

# Salary disparities in South Africa: An analysis on race and gender in the Labour Market

A Dissertation

presented to

The Development Finance Centre (DEFIC)

Graduate School of Business

University of Cape Town

In partial fulfilment

of the requirements for the Degree of

**Master of Commerce in Development Finance**

by

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MBZNOK001

December 2020

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## **Acknowledgements**

I would firstly like to acknowledge Assoc. Prof. Abdul Latif Alhassan, my supervisor, for his consistent guidance, motivation, and inspiration throughout this journey. His support kept me steadfast until this project's completion. Prof, I am so appreciative of your patience, your timely feedback and reassurance that I would make it to the end of this journey. Thank you!

To the entire team coordinating the MCom in Development Finance programme, thank you for your support and motivation throughout the duration of this course. None of your efforts were in vain and none of them went unnoticed.

Lastly to my family and friends, thank you for your support and consideration throughout this journey. Khosi and Thando, you two held me up in more ways than you can imagine and your belief in me will forever be cherished. Thank you to my parents who have taught me resilience, diligence and that the pursuit of passion is a journey of power.

To God be the glory for his endless measure of grace. Thank you, Lord for this invaluable experience!

## **Dedication**

This dissertation is dedicated to my son, Langa. May you always know that all things are possible.

## **Abstract**

One of the most definitive identifiers of socio-economic status within modern society is a person's salary. In South Africa, labour market income is the largest source of household income when compared to other income sources namely social grants, remittances, income from a business, and pensions (Stats SA, 2019). Labour income is thus the primary source of an individual's sustenance. It determines the lifestyle they can afford and ultimately also conveys their sense of worth to their employer organization and to society at large. Consequently, employees want to be compensated fairly in exchange for their employment contributions. They want to know that they are being paid well relative to others tasked with the same work and with the same level of experience and qualification irrespective of their gender and/or race. Through a quantitative approach with an explanatory research design using regression techniques, salary disparities by race and gender have been analysed in this study using the LMDSA 2018 data.

The analyses of earnings distributed across race and gender revealed that females consistently across all racial groups earn less than their male counterparts. The regression results showed that females overall earn 14% less than males and amongst the four prominent racial groups in South Africa, Blacks earn the least followed by Indians, then Coloureds and Whites earning the most (23% more than Blacks). This puts Black females at the bottom of the labour earnings hierarchy and White males at the top. From this study, salary disparities based on race and gender can be seen very distinctly in South Africa's labour market. The reasons for these disparities are at the very least multidimensional, however the most prominent of these reasons is Education. Education is multifaceted because not only is the level of education completed by employees a cause of the salary disparities but the variance in quality of education received by employees. The variance in quality of education is distinguished by race in this country which at its root cause lies the history of apartheid, and consequently, the quality of education will have an adverse effect on the level of education completed. Income inequality is but one element to many moving parts which contribute to overall inequality in South Africa. Another element is unemployment, and another is the accessibility of quality education. With Blacks being on the lower end of the spectrum in terms of labour earnings, having the highest levels of unemployment amongst all other racial groups and again being on the lowest end of the spectrum in terms of access to quality education and the level of education completed, it comes

as no surprise that Blacks are the poorest in South African society and that overall inequality is steadily rising. We conclude this study by providing recommendations for future studies based on the limitations we encountered as well as policy recommendations to address the high levels of income inequality proven to be prevalent in South African labour market. These include revised HR practices, a rebalance to the tax system and an amendment to the BBBEE scorecard criteria.

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## LIST OF ABBREVIATIONS

BBBEE	Broad-based Black Economic Empowerment
CEE	Commission for Employment Equity
CEO	Chief Executive Officer
CFO	Chief Financial Officer
Covid-19	Corona virus Disease of 2019
CRAM	Corona virus Rapid Mobile Survey
EEAA	Employment Equity Act
EEAA	Employment Equity Amendment Act
GHS	General Household Survey
HIV	Human Immunodeficiency Virus
LFS	Labour Force Surveys
LMDSA	Labour Market Dynamics in South Africa
LRA	Labour Relations Act
MP	Marginal Product
MR	Marginal Revenue
MRP	Marginal Revenue Product
MSE	Mean Squared Error
NDP	National Development Plan
NIDS	National Income Dynamics Study
NRC	National Research Council
OLS	Ordinary Least Squares
PSU	Primary Sampling Units
QLFS	Quarterly Labour Force Survey
SA	South Africa
SASCO	South African Standard Classification of Occupations
SDG	Sustainable Development Goals
Stats SA	Statistics South Africa
USA	United States of America
WEF	World Economic Forum

# Chapter 1 Introduction

## 1.1 Background of study

One of the most definitive identifiers of socio-economic status within modern society is a person's salary. In South Africa, labour market income is the largest source of household income when compared to other income sources, namely social grants, remittances, and income from business (Stats SA, 2019). Labour income is thus the primary source of an individual's sustenance. It determines the lifestyle one can afford and ultimately also conveys their sense of worth to their employer organization and to society at large. Consequently, as proposed by Festinger (1954) in his social and comparison theory, people are driven to know how they compare to similar others in terms of their capabilities and it is through acquiring this knowledge that they establish accurate knowledge of themselves relative to others. This indicates that a person's salary is a social variable (Suls, et al., 2002). Employees want to be compensated fairly in exchange for the contributions made to their respective organizations. They want to know that they are being paid well relative to others tasked with the same work and with the same level of experience and qualification irrespective of their gender and/or race. Ironically, employees are required by their organizations to keep their salaries secret and not disclose them to fellow employees (Colella et al., 2007). Fellow employees aside, it appears that generally, members of the public would rather report details of their sex lives than discuss details about their income (Gely & Beirman, 2004).

An important distinction to be made for the purposes of this paper is that between equality and equity. Equality promotes fairness and justice by giving everyone the same thing, but it can only work if all participants start from the same place. Equity prioritises fairness, it endeavours to give people access to the same opportunities. Sometimes history can create barriers to participation for certain parties, in which instance it is important to ensure equity before equality can be enjoyed (Wilkinson & Pickett. 2017). One cannot consider equality or equity in the South African context without closely examining its history. Coming from a legacy of apartheid which was a system of institutionalised racial segregation that ruled over South Africa formally from 1948-1994, race is a fundamental factor that must be taken into account when considering access to opportunities within South African society both historically, and unfortunately, even in the present day. The societal inequalities and disparities we see today

are a direct consequence of the policies implemented through the system of apartheid (Cheryl de la Rey, 2019).

Under the apartheid system, South Africa was segregated into four racial groupings namely African/Black, Coloured, Indian/Asian, and White. This system was designed to cement white supremacy and control over the economic and social system of South Africa, and at the core of its intent was to segregate and exclude all non-white racial groups economically, politically, and socially. During this time, the official state policy allocated most of the country's population (19 million Blacks) to only 13% of the land and their share of national income was less than 20%. However, Whites (4.9million) held a share of 75% of national income and the ratio of average earnings between Blacks and Whites was 1:14 (to Whites) Students of Stanford (1978) Figure 1. Without land and significantly lower earnings the inequality gap between White and non-Whites grew exponentially and, without appropriate redress once apartheid ended, these inequalities have become the inheritance of post-apartheid South Africa.

In the Development Indicators 2017 Report which monitors the implementation of the National Development Plan (NDP) vision (2030) the most critical challenges facing South African society are unemployment, poverty, and inequality. The World Bank defines poverty as the "inability to attain a minimal standard of living"- measured in terms of basic consumption needs (Bhorat, 2009). In 2018 South Africa's total population was 57,73 million. When divided by its racial groupings, 80.9% (46,70 million) was Black, 8.8% (5,08million) was Coloured, 2.5% (1,44million) was Indian and 7.8% (4.50million) was White. The annual income per capita of a Black South African was R34,477 while the annual income per capita of a White South African was R226,161 (6.6 times more) General Household Survey, StatsSA (2018). Considering this prevalent inequality, the notion of equal pay for work of equal value has never been more relevant.

This study is not oblivious to the studies that have shown that global wealth inequality is persistently higher than income inequality (Piketty & Zucman, 2015). The excessive inequality we see between Blacks and Whites is thus not all directly attributable to income differentials within the labour market but also attributable to the ownership of assets, particularly land and housing, upon which wealth has been established between the racial groups over the years since the reign of apartheid (Living Conditions of Households in South Africa 2014/15, StatsSA). South Africa, however, is a country ranked high in terms of income inequality by international

standards with an income Gini-coefficient of 0.64 (World Bank 2017). This study seeks only to explore the income inequality divide by race.

The methodology adopted to determine whether salary disparities exist within the South African labour force was multiple regression. This methodology makes it possible to predict the salaries for males and females of all racial groups in South Africa if career attributes are weighed in the same way as those of White males. With a high-income Gini-coefficient, it stands to reason that racial disparities in salaries for work of equal value could very well be a driving force behind the increasing divide in income inequality. Although strides have been taken to increase the number of occupants within the work force through the implementation of affirmative action to redress the disadvantages in employment experienced by designated racial and gender groups, from the inequality that is still prevalent in South Africa's labour market it is evident that still more needs to be done.

## **1.2 Problem Statement**

Discrimination in the labour market was at the core of the apartheid system. This discrimination resulted in decisions concerning recruitment, remuneration, firing and retrenchments having been based on non-productivity-related criteria. (Hinks, Allanson & Atkins , 2002). Is it unfair to compensate employees differently for doing the same work in South Africa? No, it is in fact not unfair to compensate employees differently for the same work, only if the variation in compensation is not based on discrimination. The follow-up questions then become, 1) what constitutes discrimination? And 2) what are fair bases for compensating employees differently?

Discrimination is the different treatment of a person or a group of people, in a way that is worse than the way people are usually treated due to a certain characteristic, which becomes the basis of discrimination for example, gender, race, social class, and so on (Dabady & Citro, 2004). It would therefore be unfair to compensate employees differently for the same value of work based on race or gender. Legislation currently in place specifically regulating compensation in the workplace in South Africa includes The Labour Relations Act, 1995; Basic Condition of Employment Act, 1998; Promotion of Equality and Prevention of Unfair Discrimination Act, 2000; Employment Equity Amendment Act 47 of 2013 (EEAA); The Draft Employment

Equity Regulations, 2018; and The Draft Code of Good Practice on Equal Pay for Work of Equal Value (No 38031).

The Labour Relations Act 1995 is established on the limitations on discrimination detailed in the Bill of Rights and the Constitution (Presidential Commission, 1996). The Basic Conditions of Employment Act 1998 establishes how efficiency can be achieved in the workplace whilst promoting social justice. The Employment Equity Amendment Act (EEAA) establishes racial employment targets using affirmative action. The Promotion of Equality and Prevention of Unfair Discrimination Act 2000 legislates the prevention and prohibition of unfair discrimination to promote equality in the labour market. These various Acts have been implemented to ultimately counter the discriminatory practices and attitudes that have sustained the labour practice of overpaying a particular racial group whilst underpaying another. However, despite this, labour earnings disparities are still prevalent within South Africa's labour market. Various studies indicate that income inequality will remain high not only as a result of joblessness but also because of the high wage inequalities in the workplace (Development indicators report, 2017).

What is evident from the slow reforms, as referenced by research conducted by Allanson et al. 2002, is that some forms of discrimination can be persistent and not easily addressed by implemented legislation. The purpose of the EEAA is to achieve fairness in the workplace by promoting equal opportunity and fair treatment in employment as well as the implementation of affirmative action. Its goal is to ensure that designated groups are represented in all occupational categories and levels in the workforce. Designated groups comprise Blacks, Indians, Coloureds, women or people with disabilities.

