Population, Space and Place

WILEY

RESEARCH ARTICLE OPEN ACCESS

Black–White Occupational Segregation in Canada: Insights From Socio-Economic Factors, Gender and Place

Lisa Kaida[1] | Monica Boyd[2] | Soli Dubash[2]

[1]Department of Sociology, McMaster University, Hamilton, Canada | [2]Department of Sociology, University of Toronto, Toronto, Canada

Correspondence: Lisa Kaida (kaidar@mcmaster.ca)

Received: 5 October 2025 | **Revised:** 7 April 2026 | **Accepted:** 8 April 2026

Funding: Social Sciences and Humanities Research Council, Grant/Award Number: 430-2020-00060

Keywords: Black population | Canada | cities | immigration | occupational segregation | racial inequality

ABSTRACT

This study advances the racial occupational segregation literature by modelling the intersections of race, gender and place. Analysis of confidential 2021 Canadian Census microdata finds that approximately one-quarter of Black men or women would have to change occupations for distributions to be similar to their White counterparts. We then augment the largely descriptive Black–White occupational segregation research by using counterfactual conditional segregation techniques. Compared to men, the occupational segregation of Black and White women is explained more by compositional differences in educational attainments, immigrant status and language use. However, the importance of place also cannot be ignored. Language differences between groups matter little in Toronto but are more important for occupational segregation in Montreal. Large Black–White differences in the percentage foreign-born also play a crucial role in explaining women's levels of occupational segregation in Montreal. These findings emphasize the gender and place variations in Black–White inequalities.

1 | Introduction

Recent studies comparing Black and White populations in Canada find that the Black population often has lower labour force participation, higher unemployment, different occupations and lower earnings than the White majority (Akbari and Debbarman 2022; Block et al. 2019; Domey and Patsiurko 2024). These inequalities underscore that race is a category of differentiation and stratification, deeply embedded in the histories and institutions that shape national and local labour markets (Castagna and Dei 2000; Miles and Brown 2004).

In the present study, we investigate the different distributions of the Black and White populations across the contemporary Canadian occupational structure. Occupational segregation is an important indicator of inequality because it can underlie other socio-demographic and economic inequalities, manifested in education, employment and earnings levels, as well as poverty, inadequate housing, poor health and low old-age pensions. In addition to studying the impacts of occupational segregation, researchers also seek to understand its determinants. Our paper addresses the latter issue by identifying key socio-economic factors that are associated with Black–White occupational segregation and by gauging their impacts on Black–White occupational segregation nationally and for Canada's two largest cities.

Using the most recent census data available (the 2021 census), we first produce Black–White occupational segregation levels for the total Census Metropolitan Areas (CMAs). We then ask which of three socio-economic factors (nativity, educational attainment and language use) best explain contemporary levels of Black–White occupational segregation in Canada for men and women. Mindful that the labour market opportunities of

Earlier versions of this paper were presented in the annual meetings of the Population Association of America in New Orleans, April 12–15, 2023, and the Canadian Population Society in Montreal, June 18–20, 2024.

major cities vary with respect to these three factors, we then scrutinize the gender-specific occupational segregation of Black and White workers in the two Canadian cities with the largest share of Black workers, Toronto and Montreal, where over 55% of Canada's Black working population resides. Consistent with the significance of place noted by geographers for occupational distributions (Morrison 1990; Perales and Vidal 2015), this analysis reveals city-specific socio-economic impacts on Black–White occupational segregation.

Our findings illuminate the importance of modelling the intersections of gender, race and place in studies of occupational segregation. This is because results demonstrate different mechanisms of occupational segregation in Canada at the intersections of these categories. Compared to men, the occupational segregation of Black and White women is explained more by compositional differences in educational attainments, immigrant status and language use. However, the importance of place also cannot be ignored. Language differences between groups matter little in Toronto but are more important for occupational segregation in Montreal. These findings caution us that Black–White inequalities are not uniform but instead vary by place. This means that interventions must be sensitive to the ways that places intersect with stratification processes to reinforce or ameliorate social inequalities.

2 | Factors Producing Occupational Segregation and Research Questions

Contemporary Black–White occupational segregation in Canada derives from institutional racism that is part of a larger racial system of disadvantage found throughout a society's history (Bonilla-Silva 1997). Specifically, Canadian critical race theorists note that the historical legacy of White settler colonialism, and the enslavement of non-Whites was the racialization of 'others' including the Black population, other minorities and indigenous peoples. The impact of slavery, the 'othering' of specific groups by the White colonists to be inferior or incompetent and the restriction of racialized populations regarding work, property rights and other civil rights also were foundational for successive decades of institutional (structural) discrimination and the creation of a stratification system in which non-Whites were devalued compared to Whites (Kihika 2013; Walker 1985).

Although most of the Black population in early Canada were not enslaved, the undisputed consequence of slavery was the persisting stereotypes of the Black population as suitable only for manual labour and servant jobs (Walker 1985; Winks 2021). However, the intersectionality of race and gender created different occupational outcomes for Black men compared to Black women. While historical studies list occupations for the total Black population during the 1700s and 1800s, they also suggest the most common occupational positions for Black men: farm labourers, garbage collectors, hangmen, rat catchers, trappers, barbers, miners, carpenters, bricklayers, labourers in slaughterhouses and livery services and teamsters (Adams 2011; Cooper 2006; Henry-Dixon and Cooper 2022; Walker 1985). These contrast with occupations held by Black women. Black women were employed as seamstresses and waitresses but many provided domestic service in private households. By the 1880s, the Black population was employed primarily as waiters and waitresses, janitors, barbers, laundresses and teamsters (Adams 2011; Walker 1985). Black women continued to be employed as domestics, with 80% still employed in domestic work before World War II (Brand 1994, 175–178).

Segregation and racial discrimination persisted into the 20th century among both private employers and the federal government (Walker 1985, 15). Studies also describe the restricted mobility opportunities of Black railroad porters compared to White porters on Pullman rail routes during the 1930s and later (Calliste 1987, 1988), the low-wage domestic employment conditions for Black immigrant women from Caribbean countries during the early 1900s and again in the 1950s (Calliste 1994), the barriers to nurse training experienced by Black women until the 1950s (Flynn 2008, 2009) and the persistence of racism in nursing in the later 1900s and early 2000s (Das Gupta 2000). The commodification of home-based labour that occurred in the mid-1900s and beyond increased the employment of Black women in paid care work. By 2021, over one-third of Black women were working in the healthcare and social assistance sectors of Canada's economy. While over a quarter of Black and non-visible minority men worked as tradesmen, transport or equipment operators in 2021, Black men were about 40% less likely than their non-visible minority counterparts to work in management occupations (Statistics Canada 2021).

These historical studies clearly document occupational race/gender-typing whereby racially defined groups are restricted to certain types of work and occupations. Occupational segregation is a larger manifestation of the impact of race-typing since it shows the occupational concentration of groups across the entire array of occupations. However, analyses of occupational distributions of the Black and White populations in Canada are lacking. The historical neglect is consistent with the low status assigned by the dominant White majority to the Black population and other racialized groups. The neglect also reflects the pen-to-paper method of data collection and dissemination that was employed in census taking during the 1800s and through the 1950s. Prior to data digitalization, published documents and printed census tables on the Black population were sparse, and they provided little information about the social and economic characteristics of ethnic/racial groups, including occupations.

Additionally, despite active engagement by the Black population in calling out discriminatory treatment, particularly during the 1800s and 1900s (Winks 2021), the dominant White majority continued to practice what is sometimes called the White privilege over colour (Delgado and Stefancic 2023). Minimally, Canada's White elites remained disinterested in identifying the sources of Black disadvantages in Canada's labour market, schooling and geographical locations. Maximally, their actions perpetuated Black disadvantages across multiple institutions including labour markets (Ajadi et al. 2025; Winks 2021).

It was not until the 1970s and later that a substantial body of North American research emerged on gender and racial occupational segregation, fuelled by the gender revolution, the civil rights movement and increased data access. A notable Canadian development was the digital availability of the national censuses of population from the 1970s on that permit detailed analyses of occupational segregation patterns by race and

gender. Even so, few investigations into Black–White occupational segregation exist. A canvassing of post-1950s research revealed only four studies examining Black–White (or British) occupational distributions with each study using one of the 1991, 1996 and 2006 Canadian censuses (Balakrishnan and Hou 1999; Boswell and Ray 2012; Darden 2005; Fearon and Wald 2011). Occupational categories were highly aggregated (using between 4 and 12 categories) with racial comparisons revealing the greater concentration of the Black population in service, construction or transportation and other lower-skilled occupations.

