BLACK ECONOMIC EMPOWERMENT IN SOUTH AFRICA

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Tashnika Stewart

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BLACK ECONOMIC EMPOWERMENT IN SOUTH AFRICA

Tashnika Stewart

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Abstract

Apartheid has had long-lasting effects on the economic conditions in South Africa. It has affected the ability of the previously discriminated groups, in this case people of color, to achieve any form of upward social mobility. The white population holds majority of the wealth in a country that is predominantly black. To address issues of inequality the South African government introduced Black Economic Empowerment, a program seeking to redress poverty, especially amongst the black community. Initially the program was geared towards business management and ownership amongst the black population but changed to include human resource development and employment equity. This study uses three ordinary least squares regression models to determine the impact of black economic empowerment on the wage gap but also education and the job opportunities as they all inter-relate. The result of this study reveals there has been no consistent change over time. The wage gap is still exceptionally high between blacks and whites, with blacks remaining in an inferior position. Using examples of similar programs in Malaysia, Sri Lanka and Nigeria, education is a common theme in affirmative action programs that is lacking in South Africa. Therefore in order to achieve greater success the program needs to place more emphasis on the role of education in economic advancement.

KEYWORDS: (Affirmative Action, Wage Gap, Inequality, Apartheid)
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CHAPTER I

INTRODUCTION

Affirmative action was first introduced in the United States in the 1960s primarily to achieve non-discrimination. Affirmative action policies take factors such as race, gender, religion and color into account with the aim of benefitting underrepresented groups by dealing directly with the effects of a history of discrimination. Affirmative action has various names and approaches depending on the country. For example, it can be known as reservation in India, positive discrimination in the United Kingdom and employment equity in Canada.\(^1\) Although the idea behind policies like these is to promote equal opportunity, it can be controversial. Some argue that affirmative action devalues the accomplishments of individuals chosen based on their social group as opposed to their qualifications and in doing so, makes the process counterproductive.\(^2\)

Since 1994 South Africa has embarked on a number of programs aimed at empowering groups who were negatively affected by the apartheid system. Since the introduction of Black Economic Empowerment (BEE), South Africa has experienced consistent growth; however this growth has not been shared equitably amongst all South


\(^2\) Ibid
Africans resulting in a less stable, less integrated, less prosperous, society.\textsuperscript{3} Redistributive policies like BEE work to create meaningful integration for all South Africans which, in turn, promote the deracialization of the South African economy.

The legacy of apartheid has had huge repercussions on the current economic environment in South Africa. Apartheid used race to restrict and control access into the economy which restricted wealth creation and imposed underdevelopment on black communities to ensure a large supply of cheap labor. The underdevelopment of black South Africans was created through deliberate denial of access to skills and jobs.\textsuperscript{4} Their self-employment and entrepreneurship abilities were undermined limiting wealth and skill accumulation amongst black communities. Blacks faced further obstacles which saw them being excluded from technical and scientific teaching and learning. Black South Africans were deprived by being confined to homeland areas, where they had the poorest living conditions, infrastructure and business opportunities. Additionally they had no property rights making it impossible to acquire assets that could potentially serve as collateral for loan financing. These further excluded blacks from the long-run process of capital accrual and growth. Lastly blacks were placed in inferior education systems which had devastating effects on their technical and science skills which further impacted their positions in the labor market.\textsuperscript{5} Technological and professional careers were less accessible due to the lack of mathematics and science teachers in black schools. Overall the displacement of poorly equipped black workers had a distorting


\textsuperscript{5} Ibid
effect on income distribution, the demand levels for goods and services in the economy as well as the ability of displaced workers to generate self-employment.\textsuperscript{6}

As a result whites still hold a substantial amount of control both in terms of land and corporate ownership. Consequentially a small percentage of the population holds majority of the wealth. BEE is significant as it seeks to address racially based inequality and high levels of poverty. Government-mandated discriminatory policies\textsuperscript{7} like BEE are important ways for government to change the structural influences of the past such that the wealth distribution amongst South Africans reflects the demographics of the country.

This research examines the impact of BEE on the wage gap between blacks and whites. The research question in this paper can be stated as follows: Has Black Economic Empowerment been effective in reducing the wage differentials between the favored groups (whites) versus the previously disadvantaged (people of color and/or women)? This will be analyzed using an OLS model that will use cross-sectional data to determine the impact of BEE. The dataset used for this analysis is publicly available on Statistics South Africa. It consists of a population census for the years 1996, 2001 and 2007.

In doing this analysis I hope to show the importance of creating redistributive policies that not only address the imbalances within business organizations but also within the education system and between regional locations.