*“The Act prohibits any form of direct or indirect unfair discrimination by an employer in any employment policy or practice on one or more grounds including race, gender, pregnancy, marital status, family responsibility, ethnicity, colour, sexual orientation, age, disability, religion, HIV status, conscience, belief, political opinion, culture, language and birth”.* (EEA, Chapter2, Page 7)

The Code of Good Practice on Equal Pay for Work of Equal Value (No 38031) does not impose additional legal obligations on the employer but rather provides guidance when interpreting the EEAA and Draft Employment Equity Regulations. The Code was drafted to provide practical

guidance to employers and employees on how to implement equal remuneration for work of equal value. Section 5.3 of the Code lists criteria used to evaluate job value, which include: the responsibility demanded of the work, the formal and informal skills and qualifications required to perform the work, as well as the physical, mental, and emotional requirements of the work. Once the criteria on which job value is based have been established, it is important to identify factors that justify pay differentiation (as per section 7 of the Draft Code of Good Practice on Equal Pay for Work of Equal Value). These include individuals' seniority or duration of service, their qualifications, skills and their potential above the minimum acceptable levels required for the job. Also, an individuals' performance, which includes both their quality and quantity of work, where an employee is demoted due to a company restructuring (or other legal reason) without a reduction in remuneration. These also include where an individual is employed temporarily in a position to gain on-the-job experience or training and is subject to different employment terms and conditions compared to full-time employees, or where there is a shortage of the relevant skill in a particular job classification, and any other relevant factor that does not unfairly discriminate.

Apart from these above-mentioned factors that justify pay differentiation and based on the existing body of legislation surrounding this topic, workers within South Africa's labour force should not be racially discriminated against when it comes to compensation. Doing so is deemed to be in contravention of the EEAA.

A similar study was conducted by Rospabéa (2002) – How did labour market racial discrimination evolve after the end of apartheid? – an analysis of the evolution of hiring, occupational and wage discrimination in South Africa between 1993 and 1999. This study focused on estimating the extent of racially discriminatory labour practices that existed in South Africa during the first five years of its democracy. It not only looked at racial discrimination in earnings but also looked at labour participation and occupation. With Rospabéa (2002) having found that discrimination in labour participation had decreased during the period under review, specifically, where more people from designated groups were being hired, she found that occupational and wage discrimination had strengthened. This study is focused on establishing more recent data with a deeper prioritisation of salary disparities between race and gender. Why are salary disparities still so persistent in South Africa 26 years post-apartheid? Why is the legislation currently in place failing to redress this issue, and how much is this form of discrimination contributing to the prevalent issue of socio-economic inequality?

### **1.3 Research objectives**

The study has been purposed with examining two elements:

- 1) Examine salary disparities based on race and gender within South Africa's labour market.
- 2) Examine the effect of socio-economic factors on salary disparities within South Africa's labour market.

This study does not include a hypothesis statement. The hypothesis is essentially the expectation of how the identified independent variables effect the depend variable (salaries). These variables were discussed in more detail in chapter 3 (Methodology). There is no significant difference in salaries of male and female South Africans related to variables other than those which have been discussed.

### **1.4 Justification of the study**

This study seeks to investigate salary disparities based on race and gender within South Africa's labour market and to establish the extent to which these salary disparities correlate to socio-economic inequalities within the South African population. Establishing this correlation will substantiate that one way to significantly reduce the socio-economic inequality so rife in this country would be to reduce income inequality in the labour market by reducing salary disparities based on race and gender.

When the changes in inequality were examined over the years 1995 – 2005, inequality was found to not only remain high but significantly increase over this period. Wage inequalities were found to be the primary contributor to the growing income inequality (Bhorat, 2007). There are many dimensions of inequality namely, income inequality, inequality by race, spatial and urban inequality, wealth inequality, inequality in the ownership of assets and inequality in land ownership. In this study we look only at income inequality by race and gender and more specifically at the primary source of income which is labour earnings.

It is outlined in South Africa's National Development Plan (NDP, 2011) that the country's primary challenges are poverty and inequality, these are evidently exacerbated by rising unemployment. The NDP has set a goal of full employment by 2030. Income inequality is a

crucial issue when considering the development of an economy. *“Not only is it unjust according to most philosophical perspectives, but evidence indicates that it is deleterious to general well-being, social stability, economic growth and prosperity.”* (Stewart & Samman, 2014). It therefore comes as no surprise that reducing inequalities is one of the United Nations’ Sustainable Development Goals (SDG). The SDGs are 17 goals implemented to be the blueprint to achieve a better and more sustainable future for all nations by the year 2030. In totality they address global challenges including those related to poverty, education, inequality, climate change, environmental degradation, prosperity, peace, and justice.

Goal 10 of the SDGs is to reduce inequalities within and among countries. This is to be achieved through the “promotion of social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status” (UN, 2015). As well as by “adopting policies, especially fiscal, wage and social protection policies that progressively seek to achieve greater equality” (UN, 2015). Goal 5 of the SDG’s is to achieve gender equality and empower all women and girls everywhere. One of the strategies through which this is to be achieved is by adopting and strengthening already implemented policies and enforceable legislation to promote gender equality and female empowerment at all levels. Goal 8 of the SDG’s is to “promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all” (UN, 2015).

From these SDG’s and related targets, we see that without addressing inequality sustainable development is unachievable. Reducing inequality will require transformative and systemic change curated and implemented by policymakers and leaders to promote inclusive social and economic growth. Reducing salary disparities based on race and/or gender will require discriminatory laws, policies and practices to be revised and reformed including a change in labour laws and/or a review of Broad-based Black Economic Empowerment.

There has been research focusing on overall income (Leibbrandt, Poswell, Naidoo, Welch, & Woolard, 2005; Leibbrandt, Finn, & Woolard, 2012) and wage inequality in South Africa (Burger & Yu, 2007; Burger & Teal, 2015; Ntuli & Kwenda, 2014; Wittenberg, 2014, 2016, 2017). Studies have also been conducted on South African regional wage disparities (Kingdon & Knight, 2006; Magruder, 2012; von Fintel, 2017; Mudiriza & Edwards, 2017). There is limited research available on salary disparities based on both race and gender in the South

African context and the correlation of these disparities to inequality provides substantial scope for further research in this area.

## **1.5 Organisation of the study**

Chapter 1 will present the background of the study and introduce the problem statement, research objectives and justification of the study.

Chapter 2 will present a summary and critical synthesis of the literature and relevant research including existing theories and frameworks.

Chapter 3 will present the methodology and procedures used for data collection and analysis.

Chapter 4 will contain an analysis of the data and presentation of the results.

Chapter 5 will offer a conclusive summary and discussion of the study's findings, policy recommendations and recommendations for future research.

## **Chapter 2 Literature review**

### **2.1 Introduction**

In this chapter we take a more pronounced look at the literature available to unpack our research mandate. We begin this section with an overview of salaries and inequalities in South Africa considering the country's history of apartheid and what this system sought to achieve politically, socially, and economically. We then delve into theoretical frameworks that determine labour market outcomes, namely the theory of a competitive labour market, the marginal revenue productivity theory of wages, Adams' equity theory of motivation and the theory of social distributive justice. Lastly in this section we look at the empirical literature on earnings disparities to establish the empirical landscape on this subject.

### **2.2 Overview of salaries and inequalities in SA**

Within the South African context, race is particularly relevant in determining labour market outcomes given the history of the country's racial divide. The racial segregation institutionalized by apartheid allowed for the avoidance of non-white citizens by excluding them from the South African economy. The impact of an institutionalized system of racial segregation on employment culture, educational opportunities, and compensation, can be long-lasting and can continue to exist without any intentional effort to redress past injustices. Identifying this historical racial divide in South African society is the starting point of our analysis of salaries and inequalities.

Knight and McGrath (1987) define racial wage discrimination as, "differences in earnings amongst people of different races but of equal productivity as determined by their endowments of such economic characteristics as ability and human capital". Policies such as the BBBEE policy framework have been implemented by the South African government to redress the inequalities brought about during apartheid. BEE implemented in 2003 was subsequently amended to BBBEE in 2013 (Werksmans Attorneys, 2018). BBBEE is an economic restructuring program that seeks to economically empower previously marginalised racial groups i.e., Blacks, Coloureds, and Indians by promoting their economic participation in the SA economy. To achieve this there are five elements on the BBBEE scorecard (please refer to table 2.1) that need to be addressed to score points which will ultimately measure a firm's BBBEE status (please refer to tables 2.2). "The five BBBEE elements are namely equity ownership, management control, skills development, new enterprise and supplier development,

and socio-economic development” (Werksmans Attorneys, 2018). Dependent upon a firm’s BBBEE status, a firm will place itself in a favourable position and one that stands to benefit from economic opportunities flowing from the government’s significant value chain, the higher its BBBEE status (level 1 being the highest level). Being BBBEE compliant also comes with favourable tax gains.

Table 2.1 BBBEE Elements

BBBEE Element	Maximum Number of Weighted Points Available
Equity Ownership	25
Management Control	15 plus 4 bonus points
Skills Development	20 plus 5 bonus points
New Enterprise and Supplier Development	40 plus 4 bonus points
Socio-Economic Development	5
Total	118

Source: BBBEE Act and Codes Explained, Werksmans Attorneys (2018)

Table 2.2 BBBEE Status

BBBEE Status	Number of Weighting Points Required
Level 1	≥ 100 points
Level 2	≥ 95 but < 100 points
Level 3	≥ 90 but < 95 points
Level 4	≥ 80 but < 90 points
Level 5	≥ 75 but < 80 points
Level 6	≥ 70 but < 75 points
Level 7	≥ 55 but < 70 points
Level 8	≥ 40 but < 55 points
Non-Compliant	< 40 points

Source: BBBEE Act and Codes Explained, Werksmans Attorneys (2018)

In his critique on the implementation of BBBEE policy framework, Pooe (2013) highlights that “policy failure occurs either because a policy is not well formulated, or its implementation is simply unsuccessful.” One of the challenges specific to the BBBEE policy framework has been that the policymakers (SA government) who develop the policy have no control over the people

or organizations (firms in the market) expected to implement the policy. Therefore, despite such direct efforts by the government to transform and deracialize South Africa's labour market, economic opportunities in this country are still heavily determined by race.

While the apartheid system was formally introduced in 1948, "official labour market discrimination can be traced back as far as the Mines and Regulation Act 1911" (Lundahl & Wadensjo, 1984). This act specifically prohibited Black workers from occupying specific jobs in the mining sector, and, over time, this colour barring policy was extended to other races and sectors within South Africa's labour market (Allanson et al., 1999). In the Industrial Conciliation Act 1956, legislation on job reservation for White workers was implemented and such policies were further reinforced through Pass Laws which restricted the movement of non-whites to certain areas and between localities. Through these Acts, competition in certain jobs was restricted (Freund, 1988) thus creating contrived wage rates. "Non-white workers found themselves 'crowded down' into unskilled occupations where, because of the large labour supply, wages were lower than the competitive norm" (Allanson et al., 1999). This was further compounded by the racially segregated education system brought about by the implementation of the Bantu Education Act 1955, which affected only Black pupils.

To properly depict the racial disparities in wages in South Africa's labour market both during and post-apartheid, Leibbrandt *et al.* (2001) derive a series of estimates of the per capita incomes by racial grouping since 1917 to 2018 from a range of data sources. These are presented in Table 2.3.