A second important development was the rapid expansion of North American literature on the explanations for gender and, less so, racial segregation. These explanations are typically grouped into supply- and demand-side explanations. Supply-side explanations view occupational segregation as reflecting worker characteristics. Such characteristics include worker attributes (e.g., age, educational levels, job experience, language proficiency, parental status) coupled with the human capital model of productivity (Becker 1964; Mincer 1974), as well as worker preferences and actions regarding education (including majors and educational type) and occupational preferences and choices. Demand-side explanations emphasize employer actions in hiring and promotion, including their stereotypes and preferences for certain types of workers and not others, and how employers make employment decisions in good and bad economic times (see Reskin 1993 for an excellent overview of the explanations for gender segregation, many of which can be extended to studies of racial occupational segregation).

Two caveats are important when invoking these approaches. First, they are proximal factors focused on workers or employers and are less suited to highlighting persistent macro-level systems of discrimination. In fact, employer actions may mask the more blatant aspects of discrimination; such masking is especially likely when discriminatory behaviour is depicted as rational and efficient as it is in statistical discrimination explanations (Tilcsik 2021). Second, although a supply-side perspective emphasizes worker characteristics while a demand-side perspective underscores employer actions, discussions of either perspective are not completely independent of the other. For example, profiles of workers can result from previous employer decisions regarding hiring and promotion, while job search strategies of a particular group can determine the labour pool available to employers. Additionally, key variables such as the race or sex-labelling of occupations, race or sex-role stereotypes and government policies can influence the actions of both workers and employers (Reskin 1993).

Research in this paper adopts elements of the supply-side perspective and takes advantage of the availability of the most recent 2021 Canadian census data to ask: given the importance in Canada of education, language use and nativity for labour market outcomes, how much of the Black–White occupational segregation do they explain, and which are the most important?

For demographers, sociologists and labour economists, these factors are important sources of inequality between groups. Education is a key variable for economic outcomes because it is a form of human capital that people invest in to increase productivity, which in turn leads to higher wages and other economic benefits (Becker 1964; Mincer 1974). Education is one of the most researched human capital factors in Black–White racial occupational segregation research, although it does not fully explain all occupational disparities (Jardina et al. 2023; King 1992; Tesfai and Thomas 2020). Likewise, language proficiency and use are forms of human capital, particularly for immigrants who speak the dominant language in destination countries (Chiswick and Miller 2007).

Differences in nativity and language use make the Black and White populations in Canada distinctive compared with other countries. Canada passed new immigration legislation in the 1960s and 1970s that removed national origins (and thus race) as explicit criteria for admissibility, and the demographic impact was high. Today, the foreign-born Black population in Canada predominates, reflecting the historical legacy of a small native-born Black population along with current high immigration targets (Immigration, Refugee and Citizenship Canada 2022, 34). According to the 2021 census, 59% of the Canadian Black population are foreign-born, and 91% of the foreign-born are born in Caribbean or African countries (authors' calculations from Domey and Patsiurko 2024, Chart 4).

Language knowledge correlates with the origin country. Thus, English, Spanish and French are used in Black subpopulations in North America. But the proportionate share of the foreign-born influences the language mix. English is widely used in Canada with 54% of the Black population reporting English as a sole mother tongue. French is a sole mother tongue for nearly one-fifth of the Black population (18%), reflecting the fact that immigrants represent over half of the Canadian Black population, and many come from Haiti or African countries (Domey and Patsiurko 2024). Additionally, Quebec actively promotes immigration from French-speaking or Francophone nations and selects immigrants who have French as their first language to support migrant integration and legislation for French language use in the province (Rocher 2023).

3 | Research Design and the Importance of Gender and Place

3.1 | Gender Matters

The preceding discussion of the supply-side factors focuses on Black–White occupational segregation. However, most North American research investigates segregation between men and women, and the earlier list of historical occupations held by Black men and women demonstrates strong gender differences. Our research thus adopts an intersectional approach which studies the intersections of both race, defined as Black–White groups, and gender, defined as men or women. Table 1 shows similarities and differences in socio-economic characteristics for these intersecting groups and suggests that studying both race and gender together furthers the understanding of occupational segregation.

At its most general level, evaluating multiple intersecting axes of social life is a defining feature of intercategorical intersectionality (McCall 2005). Empirical research on the intersections of race and gender in the labour market yields rich information about systematic differences in wages, occupational positions and tenure, as well as discrimination (Browne and Misra 2003). However, intersectional research on occupational segregation is rare. Existing studies focus on occupational segregation in the United

TABLE 1 | Descriptive statistics for Black and White workers aged 25–54 in Census Metropolitan Areas, by gender, 2021.

	Men		Women	
	Black	**White**	**Black**	**White**
Weighted *N* (rounded to 5)	214,635	2,915,840	222,080	2,792,445
% in total working population aged 25–54 in CMAs	2.2	29.6	2.3	28.4
Nativity (%)				
Canadian-born	25.4	89.6	25.8	89.7
Foreign-born	74.6	10.4	74.2	10.3
CMA of residence (%)				
Toronto	31.3	15.0	35.4	14.9
Montreal	24.0	17.4	25.5	17.8
Ottawa-Gatineau	7.3	6.2	7.8	6.4
Edmonton	6.6	5.6	5.3	5.2
Calgary	6.4	5.7	5.5	5.5
Vancouver	3.2	7.1	2.3	6.7
Other CMAs	21.2	42.9	18.2	43.5
Highest level of education (%)				
High school diploma or less	33.6	29.9	21.5	19.8
Some postsecondary education	33.0	38.4	41.3	36.0
Bachelor's or above	33.5	31.7	37.2	44.2
Use of mother tongue/home language (%)				
Official language(s) only	62.6	90.2	63.1	89.4
Mixed, official and other	27.1	7.1	27.6	7.9
Other language(s) only	10.3	2.7	9.2	2.8

Note: Statistics Canada 2021 Census of Population.

States (Alonso-Villar et al. 2012; Mintz and Krymkowski 2010; Reskin and Cassirer 1996) and British (Guinea-Martin et al. 2015) labour markets, or specific groups such as immigrants (Grönlund and Öun 2025; Nazari 2024) or care workers (Hodges 2020). Taken together, these intersectional studies suggest that gender matters more for occupational segregation than race-ethnicity. To our knowledge, our research provides the first detailed intersectional study of occupational segregation in Canada that asks if the magnitudes and socio-economic factors underlying Black–White occupational segregation in Canada are conditioned by gender.

3.2 | Place Matters

In addition to examining occupational segregation through the optics of race and gender, we also analyse race, gender and place by focusing on the Black–White occupational distributions in Canada's two largest cities, Toronto and Montreal, which are homes of the majority of the Canadian Black population. Important rationales for examining the role of place in occupational segregation patterns are offered by Perales and Vidal (2015). First and foremost, local-level analysis offers 'a more accurate account of the situation and experience of employees' than national-level analysis (Perales and Vidal 2015, 584). Individuals tend to look for employment within a limited spatial boundary, avoid commuting beyond a certain distance and resist permanent long-distance moves for employment reasons. As a result, individual workers in different parts of the country are embedded in different contexts regarding the main economic sectors, transport, community infrastructure, institutional environment and cultural practices. Such varying employment contexts, in concert with individuals' options, preferences and personal decisions, influence work-related processes, including occupational locations of workers.

Additional reasons exist for geographical variations in Black–White occupational segregation (Perales and Vidal 2015). Variations in occupational and industrial structures across local labour markets are likely to impact area-specific occupational distributions. In Toronto, finance and insurance, healthcare and social assistance and professional, scientific and technical services constitute main industries (Toronto Region Board of Trade 2021). However, Black workers are underrepresented in two of the three top industries (finance and insurance and professional, scientific and technical services) (Toronto Workforce Innovation Group 2024). By contrast, Montreal is known for its digital technology, life sciences and health and aerospace industries, which are all high-skilled industries (Montréal International n.d.; Ville de Montréal 2021). Given that Black workers in Montreal are underrepresented in high-skilled jobs in general and in leadership roles, Montreal's industrial profile may lead to higher levels of Black–White occupational segregation than Toronto (Davids et al. 2025; Gagnon et al. 2024).

Human capital characteristics of the local labour force also influence occupational distributions. In particular, the educational attainment of Black workers in Toronto is lower than that of White workers, whereas the educational profiles of Black workers

in Montreal, especially men, are comparable to those of White counterparts (Table 2). To the extent that education levels are associated with occupational locations, these CMA differences imply that levels of Black–White occupational segregation may be lower in Montreal.