\textsuperscript{6} Ibid

\textsuperscript{7} A discriminatory policy is one that is designed to benefit previously discriminated against groups in a way that address issues of inequality.
CHAPTER II

BACKGROUND

The Apartheid era favored institutions controlled by the white population in South Africa. This in turn created an economic and political model that suppressed and withdrew resources from the black population. As a result, today, South Africa stands as one of the most unequal societies in the world. The misallocation of resources prevented blacks from gaining access to land or capital which blocked them from upward social mobility. South Africa’s transition to a democracy assisted in eradicating this previous way of life, however Apartheid had a massive influence on the economic conditions thereafter. This chapter introduces the legacy of apartheid and provides background information on BEE, specifically the main objectives and how the South African government determines their success measures. There have been several changes since the induction of BEE and this chapter will document what those have been and why they came about.

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The Legacy of Apartheid

Overcoming the misallocation of physical and human resources has huge potential productivity benefits. Apartheid created a deliberate disparity between groups to distort market prices and create a race-based economy. These market inefficiencies cannot naturally be removed regardless of the changes in laws and structures of political power.¹ The black population, although capable of using assets efficiently, has no access to capital markets or financial institutions that allow for mutual transactions. Moreover, during apartheid blacks were deprived of quality education; without government intervention the market does not work efficiently to provide an adequate education system. Lastly, racial stereotypes continue to influence employment opportunities. This is heightened in a society where white superiority reigned for decades. A black person who is equally qualified or educated may not be hired based on the perception that whites are more productive. It is critical to break these racial stereotypes that have trapped and hindered growth for majority of the South African population. This will allow for social mobility and asset accumulation among non-whites. The 1993 Constitution of the Republic of South Africa states, “This constitution provides a historic bridge between the past of a deeply divided society characterized by strife, conflict, untold suffering and injustice and a future founded on the recognition of human rights, democracy and peaceful coexistence and development opportunities for

all South Africans, irrespective of color, race, class...”³ To create national unity and reconciliation economic disparities need to be overcome.

South Africa’s population consists of over 50 million people of whom 79.5% are black, 9% are white and colored⁴ respectively with the remaining 2.5% being of Indian descent.⁵ Whites, who constitute 9% of the South African population, still hold significant control over the economy owning more than 70% of the land and dominating the banking, manufacturing and tourism industries.⁶ White-run corporations manage 95% of the country’s diamond production, 63% of platinum reserves and 51% of gold reserves.⁷ Subsequently the income distribution among the various population groups reflects the nature of South African business.

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³ 1993 Constitution of the Republic of South Africa

⁴ Defined as people of mixed race.

⁵ Population Statistics
www.statisticssouthafrica.co.za (accessed Nov, 2011)


⁷ Ibid
FIGURE 2.1
INCOME DISTRIBUTION ACROSS POPULATION GROUPS (2004-2005)

Source: South Africa Statistics

The representation of the income distribution across population groups clearly outlines the problem South Africa faces. Whites possess most of the wealth in a country where the population is predominantly black. To encourage the economy to reflect the demographics of the country, the South African government introduced BEE to deal directly with the legacy of apartheid.
**Black Economic Empowerment**

BEE was introduced by the government of the African National Congress in 1994. During the apartheid era a vast majority of the South African population was excluded from participating in the formal economy. BEE was established at a time when South Africa faced high unemployment rates reaching as high 40% with 60% of South Africans living in poverty. These figures are attributed to majority of businesses being under white ownership and management with limited black participation in South African enterprise. This program acts a means to redistribute wealth to reflect national demography. By addressing these inequalities and increasing black participation in the mainstream economy, South Africa can become a strong and stable business partner for industrialized nations like the United States of America.

The BEE commission report defined Black Economic Empowerment as: “… an integrated and coherent socio-economic process. It is located within the context of the country’s national transformation program, namely the RDP (Reconstruction and Development Program) It is aimed at redressing the imbalances of the past by seeking to substantially and equitably transfer and confer the ownership, management and control of South Africa’s financial and economic resources to the majority of the citizens. It seeks to ensure broader and meaningful participation in the economy by black people to achieve sustainable development and prosperity.”

Over the past 17 years BEE has taken on different phases, transforming to address the concerns of government and the population as a whole. During its first

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phase the South African government lacked an overall coherent strategy. The early BEE equity transactions were financed through government endeavors which included funds supporting BEE initiatives as well as special incentives such as discounted prices for company shares. These transactions required a certain level of accumulated wealth and ultimately resulted in enriching a small number of well-connected politicians and businessmen. This led to a change in the concept, now known as Broad-Based Black Economic Empowerment which is working to benefit previously disadvantaged groups more effectively.