Table 2.3: A compilation of estimates of annual per capita personal income by race group in 2000 ZAR and relative to White levels, 1956-200

		Per capita income in constant 2000 ZAR:					
		Year	White	Coloured	Asian	Black	Average
During apartheid	1956	R30 494	R5 158	R6 668	R2 627	R8 541	
	1960	R31 230	R4 977	R5 340	R2 532	R8 378	
	1970	R45 751	R7 929	R9 248	R3 133	R11 140	
	1975	R49 877	R9 688	R12 687	R4 289	R12 696	
	1980	R48 340	R9 238	R12 304	R4 088	R11 818	
	1987	R45 828	R9 572	R13 823	R3 879	R10 661	
	1993	R46 486	R8 990	R19 537	R5 073	R11 177	
Post-apartheid	1995	R48 387	R9 668	R23 424	R6 525	R12 572	
	2000	R56 179	R12 911	R23 025	R8 926	R16 220	
	2008	R75 297	R16 567	R51 457	R9 790	R17 475	
		Relative per capita personal income (% of White level):					
		Year	White	Coloured	Asian	Black	Average
During apartheid	1956	100	16,9	21,9	8,6	28,0	
	1960	100	15,9	17,1	8,1	26,8	
	1970	100	17,3	20,2	6,8	24,3	
	1975	100	19,4	25,4	8,6	25,5	
	1980	100	19,1	25,5	8,5	24,4	
	1987	100	20,9	30,2	8,5	23,3	
	1993	100	19,3	42,0	10,9	24,0	
Post-apartheid	1995	100	20,0	48,4	13,5	26,0	
	2000	100	23,0	41,0	15,9	28,9	
	2008	100	22,0	60,0	13,0	23,3	

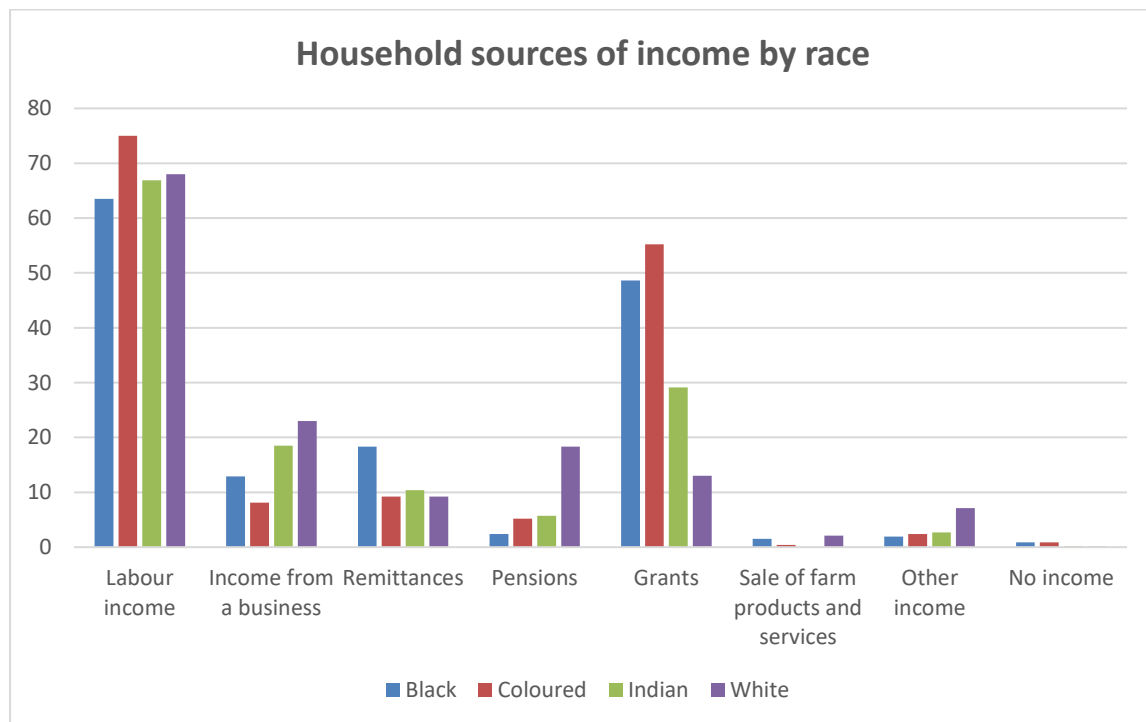
Source: Leibbrandt et al. (2001)

Two key points emerge from the two sections of the table. Firstly, average incomes have shown an increasing trajectory both on average and within each individual racial group over the periods during and post-apartheid. Secondly, from the relative ratios presented in the bottom section of the table severe disparities in personal income by race are evident with Coloureds and Blacks earning less than the racial average. From these ratios, we see that generally under the period under review, Blacks are poorer than Coloureds, who are significantly poorer than

Indians, who are poorer than Whites. The fact that these income gaps are persistent during and post-apartheid indicates that they are the products of a long-run development trajectory of the South African economy. As evidenced from this table, the inequality gap between races is still being perpetuated, even beyond the abolition of apartheid.

In its General Household Survey (2018), Stats SA categorizes household income into seven main categories namely Labour income (salaries/wages/commission), Income from a business, Remittances, Pensions, Grants, Sale of farm products and services and Other income (Figure 1).

Figure 1: Household sources of income by race - General Household Survey, Stats SA



Source: Assets and Income Report, G van Heerden, 2019

From the graphical representation in figure 1, we see that labour income is the largest source of household income across all racial groupings in 2018, thus affirming the paramount contribution made by labour earnings to household income. Since labour income is the key contributor to total income, it can be deduced that it would also be the income source that contributes most significantly to income inequality. (Bhorat, 2009). In a study conducted by Bhorat reviewing the period 1995 and 2005, he found that not only had income inequality remained high during the period under review, but it had been the primary contributor to the

growing income inequality. This point is further reiterated by occupational level by race and gender as it stands to reason that the higher one’s occupational level, the higher the labour income earning potential.

Table 2.4 Occupational level by race and gender in 2001 and 2019

Occupational level	Period	White	African	Coloured	Indian	Male	Female
Top Management	2001	87%	6%	3%	4%	87%	13%
	2019	66%	15%	6%	10%	76%	24%
Senior Management	2001	81%	9%	5%	5%	80%	20%
	2019	54%	24%	8%	11%	65%	35%
Professionally Qualified	2001	56%	33%	6%	5%	62%	38%
	2019	35%	43%	10%	9%	53%	47%
Technical Skilled	2001	18%	62%	18%	6%	60%	40%
	2019	18%	63%	12%	5%	52%	48%

Source: CEE Annual Report 2019/20 page 6

*“The B-BBEE Commission National Status Report on Broad-Based Black Economic Empowerment for 2018 shows that White people and Foreign Nationals account for 62% in 2018 (58%: 2017), with Black males recording 16,76% (20%: 2017) and females at 21,63% (18%: 2017) for management control. The data is based on directorship and not all levels of management control. Nonetheless, this demonstrates a low level at board level, which has an indirect impact on below levels of management because of the power and bargaining imbalances between black people and non-black people.” (CEE Annual Report 2019/20 page 6)*

“The historical legacy thesis suggests that net wealth differences in the current generation are largely a result of discrimination in past generations; that is, they can be traced to the ‘head start’ that Whites have enjoyed in accumulating assets and passing them on” (Conley, 2007). Wealth contributes significantly to the financial capital available to a household because assets can produce income and/or can minimize expenses that would ordinarily come out of a family’s earned income (Orr, 2003).

### 2.3 Theoretical framework: Determinants of salaries

One’s salary is a compensation of the maximum reward associated with fulfilling a contractual obligation agreed upon between an employer and employee (Workplace fairness, 2019).

Gender, age or racial compensation discrimination occurs when employees performing substantially equal work do not receive the same pay for their work based on their gender, age, or race. It is job content and not job title that determines whether jobs are substantially equal (Workplace fairness, 2019). The sections below provide a comprehensive overview of theories relevant to the determination of fair and impartial salaries both in South Africa and abroad.

### **2.3.1 Theory of competitive labour market**

From a market perspective we must start off by establishing who determines the wage rate. In a perfectly competitive labour market, each firm is a wage taker and so the wage rate is determined in the industry rather than from an individual firm. The labour supply to the individual firm is therefore perfectly elastic in the market, meaning any change in price results in an infinite amount of change in quantity. In this instance, the actual equilibrium wage is set in the market. South Africa was ranked 60<sup>th</sup> by the World Economic Forum in the 2018 edition of Global Competitiveness Report assessing 140 economies. In this 2018<sup>th</sup> edition of the report, a new ranking methodology was introduced “emphasizing the role of human capital, innovation, resilience and agility as defining features of economic success in the 4<sup>th</sup> Industrial Revolution” (World Economic Forum, 2018). South Africa’s economy is therefore not perfectly competitive by global standards but deemed a competitive labour market none the less. In such markets worker’s wages should reflect their marginal productivity.

### **2.3.2 Marginal revenue productivity theory of wages**

In accordance with “neoclassical economics, assuming that a firm is profit-maximizing, it will employ labour only up to the point that it is not detrimental to do so i.e., marginal labour costs equal the marginal revenue generated by the firm. The marginal revenue product (MRP) is therefore equal to the product of marginal product of labour (MP) and the marginal revenue” (MR):  $MRP = MP \times MR$  (Hamermesh, 1986). In accordance with this theory, if the marginal revenue brought about by employing additional labour is less than the marginal product of labour, employing that labour will not be beneficial to the firm as it will in-fact cause a decrease in profit.

### 2.3.3 Equity theory of motivation

In accordance with Adams' equity theory (1965), "equity is determined by the relationship between the outcomes (O) and inputs (I) of an individual in comparison to the perceived outcomes (O) and incomes (I) of relevant others. Inequity exists for a person whenever he perceives that the ratio of his O-to-I is unequal to the O-to-I ratio of relevant others" (Tremblay, St-Onge & Toulouse, 1997). This may happen either (a) when the person and the relevant other are in a direct exchange relationship or (b) when both are in an exchange relationship with a third party and the person compares themselves to other. Inputs in a job situation include one's level of education, their qualifications and hours worked on the job. Outcomes include one's pay, fringe benefits, status and the intrinsic motivations derived from working (which granted may be subjective in their measurability particularly where these motivations are intangible). It must be noted that the determinants of "equity of a particular input-outcome balance are the individual's perceptions of what he/she is giving and receiving, and these perceptions may or may not align with the perceptions held by another person." (Huseman, Hatfield & Miles, 1987)

Adams' equity theory of motivation is founded on the principle that individuals are motivated by fairness and that the presence of inequity will motivate an individual to achieve equity or to reduce inequity. This is achievable by adjusting their input or output to reach their perceived equity. Adams also adds that "the strength of the motivation to reduce the inequity will vary directly with the perceived magnitude of the imbalance experienced between inputs and outcomes" by an individual (Huseman, et al., 1987).

The needs equity rule drawn from Adams' equity theory evaluates four important forms of fairness:

a) External equity.

The "comparisons between the perceived O-to-I ratio for an individual and the perceived O-to-I ratio of relevant others outside his/ her company or organization (for example, a supervisor compares his O-to-I ratio to that of another supervisor who holds a similar job on the market)" (Tremblay, et al., 1997).

b) Internal equity

"The comparisons between the perceived O-to-I ratio for an individual and the perceived O-to-I ratio of relevant others within his/her company or organization (for

example, a supervisor compares his O-to-I ratio to that of his subordinates).” (Tremblay, et al., 1997).

c) Individual equity

An employee assesses his individual equity of salary by asking the following question: "To what extent does his salary, for the same job, take into account his individual contribution (e.g., his performance or his seniority)?" (Tremblay et al., 1997).

d) Self-equity

”Which equates to an individual comparing his perceived Output and Expectations (e.g., personal needs, past situation).” (Tremblay, et al., 1997). This means that he asks himself "To what extent does my salary take into account my personal needs or my salary progression in the past?"

It must be noted that individual employees view equity differently from organizations. Organizations generally compare themselves to other organizations versus individuals who tend to compare their pay to that of other people within or outside of their employer organization. “For this reason, perceptions of internal equity can influence a company's compensation objectives as much as or more than external equity can” (Romanoff & Levine, 1986).

In a study conducted by Nash (1972) participants were asked which of the three situations would make them the most resentful, “1) If they were paid less for similar work than employees were paid in *other* organizations, 2) If they were paid less for the same work than employees were paid in their *own* organization or 3) If they were paid less for different work than employees were paid in their *own* organization.” 78% of the respondents indicated that they would be the most angered if they found themselves paid less than others doing the same job in their own organization (option 2). (Of this 78%, 64% ranked similar job/different company second in importance (option 1).) So, quantitatively, how much of a differential between an employee and his/ her relevant others is deemed to result in feelings of inequity? “Studies suggest that employees perceive pay inequity when there is a pay differential approaching 15%-20%” (Romanoff, 1986).

In accordance with Adams’ theory, the greater the inequity perceived, the more distressed an individual will feel. The greater the distress felt by an individual the harder he/she will strive

to restore equity. This distress prediction assumes that individuals are equally sensitive to equity i.e., that outcome/input ratios be equal to that of comparison others.

### **2.3.4 Theory of social distributive justice**

The theory of distributive justice determines how scarce resources should be allocated or shared among individuals in a society or group. To combat this unjust and prejudicial compensation discrimination based on race justice must prevail, however, justice itself is not a single concept. What is fair for one party may not be fair for another. From his *magnus opus*, *A Theory of Justice*, Rawls (1971) “identifies three considerations of justice, first, equal basic liberties are to be secured; second, fair equality of opportunity is to be secured; finally, economic inequalities are to be arranged to the greatest benefit of the least advantaged group” (Knight, 2014) “For some people fair salaries are those determined according to the individual needs of employees (i.e., they follow the needs rule). For others, salaries are fair if they are at the same value for all (i.e., the equality rule). Others believe that a salary is fair if it is proportionate to their personal contribution (i.e., the equity rule)” (Tremblay, et al., 1997). The equity rule is the rule most frequently adopted by Western/ modern society (Meindl, 1989).