However, these speculations ignore place variations in sexism and racism. A recent report argues that anti-Black racism is widespread in Montreal's public institutions, and the police and municipal services are slow to address its presence (Office de consultation publique de Montréal 2020). Montreal also has a complex bureaucratic governance structure which appears to make Montreal's municipal institutions less responsive to local Black community needs (Medicoff 2023). In contrast, in Toronto, discrimination against the Black population is more publicly acknowledged, especially in terms of Black experiences with discrimination in everyday life and with the police (Parkin and Ayer 2022). Recognition of this discrimination, as well as the Toronto municipality's willingness to work with Black communities, allows Black community organizations to engage directly with municipal policymakers to address their concerns about discrimination in employment and work (City of Toronto 2022). These institutional variations imply that Black–White segregation for men and women will be higher in Montreal than in Toronto.

These studies suggest that Black–White occupational segregation level in Toronto, relative to Montreal, is difficult to predict. This literature offers little guidance into whether and to what extent the roles played by Black–White differences in educational levels, language use and nativity in occupational segregation outcomes vary by CMAs. Our study is noteworthy in that it provides a first look at the contingent and intersecting mechanisms linking gender, race, place and occupational segregation.

4 | Data and Methods

Our analyses investigate three sub-questions embedded in the overall question: (1) Given Black–White differences in educational attainments, language use and nativity, which factor is most important for explaining contemporary levels of Black–White occupational segregation in Canada?; (2) Does gender influence the magnitude of occupational segregation and the comparative importance of socio-economic factors?; and (3) Does place matter? Specifically, do CMA-specific compositional effects on Black–White occupational segregation exist in Toronto and Montreal? These questions are answered using a decomposition technique recently applied in studies of racial occupational segregation (Gradín 2019; Gradín et al. 2015; Palencia-Esteban 2022).

We analyse the confidential version of the 2021 census, which collected detailed socio-economic information using the long-form census given to 25% of all households. In 2021, nearly everyone in the Black population (97.8%) lived in CMAs, defined as cities with populations of 100,000 or more in the previous census; only 2.2% lived in rural areas. However, in many smaller CMAs, the unweighted population counts cross-tabulated by detailed occupational titles become too small to release according to Statistics Canada guidelines. Consequently, this study focuses on the occupational segregation of the employed Black and White population aged 25–54 residing in all CMAs, as well as those living in Toronto and Montreal, with valid occupational information.

We follow standard analytical practices of identifying race using a census question on visible minorities, defined as 'persons, other than Aboriginal peoples, who are non-Caucasian in race or non-White in colour' in the Employment Equity Act. Groups include South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese (Public Service Commission of Canada 2011). The sample is limited to the White and Black populations who are Canadian-born or living in Canada as permanent residents (immigrants) for 2 years or more before the census. We drop from the sample a small proportion who selected multiple responses to the race question. Moreover, immigrants in Canada for less than 2 years are excluded because their limited residence does not allow a full occupational profiling. Non-permanent residents are also

TABLE 2 | Descriptive statistics for Black and White workers aged 25–54, by gender and CMA, 2021.

	Men				Women			
	Toronto		Montreal		Toronto		Montreal	
	Black	White	Black	White	Black	White	Black	White
Weighted *N* (rounded to 5)	67,175	437,805	51,540	508,235	78,545	416,905	56,580	496,850
Nativity (%)								
Canadian-born	36.2	79.7	25.2	89.1	36.1	79.0	24.4	89.6
Foreign-born	63.8	20.3	74.8	10.9	63.9	21.0	75.6	10.4
Highest level of education (%)								
High school diploma or less	38.9	27.6	26.1	24.7	22.8	18.1	16.9	15.8
Some postsecondary education	33.3	29.9	40.8	43.1	41.3	27.5	50.8	39.6
Bachelor's or above	27.8	42.5	33.1	32.2	35.9	54.4	32.3	44.6
Use of mother tongue/home language (%)								
Official language(s) only	78.4	76.7	58.9	88.6	79.0	74.2	56.9	87.9
Mixed, official and other	15.7	16.9	33.8	7.9	16.0	19.0	35.5	8.6
Other language(s) only	5.9	6.4	7.2	3.5	5.0	6.9	7.6	3.5

Note: Statistics Canada 2021 Census of Population.

eliminated, as the broad category of non-permanent residents does not permit disaggregating this heterogeneous population, including international students, temporary workers and asylum claimants.[1] We estimate Black–White occupational segregation separately for women and men, given extensive work on occupational segregation by gender (England et al. 2020; Kaida and Boyd 2022) and the intersectionality of race and gender for occupational attainment (McCall 2005).

The occupational information of our sample is based on the Canadian National Occupational Classification (NOC) 2021. The vast majority (88%–92%) of Black and White workers in the sample were employed in the census reference week (May 2–8, 2021), and their occupation in that week was included in the census data. For the workers who were not employed during the reference week, their primary occupation over the past 16 months starting in January 2020 was recorded in the census data.[2]

Segregation indices are sensitive to the number of occupational titles. Generally, the more titles in a classification, the larger the index. The NOC 2021 consists of a five-tiered hierarchical structure, with broad occupational categories (1-digit code, 10 categories), major (2-digit code, 45 groups), sub-major (3-digit code, 89 groups), minor (4-digit code, 162 groups) and unit (5-digit code, 517 groups) groups. We apply 4-digit codes to ensure enough cases in each occupation group to run Gradín's decomposition technique (detailed later) of the Dissimilarity Index (DI). This index is the most common measure of segregation in research on racial occupational segregation (Childers 2014; Queneau 2005; Tesfai 2020; Tesfai and Thomas 2020). The DI of Blacks and Whites can be calculated as follows (King 1992):

$$\mathrm{DI}=\frac{1}{2}\sum\left|\frac{n_j^B}{N^B}-\frac{n_j^W}{N^W}\right|$$

where N^{B} (or N^{W}) refers to the total number of Blacks (or Whites) in the labour force, and n_j^B (or n_j^W) indicates the number of Blacks (or Whites) in a specific occupation j. DI measures the extent to which a minority group (e.g., Blacks) would have to change occupations for their occupational distribution to be the same as that of majority groups (e.g., Whites) (Duncan and Duncan 1955). In theory, the DI can range between 0 and 1; 0 means perfect integration between the two groups, whereas 1 means complete segregation. In the subsequent analysis, we report the value of DI multiplied by 100 (ranging between 0 and 100) to interpret the level of occupational segregation in percentages.[3]

The DI described above is *unadjusted* because differences in observable characteristics between majority and minority groups are not considered in the calculation of segregation. In addition to this actual, observed segregation, we calculate the adjusted segregation to examine the extent to which observable differences in socio-economic characteristics between Black and White populations contribute to the differences in their occupational distributions. As noted earlier, we select three characteristics: nativity, education and language. The coding details are as follows. Nativity is a binary variable indicating whether the respondent was a Canadian citizen by birth, or a landed immigrant or permanent resident according to administrative records from Immigration, Refugees and Citizenship Canada. Education measures the highest level of educational attainment, recoded into three categories: less than high school, any post-secondary education and a bachelor's degree or higher. Finally, unlike the American and Australian census questions which probe English language proficiency, Canadian census questions emphasize mother tongue (language first learned and still understood) and sites of language use (at home and work), in keeping with Canada's French/English bilingualism history and policies. Mother tongue and language used most at home are jointly recoded into three categories: both English/French; mixed English/French and other language(s); and no English/French.

Table 1 shows stark compositional differences in nativity and languages used at home between Black and White workers in Canadian cities. Three-quarters of Black workers (both women and men) were born abroad, whereas only one out of 10 White workers are immigrants. Relatedly, 65% of Black women and men use only English and/or French as mother tongues and at home, 30 percentage points lower than White workers. Black–White differences in the highest level of education are not as wide as those for language use and nativity. The major difference can be found between men and women, with the latter having higher percentages of holding bachelor's degrees and above. Among women, the share of university degree holders is higher for Whites (44%) than for Blacks (37%).

The socio-economic characteristics of Black in relation to White workers mostly hold when the samples are broken down by CMAs (Toronto and Montreal) (Table 2). However, several CMA-specific characteristics are noteworthy. In Toronto, the shares of the foreign-born are relatively low among Black workers (64%) and high among White workers (approximately 20%). This pattern is reflected in their language use; Black women and men in Toronto are more likely to use only English/French (78%–79%) than their White counterparts (75%–77%). Socio-economic profiles of Black women and men in Montreal are consistent with those of all CMA statistics, except for language use. The percentages of Black workers in Montreal using only official language(s) are noticeably lower (57%–59%) than in Toronto.

