and Women Aged 20–64

	USA/Europe	Africans	Asians	Caribbean/Central America
MEN				
BA	0.95	0.44	0.58	1.28
MA	0.68	0.29	0.43	0.79
PhD	1.08	0.39	1.18	1.115
WOMEN				
BA	0.91	0.55	0.45	0.91
MA	0.76	0.63	0.41	0.96
PhD	0.63	0.15	0.62	1.1

Similarly for women, Table 6.5 indicates that African-born immigrant women with doctorates are less likely to work in a high-skilled occupation.

The calculated odds ratios are also smaller for Asian women (0.14) and U.S./European women (0.6). On the whole, Caribbean/Latin American immigrant women tend to perform better in terms of employment in high-skilled occupations. Based on the calculated odds ratios, we argue that since the likelihood of working in a high-skilled occupation is relatively low for African immigrants, they are more likely to be in less-skilled and lower paying occupations. This may offer a partial explanation for why the observed average earnings are lower for African immigrants than for their Canadian-born counterparts.

DISCUSSION

The main conclusions from the previous two sections are that there are significant earnings gaps between African-born immigrants and their Canadian-born counterparts. This occurs even though African-born immigrants tend to have a higher level of education than their Canadian-born counterparts.

Second, African-born immigrants are less likely to be employed in a high-skilled occupation, implying an underutilization of their skills. This may partly explain the low returns on their education. Previous studies in Canada seem to suggest the existence of race-based barriers in the Canadian labour market. The type of barrier varies by gender and racial origin of immigrants (Li 2000). The oft-cited barrier has to do with the non-recognition of foreign credentials, as well as with employment discrimination against visible minorities with identifiable linguistic and racial features (Henry and Ginzberg 1985; Scassa 1994; Pendakur and Pendakur 1998).

Furthermore, our analysis also produced some interesting findings worth investigating in future research. For example, Asian immigrant men seem to do better or have better odds in working in high-skilled occupations than African immigrant men with similar characteristics, while the reverse holds for women. In addition, Caribbean/Latin American-born female and male immigrants have greater odds of working in high-skilled occupations compared to their African-born counterparts (See Table 6.5). It is not very clear what drives these results, and we are hesitant to speculate, because it is beyond the scope of this chapter. Moreover, our focus here is to compare African immigrants to their Canadian-born counterparts.

CONCLUSIONS AND POLICY IMPLICATIONS

According to the human capital theory, because people's abilities and productivities differ, they have different earnings potentials. Individual productivities depend on the amount of human capital accumulated over time through formal schooling and on-the-job training. This implies that the more human capital accumulated, the higher the returns or earnings.

Based on the human capital theory, we examined the labour market outcomes (earnings and occupational attainments) of immigrants of African origin, Asian origin, U.S./European origin, and Caribbean/Latin American origin, using native-born Canadians as our reference group. We did this analysis for men and women working full-time and aged 20–64.

The analysis shows that the returns to education are consistent with the human capital theory, since for each immigrant group, as well as for the Canadian born, the predicted earnings tended to rise with level of education. However, human capital theory failed to explain why African-born immigrants earned less, on average, than Canadian-born individuals with the same level of education. The popular explanation given in most studies (see Basavarajappa and Verma 1985; Basran and Zong 1998; Rajagopal 1990) for the observed differential returns to education is the immigrants' inability to transfer their skills from the countries of origin to the Canadian labour market. While we are unable to distinguish between pre- and post-migration education in our data, it is plausible to argue that where one obtained his or her education is important in such an analysis. We also found that the differences in the returns to education in the Canadian labour market are both ethnic- and gender-specific. Evidence exists that female immigrants in the Canadian labour market experience a double earnings penalty (see Beach and Worswick 1993; Shamsuddin 1998).

What implications do our findings have for public policy? Our findings suggest that there will be an economic gain for Canada if the federal and provincial governments take adequate steps to address the issue regarding foreign credential recognition.[5] In other words, this will reduce the amount of skill under-utilization or *brain waste*, especially among Africans, in the economy. A

similar argument has been made in several studies, including Mensah (2002) and Reitz (2001). Reitz (2001), for example, argues that the costs of skill underutilization, which includes non-recognition of foreign credentials, amounted to 10.9 billion dollars as of 1996.