## **2.4 Empirical literature**

Many studies (Allanson et al, 2000; Burger and Yu, 2007; and Borhat & Kanbur, 2005) have produced evidence in support of there being wage differentials by race both during and post-apartheid with the position of the Black worker deteriorating relative to the wage of coloureds, Indians, and Whites. The exception to this stance has been by Knight and McGrath (1987) who found that the mean wage difference between Whites and Blacks declined during apartheid and by Moll (1995) who also found racial disparities in wages to have decreased considerably in the last few years of apartheid leading into early post-apartheid years.

This study seeks to extend on the body of research previously done on wage trends in post-apartheid South Africa by looking specifically at earning disparities as a cross tabulation between race and gender. By doing so it builds on the analysis of wage differentials between racial groups by Allanson et al (2000), Burger and Yu (2007) and Borhat & Kanbur (2005) which specifically looked at wage trends by race and or by gender individually within the first decade post-apartheid. Using the findings from Leibbrandt, Finn and Woolard (2012) South Africa’s labour market remains the main driver of aggregate inequality therefore earnings

(salaries) from this labour market will be the dependent variable used. With reference to studies done by Ntuli and Kwenda (2014), Mudiriza (2017) and Schultz and Mwabu (1998) labour union membership, geographic location and duration of education will be included as independent variables as these have all been found to contribute to wage disparities.

## **2.5 Chapter summary**

What is established from the review of literature is that over the passage of time post-apartheid, little has been done to effectively reduce the disparities in earnings between racial groups and/or genders. Earnings disparities particularly between Whites and Blacks are still very prevalent within South Africa's labour market post-apartheid. This merely emphasizes the perpetuated nature of both privilege and disadvantage which ultimately breeds increased inequality. There is therefore a continuing role for the monitoring and analysis of earning differentials by racial grouping to inform policy interventions and reforms.

## **Chapter 3 Methodology**

### **3.1 Introduction**

This section describes the methodology for carrying out our study which examines salary disparities based on race and gender within South Africa's labour market. It begins by explaining the research approach adopted to address the research mandate most appropriately. It then details the research design which includes the source of data used, sample size and sample period, as well as the regression equation used to determine monthly earnings for employees. Also included in the research design is a description and measurement of both the dependent and independent explanatory and control variables. Lastly this section looks at the estimation technique used and concludes by highlighting some research limitations identified.

### **3.2 Research Approach**

With salaries being quantifiable in nature, examining disparities therein requires an analysis of quantifiable data. A quantitative approach was therefore the most appropriate for purposes of analysis and the required data was obtained from the Labour Market Dynamics Survey of South Africa (LMDSA) 2018 published by StatsSA. A careful selection of dependent variables has been made for this approach to provide systematic information about the existing disparities in salaries earned by race and gender. More specifically, the quantitative approach allows for the estimation of economic and statistical effects of the explanatory variables on salary differentials in South Africa.

### **3.3 Research Design**

#### **3.3.1 Data source, sample size and period**

The purpose of this study is to describe the status of salaries earned within South Africa's labour market. The appropriate type of research design is therefore descriptive research. This study does not seek to examine the relationship between two or more variables using statistical data therefore renders the correlational research design inappropriate. Neither does this study seek to establish a cause-effect relationship among variables therefore rendering the causal

comparative/ quasi experimental research and experimental research designs as inappropriate. The statistical software used to analyse the LMDSA data was Stata13. This is a powerful statistical tool commonly used to analyse and examine data patterns and would thus be appropriate for the purposes of this study. The Quarterly Labour Force Survey (QLFS) datasets for the four quarters of 2018 have been pooled together to form an annual dataset upon which the LMDSA 2018 report is based. This is the report which was imported into Stata13 for the purpose of analysis.

In conducting the surveys, Stats SA “uses a master sampling technique in which the sample is drawn from primary sampling units (PSUs) that are equally divided into four subgroups and rotated for each quarter. The method ensures that the sample is representative across various aspects, including provincial level, metro and non-metro areas as well as geography type (urban and informal)” (StatsSA, 2018). The survey attributes the collection of data across all ages of labour market participants, namely ages 16 – 65 years. The total sample of labour market participants was comprised of 275,382 persons. However, for the purposes of this study only employed persons will be considered, thus reducing our sample to 73,121 observations of persons employed either on a full-time or part-time basis across all nine provinces within the country. We excluded individuals with missing information on any of our key variables.

The “QLFS sample covers the non-institutional population except for workers’ hostels. However, persons living in private dwelling units within institutions were also counted. For example, within a school compound, one would enumerate the schoolmaster’s house and teachers’ accommodation because these are private dwellings. Students living in a dormitory on the school compound would, however, be excluded.” (QLFS, 2018)

Only one period was used for the purposes of this study as the objective was not to develop a trend analysis but contrarily to reflect on the position of South Africa’s labour market at a particular point in time, namely the year 2018.

### **3.3.2 Regression Equation**

We begin our equation by identifying the dependent variable which in this instance is labour income i.e., monthly salaries. This variable is dependent upon both explanatory and control independent variables, namely race, gender and age; and control variables, namely marital

status, province, educational level completed, years of work experience, sector of employment, industry, occupation, metro code and trade union membership.

$$SAL_1 = \beta_0 + \beta_1 RACE_i + \beta_2 GEN_i + \beta_3 AGE_i + \beta_4 MS_i + \beta_5 PROV_i + \beta_6 EDU_i + \beta_7 WRKE_i + \beta_8 SEC_i + \beta_9 IND_i + \beta_{10} OCC_i + \beta_{11} MET_i + \beta_{12} TU_i + e_i$$

Where  $SAL_1$  represents monthly earnings for employees and is the dependent variable.  $\beta_0$  is the constant in the equation and  $\beta_1 \dots \beta_{12}$  represent the independent explanatory and control variables in the selected sample, namely race, gender, age, marital status, province, educational level completed, years of work experience, sector of employment, industry, occupation, metro code and trade union membership, respectively.  $e_i$  denotes the coefficient of the error correction term from the extracted sample.

### 3.3.3 Description and measurement of variables

We looked to theory and existing literature to justify how the dependent variable is influenced by the main variables of interest. We have included this analysis below.

#### 3.3.3.1 Salaries

For the purposes of this study, the dependent variable is represented by monthly earnings. We have thus far established labour earnings to be the largest source of household income across all racial groupings as per Stats SA (2018), thus making this the ideal variable to analyse disparities within the labour market based on race and gender.

#### 3.3.3.2 Race

Allanson et al., (2000) in their analysis of wage differentials between racial groups in South Africa, found that race does influence wages as Whites received the highest wages followed by Asians, then Coloureds and at the end of the score-card, Africans. Productivity differences were shown to explain approximately two-thirds of the White and African wage differentials, with the unexplained residuals attributable to discriminatory overpayment of Whites and underpayment of Africans, and virtually all the Asian and Coloured differentials.

### *3.3.3.3 Gender*

Prior studies have proven that gender is a significant variable in assessing disparities in labour earnings as women remain substantially disadvantaged and discriminated against in the workplace (Bakari, 2014). More recent studies in the United States however have shown a declining gap between male and female earnings particularly at the top of the wage distribution more so than at the middle or bottom (Blau & Kahn, 2017) attributing this to the similarities in schooling level between both male and female students, work experience and early entry of women into higher paying occupations. This would not necessarily be the case in South Africa as an emerging economy where higher paying occupations are still predominantly male dominated (e.g., engineering) and where male learners on average still achieved more points than their female counterparts in 2017 (StatsSA) and were thus on average not at the same schooling level. Based on the South African context within which we find ourselves, it is therefore expected that in the comparison between the male and female population, women will be the lower labour income earners.

### *3.3.3.4 Education qualification*

Mwabu and Schultz (1998) in identifying that both the duration of schooling i.e., level of education completed and the quality of education, are considered in explaining wage differences between South Africa's racial groups and concluded that the higher the level of education completed, the higher the level of earnings. Lloyd and Hewett (2009) identified education as the key component of human development, thus positively contributing to an individual's earnings. Earnings will be even higher amongst the White group as their quality of education differs significantly to that of other racial groups (Van der Berg, 2005)

### *3.3.3.5 Age, work experience and occupation*

The findings of Mwabu and Schultz (1998) were further supported by the Mincerian earnings function developed by Jacob Mincer (1958), which explained annual earnings as a function of education, age, training, occupational ranking, and industry. From his findings differences in training i.e., investment in human capital "result in differences in levels of earnings among occupations as well as in differences in the slopes of life-paths of earnings among occupations". These differences are systematic: the higher the education level completed, age (with age measuring both the biological age and process of acquiring work experience), training, and "occupational rank," the higher the level of earnings and the steeper the life-path of earnings.

Dash et al., (2017) observed from their study that employers look for experienced candidates because work experience is an indication of a candidate's proven performance in a similar role or industry. Work experience is therefore a key factor in determining how much a candidate is initially compensated and their subsequent salary increments and promotions. The more work experience employees have under their belts, the more they can expect to be remunerated for their proven capabilities.

#### *3.3.3.6 Marital status*

In a study previously conducted by Heywood & Parent (2017) which looked specifically at persons employed within the academic labour market, the effects of marital status on faculty salaries were found to be positive, that is, married faculty employees earned more than those who were unmarried. However, it needs to be noted that only men were surveyed in this study. Pollmann-Schult (2011) found that married men are less satisfied with their financial position due to their added family responsibility and this causes them to work harder than their unmarried counterparts thus earning more money. Again, this study was only conducted on male employees.

#### *3.3.3.7 Province and Metro code*

Mudiriza (2017) suggested that earnings disparities can be "explained by new economic geography forces such as access to markets, but only after controlling for regional specific factors such as human capital, mineral resource endowments, local climatic conditions, local unemployment, and homeland status". From these findings we can deduce that geographic location does in fact have an impact on labour earnings. Higher earnings are to be expected in a metropolis location due to their increased access to markets. The data in the LMDS used for this study is designed to be representative at provincial level, as well as at metro/non-metro level. When considering South Africa's provinces, regional wage disparities are to be expected as some provinces have more metros than others.

#### *3.3.3.8 Sector of employment*

The informal sector particularly of a developing country like South Africa is characterised by the lack of statutory rights, workers who do not pay taxes and workers whose rights are seldom protected by employment acts or policies (Fourie, Frederick & Skinner, 2018). Salaries within the informal sector will therefore be lower than those in the formal sector. Nevertheless,

South Africa’s informal sector sustains about 2.5 million workers and business owners by providing livelihoods, employment, and income. One in every six employed South African works in the informal sector and almost half of these work in firms providing about 850 000 paid jobs (Fourie, Frederick & Skinner, 2018).

### 3.3.3.9 Industry

Historically, South Africa’s economy was focused on mining and agriculture. However, since the early 1990s sectors like the wholesale and retail trade, manufacturing, and tourism have significantly grown the economy. Today’s economy has moved towards technology, communication and financial intermediation (Career Planet, 2018). These rapidly growing industries are characterised by high growth and high profitability, thus employment within them is yielding higher labour earnings.

### 3.3.3.10 Trade union membership

Ntuli and Kwenda, (2014, page 20) found that “unions partly contribute to wage inequality among African men” as union membership in South Africa has a disequalizing effect on wages among full-time, wage employed African men. From the conducted study, union membership had a positive effect on labour earnings. This, however, only focused on earnings of African men within South Africa’s labour market. Table 1 below presents a summary of both the explanatory and control variables including a description of the dummy variables that have been used.