While there are a number of approaches to the decomposition of occupational segregation (e.g., Åslund and Skans 2009; Troske and Carrington 1996), we adopt Gradín (2013) counterfactual reweighting approach. The Gradín method builds on DiNardo et al. (1996) semiparametric approach (DFL method) to the decomposition of different wage distributions (e.g., wage distributions in two time points). Gradín (2013, 479–481) applied the DFL method to multiple distributions of occupations, which is a discrete variable, as opposed to continuous variables like wages.

We create a counterfactual distribution of occupations for the Black population (the group of interest) by reweighting their actual occupational distribution. The adjusted weight for ψ_z is calculated as follows (g stands for group affiliation, indicating Black or White):

$$\psi_z=\frac{\frac{\Pr(g=W\mid z)}{\Pr(g=W)}}{\frac{\Pr(g=B\mid z)}{\Pr(g=B)}}=\frac{\Pr(g=B)}{\Pr(g=W)}\times\frac{\Pr(g=W|z)}{\Pr(g=B|z)}$$

The adjusted weight is a product of two probabilities: the ratio of the probabilities of being Black (B) to those of being White (W); the conditional probability of being White (W), conditional on individual characteristics z, estimated by a probit model.

Next, we use the adjusted weight (ψ_z) to calculate the adjusted segregation (in DI) based on two occupational distributions: the actual (unadjusted) occupational distribution of Whites and the counterfactual (adjusted) occupational distribution of Blacks. The difference between unconditional (unadjusted) and conditional (adjusted) segregation levels is explained by the covariates z that are controlled for in this calculation. This explained portion of DI can be further decomposed into contributions made by each controlled covariate using Shapley decomposition/values (Sastre and Trannoy 2002; Shorrocks 2013). The Shapley values address the issue of path-dependency when controlling for multiple covariates in sequence. We calculate the mean contribution of each covariate from all possible paths. For example, we compute the mean contribution of the nativity (N) variable, in relation to the other two variables (education [E] and language use [L]), based on six possible paths (3! = 6): NEL, NLE, ENL, ELN, LNE and LEN. This approach is novel as it allows for the estimation of multiple characteristics simultaneously using occupation-level data. However, since this approach is computationally intensive, we are limited in the number of socio-economic characteristics we can consider simultaneously.[4]

5 | Results

What explains contemporary Black–White occupational segregation? Specifically, to what extent do differences in nativity, education and language use characteristics between the two groups explain contemporary segregation levels? Figure 1 displays the adjusted levels of Black–White occupational segregation in all CMAs for men and women separately that are calculated from the Gradín method discussed earlier. These adjusted DIs consider compositional differences between Black and White workers in the three socio-economic factors. The adjusted (conditional) DIs for men and women in orange bars in Figure 1 are compared with the observed (unadjusted) DIs (yellow bars).

Observed levels of Black–White occupational segregation in DIs are 26 and 27 for men and women, respectively. This means that 26%–27% of Black men and women would have to change their occupations to reach occupational parity with their White counterparts. These Canadian results are comparable to findings from the Black–White occupational segregation studies in the United States which indicate the DIs of around 25 in the first 20 years in the new millennium (Childers 2014; Gradín 2013; Jardina et al. 2023).

Moreover, the levels of racial occupational segregation of Black and White workers for women and men are much lower than the occupational segregation of women and men, for both Black and White workers. Our analysis of the 2021 census data shows that the DIs for women and men stand at 48 for White and 46 for Black populations. Gender occupational segregation indeed remains high to date in North America (England 2020; Kaida and Boyd 2022).

A list of the top 10 occupations for each population group provides further evidence of this relatively lower level of Black–White occupational segregation than gender occupational segregation (Supporting Information S1: Appendix Tables A and B). For both Black and White men, computer and information systems professionals and motor vehicle and transit drivers are in the top five occupations. Black and White women similarly concentrate in semi-professional occupations in legal, social, community and education services.

Despite the similar observed levels of Black–White occupational segregation for women and for men, the factors contributing to the Black–White segregation levels differ. Figure 1 also displays the adjusted occupational segregation, based on

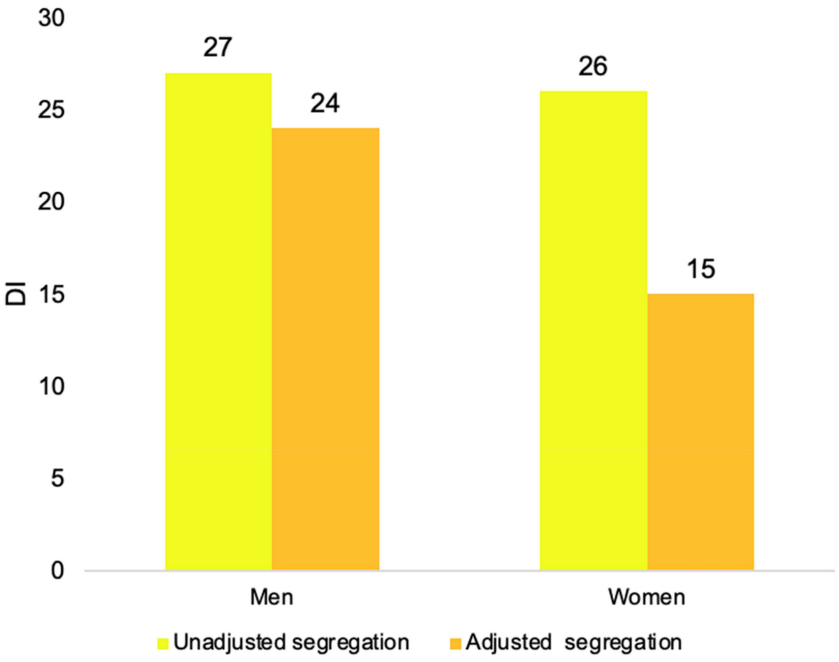

FIGURE 1 | Unadjusted and adjusted occupational segregation of Black and White workers aged 25–54 in all Census Metropolitan Areas, by gender, 2021.

the counterfactual where Black workers have the same distributions of nativity, education and language use as their White counterparts. For women, the level of Black–White occupational segregation almost halves (from 26 to 15) when adjusting for compositional differences in these three characteristics. This means when Black women have the same nativity, education and language use distributions as their White counterparts (i.e., more likely to be born in Canada, having higher education, more likely to use English/French only as mother tongue and at home), only 15% of Black women would have to change their occupations to have the same occupational distributions as White women.

Using the Shapley decomposition as proposed by Gradín (2013), the reduction in DIs from unadjusted to adjusted occupational segregation can be further disaggregated into contributions made by the compositional differences in nativity, education and language use between Black and White workers (Figure 2). The majority of the decline in DI for Black and White women is attributed to the two groups' compositional differences in nativity, followed by language use and education. Adjusting for the difference in nativity characteristics between Black and White women would reduce the observed occupational segregation level by 27% (Δ DI = −7.1), whereas the actual DI would decline only by 8% (Δ DI = −2.2) and 6% (Δ DI = −1.6) when language use and education are controlled, respectively. The larger impact of nativity is not surprising considering the striking difference in nativity characteristics between Black and White women (Table 1). As discussed earlier, the majority of Black women are immigrants (74%), given the changes in immigration policy since the 1960s. In contrast, 90% of White women are Canadian-born. Relatedly, Black women are more likely to use languages other than English/French compared with White women. These results contrast with findings from the United States and South Africa, where Black workers' educational disadvantage explains the observed level of Black–White occupational segregation the most, among other observable demographic and socio-economic characteristics (Gradín 2013, 2019).

Comparing the top 10 occupations held by Black and White women suggests a possible explanation (Supporting Information S1: Appendix Table A). Canadian-born Black women (representing a quarter of the female Black population, see Table 1) may be making inroads into White female-dominated managerial, professional and paraprofessional occupations. In contrast, access to such occupations by Black immigrant women may be blocked due to migration-related disadvantages. High-skilled occupations in education and business administration in which White women concentrate often require credentials and social and cultural capital specific to the host country. Such resources may be limited for Black immigrant women, especially if they arrive as adults.

By comparison, the adjusted occupational segregation level for men changes from the actual segregation level to a smaller degree (DI from 27 to 24, or −11%) than that for women (Figure 2). This is puzzling considering that Black men's nativity, education and language characteristics differ from White men's to a similar degree as Black and White women. If Black men had the same socio-economic characteristics (i.e., more likely to be born in Canada, have slightly higher education and more likely to use English/French only as mother tongue and home language) as White men, the level of occupational segregation would remain at 24, barely changing from the observed level (DI = 27). We further examine potential explanations for this result in the next section, focusing on the local labour markets with the largest share of the Black working population: Toronto and Montreal.