The challenge, however, will be to bring the professional bodies, trade associations, employer associations, and provincial governments together around the same table to map out a solution as different interests and jurisdictional issues are involved. Secondly, the federal government, working with the professional bodies and the provinces, can also institute skills-bridging programs for African immigrants. Such programs can assist African immigrants to acquire the necessary Canadian work experience whilst simultaneously upgrading their skills.

Finally, foreign credential recognition, though important, is just one of many barriers to the economic integration of African immigrants. Emphasis should also be placed on social capital acquisition, especially the bridging type. As Kunz (2003, 34) contends, "bridging capital is essential for immigrants to expand their networks beyond their own ethnic community and to acculturate into the receiving society." This exposes them to more social and economic opportunities.

APPENDIX

I. The Data

The data used in this analysis came from the 1991 and 1996 Canadian censuses, respectively. The sample selection was restricted to individuals aged 20–59 from the 1991 sample, and 25–64 from the 1996 sample, respectively. These individuals worked full-time and were neither students nor residents of the Atlantic Provinces, which were excluded from the sample because the year of immigration variable was coded differently compared to the other provinces. Moreover, very few African immigrants live in the Atlantic Provinces.

For the African-born sample, we used the place of birth variable, POBP (values = 29 to 30 in the 1996 census and value = 26 in the 1991 census), to identify the African immigrant population. The other immigrant groups were also selected using the place of birth variable. We also randomly selected 20 percent of the native-born Canadians (non-immigrant sample) to be used as a reference group in the analysis. All the observations with missing information were excluded from the analysis. These restrictions resulted in a working sample of 1,868 for African immigrant men, 26,846 Canadian-born men, 1,076 African immigrant women, and 18,332 Canadian-born women.

The variables included place of birth (Origin), age, highest level of schooling (Educ), marital status (1 = married), years since migration (YSM), years since migration squared, visible minority status, year of immigration,

language ability (= 1 if individual speaks both English and French), occupational categories, annual earnings, logarithm of weeks worked, hours worked, census time period (D_{1996}) (= 1 if individual belonged to 1996 sample), and census metropolitan area (CMA). The CMA was set equal to one if the individual was a resident of Montreal, Toronto, or Vancouver. In the absence of actual work experience, we computed potential experience (Exp) as *age – years of schooling – 6*.

II. Earnings Equation

In order to predict the earnings differentials between African immigrants and the Canadian born, we estimated the following pooled regression for immigrants and Canadian-born men and women,

(1) -
$$LnEarn = \alpha_0 + \beta_1 Educ + \beta_2 Exp + \beta_3 Expsq + \beta_4 YSM + \beta_5 YSMSQ + \delta Origin + D_{1996} + \beta_i Z + u.$$ -

Where the natural logarithm of earnings (LnEarn) is regressed on the traditional human capital variables, such as education (Educ) dummy variables, potential experience (Exp), potential experience squared (ExpSq), years since migration (*YSM*), and years since migration squared (YSMSQ). We also included cohort-specific dummy variables (Cohort), meant to capture the quality of arrival cohort (see Borjas 1985), region of origin (origin), marital status, visible minority status, language ability, and a host of other socio-economic variables (*Z*). The error term is *u*.

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NOTES

1   The views expressed in this chapter are those of the authors, and should not be attributed to Human Resources and Skills Development Canada or the Government of Canada.

2   See Statistics Canada, Catalogue No. 97F0009XCB011002, 2003.

3   The influx of African immigrants to Canada was influenced, not only by favourable immigration policies in Canada (pull factors), but also by push factors. These include the deteriorating economic and political conditions on the African continent. In addition, wars between rival factions in countries such as Somalia have also fueled the African refugee population in Canada.

4   The odds ratios are calculated from the estimated coefficients from the logistic regression. This classification is based on the 1991 Standard Occupational Classification (SOC).

5   We must say that the government is aware of these problems facing new immigrants and has made specific commitments in the 2003 budget to promote foreign credential recognition issues and language programs. Consequently, in the 2003 budget, the Federal Government will invest $41 million in these programs over the next two years to help new Canadians integrate better into the labour market.