Table 3.3 Summary of the explanatory variables used in regression equation

Explanatory variables	Description	Coding/ dummy
<b>Dependent variables</b>		
SAL	Monthly earnings	Continuous variable logged for purposes of running the regression analysis
<b>Independent variables</b>		
RACE	Racial group	4 dummy variables created; 1 = African/ Black; 2 = Coloured; 3 = Indian/ Asian; 4 = White
GEN	Gender	Categorically defined as 1 = Male; 2 = Female
AGE	Age	Measured in years
<b>Control variables</b>		

MS	Marital status	Categorically defined as 1 = not married (single, widowed, divorced or separated); 0 = married (legally married and living together like husband and wife/ partners)
PROV	Province	Categorically defined as 1 = Western Cape; 2 = Eastern Cape; 3 = Northern Cape; 4 = Free State; 5 = Kwa-Zulu Natal; 6 = North West; 7 = Gauteng; 8 = Mpumalanga; 9 = Limpopo
EDU	Highest education level completed	Categorically defined as 1 = No Schooling; 2 = Primary School; 3 = High School; 4 = Diploma; 5 = Bachelor's degree; 6 = Postgraduate
WRKE	Years of work experience	Categorically defined as 1 = 0 - 10years; 2 = 11 - 20years; 3 = 21 - 30years; 4 = 31 - 40years; 5 = 41 - 50years; 6 = 51 - 60years; 7 = 61+ years; 8 = Unemployed
SEC	Sector of employment	Categorically defined as: 1 = Formal Sector; 2 = Informal Sector; 4 = Private households
IND	Industry	Categorically defined as: 1 = Agriculture, hunting, forestry and fishing; 2 = Mining and quarrying; 3 = Manufacturing; 4 = Electricity, gas and water supply; 5 = Construction; 6 = Wholesale and retail trade; 7 = Transport, storage and communication; 8 = Financial intermediation, insurance, real estate and business services; 9 = Community, social and personal services; 10 = Private households; 11 = Other
OCC	Occupation	Categorically defined as: 1 = Legislators, senior officials and managers; 2 = Professionals; 3 = Technical and associate professionals; 4 = Clerks; 5 = Service workers and shop market sales workers; 6 = Skilled agricultural and fishery workers; 7 = Craft and related trade workers; 8 = Plant and machine operators and assemblers; 9 = Elementary occupation; 10 = Domestic workers; 11 = Other occupation
MET	Metro code	Categorically defined as: 0 = Non-metro; 1 = Metro
TU	Trade union membership	1 = Yes; 2 = No

*Source: Author's own compilation*

### **3.3.4 Estimation technique**

The estimation technique used is the ordinary least squares (OLS). This method of analysis estimates the relationship between a dependent variable and one or more independent variables. This estimation technique is most appropriate for the purposes of this study because the regression equation is linear, the error term has a population mean of zero and all independent variables are uncorrelated with the error term. Also, no independent variable is a perfect linear function of other explanatory variables i.e., perfectly correlated.

The statistical methodology adopted to determine whether salary disparities exist within the South African labour force was multiple regression. This methodology made it possible to predict the salaries for males and females for each racial group in South Africa if career attributes i.e., occupation, was weighed in the same way as those of their White counterparts. The Oaxaca-Blinder decomposition (1973) for linear regression model is widely used to study the mean outcome differences between groups and was also used in this study. *“This technique has been proven to be effective in the study of labour market outcomes by groups to decompose mean differences in log wages based on linear regression models in a counterfactual manner”*. (Jann, 2008)

It divides the wage differential between two groups into a part that is “explained” by group differences in productivity characteristics, such as education, work experience or province of occupation, and a residual part that cannot be accounted for by such differences in wage determinants. This “unexplained” part is often used as a measure for discrimination, but it also includes the effects of group differences in unobserved predictors. With this said, *“wage discrimination should not be interpreted as workers of different races having the same occupation, identical jobs and working for the same employer, but being paid at different rates. Discrimination reflects different pay to workers falling under the same occupational category but working for different employers within the labour market”*. (Erichsen & Wakeford, 2001)

“Regression analysis provides a method to address a number of issues in a case of potential salary inequity. The regression analysis also makes it possible to predict what salaries for females and/or minority males would be if career attributes, such as rank, degree, and previous experience, were weighted in the same way as those of White males” who have been found to be the highest earners of labour income in South Africa (Burger, 2007).

Several issues may arise when using regression analysis to study salary disparities. One such issue is that the variables used in the regression equation which are attributes to labour earnings (e.g., education level completed, like work experience etc.) define the nature of similar individuals for purposes of comparison. According to Adams’ equity theory (1965) it is through these relevant attributes that an individual can compare themselves to relative others. Therefore, if the regression analysis excludes attributes that the person feels are relevant to the comparison then he/ she will perceive the outcome of the regression analysis to be unfair. The same is true if the analysis includes attributes that a person feels are irrelevant to labour

earnings. It is therefore important to include relevant attributes to labour income in the regression model. The effect of each attribute or variable on overall labour earnings will be discussed further in the research design below to properly establish each variable's relevance.

### **3.3.5 Research limitations**

Research limitations to the data used are minimal due to the secondary nature of the data and its source being the QLFS datasets for the four quarters of 2018. Limitations, however, cannot be ruled-out altogether. A sampling error may still arise due to the used data being that of a sample and not of the entire population. Also, missing data from responses means that the analysis will be biased towards the individuals who responded to the various survey questions versus those who did not.

Despite this study being conducted on secondary data, there are ethical issues to consider. The primary one being that for the purposes of this study, the data is being used to answer a question that is different from the original work (Tripathy, 2013). Regardless however, data from large sample surveys like LMDS has no identifying information meaning the identity of the participants remains anonymous. Such data is also likely to be of higher quality and representative of South Africa's population.

## Chapter 4 Data Analysis

### 4.1 Introduction

This chapter presents the research findings of the quantitative analysis on salary disparities based on race and gender within South Africa's labour market as at the year 2018. These research findings will entail descriptive statistics for all the dependent variables to be used in analysing salary disparities in sub-section two, an analysis of the correlation between variables in sub-section three and the results from the regression analysis along with detailed discussion on the findings in the final sub-section.

### 4.2 Descriptive statistics

Table 4.1 below provides the descriptive statistics for both the dependent and independent variables. The dependent variable is monthly earnings which implies that the selected sample will only comprise employed persons from the conducted survey (employed on a part-time and full-time basis).

The first independent variable to be analysed was racial group with the surveyed population comprising of 76,8% Black, 10,8% Coloured, 2,8% Indian and 9,6%White. The second independent variable to be considered was gender with the surveyed population predominantly being male (53,4%) and female (46,6%). The third variable was age (measured in years) with the average age of the surveyed population being 40 years. Marital status was the fourth independent variable to be considered with married participants (49%) being those who are legally married and living together as husband and wife/partners and those who are unmarried (51%) being single, widowed, divorced, or separated participants. The fifth independent variable was residence by province with the most densely populated province being Gauteng at 27,1%, followed by Kwa-Zulu Natal at 16,2%, the Western Cape at 14,1%, Eastern Cape 9,8%, Limpopo 9,3%, Mpumalanga 8,1%, Free State 6,1%, North West 5,5%, with the least surveyed population coming from Northern Cape at 3,6%. The sixth independent variable was the highest level of education completed. Four percent of the surveyed population had no schooling, 11,1% completed primary school, 63% completed high school, 14,7% diploma, 0,4% completed bachelor's degree and 6,8% had completed studies at postgraduate level. The next independent variable to be considered in this analysis was years of work experience. Most

of the surveyed population (77,3%) had 0-10 years' experience reflecting a predominantly young working population. 15,3% of the surveyed population had 11-20 years' experience, 5,5% had 21-30 years' experience, 1,6% had 31-40 years' experience and 0,03% had over 41 years' experience. The eighth independent variable considered was the sector of employment with 71,7% of the surveyed population working in the formal sector, 19,6% working in the informal sector and 8,7% working in private households. The ninth independent variable considered was the industrial sector, with industries categorised as follows: Agriculture, hunting, forestry and fishing (5,5%); Mining and quarrying (2,4%); Manufacturing (10,4%); Electricity, gas and water supply (0,8%); Construction (8,7%); Wholesale and retail trade (20,4%); Transport, storage and communication (5,6%); Financial intermediation, insurance, real estate and business services 14,2%); Community, social and personal services (23,2%); and, Private households (8,7%). The tenth independent variable to be considered was Occupation with occupations categorised as follows: Legislators, senior officials and managers (7,8%); Professionals (5%); Technical and associate professionals (8,4%); Clerks (10,1%); Service workers and shop market sales workers (16,5%); Skilled agricultural and fishery workers (0,43%); Craft and related trade workers (12,1%); Plant and machine operators and assemblers (8,2%); Elementary occupation (24,4%); and Domestic workers (6,9%). Elementary occupations, which are held by most of the survey participants include elementary sales and service occupations e.g., street vendors and related workers; agricultural, fishery and related labourers; and labourers in mining, construction, manufacturing, and transport. The eleventh independent variable considered in this analysis was the residence in a metro code area, with 59,6% of surveyed participants residing in non-metropolitan areas. The twelfth and final independent variable considered was trade union membership. Only 30% of survey participants were members of a trade union.