5.1 | Variations in Black–White Occupational Segregation by CMA

Two patterns emerge from the above analysis: first, the levels of Black–White occupational segregation are similar for women and men in large cities in Canada; second, differences in nativity, language use and education between Black and White women explain their occupational segregation more than men's. Figures 3 and 4 present un/adjusted segregation in Toronto and

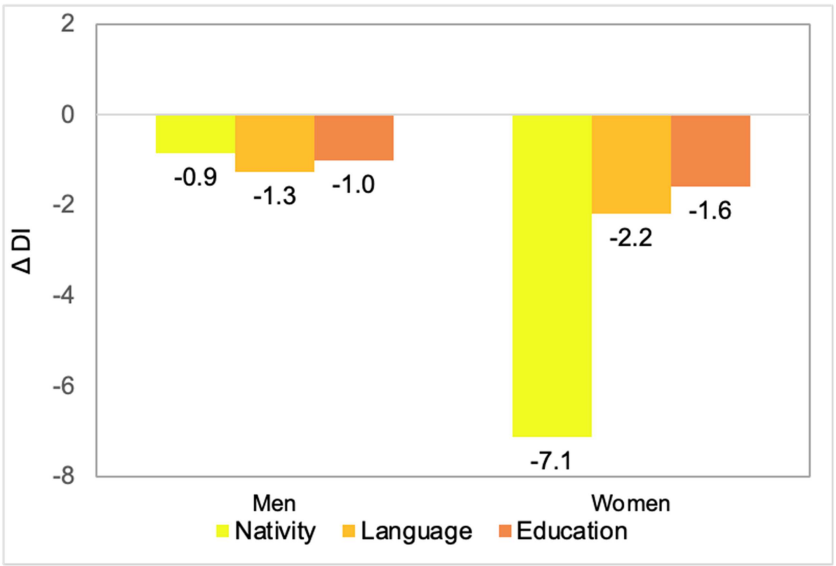

FIGURE 2 | Contributions of nativity, education and language to change from unadjusted to adjusted segregation (in DI) in all Census Metropolitan Areas, by gender, 2021.

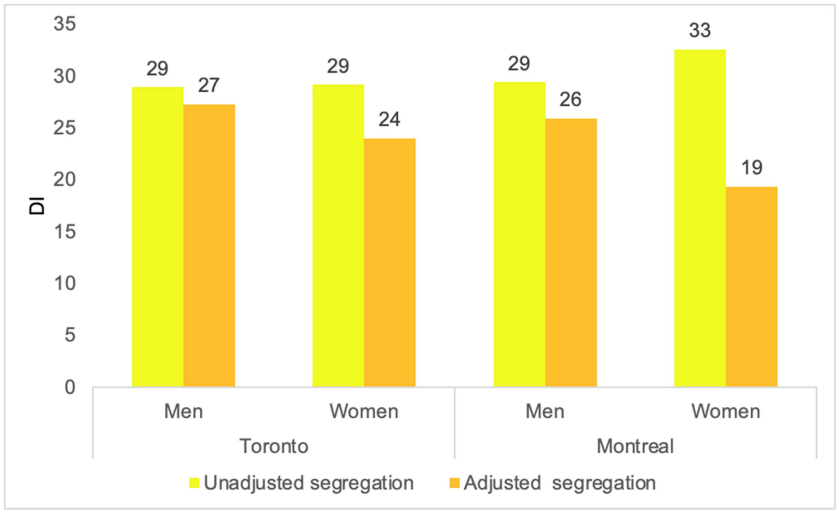

FIGURE 3 | Unadjusted/adjusted occupational segregation of Black and White workers aged 25–54, by gender and CMA, 2021.

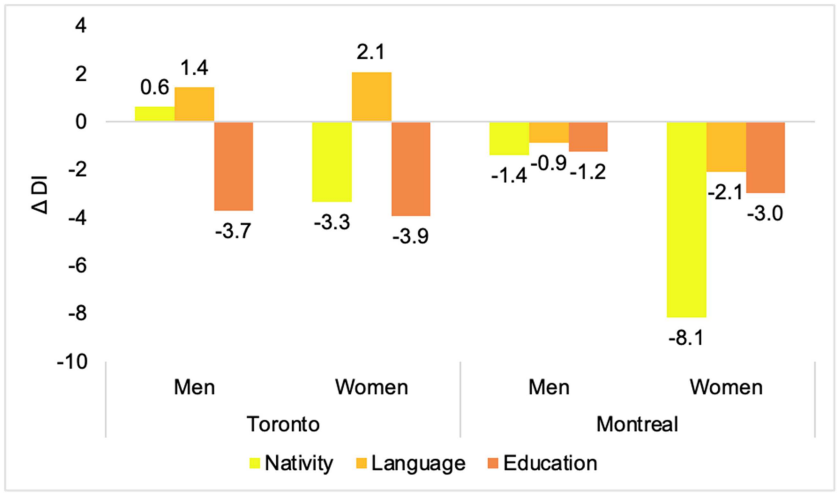

FIGURE 4 | Contributions of nativity, education and language to change from unadjusted to adjusted segregation (in DI) by gender and CMA 2021.

Montreal and the CMA-specific Shapley decomposition results, respectively.

Figure 3 confirms the above-mentioned patterns observed in Canadian cities generally hold in CMA-specific analyses. In Toronto, the differences in observed Black–White occupational segregation levels between men and women are minor (29 for both men and women), similar to the results for all CMAs. Moreover, Black–White differences in these three socio-economic characteristics explain the occupational segregation of women in Montreal more than that of men, consistent with the Figure 2 results.

However, the CMA-specific analysis also illuminates two unique geographic variations for women. First, in Montreal, unadjusted segregation is noticeably high for women (DI = 33), 14% higher than their male counterparts' (DI = 29). This may reflect the high concentration of Black women only in a handful of occupations; 57% of them work in the top 10 occupations held by Black women in Montreal, the highest among Black/White women and men in Montreal and Toronto (Supporting Information S1: Appendix Tables C–F). The over-representation of Black women in Montreal working in assisting occupations in support of health services is especially noteworthy (17%).

Second, the relative importance of the socio-economic factors explaining the occupational segregation level for Black and White women in Toronto deviates from those in all CMAs reported earlier and in Montreal. Differences in nativity characteristics constitute by far the largest contributor to the occupational segregation of Black and White women in all CMAs and in Montreal, reducing the observed DIs by 27% (CMAs) and 25% (Montreal). By contrast, educational differences between Black and White women make the largest contribution to explaining the occupational segregation in Toronto, reducing the actual DI (29) by 13% (ΔDI = −3.9). Black–White differences in nativity characteristics play a slightly smaller role; adjusting for nativity would reduce the observed DI by 12% (ΔDI = −3.3). Moreover, controlling for the compositional differences in language use between Black and White women in Toronto would increase the observed level of occupational segregation by 7% (ΔDI = 2.1).

Such deviant results reflect socio-economic profiles of Black women in Toronto, in relation to their White counterparts (Table 2). In Toronto, White women's educational advantage is pronounced, with 54% holding bachelor's or higher degrees,

about 20 percentage points higher than their Black counterparts. Nativity differences are less noticeable; Black women in Toronto are more likely to be Canadian-born (35%) than the CMA average, whereas White women in Toronto are more likely to be foreign-born (21%) than the CMA average. Relatedly, Black women in Toronto have a linguistic advantage over their White counterparts. Eighty percent of the former use English and/or French only as their mother tongue(s) and home language(s), higher than that of White counterparts (74%).

Earlier, we reported that, in large Canadian cities, men's Black–White occupational segregation does not change much when compositional differences in nativity, education and language use are adjusted (Figure 1). This is driven by what is happening in the two cities with the largest Black populations in Canada. In Toronto and Montreal, the adjusted DIs (27 and 26, respectively) decline little from the observed DIs for men (29 in both cities, see Figure 3). We further investigate possible mechanisms explaining these outcomes by scrutinizing the Gradín models, Shapley decomposition and descriptive statistics of Black/White men in Toronto and Montreal.

