Occupational Segregation in Post-Apartheid South Africa: The Interplay of Gender, Race, and Place

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ABSTRACT

In South Africa, apartheid has exacerbated inequities in labor force outcomes, not just between the various races (Black Africans, Whites, Coloureds, and Asian-Indians), but also between the sexes. However, empirical knowledge of the *interplay* between these two systems of social oppression in determining occupational segregation remains somewhat scant. Using the 2001 Census, I will analyze occupational segregation in South Africa. The main objectives of the study are: 1) To describe the separate, and then interacting, roles of gender and race in determining an individual's placement in gender segregated occupations. 2) To analyze how micro-level determinants such as human capital and family structure interact with race and gender to influence an individual's placement in gender segregated occupations across different geographical areas. Such an approach will allow us to compare any social group that differs from each other in terms of both race and gender.

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Rationale for study

In South Africa, *apartheid* has exacerbated inequities in labor force outcomes, not just between the various races (Black Africans, Whites, Coloureds, and Asian-Indians), but also between the sexes (Crankshaw, 1994). Gender and racial inequalities found in most other societies are particularly magnified in South Africa where the marginalized group constitutes a majority (75%) of the population (Buchann and Powell, 2004). In fact, occupational segregation, rather than education, experience, and geographical location, is the largest single identifiable source of race and sex differences in earnings in South Africa and elsewhere (Standing, et al., 1999; King, 1992).

This paper is motivated by the observation that although occupation segregation by race or sex has been adequately studied, both theoretically and empirically, knowledge about the processes or determinants *generating* segregation is limited for several reasons ((Reskin and Padavic, 1999; Kaufman, 2002). First, an increasing number of studies have highlighted racial differences within a gender (minorities being more disadvantaged than whites) or gender differences within a race (women being more disadvantaged than men).[1] However, few studies analyze race by sex groupings, and so, little is known about the *interplay* between these two systems of social oppression (gender *and* race rather than gender *or* race) in determining employment outcomes in South Africa. This is particularly surprising given the striking difference in levels of racial segregation within sexes, but comparable levels of sex segregation within races (King, 1992; Reskin and Padavic, 1999). Second, although a large literature discusses the nature of unemployment in South Africa or the consequence of segregation for

[1] As a result, one would correctly expect minority women, especially Black-African women, to be severely underprivileged in the labor market compared to other social groups.

earnings, few seek to explain the *disproportionate representation* of race-sex groups across finely defined labor market positions or geographically. Different race-sex groups are typified into different professions; for example, while Black African women in South Africa are disproportionately employed in sales and services elementary occupations, white women are employed as office clerks (England, 1992). Thus, the underlying issue of concern here is more than just that an individual is employed; the *type* of occupation is also critical.

To my knowledge, no study has systematically evaluated occupational segregation of various race-sex groups or compared the determinants of Black African women and white women's allocation into disproportionately segregated jobs in a nationally representative sample in South Africa. It is these gaps in research that my dissertation will attempt to fill.

General objectives

Using the 2001 Census, I will describe and analyze occupational segregation in South Africa, with particular emphasis on the interplay of gender, race, and geographical location. The main objectives of the study are as follows:

(1) To describe the separate roles of gender and race in determining an individual's placement in gender segregated occupations

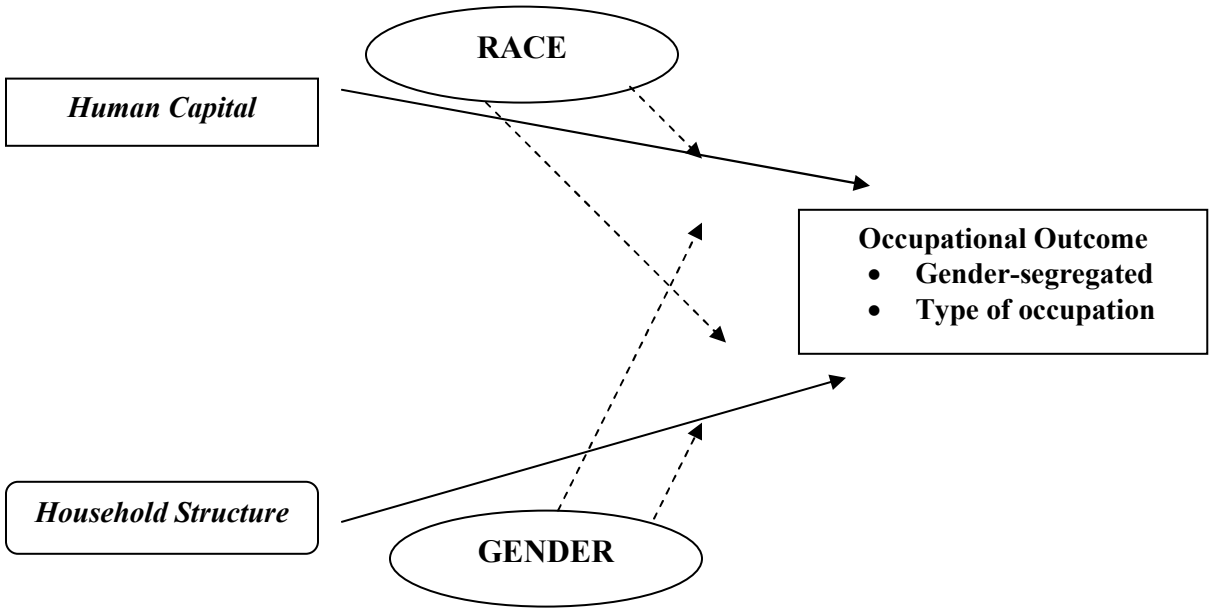
(2) To further analyze how one's gender *interacts* with race to determine his/her placement in gender segregated occupations, while controlling for various individual and household characteristics