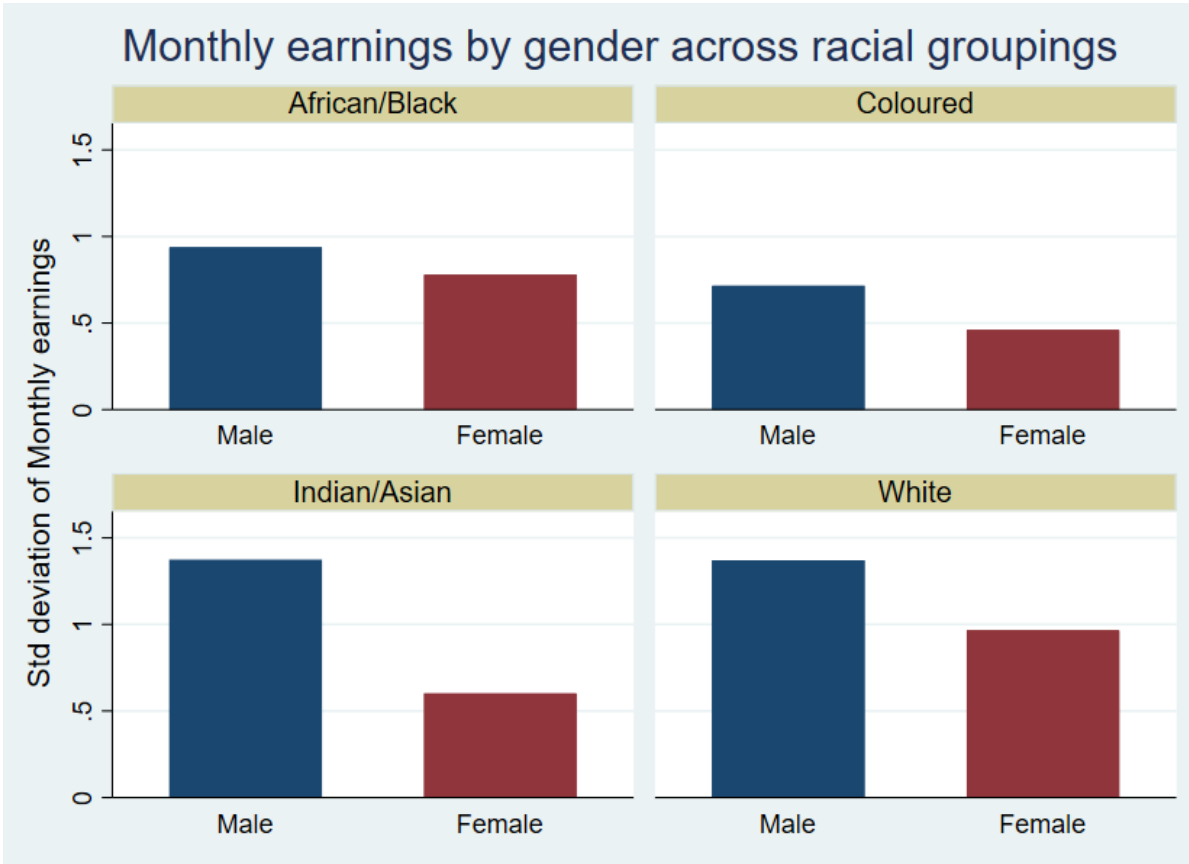
Table 4.1 Descriptive statistics

Variable	Categories	Obs	Mean	Std. Dev.	Min	Max
SAL		50,093	8.2008	0.966	6.6846	9.7981
RACE	African/Black	73,121	0.7675	0.4225	0	1
	Coloured	73,121	0.1081	0.3105	0	1
	Indian/Asian	73,121	0.0281	0.1653	0	1
	White	73,121	0.0964	0.2951	0	1
GENDER	Male	73,121	0.5341	0.4988	0	1
	Female	73,121	0.4659	0.4988	0	1
AGE		73,121	39.8638	11.2854	15	106
MARITAL STATUS	Married	73,121	0.4897	0.4999	0	1
	Not	73,121	0.5103	0.4999	0	1
PROV	Western Cape	73,121	0.1411	0.3482	0	1
	Eastern Cape	73,121	0.0983	0.2977	0	1
	Northern Cape	73,121	0.0362	0.1869	0	1
	Free State	73,121	0.0609	0.2391	0	1
	KwaZulu-Natal	73,121	0.1617	0.3682	0	1
	North West	73,121	0.0554	0.2287	0	1
	Gauteng	73,121	0.2713	0.4446	0	1
	Mpumalanga	73,121	0.0814	0.2734	0	1
	Limpopo	73,121	0.0937	0.2914	0	1
EDU	No Schooling	73,121	0.041	0.1983	0	1
	Primary school	73,121	0.1107	0.3138	0	1
	High school	73,121	0.6299	0.4828	0	1
	Diploma	73,121	0.1469	0.354	0	1
	Bachelor's degree	73,121	0.0036	0.0602	0	1
	Postgraduate	73,121	0.0678	0.2515	0	1
WRKE	0 - 10 years	73,121	0.7733	0.4187	0	1
	11 - 20 years	73,121	0.1529	0.3599	0	1
	21 - 30 years	73,121	0.055	0.2281	0	1
	31 - 40 years	73,121	0.0165	0.1275	0	1
	41 - 50 years	73,121	0.0019	0.0431	0	1
	51 - 60 years	73,121	0.0003	0.0161	0	1
	61+	73,121	0.0001	0.0091	0	1
SEC	Formal sector	73,121	0.7171	0.4504	0	1
	Informal sector	73,121	0.1958	0.3968	0	1
	Private household	73,121	0.0871	0.282	0	1
IND	Agriculture, hunting, forestry, and fishing	73,086	0.0547	0.2274	0	1
	Mining and quarrying	73,086	0.0239	0.1527	0	1
	Manufacturing	73,086	0.1044	0.3058	0	1
	Electricity, gas, and water supply	73,086	0.008	0.0893	0	1
	Construction	73,086	0.0871	0.282	0	1
	Wholesale and retail trade	73,086	0.204	0.403	0	1
	Transport, storage and communication	73,086	0.0564	0.2307	0	1
	Financial intermediation, insurance, real estate, and business services	73,086	0.1419	0.3489	0	1
	Community, social and personal services	73,086	0.2324	0.4224	0	1
	Private households	73,086	0.0871	0.282	0	1
OCC	Legislators, senior officials, and managers	73,117	0.0785	0.2689	0	1
	Professionals	73,117	0.0503	0.2186	0	1
	Technical and associate professionals	73,117	0.0843	0.2779	0	1
	Clerks	73,117	0.1012	0.3016	0	1
	Service workers and shop and market sales workers	73,117	0.1647	0.3709	0	1
	Skilled agricultural and fishery workers	73,117	0.0043	0.0652	0	1
	Craft and related trade workers	73,117	0.1211	0.3263	0	1
	Plant and machine operators and assemblers	73,117	0.0823	0.2747	0	1
	Elementary occupation	73,117	0.244	0.4295	0	1
	Domestic workers	73,117	0.0693	0.254	0	1
MET	Non-metro	73,121	0.5958	0.4907	0	1
	Metro	73,121	0.4042	0.4907	0	1
TU	Yes	60,053	0.3016	0.4589	0	1
	No	60,053	0.6984	0.4589	0	1

Notes: SAL = Monthly earnings; RACE = Racial group; GEN = Gender; AGE = Age; MS = Marital status; PROV = Province; EDU = Highest level of education completed; WRKE = Work experience; SEC = Sector of employment; IND = Industry; OCC = Occupation; MET = Metro code; TU = Trade union membership. Source: Author's estimate from research data

Further descriptive statistics include monthly earnings between racial groups which are presented in Figure 4.1. As evidenced from the table below, if we consider earnings by gender across racial groupings, females across all racial groups consistently earn less than males. White females, however, are the highest earners amongst the female gender and White males are the highest earners amongst the male gender and overall. From the table below we see that White females earn more than Black and Coloured males.

Figure 4.1: Earnings distributions across gender and race



Source: Researcher’s design from research data

**4.3 Correlation results**

The correlation matrix is presented in Table 4.2. There is no multi-collinearity among the independent explanatory and control variables, with all correlation coefficients well below the multi-collinearity threshold of 0.7 (Kennedy, 2008). This justifies the use of these independent variables in the same estimation technique for the purposes of this analysis. The independent variables show low correlation scores, with the highest correlation score being -0.4746,

significant at 1%, which shows a negative correlation between occupation and the highest level of education completed. Occupations are listed in order of highest (Legislators, senior officials, and managers) to lowest ranking (Domestic workers), whereas the highest level of education completed is listed in order of lowest (No schooling) to highest (Postgraduate studies). This correlation score thus indicates that those who have completed a higher level of education are likely to rank more highly in their occupational ranking. Age and work experience in years were positively correlated with a correlation score of 0.4419, an indication that the older a person is in age, the more years of work experience they will have.

Table 4.2 Correlation matrix

	SAL	RACE	GEN	AGE	MS	PROV	EDU	WRKE	SEC	IND	OCC	MET	TU
SAL	1.0000												
RACE	0.2344	1.0000											
	0.0000												
GEN	-0.1199	-0.0219	1.0000										
	0.0000	0.0000											
AGE	0.0310	0.1068	0.0513	1.0000									
	0.0000	0.0000	0.0000										
MS	-0.1572	-0.1899	0.1267	-0.2679	1.0000								
	0.0000	0.0000	0.0000	0.0000									
PROV	0.0548	-0.1950	-0.0310	0.0142	0.0088	1.0000							
	0.0000	0.0000	0.0000	0.0001	0.0174								
EDU	0.3669	0.2417	0.0402	-0.0916	-0.0630	-0.0138	1.0000						
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002							
WRKE	0.1976	0.1255	-0.0218	0.4419	-0.1657	0.0035	0.0606	1.0000					
	0.0000	0.0000	0.0000	0.0000	0.0000	0.3396	0.0000						
SEC	-0.3092	-0.1724	0.1672	0.0985	0.0799	0.0502	-0.2458	-0.0677	1.0000				
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					
IND	-0.0501	-0.0184	0.2740	0.0915	0.0272	-0.0018	0.1396	0.0319	0.3557	1.0000			
	0.0000	0.0000	0.0000	0.0000	0.0000	0.6229	0.0000	0.0000	0.0000				
OCC	-0.4635	-0.3558	-0.0074	-0.0190	0.1305	0.0254	-0.4746	-0.1397	0.4314	-0.1451	1.0000		
	0.0000	0.0000	0.0451	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
MET	0.1664	0.1677	-0.0058	-0.0307	-0.0263	-0.2215	0.1307	0.0049	-0.0502	0.1126	-0.1684	1.0000	
	0.0000	0.0000	0.1172	0.0000	0.0000	0.0000	0.0000	0.1826	0.0000	0.0000	0.0000		
TU	-0.3338	0.0239	0.0508	-0.1397	0.1411	0.0123	-0.2329	-0.2771	0.2787	-0.0222	0.2400	-0.0075	1.0000
	0.0000	0.0000	0.0000	0.0000	0.0000	0.0027	0.0000	0.0000	0.0000	0.0000	0.0000	0.0672	

Notes: SAL = Monthly earnings; RACE = Racial group; GEN = Gender; AGE = Age; MS = Marital status; PROV = Province; EDU = Highest level of education completed; WRKE = Work experience; SEC = Sector of employment; IND = Industry; OCC = Occupation; MET = Metro code; TU = Trade union membership.  
Source: Author's estimate from research data

#### 4.4 Regression Results

The results of the regression equation estimated using the Ordinary Least Squares estimation technique discussed in the previous chapter are presented in Table 4.3. Overall, at our significance level of 1%, the explanatory and controllable independent variables explain 36.93% of the variation in monthly earnings (dependent variable). The Root MSE of 0.76679 represents how much each observation is missing our prediction. A low Root MSE reflects a well-fitting model. With the resultant p-value being less than the level of significance we can reject the null hypothesis which states that the identified independent variables have no effect on the dependent variable (salaries).

From the results in Table 4.3, positive coefficients are observed for all racial groupings (Coloured, Indian and Whites) which suggests that Blacks earn less than all other racial groups. Specifically, Whites are at the top of the earnings hierarchy earning 22.65% more than Blacks, followed by Coloureds (who earn 12.95% more than Blacks), then Indians/Asians (who earn 4% more than Blacks). This is consistent with the analysis by Allanson et al., (2000) of wage differentials in South Africa's labour market which found that Whites received the highest earnings. Their hierarchy, however, ranked White, followed by Asians, then Coloureds and at the end of the scorecard, Blacks. These results have instead found that Coloureds earn more than Indians/Asians. The overall disparities in labour earnings between races remain consistent with Szelewicki and Tyrowicz (2009) who found that wage discrimination and high-income differentials continue to exist within South Africa's labour market despite efforts by government to attain equity.

There are several reasons for these differentials in the South African context however evidence concurs that education is the keystone of these. "Education has been viewed as a source and reflection of social and economic inequality, both because of its recognized value as a key component of human development and because of its contribution to individual earnings and national economic development" (Lloyd and Hewett, 2009). With the majority of South Africa's population having only completed high school i.e., having no tertiary qualification, SA has the lowest tertiary attainment across all OECD and partner countries (OECD, 2019). Those with only a high school certificate are less likely to be employed and more likely not to further their education or training at a young age. When observed from the vantage point of race, the LMDS 2018 results used in this study show that 18% of Blacks, 14% of Coloureds, 9% of

Indians and 9% of the White population have obtained no schooling. On the opposite spectrum of holding tertiary qualifications, only 7% of Blacks, 7% of Coloureds, 19% of Indians and 35% of Whites have tertiary qualifications.

Van der Berg (2005) observed that in South Africa, considerable variations in the quality of education are responsible for much of the residual earnings differential by race that is often ascribed to labour market discrimination. We therefore need to take an extended view, considering not only the level of education completed (as we have included in our regression analysis), but also the quality of education received.

Basic school facilities contribute to the quality of education and these can be as rudimentary as well-built classrooms with good ventilation and good lighting. Research shows that schools with poor ventilation have increased absenteeism due to asthma and other respiratory problems and absenteeism consequently lowers academic achievement (Smedje & Norback, 1999). Schneider (2002) in researching whether school facilities affect academic outcomes, established that poor lighting has a significant depressive effect on student learning, increasing off-task behaviour and decreasing test scores, as do poor acoustics and high external noise. He also found that extremely low or high temperatures affect student's ability to concentrate and learn and that in general, newer buildings in good condition are associated with increased student achievement. Learning resources including textbooks, novels, and digital resources including video, audio, animations, and images, also contribute to the quality of education.

In the South African context, the quality of education differs significantly across the racial groups and this has translated to earnings differentials because a high-quality education affords one the opportunity to acquire the necessary skills and expertise to pursue an occupation and career (Heaton et al., 2012). Receiving a substandard education restricts one's eligibility to work in highly ranked occupations and in highly technical industries. This difference in the quality of education between racial groups is a direct consequence of the legacy of apartheid which created a sub-standard education system for Black students through Bantu education (Bantu Education Act 1953) to direct Black students to the unskilled labour market whilst protecting the privileged White minority from competition (Heaton et al., 2012). Bantu education served the interests of white supremacy by denying Black students access to the same educational opportunities and resources enjoyed by their White counterparts (Heaton et al., 2012). The reigning government allocated fewer educational resources and invested less

infrastructure in educating non-White children and within these groups, Black children were the most disadvantaged.