In Toronto, if Black men had the same educational attainment (i.e., higher percentage of bachelor's or higher degrees) as their White counterparts, the DI would be lower by 13% (Δ DI = −3.7) (Figure 4). However, if Black men had the same language use and nativity distributions as their White counterparts, the adjusted DI would be higher than the observed DI by 5% (Δ DI = 1.4) and 2% (Δ DI = 0.6), respectively. In other words, not all the three socio-economic characteristics have the same directions in influencing the occupational distributions of Black and White men. As Table 2 suggests, Black men in Toronto have a slight linguistic advantage over their White counterparts; the former are more likely to use English/French only than the latter (78.4% vs. 76.7%). This is explained by the fact that the foreign-born Black population in Toronto is predominantly from Jamaica, where English is the official language. In contrast, the foreign-born White population in Toronto are mostly from non-English speaking countries, such as Portugal, Poland, Ukraine and the Russian Federation. Moreover, the effect of Black–White nativity differences is surprising as it predicts a slight increase in segregation. If Black men in Toronto were predominantly native-born like their White counterparts, the DI would be higher by 2% (Figure 4).

A different process is observed in Montreal, where the socio-economic characteristics of Black men barely contribute to explaining the observed level of Black–White occupational segregation. Since nativity and linguistic disadvantage of Black men over their White counterparts are especially noticeable (Table 2), its relatively small contributions to lowering the actual DI (by 5% and 3%, respectively) is puzzling. This may be reflective of competing effects of education among Black immigrants. Our preliminary work on the occupational segregation of foreign-born Black and White workers suggests among Black immigrant men, African men tend to have notably higher education than their White and Caribbean Black counterparts in all CMAs, Toronto, and Montreal. If these African immigrant men's educational advantage is adjusted, the observed segregation level would in fact go up.

Another possible explanation would be that race relations in Quebec have emphasized *pure laine*, in which those of French Canadian ancestry are seen as more preferred than recent arrivals (Macdonald 2017). The role of potential discrimination cannot be determined from our methodology, but throughout the 2000s, media frequently reported discrimination against Haitian men in low-wage, low-skilled occupations like taxi drivers (which is part of motor vehicle and transit drivers, the top occupation among Black men in Montreal) and the blocked mobility of Haitian male professionals (Curtis 2013; Niemi 2017). Researchers using the DI to study racial segregation and integration also speculate that the remaining DI after adjustment in part represents variation due to discrimination (e.g., Gradín 2013; Gradín et al. 2015).

6 | Conclusion and Discussion

Our research focuses on a topic that has been quantitatively understudied to date: contemporary levels of Black–White occupational segregation in Canada with the intersections of gender and place in mind. Our analysis also considers the demographic fact that the share of immigrants among Canada's Black population is notably high, over 50% in 2021 (Domey and Patsiurko 2024; Maheux and Do 2019). Like the residential patterns of other racial minority immigrants and their offspring (e.g., South Asians, Chinese), Black workers in Canada live in cities, mostly in the two largest cities: Toronto and Montreal. Keeping in mind the unique influence of immigration on Canada's Black population and their high concentration in the largest cities, the empirical analyses are restricted to workers in CMAs. The impacts of two migration-related factors, nativity and language use, are studied along with education, one of the most researched human capital factors in occupational segregation research (Gradín 2013, 2019).

Moreover, we examine possible geographic variations in the levels of Black–White occupational segregation for women and men and their underlying mechanisms (Childers 2014; Gradín et al. 2015; King 1992). CMA-specific analyses, rather than region- or province-specific analyses, are undertaken, given the substantial concentration of Black populations in Toronto and Montreal. In Toronto and Montreal, Black–White occupational segregation levels are similar for women and men. However, socio-economic differences between Black and White women explain their racial occupational segregation more than those between Black and White men. Two CMA-specific outcomes exist. First, the levels of Black–White occupational segregation are relatively high in Montreal for women. Second, mechanisms of Black–White occupational segregation vary between the two CMAs. A relatively high representation of immigrants among Whites in Toronto gives Black Torontonians a slight linguistic advantage, contributing to the high level of adjusted Black–White occupational segregation in Toronto compared to Montreal. In Montreal, Black men have no such linguistic advantage over their White counterparts; compositional differences do not greatly contribute to reducing the high level of observed Black–White occupational segregation. Meanwhile, the Black–White occupational segregation of women in Montreal would be much lower if Black women had the same nativity, educational and linguistic profiles as their White counterparts.

These complex CMA-specific findings confirm the importance of considering geographic contexts when studying gender-specific

racial occupational segregation with an intercategorical approach (McCall 2005). Our decomposition analysis highlights socio-economic compositions of Black women (men) in relation to White women (men) differ widely between cities, which leads to different mechanisms of Black–White segregation of women and men across cities (Perales and Vidal 2015). However, other place-specific contexts, such as economic structures, gender/race relations, institutional environments (e.g., education systems, local policies, legislations) may also impact the differential levels of Black–White occupational segregation and its mechanisms in Toronto and Montreal (McCall 2005; Perales and Vidal 2015).

Our study primarily advances understanding of racial occupational (de-)segregation in three ways. First, we adopt an intersectional approach. Considering that our results demonstrate that the mechanisms explaining occupational segregation vary in ways which are conditional on race and gender simultaneously, simply 'controlling' for race when studying gender (or vice versa) would have truncated the potential to accurately explain contemporary occupational segregation, and underestimated the importance of place. Second, unlike most North American studies of occupational segregation, our counterfactual decomposition precisely indicates the relative importance of each socio-economic factor for Black–White occupational segregation. Ranking these mechanisms in metropolitan Canada, and in the two largest CMAs, provides an evidence-based profile for policy development to target the factors that matter in national and local labour markets. Finally, the analysis of the 2021 census data substantially adds to the knowledge about contemporary Black–White occupational segregation in Canada.

While this study makes these three notable contributions to the Black–White racial occupational segregation research, future research can be advanced in two ways. First, focusing specifically on immigrants will illuminate how Canada's changing immigration policy influences the occupational locations of the diverse foreign-born Black population (see Thomas 2023 for the United States). Second, consideration of other racial minority groups, beyond Black–White comparisons, also may develop additional understandings into occupational segregation. In Canada, the Black population does not always constitute the dominant racial minority group in a specific location: Chinese and South Asians outnumber them. In majority-minority *superdiverse* municipalities (e.g., Vancouver, Brampton, Scarborough), a focus on White and Black workers overlooks a large portion of the racial minority labour force. Using new analytical techniques like local/overall segregation (Alonso-Villar and Del Río 2010, 2017), multi-group comparisons in such areas will refine the dynamics of race-based occupational segregation.

Acknowledgements

The authors thank Matthew Snidal and two reviewers of *Population, Space and Place* for their helpful comments. Thanks also go to Elizabeth Thompson for her editorial support. This research was conducted at McMaster University and Toronto Regional Research Data Centres, part of the Canadian Research Data Centre Network (CRDCN). The services and activities provided by the RDCs are made possible through the support of the Canada Foundation for Innovation, the Canadian Institutes of Health Research, the Social Sciences and Humanities Research Council and Statistics Canada, and through the support of McMaster University and the University of Toronto. All views expressed in this work are our own. This study was funded by the Social Sciences and Humanities Research Council (430-2020-00060).

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The authors have nothing to report.

Endnotes

[1] In the second release of the 2021 census RDC data, a variable is included that distinguishes among various detailed categories of temporary migrants. This variable was not available in the first release of the 2021 census RDC data, which we used in our analysis.

[2] It is difficult to assess whether the results from our analysis of the 2021 census are biased upward, downward or largely unaffected by COVID-19 due to data limitations. Although monthly Labour Force Surveys (LFS) could potentially provide the occupational information between the 2016 and 2021 censuses, the LFS did not collect the information on the respondent's visible minority status until July 2020. Therefore, the Dissimilarity Index (DI) of Black and White workers before July 2020 cannot be calculated using the LFS.

[3] We performed Gradin counterfactual decomposition using two alternative segregation measures (Gini indices and Theil Entropy indices). Overall, the main findings of our DI-based analyses are robust (results are available upon request).

[4] A reviewer helpfully suggested that more variables should be controlled for. In our preliminary analysis, we considered other demographic characteristics such as age and marital status and found that none had much impact on the observed segregation levels. As a result, we did not control for these demographic variables in the final models presented in this article.

References

Adams, T. 2011. "Making a Living: African Canadian Workers in London, Ontario, 1861-1901." *Labour* 67: 9–43.

Ajadi, T., N. Bernhardt, and D. Thompson. 2025. "Race and Racism in Canadian Social Policy." In *The Oxford Handbook of Social Policy in Canada*, edited by D. Béland, R. Mahon, and A. Smith, Oxford University Press. https://doi.org/10.1093/oxfordhb/9780197766859.013.0009.