(3) To analyze how micro-level determinants such as human capital, family structure, and other socio-demographic variables interact with race and gender to influence an

individual's placement in gender segregated occupations across different geographical areas for these groups

Such an approach will provide us with the opportunity to directly compare minority women with white men, or in fact, any social group that differs from each other in terms of both race and gender.

Conceptual Framework



Conceptual framework (without controls)

Data and variables

Data

I will use the 10% unit level sample of the 2001 South African Population Census, collected by the Central Statistical Organization, Pretoria, South Africa. It is a nationally representative sample of 4,819,778 respondents residing in 846,479 households across 9

provinces. Standard information pertaining to age, sex, relationship with household head, marital status, education, employment status, migration status, number of children ever born to women aged 12-50, and other demographic events are asked of all members in the household.

The Census is useful for studying occupational segregation because of the wide geographic coverage across the nine South African provinces as well as the larger sample size for small occupational groups. Additionally, it has detailed occupational coding (3-, 2-, and 1-digit coding), which makes it particularly useful for computing measures of segregation that tend to be sensitive to greater levels of disaggregation. In the 2001 Census, the first (or 1-digit) occupational level has 9 broad occupational groupings, while the second level includes 27, and the final or third level in the hierarchical system has information for 137 sub groupings.

I have restricted the sample to those between ages 20-55 in order to capture, at the lower end, those who have completed their basic secondary schooling.

Main dependent variable(s)

1) Occupational Status

Likelihood of being employed in a:

- Female-dominated occupation during the past week
- Male-dominated occupation during the past week

Key independent variables

- Gender
- Race

Human Capital

- Years of Education

The continuous variable measures *years of education*, which ranges from 0 (no schooling) to 19 (doctoral degree).[2] One should note that this variable only reflects quantity of education and thus, can be a poor indicator of the real level of education especially for Blacks who suffered low quality schooling during apartheid (Seidman, 2000). According to theories of human capital, education would reduce gender discrimination, thus increasing women's employment in gender-integrated or male-dominated occupations.

- Work experience

Family structure

- Children under age 5
- Marital status

Marital status is a categorical variable with four values: 1) Married (including a small number of polygamous unions), 2) Cohabiting (but not married), 3) Single (or never married), and 4) Widowed/separated/divorced. The reference group is "Married."

Analytic plan

I will conduct the statistical analysis in three sections: (1) a brief descriptive analysis of the data, followed by (2) a bivariate analysis of the key dependent and independent variables

[2] South Africa has twelve years of formal schooling: seven years of *primary school* (encompassing grades 1-2 and standards 1-5) and five years of *secondary school* (standards 6 through 10). To attain a secondary school diploma, students must pass a matriculation exam at the end of secondary school. Historically, very small percentages of Blacks attained secondary school diplomas and even fewer attained post-secondary degrees.

incorporated in the study. Part (3) will include (multivariate) logistic regressions with occupational segregation and specific occupational outcomes as the two dependent variables.

In order to see the main effects of race and gender, I will first estimate simple logistic regression models that include only race, then only sex, and then both, with no controls. Race will be included as 3 dummy variables, with whites as the omitted category. Finally, the sex and race dummy variables will be interacted, leaving white males as the excluded category to which all other groups are compared. The coefficients will represent the extent to which being a member of a racial group has a different effect for women than for men, or alternatively, the extent to which being female has a different effect for members of racial group than for whites.

After that, I plan to estimate a nested multivariate model with controls for several individual and household characteristics; the coefficients on the sex-race interaction terms will indicate an estimate net of the additional control variables. Thus, the effects of the control variables in the model should represent average effects for the South African population of individuals age 25-55.

Urban-rural differences

Apartheid institutionalized African reserves to create patterns of rigid geographic and occupational segregation within the South African landscape, leading to uneven urbanization and development. Hence, the analyses will be conducted separately for urban and rural samples because of the strikingly different labor markets as well as employment opportunities available in both areas. Approximately two-thirds of the population reside in urban areas (although Black-African women predominate in rural areas), and using this dichotomy as a control variable will not enable us to understand the unique and distorted patterns of employment in both regions.