The results of this education system are evidenced in South Africa's labour market today when one considers occupations held by race. As per the LMDSA 2018, the greatest proportion of White and Indian employees (30% and 21% respectively) hold positions of legislators, senior officials, corporate managers, and general managers. These are occupations that require an advanced level of skill and professionalism as this work entails formulating, advising, or directing government policies, formulating laws, formulating public rules and regulations, representing governments, and overseeing the interpretation and implementation of policies and legislation. They also direct and co-ordinate the activities of organisations and may also supervise other workers. The greatest proportion of Coloured and Black workers (each 27%) similarly hold positions of elementary occupations which do not require a particular level of skill and education. These are workers perform tasks like *“selling of goods, cleaning, washing, pressing, and performing tasks related to mining, construction, manufacturing, and agriculture. These tasks require knowledge and experience of simple and routine nature, some of which require the use of hand-held tools and in some cases physical effort”* (SASCO, 2003). With elementary occupations held predominantly by the Black and Coloured population, this explains the salary disparities by race which we see coming through in our analysis.

Another reason for salary differentials within the context of South Africa's labour market is the racial bias that White males are the most efficient workers (Madden & Vekker, 2017). Again, this biased mindset was instilled through the apartheid system that established white supremacy within South Africa's political, social, and economic landscapes. It was the perception that White employees were more efficient, intelligent, and diligent in comparison to other racial groups that justified paying them a higher salary in comparison to workers of other races. The fact of the matter is that under the system of apartheid, Whites were afforded better quality and a higher level of education than persons of other races, which made them eligible for senior and management positions and which rewarded them for their qualifications and skills through high earnings, thus compounding their position of privilege. Persons of other races, particularly Blacks, were disadvantaged through the sub-standard education system that was legalised under apartheid and then disadvantaged again in the labour market where they could only qualify for elementary occupations, thus compounding their disenfranchisement and disadvantage. The occupations which Black workers primarily filled were not a reflection of their capabilities as

a people but rather of the opportunities afforded to them under a system that sought to exclude them economically, socially, and politically.

The coefficient of gender is observed to be negative which suggests that female respondents earn 14.32% less than males, which is consistent with prior studies that have proven that gender is a significant variable in assessing disparities in labour earnings as women remain substantially disadvantaged and discriminated against in the workplace. Bakari, (2014) reasoned that this was because men are perceived to be more productive than women as they do not require leave for child-bearing purposes. The World Economic Forum (2018) declared that for every US dollar that a man earns, a woman is on average paid 54 cents, and based on today's rate of progress, it will take 202 years for this gap to close. Tyson (2019) identifies three major contributors to the salary differentials between men and women by looking further than just child-bearing purposes. Firstly, women are inclined to choose different occupations to men, for example occupations like teaching versus engineering, which is male dominated. The reasons for these choices include but are not limited to the lack of female role models in higher paying occupations for example, exposure to other industries, the barriers to entry and advancement within male dominated occupations and industries – the Glass Ceiling effect. Secondly, women are more likely to work on a part-time basis than men and part-time work pays less than full-time employment. A part-time worker in the same occupation, within the same industry and sector is therefore most likely going to be compensated less. Thirdly, women get paid less than their male counterparts due to what is referred to as the motherhood penalty. Ironically, although parenting is associated with an increased workload, women are often penalised for prioritising child-care by taking maternity leave. Initially, when men and women enter the labour market (straight from school) the wage differential between them is insignificant; however, after 5-10 years a growing wage gap becomes evident as generally, women move from a career acceleration pathway to prioritise motherhood. As a result, women spend more time doing unpaid work than men because they are not paid for work associated with parenthood, running a household, and raising children. The amount of this work is significant and disproportionately done by women.

The effects of marital status have been found to be negative as unmarried employees earn 7% less than married employees. This result is consistent with Pollmann-Schult (2011) who found that married men feel less satisfied with their financial situation than their single counterparts and due to their increased family responsibility and lower level of pay satisfaction they are

inclined to put more effort in their work which leads to higher wages. Essentially these added family responsibilities and household needs are consistent with the needs rule from Adams' equity theory. The greater the need, the greater the input resulting in a greater compensation for work done (output). Married women, however, are not subject to the same findings as they earn less than married men and this is primarily due to the motherhood penalty referred to above and which is often the female's consequence of marriage.

From the results in Table 4.3, a positive coefficient was only observed for the North West province, 7.6% more than the Western Cape. This means that in order of highest to lowest earnings per province, the ranking is: 1) North West, 2) Western Cape, 3) Mpumalanga, 4) Gauteng, 5) Limpopo, 6) Northern Cape, 7) Kwa-Zulu Natal, 8) Free State and lastly, 9) Eastern Cape. These results of labour earnings between provinces were not quite as anticipated. In line with the findings Mudiriza (2017) who found higher earnings are to be expected in a metropolis location due to the increased access to markets. However, the North West, Mpumalanga and Limpopo are provinces without metros. Gauteng has three metropolis locations namely eKurhuleni, City of Tshwane and City of Johannesburg, therefore, it is fitting that Gauteng is fourth in the ranking of earnings by province. However, based on metros alone, Gauteng should then have ranked higher than the Western Cape, which has only one metro namely, City of Cape Town. Overall, Employees within metros earned 20.23% more than those in non-metros.

Postgraduates are amongst the highest labour income earners as they earn 38% more than employees with no completed schooling. Holders of diplomas earn 34% more than employees with no completed schooling and holders of bachelor's degrees earn 26% more than those with no completed schooling. An employee who has completed high school earns 11% more than an employee with no completed schooling and surprisingly, an employee who has only completed primary school level, earns 4% less than an employee with no completed schooling. Overall, these results concur with the finding that there is a positive relationship between education completed and labour income, which is why education is often referred to as investment in human capital. Generally, the more educated and skilled people are, the more employable they are. Economists, however, are weary of conclusively saying that education alone is the cause of higher income (Sullivan & Wolla, 2017). This identified correlation does not imply causation as there are many other factors to consider in justifying one's employability and labour earnings.

Employees with 31 – 40 years of work experience earn the most by comparison to all the other categorical groups of year's work experience, with 36% more than employees with 1-10 years of work experience. This group is followed by the 41 – 50 years' experience employees, with 27% more than employees with 1-10 years' experience. This is to be expected as employees with this level of experience are generally in executive positions i.e., CFO, CEO. Employees with 21 – 30 years of work experience are next in the ranking and they earn 24% more than employees with 1-10 years of work experience. These employees are most likely to be in senior management and associate positions where workers with 11-20 years of work experience are most likely in junior management. Employers look for experienced candidates because work experience is an indication of a candidate's proven performance in a similar role or industry. Work experience is therefore a key factor in determining how much a candidate is initially compensated and their subsequent salary increments and promotions. (Dash, Bakshi & Chugh, 2017). Employees with 51 – 60 years of work experience, however, earn the least. These are most likely the oldest employees and, as proven by the Mincerian wage regression equation, biological age is considered up to a point until biological decline begins to adversely affect productivity and labour earnings.

Employees working in the formal sector are the highest salary earners, followed by those working in the informal sector who earn 22.29% less. Employees working in private households earn 38.98% less than those in the formal sector; and therefore overall, earn the least. This is to be expected as the formal sector has more regulation governing its employment policies, which include stipulations concerning earnings. Although higher labour earnings are made in the formal sector, one in every six South Africans who work, work in the informal sector and this sector provides livelihoods, employment and income for about 2.5 million workers and business owners (Fourie, 2018).

The highest labour earnings are made in the following industries, in order from highest to lowest, Mining and quarrying; Electricity, gas and water supply; Agriculture, hunting forestry and fishing; Financial intermediation, insurance, real estate and business services; and Transport, storage and communication. This is to be expected in industries which have historically been the basis of South Africa's economic growth like mining and agriculture. More recently, rapidly growing industries within South Africa's economy include financial intermediation, insurance, and communication, and have also been yielding higher labour earnings as depicted in our results.

Professionals were found to earn 8% more than Legislators, senior officials and managers. Third in the ranking are Technical and associate professionals, they earn 44% less than Legislators, senior officials, and managers. They are followed by Clerks who earn 54% less than Legislators, senior officials, and managers. Next in the ranking are Craft and related trade workers who earn 65% less than Legislators, senior officials, and managers. As anticipated, the higher the "occupational rank," the higher the level of earnings and the steeper the life-path of earnings, which is in line with the findings of Dash et al. (2017).

An employee who is not a member of any trade union earns 34% less than an employee who is a member. This is fitting and in alignment with findings by Ntuli and Kwenda, (2014) that union membership had a positive effect on labour earnings, as trade unions are bodies that negotiate employment conditions on behalf of their members. These conditions include compensation. Union membership, therefore, partly contributes to wage inequality, particularly among African men, as union membership in South Africa has a disequalizing effect on wages among full time, wage employed African men.

Table 4.3: Multiple Regression Results

Dependent variables: Monthly salary				
	Coef.	Std. Err.	t	P>t
Constant	9.2201***	0.0379	243.47	0.000
RACE (BLACK)				
Coloured	0.1294***	0.0145	8.91	0.000
Indian/Asian	0.0396*	0.0238	1.67	0.096
White	0.2265***	0.0150	15.13	0.000
GENDER_FEMALE	-0.1432***	0.0082	-17.37	0.000
AGE	-0.0006	0.0004	-1.56	0.120
MARITAL STATUS (NOT MARRIED)	-0.0660***	0.0075	-8.79	0.000
PROVINCE (WC)				
Eastern Cape	-0.2567***	0.0168	-15.32	0.000
Northern Cape	-0.0890***	0.0217	-4.11	0.000
Free State	-0.1721***	0.0189	-9.08	0.000
KwaZulu-Natal	-0.1653***	0.0162	-10.22	0.000
North West	0.0755***	0.0204	3.7	0.000
Gauteng	-0.0390***	0.0150	-2.59	0.009
Mpumalanga	-0.0126	0.0187	-0.67	0.500
Limpopo	-0.0478**	0.0189	-2.53	0.011
EDU (NO_SCHOOLING)				
Primary school	-0.0412*	0.0215	-1.92	0.055
High school	0.1104***	0.0198	5.57	0.000
Diploma	0.3358***	0.0223	15.07	0.000
Bachelor's degree	0.2576***	0.0676	3.81	0.000
Postgraduate	0.3841***	0.0265	14.51	0.000
WORK EXPERIENCE (0-10 YEARS)				
11 - 20 years	0.1233***	0.0107	11.57	0.000
21 - 30 years	0.2433***	0.0173	14.03	0.000
31 - 40 years	0.3593***	0.0312	11.52	0.000
41 - 50 years	0.2715***	0.0974	2.79	0.005
51 - 60 years	-0.0148	0.3839	-0.04	0.969
SECTOR (FORMAL)				
Informal sector	-0.2229***	0.0124	-17.95	0.000
Private households	-0.3898***	0.0272	-14.35	0.000
INDUSTRY (AGRICULTURE)				
Mining	0.2294***	0.0265	8.67	0.000
Manufacturing	-0.0463**	0.0189	-2.45	0.014
Electricity;	0.0361	0.0391	0.92	0.355
Construction	-0.0828***	0.0201	-4.13	0.000
Wholesale	-0.0741***	0.0178	-4.16	0.000
Transport	-0.0373*	0.0224	-1.67	0.096
Financial	-0.0206	0.0181	-1.14	0.256
Community	-0.1911***	0.0172	-11.12	0.000
Private	0.0000	(omitted)		
OCCUPATION (LEGISLATORS)				
Professionals	0.0884***	0.0244	3.62	0.000
Technical	-0.4400***	0.0207	-21.23	0.000
Clerks	-0.5412***	0.0201	-26.88	0.000
Service	-0.7408***	0.0197	-37.62	0.000
Skilled	-1.0739***	0.0751	-14.3	0.000
Craft	-0.6498***	0.0216	-30.02	0.000
Plant	-0.7736***	0.0221	-34.97	0.000
Elementary	-1.0401***	0.0198	-52.57	0.000
Domestic	-0.8958***	0.0333	-26.92	0.000
METRO STATUS (NON-METRO)	0.2023***	0.0085	23.71	0.000
TRADE UNION (No)	-0.3362***	0.0092	-36.69	0.000
F(45, 48,936)	636.81			
Prob > F	0.000			
R-squared	0.3693			
Adj R-squared	0.3687			
Root MSE	0.76679			
Observation	48,982			

Notes: SAL<sub>i</sub> = Monthly earnings; RACE<sub>i</sub> = Racial group; GEN<sub>i</sub> = Gender; AGE<sub>i</sub> = Age; MS<sub>i</sub> = Marital status; PROV<sub>i</sub> = Province; EDU<sub>i</sub> = Highest level of education completed; WRKE<sub>i</sub> = Work experience; SEC<sub>i</sub> = Sector of employment; IND<sub>i</sub> = Industry; OCC<sub>i</sub> = Occupation; MET<sub>i</sub> = Metro code; TU<sub>i</sub> = Trade union membership. \*\*\*, \*\* and \* denotes significance at 1%, 5% and 10% respectively. Source: Author's estimate from research data

## **Chapter 5 Conclusions and Recommendations**

### **5.1 Introduction**

This study examined the relationship between monthly labour earnings and race and gender within South Africa's labour market using LMDSA 2018 data. In this chapter we present a summary of the study conducted as well as a conclusion based on the findings. We also provide policy recommendations and recommendations for future studies based on the limitations we encountered.