Akbari, A. H., and S. Debbarman. 2022. "Employment Probability of Visible Minority Immigrants in Canada by Generational Status, Circa 2016." *Canadian Public Policy* 48, no. S1: 38–48. https://doi.org/10.3138/cpp.2022-008.

Alonso-Villar, O., and C. del Río. 2010. "Local Versus Overall Segregation Measures." *Mathematical Social Sciences* 60, no. 1: 30–38. https://doi.org/10.1016/j.mathsocsci.2010.03.002.

Alonso-Villar, O., and C. Del Río. 2017. "Local Segregation and Well-Being." *Review of Income and Wealth* 63, no. 2: 269–287. https://doi.org/10.1111/roiw.12224.

Alonso-Villar, O., C. Del Rio, and C. Gradín. 2012. "The Extent of Occupational Segregation in the United States: Differences by Race, Ethnicity, and Gender." *Industrial Relations: A Journal of Economy and Society* 51, no. 2: 179–212. https://doi.org/10.1111/j.1468-232X.2012.00674.x.

Åslund, O., and O. N. Skans. 2009. "How to Measure Segregation Conditional on the Distribution of Covariates." *Journal of Population Economics* 22, no. 4: 971–981. https://doi.org/10.1007/s00148-008-0189-4.

Balakrishnan, T. R., and F. Hou. 1999. "Socioeconomic Integration and Spatial Residential Patterns of Immigrant Groups in Canada." *Population Research and Policy Review* 18, no. 3: 201–217.

Becker, G. S. 1964. *Human Capital: A Theoretical and Empirical Analysis With Special Reference to Education, First Edition*. NBER. https://www.nber.org/books-and-chapters/human-capital-theoretical-and-empirical-analysis-special-reference-education-first-edition.

Block, S., E. Galabuzi-Grace, and R. Tranjan. 2019. *Canada's Colour Coded Income Inequality*. Canadian Centre for Policy Alternatives. https://www.policyalternatives.ca/wp-content/uploads/attachments/Canada%27s%20Colour%20Coded%20Income%20Inequality.pdf.

Bonilla-Silva, E. 1997. "Rethinking Racism: Toward a Structural Interpretation." *American Sociological Review* 62, no. 3: 465–480. https://doi.org/10.2307/2657316.

Boswell, T., and B. Ray. 2012. "Contemporary Profiles of Black Immigrants in the United States and Canada." In *Immigrant Geographies of North American Cities*, edited by J. C. Teixeira, A. Kobayashi, and W. Li, 231–255. Oxford University Press.

Brand, D. 1994. "We Weren't Allowed to Go into Factory Work Until Hitler Started the War": The 1920s to the 1940s." In *We're Rooted Here and They Can't Pull Us up: Essays in African Canadian Women's History*, edited by P. Bristow, 177–181. University of Toronto Press.

Browne, I., and J. Misra. 2003. "The Intersection of Gender and Race in the Labor Market." *Annual Review of Sociology* 29: 487–513. https://doi.org/10.1146/annurev.soc.29.010202.100016.

Calliste, A. 1987. "Sleeping Car Porters in Canada: An Ethnically Submerged Labour Market." *Canadian Ethnic Studies* 19, no. 1: 1–20.

Calliste, A. 1988. "Blacks on Canadian Railways." *Canadian Ethnic Studies* 20, no. 2: 36–52.

Calliste, A. 1994. "Race, Gender and Canadian Immigration Policy: Blacks From the Caribbean, 1900-1932." *Journal of Canadian Studies* 28, no. 4: 131–148.

Castagna, M., and G. J. S. Dei. 2000. "An Historical Overview of the Application of the Race Concept in Social Practice." In *Anti-Racist Feminism: Critical Race and Gender Studies*, edited by A. Calliste and G. J. S. Dei, 19–37. Fernwood Publishing.

Childers, C. 2014. "Coming Together? Trends in Black-White Occupational Segregation, 1980 to 2009." Doctoral dissertation, the University of Washington, UW Campus Repository. https://digital.lib.washington.edu/server/api/core/bitstreams/99156173-546d-4de8-aa08-c4ae1b0e7254/content.

Chiswick, B. R., and P. W. Miller. 2007. "Modeling Immigrants' Language Skills." In *Immigration*, edited by B. R. Chiswick, 75–128. Emerald Group Publishing Limited. https://doi.org/10.1016/S0147-9121(07)00003-9.

City of Toronto. 2022. "Toronto Action Plan to Confront Anti-Black Racism." https://www.toronto.ca/wp-content/uploads/2022/11/9875-EDC-TORONTO-ACTION-PLAN-TO-CONFRONT-ANTI-BLACK-RACISM.pdf.

Cooper, D. A. 2006. *Slavery in Canada*. Ontario Historical Society. https://ontariohistoricalsociety.ca/wpcontent/uploads/2020/06/slavery_in_canada.pdf.

Curtis, C. 2013. "Hiring Practices Discriminatory; Judge Rules in Favour of Haitian-Born Urban Planner Who Was Repeatedly Passed Over for Promotion." *The Gazette*, June 12.

Darden, J. 2005. "Black Occupational Achievement in the Toronto Census Metropolitan Area: Does Race Matter?" *Review of Black Political Economy* 33, no. 2: 31–54. https://doi.org/10.1007/s12114-005-1013-y.

Das Gupta, T. 2000. *Real Nurses and Others: Racism in Nursing*. Fernwood Publishing.

Davids, J., M. Thibeau, and S. Karajian. 2025. *Summary Report: Informing, Supporting and Assessing the Impact of the EmployESBC Public, Private and Civil Society (PPCS) Venture*. Black Community Resource Centre. https://sdesj.org/wp-content/uploads/2025/07/A-0001-EmployESBC-Summary-Report-1-web-F.pdf.

Delgado, R., and J. Stefancic. 2023. *Critical Race Theory, Fourth Edition: An Introduction*. New York University Press. https://doi.org/10.18574/nyu/9781479818297.001.0001.

DiNardo, J., N. M. Fortin, and T. Lemieux. 1996. "Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach." *Econometrica* 64, no. 5: 1001–1044. https://doi.org/10.2307/2171954.

Domey, N., and N. Patsiurko. 2024. *The Diversity of the Black Populations in Canada, 2021: A Sociodemographic Portrait*. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/89-657-x/89-657-x2024005-eng.htm.

Duncan, O. D., and B. Duncan. 1955. "A Methodological Analysis of Segregation Indexes." *American Sociological Review* 20, no. 2: 210–217. https://doi.org/10.2307/2088328.

England, P., A. Levine, and E. Mishel. 2020. "Progress Toward Gender Equality in the United States Has Slowed or Stalled." *Proceedings of the National Academy of Sciences of the United States of America* 117, no. 13: 6990–6997. https://doi.org/10.1073/pnas.1918891117.

Fearon, G., and S. Wald. 2011. "The Earnings Gap Between Black and White Workers in Canada: Evidence From the 2006 Census." *Industrial Relations* 66, no. 3: 324–348. https://doi.org/10.7202/1006342ar.

Flynn, K. 2008. "'I'm Glad That Someone Is Telling the Nursing Story:' Writing Black Canadian Women's History." *Journal of Black Studies* 38, no. 3: 443–460. https://doi.org/10.1177/0021934707306586.

Flynn, K. 2009. "Beyond the Glass Wall: Black Canadian Nurses, 1940–1970." *Nursing History Review* 17, no. 1: 129–152.

Gagnon, S., W. Cukier, A. Oliver, and G. Y. Mo. 2024. *DiversityLeads: Diverse Representation in Leadership: A Review of 10 Canadian Cities*. Future Skills Centre. https://fsc-ccf.ca/research/diversityleads.

Gradín, C. 2013. "Conditional Occupational Segregation of Minorities in the US." *Journal of Economic Inequality* 11, no. 4: 473–493. https://doi.org/10.1007/s10888-012-9229-0.

Gradín, C. 2019. "Occupational Segregation by Race in South Africa After Apartheid." *Review of Development Economics* 23, no. 2: 553–576. https://doi.org/10.1111/rode.12551.

Gradín, C., C. Del Río, and O. Alonso-Villar. 2015. "Occupational Segregation by Race and Ethnicity in the United States: Differences Across States." *Regional Studies* 49, no. 10: 1621–1638. https://doi.org/10.1080/00343404.2013.864384.

Grönlund, A., and I. Öun. 2025. "Shackled by Double Disadvantage? Gender, Segregation and Immigrants' Occupational Attainments." *Acta Sociologica* 68, no. 1: 83–101. https://doi.org/10.1177/00016993231219133.