### **5.2 Summary of findings and conclusion**

In summary of the study conducted, amongst the four prominent racial groups in South Africa, Blacks earn the least followed by Indians, then Coloureds and with Whites earning the most, at 23% more than Blacks. Females across all racial groups earn consistently less than their male counterparts and earn 14% less than males overall. This puts Black females at the bottom of the labour earnings hierarchy and White males at the top.

Married employees generally earn more than those who are unmarried, particularly men as married women are more inclined to have children, causing them to be subject to the motherhood penalty as they spend less time at work and more time at home. Employees in metropolis areas earn 20% more than those working in non-metros, however, as a province with the most metros, employees in Gauteng are only ranked fourth in their earnings amongst employees from other provinces. Employees in the North West were found to earn the most. There is a positive relationship between the level of education completed and labour earnings, thus proving that education is in fact an investment in human capital. Employers generally look for experienced candidates as they demonstrate a proven capability to perform a similar role. This makes work experience a key factor in determining how much a candidate is initially compensated and their subsequent salary increments and promotions. The Mincerian wage regression equation, however, has proven that biological age is considered advantageous up to a point and then biological decline begins to adversely affect productivity and labour earnings.

Formal sector employees earn more than those in the informal sector and private households. The highest labour earnings are made in the mining and quarrying industry, and the highest paid occupation group is qualified professionals. This group includes occupations that require a high level of professional knowledge, skills, and experience. Non-trade union member employees earn 34% less than member employees.

To conclude, and based on the findings, salary disparities based on race and gender can be seen very distinctly in South Africa's labour market. The reasons for these disparities are at the very least multidimensional, however, the most prominent of these reasons is Education. Education is multifaceted not only because the level of education completed by employees is a cause of the salary disparities, but also because of the variance in the quality of education received by employees. The variance in quality of education is distinguished by race in this country, which at its root cause lies the history of apartheid, and consequently, the quality of education will have an adverse effect on the level of education completed.

Socio-economic issues contribute the most to inequalities in education. How does one learn with no electricity in their home, no running water, poorly built classrooms, large teacher to pupil ratio, lack of social security, rife domestic violence, and compromised access to healthcare? These above-mentioned issues directly affect one's ability to receive a quality education which will adversely affect the level of education completed.

Income inequality is but one element of many moving parts which contribute to the overall inequality in South Africa. Other elements are unemployment, and access to quality education. With Blacks being on the lower end of the spectrum in terms of labour earnings and, having the highest levels of unemployment amongst all other racial groups and again being on the lowest end of the spectrum in terms of access to quality education and the level of education completed, it comes as no surprise that Blacks are the poorest in South African society and that overall inequality is steadily rising.

South Africa is ranked as one of the most unequal societies in the world and its inequality remains persistent and is in fact increasing, despite intervening efforts by government. The correlation between salary disparities by race and income inequality in South Africa is that Blacks receive the least amount of labour earnings and are at the lowest level of the income inequality spectrum. As per the LMDSA 2018, of the unemployed sample, 84% were Blacks,

9% were Coloured, 1% were Indian and 6% were White. From these statistics it is evident that unemployment is disproportionately divided by race. With Whites being the highest labour income earners and having the second least unemployment in comparison to other racial groups, inequality particularly between Whites and non-whites was inevitable.

Although the evidence from this study establishes a correlation between disparities in labour income by race and gender, and income inequality, it does not conclusively imply that one causes the other; in other words, that labour income disparities are the sole cause of income inequality or overall inequality. We can conclude, however, that the labour income disparities we see are contributing to South Africa's growing inequality and there are multiple reasons for this.

We have established that in South Africa's labour market, the population group earning the least is Black and the group earning the most is White, with Whites earning as much as 23% more than Blacks. Looking not only at labour earnings, two in five youths aged 15-34 are unemployed and not educated or trained for employment. One in three economically active South Africans aged 25-34 is unemployed with unemployment amongst Blacks at 30.4% and only 7,6% amongst Whites. So, we see that almost one in every three Black South Africans is unemployed, while not even one out of ten White South Africans is unemployed. This means that the few Blacks who are employed find themselves having to financially support those who are not employed more than other races, even though they earn the least. Whites can then prioritise saving, acquiring more assets and investing, all of which constitutes building wealth which ultimately perpetuates inequality between the races. Due to the compounding nature of wealth and privilege, inequality will only broaden with the passing of time. Furthermore, NIDS (2017) has established that inequality within the Black races is also very pronounced. The Gini index for wealth among the White group is equal to 0.74, compared to 0.98 among the Black group (Chatterjee, Czajka & Gethin, 2020).

There currently is co-operation between the EEA and the BBBEE Act as "the Commission for Employment Equity (CEE) and the B-BBEE Commission have concluded a memorandum of understanding to enhance coordination of education and awareness programmes and enforcement strategies to accelerate the pace of transformation, both in the workplace and in the economy. This provides an opportunity for information sharing and joint investigation on matters that involve both structures." (CEE Annual Report, 2019/20, page 6)

### **5.3 Recommendation**

Persistently high levels of income inequality can have detrimental effects on a society and the economy (Stats SA, 2019). It is therefore vitally important that income inequality is addressed and one such way to do this is to address the salary disparities in South Africa's labour market as labour income is the primary income source for individuals (those privileged enough to find employment). To address labour earnings disparities based on race and gender and the prevalent inequality I recommend the following: 1) Implement a salary history ban; 2) Rebalance the tax system; 3) Add a Remuneration equity subsection to the BBBEE scorecard that grants an organisation points for transparency in the stipulation of labour earnings across racial divide of employees; 4) introduce participatory socialism; and then lastly, 5) have members of the general public (employees or otherwise) present to the CEE any cases of fronting and/or workplace discrimination which exasperate the pace of transformation

Many states and cities in the USA are considering and have enacted a salary history ban, which prohibits a prospective employer from asking an applicant about their current/past salaries, benefits, or other compensation. These include California, New York, New Jersey, Illinois, and Washington. In South Africa, however, the question "what is your current salary?" is standard practice for recruiters and employers to ask prospective candidates suggesting that any racial or gender bias that may have been factored into a candidate's salary at a previous employer will be carried over and perpetuated from one role to the next. When an employer does not have a set pay scale for the position they seek to fill, this will inevitably lead to pay disparities, particularly disfavoured women, and previously disadvantaged racial groups. It is our recommendation that a salary history ban be enacted to narrow the pay gaps that exist in South Africa's labour market, particularly by race and gender. A prospective employer should have a remuneration package set for the vacancy he/she seeks to fill that is not informed by the prospective employee's previous remuneration package.

Rebalance the tax system by introducing different progressive income tax rates for White and non-white racial groups and introducing a wealth tax. Non-whites should be charged a lower income tax rate than Whites as they earn the least income – sometimes unjustifiably so. Wealth and or inheritance gives one the power to participate in an economy because with wealth you own property, you can establish companies and ultimately have the leisure of choosing

employment that is most favourable to you i.e., you are not a price-taker in the labour market. Eighty-six percent of South Africa's wealth is held by 10% of the population of which 60% are White individuals (NIDS 2017). Due to the compounding nature of wealth, focusing solely on income will not reduce South Africa's racial inequality. South Africa already has wealth transfer tax in the form of estate duty, donations tax and capital gains tax, however, it is yet to introduce a tax on the net wealth holdings of an individual. Wealth itself needs to be taxed to level the playing fields (so to speak) and this would be done on a sliding scale; for example, all wealth between R3million and R5million to be taxed at 3%, all wealth between R5million and R20million to be taxed at 4% etc. Although some argue that increasing tax (whether income tax or wealth tax) will discourage innovation and the creation of wealth (Jones, 2018; Akcigit, Grigsby, Nicholas & Stantcheva, 2018) , thus causing investment to move out of the country, taxing wealth itself forces privileged individuals to contribute more to the fiscus in line with their ability to contribute. The objective is not to punish those more privileged but to tax individuals in line with their abilities/capacity to contribute. However, the high political corruption in South Africa will discourage willing participation by citizens.

BBBEE should require more transparency from organisations with regards to remuneration packages offered to candidates of different races and gender. Personnel on the same level should be similarly remunerated with any disparities in earnings being clearly explainable by the organisation. Labour earnings between similarly qualified, experienced, and skilled individuals should be equal, despite their race and/or gender, and the disclosure of remuneration packages by organisations should ultimately inform a company's empowerment score. Remuneration equity should thus be another element on the BBBEE scorecard that compares remuneration across the different employment levels within a firm between race and gender. The smaller the differences in remuneration between employees at a common employment level, irrespective of their race and/or gender, the more BBBEE points should be awarded. Bonus points should be awarded where Black females earn more than their counterparts on the same employment level, as research conducted has shown that Black females earn the least in South Africa's labour market. It is not enough to simply employ candidates from previously disadvantaged groups (Employment Equity), invest in the development of their skillset (Skills Development) but then pay them less than their White counterparts for the same work output.

In a study on inequality, Piketty (2019) proposes what he terms 'participatory socialism' to address it. Participatory socialism is the inclusion of members of the labour force in decision-

making boards of companies and institutions to balance the power between workers and capitalists. By giving workers a vote on the board, they are also given access to detailed accounts of the company, including the Annual Financial Statements and Integrated Report. The challenge here, however, is that these workers may not fully understand these statements and reports which they now have access to due to their limited skills. As a result, they may struggle to make insightful decisions or adequately challenge executive decisions on behalf of their fellow workers. We propose participatory socialism by giving selected workers the right to vote on the board and recommend that the selected workers be comprised of workers from both genders, male and female, and all racial groups to adequately reflect the demographic of that company's labour force which they seek to represent.

#### **5.4 Recommendations for future research**

From the above conducted study it is our recommendation that a more recent study be conducted on wage disparities in the overall South African labour market based on race and gender and particularly looking at the period right before and after the Covid-19 pandemic (2019 and 2021). The NIDS covering the impact of the Covid-19 pandemic declared that approximately three million jobs have been lost since the onset of the pandemic. The Corona virus Rapid Mobile Survey (CRAM) data indicated that between February and April 2020, unemployment increased from 43% to 53% (13.7 million people to 16.5 million people). An additional 1.4 million people (4.6% of working age adults) were furloughed, that is they did not work and did not get paid but were told they had a job to return to once lockdown restrictions permitted them to return to work. Researchers in the CRAM survey say that evidence suggests that these losses may be long-lasting and as at the third quarter of 2020 approximately only 500,000 jobs have been restored. South Africa's unemployment is now over 50% with youth unemployment specifically sitting at around 70%. The overwhelming majority of those unemployed are Black South Africans.

Expanding further on this conducted research topic, it would be of use to conduct a study that considers the effect of education and occupation on salaries across the four prominent racial groups in South Africa and looking into whether the level of education completed, and occupation held has the same or varying effects on salaries across the four races. Through the correlation conducted in this research, it was evident that education and occupation were the variables most correlated to salaries, which makes sense seeing as one's level of education completed strongly influences the occupation one is eligible to pursue. It would therefore be

interesting to see the effects of these variables on salaries across racial groups. The extent of such a study would of course be permitted by the availability of data from industry and/or occupational level. Although the data of salaries by occupation, race, gender, and industry is available, its confidential nature may present a challenge to accessing it.

It would also be of use to conduct a qualitative study looking into remuneration practices of various institutions, focusing particularly on the different factors considered in determining an employee's remuneration, increments and bonuses. Again, comparing salaries between race and gender of employees to see whether the explanations given justify any identified disparities in remuneration.

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