Guinea-Martin, D., R. Mora, and J. Ruiz-Castillo. 2015. "The Joint Effect of Ethnicity and Gender on Occupational Segregation. An Approach Based on the Mutual Information Index." *Social Science Research* 49: 167–178. https://doi.org/10.1016/j.ssresearch.2014.08.007.

Henry-Dixon, N., and C. Cooper. 2022. *Black Enslavement in Canada*. Canadian Encyclopedia. https://thecanadianencyclopedia.ca/en/article/black-enslavement.

Hodges, M. J. 2020. "Intersections on the Class Escalator: Gender, Race, and Occupational Segregation in Paid Care Work." *Sociological Forum* 35, no. 1: 24–49. https://doi.org/10.1111/socf.12566.

Immigration, Refugee and Citizenship Canada. 2022. "2022 Annual Report to Parliament on Immigration." www.canada.ca/content/dam/ircc/documents/pdf/english/corporate/publications-manuals/annual-report-2022-en.pdf.

Jardina, A., P. Q. Blair, J. Heck, and P. Debroy 2023. "The Limits of Educational Attainment in Mitigating Occupational Segregation

Between Black and White Workers." NBER Working Paper, no. W31641. https://papers.ssrn.com/abstract=4560568.

Kaida, L., and M. Boyd. 2022. "Revisiting Gender Occupational Segregation Trends in Canada: 1991–2016." *Canadian Review of Sociology/Revue Canadienne de Sociologie* 59, no. S1: 4–25. https://doi.org/10.1111/cars.1239.

Kihika, M. 2013. "Ghosts and Shadows: A History of Racism in Canada." *Canadian Graduate Journal of Sociology and Criminology* 2, no. 1: 35–44. https://doi.org/10.15353/cgjsc-rcessc.v2i1.23.

King, M. C. 1992. "Occupational Segregation by Race and Sex, 1940-88." *Monthly Labor Review* 115, no. 4: 30–37.

Macdonald, N. 2017. "Quebec's New Religious Neutrality Law Offers a Special Level of Hypocrisy." *CBC News*, October 18. https://www.cbc.ca/news/opinion/quebec-religious-neutrality-1.4360820.

Maheux, H., and D. Do. 2019. *Diversity of the Black Population in Canada: An Overview*. Statistics Canada. https://www150.statcan.gc.ca/n1/pub/89-657-x/89-657-x2019002-eng.htm.

McCall, L. 2005. "The Complexity of Intersectionality." *Signs* 30, no. 3: 1771–1800. https://doi.org/10.1086/426800.

Medicoff, J. 2023. "A Tale of Two Metropolitan Regions." Policy Options, April 20.

Miles, R., and M. Brown. 2004. *Racism*. 2nd ed. Routledge.

Mincer, J. A. 1974. *Schooling, Experience, and Earnings*. National Bureau of Economic Research.

Mintz, B., and D. H. Krymkowski. 2010. "The Intersection of Race/Ethnicity and Gender in Occupational Segregation: Changes over Time in the Contemporary United States." *International Journal of Sociology* 40, no. 4: 31–58. https://doi.org/10.2753/IJS0020-7659400402.

Montréal International. n.d. "Key Business Sectors in Montreal, Canada." https://www.montrealinternational.com/en/keysectors/.

Morrison, P. S. 1990. "Segmentation Theory Applied to Local, Regional and Spatial Labour Markets." *Progress in Human Geography* 14, no. 4: 488–528. https://doi.org/10.1177/030913259001400402.

Nazari, S. 2024. "The Intersectional Effects of Race, Gender, and Religion on the Economic Integration of High-Skilled Immigrants: A Literature Review." *Journal of International Migration and Integration* 25, no. 4: 2213–2252. https://doi.org/10.1007/s12134-024-01171-8.

Niemi, F. O. 2017. "Police and Race in Montreal, 30 Years Later." *Montreal Gazette*, November 11.

Office de consultation publique de Montréal. 2020. "Summary Report: Public Consultation on Systemic Racism and Discrimination Within the Jurisdiction of the City of Montréal." https://numerique.banq.qc.ca/patrimoine/details/52327/4077271.

Palencia-Esteban, A. 2022. "Occupational Segregation of Female and Male Immigrants in Europe: Accounting for Cross-Country Differences." *International Labour Review* 161, no. 3: 341–373. https://doi.org/10.1111/ilr.12207.

Parkin, A., and S. Ayer. 2022. *Toronto Social Capital Study 2022*. Environics Institute for Survey Research. https://www.environicsinstitute.org/projects/project-details/toronto-social-capital-study-2022.

Perales, F., and S. Vidal. 2015. "Looking Inwards: Towards a Geographically Sensitive Approach to Occupational Sex Segregation." *Regional Studies* 49, no. 4: 582–598. https://doi.org/10.1080/00343404.2013.786828.

Public Service Commission of Canada. 2011. "History of Employment Equity in the Public Service and the Public Service Commission of Canada." https://publications.gc.ca/collections/collection_2012/cfp-psc/SC3-159-2011-eng.pdf.

Queneau, H. 2005. "Changes in Occupational Segregation by Race and Ethnicity in the USA." *Applied Economics Letters* 12, no. 12: 781–784. https://doi.org/10.1080/1350485052000345384.

Reskin, B. 1993. "Sex Segregation in the Workplace." *Annual Review of Sociology* 19: 241–270.

Reskin, B., and N. Cassirer. 1996. "Occupational Segregation by Gender, Race and Ethnicity." *Sociological Focus* 29, no. 3: 231–243.

Rocher, F. 2023. "Transformations in Contemporary Quebec Nationalism, 1960–2020: A Shift in the Sources of Collective Animosities." *Nations and Nationalism* 29, no. 1: 280–294. https://doi.org/10.1111/nana.12902.

Sastre, M., and A. Trannoy. 2002. "Shapley Inequality Decomposition by Factor Components: Some Methodological Issues." *Journal of Economics* 77, no. 1: 51–89. https://doi.org/10.1007/BF03052500.

Shorrocks, A. F. 2013. "Decomposition Procedures for Distributional Analysis: A Unified Framework Based on the Shapley Value." *Journal of Economic Inequality* 11, no. 1: 99–126. https://doi.org/10.1007/s10888-011-9214-z.

Statistics Canada. 2021. "Study: A Labour Market Snapshot of Black Canadians During the Pandemic." *The Daily*, February 24. https://www150.statcan.gc.ca/n1/daily-quotidien/210224/dq210224b-eng.pdf.

Tesfai, R. 2020. "Immigrants' Occupational Segregation in France: 'Brown-Collar' Jobs or a Sub-Saharan African Disadvantage?" *Ethnic and Racial Studies* 43, no. 15: 2724–2745. https://doi.org/10.1080/01419870.2019.1686162.

Tesfai, R., and K. J. A. Thomas. 2020. "Dimensions of Inequality: Black Immigrants' Occupational Segregation in the United States." *Sociology of Race and Ethnicity* 6, no. 1: 1–21. https://doi.org/10.1177/2332649219844799.

Thomas, K. J. A. 2023. "African Immigration and the Black Immigrant Paradox." *Footnotes* 51, no. 3. https://www.asanet.org/footnotes-article/african-immigration-and-the-black-immigrant-paradox/.

Tilcsik, A. 2021. "Statistical Discrimination and the Rationalization of Stereotypes." *American Sociological Review* 86, no. 1: 93–122. https://doi.org/10.1177/0003122420969399.

Toronto Region Board of Trade. 2021. "From Crisis to Opportunity: Challenges Today and Futureproofing for Tomorrow in the Metropolitan Centre of Canada's Innovation Corridor." https://bot.com/Resources/Resource-Library/Metropolitan-Centre-A-Business-District-Analysis.

Toronto Workforce Innovation Group. 2024. "Workforce Diversity in Toronto: Selected Profiles." https://torontonorthlip.ca/en/resources/workforce-diversity-in-toronto-selected-profiles/.

Troske, K. R., and W. J. Carrington. 1996. "Interfirm Segregation and the Black/White Wage Gap." *Journal of Labor Economics* 16, no. 2: 231–260.

Ville de Montréal. 2021. "Five High-Potential Economic Sectors." https://montreal.ca/en/articles/five-high-potential-economic-sectors-14352.

Walker, J. W. S. G. 1985. *Racial Discrimination in Canada: The Black Experience*. Canadian Historical Association.

Winks, R. W. 2021. *Blacks in Canada: A History*. 15th ed. McGill-Queen's University Press.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting File: psp70258-up-RR_appendices_rev.docx.