Phases of BEE

Phase 1: 1994 – 1999

The initial focus of this program was to increase black ownership of shares in major corporations by transferring equity from white people/companies to black people and or black-run companies. Over the years it had grown to include various legislative policies including the 3-4-5-6 program:

- Blacks should hold 30% of seats on boards of companies quoted on the Johannesburg Stock Exchange
- Blacks should hold 40% of equity of companies quoted on the Johannesburg Stock Exchange
- 50% of inputs should be sourced from black enterprises

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- 60% of managerial posts should be held by blacks

Ownership is divided into two groups, these being direct versus indirect. Direct ownership is determined through equity while indirect ownership involves economic interest excluding direct participation by BEE investors.\(^{12}\) To gain control of a company, BEE shareholders must hold majority of the votes providing them with enough power to appoint and remove directors.

The objectives of the 3-4-5-6 program were to be achieved within a 10 year period, that is, by 2004. Given the focus on ownership and control this program could only work to benefit black individuals who were already in a position of power. It was inefficient in terms of trickling down to the majority of the population. As a result the BEE strategy was altered to include a broader and more systematic basis on which to transform the economy.

**Phase 2: 2000 – 2014 Broad Based Black Economic Empowerment**

In 2001 government created a Black Economic Empowerment Commission that would address flaws in the current BEE system while also providing understanding in terms of definitions and processes. After realizing that BEE needed to be expanded and institutionalized, the BEE commission was created under the chairmanship of Cyril Ramaphosa, a well-known politician and businessman. The Commission released a report revealing the BEE strategy, to achieve a significant increase of black participants in the economy by 2014. This would be achieved through skills development, employment equity, sourcing from black-owned enterprises, all of which encourages

more participation of blacks in mainstream economy. To encourage businesses to be involved, the African National Congress would allocate opportunities based on positive responses to these economic transformation requirements. In 2003 the Commission produced a reformed strategy as well as the Codes of Good Practice. The strategies included.\(^{13}\)

Direct empowerment:

- Promotion of ownership and management control of business by black people.
- Human resource development specifically employment equity and skills development.

Indirect empowerment:

- Enterprise development through investment and joint ventures with black empowered or black owned companies. Investing in the development of black micro and medium enterprises.
- Affirmative procurement of goods and services
- Corporate social investment

The BEE commission report was issued in 2001 to promote asset transfer within a legal framework but also to greatly broaden the nature of BEE. Broad Based Black Economic Empowerment is aimed at including “elements of resource development, employment equity, enterprise development, preferential procurement, as well as investment, ownership and control of enterprises and economic assets.”\(^{14}\) The report

\(^{13}\) Black Economic Empowerment Commission Report
http://www.southafrica.info/doing_business/trends/empowerment/bee-old.htm

recommended focusing on more sustainable means of black empowerment by identifying new targets for action. The commission created a new series of specific objectives that the South African economy is expected to achieve within the next 3 years.\textsuperscript{15} These include:

- 30% transfer of productive land to black peasants and organizations.
- Increased black equity participation to 25%.
- 25% black ownership of Johannesburg Stock Exchange listed shares.
- 40% executive and non-executive directors in JSE listed companies.
- 50% government procurement directed to black owned companies.
- 30% of private sector procurement directed to black owned companies.
- 40% black executives in private sector.
- 50% of borrowers from public finance institutions should be black owned companies.
- 30% of government contracts and concessions should involve black companies.
- 40% of government incentives to private sector should go to black companies.

These are to be achieved and monitored using individual charters for each industry as well as the BEE scorecards. The charters for each industry was changed to embrace the new vision of BB-BEE, which now identified seven pillars as opposed to two. For instance the mining charter in 2002 changed to include human resource development. Through human resource development the mining industry would work to provide scholarships that promoted mining-related education advancement, opportunities to...

\textsuperscript{15} Ibid
become functionally numerate and literate as well as opportunities for mentorship. In terms of employment equity the mining charter is working to improve the participation rates of women to 10% within five years. With the introduction of the preferential procurement, employment equity and skills development acts, BB-BEE has included several of the previously missing elements that will now work to establish a more influential and beneficial policy for majority of the population.

The BEE Commission report now provides clarity in terms of Codes of Good Practice, the charters for different industries as well as specific criteria to determine the degree of ownership of BEE companies. These standards have been used ever since. A black empowered versus a black influenced company would be defined as follows: Black company: More than 50.1% owned and managed by blacks

Black empowered company: 25.1% owned and managed by blacks

Black influenced company: 5-25% owned and managed by black

Codes of Good Practice

The codes of good practice are monitored by an advisory council. The purpose of these codes is to act as guidance for the business dealings between private and public sector companies. In addition, it determines the criteria involved in granting licenses or

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17 Ibid

permits, preferential procurement policies, sale of state-owned enterprises as well as for public and private partnerships.\textsuperscript{19}

**Charters**

Charters exist as a form of guidance and goal setting. They include agreements on how BEE will be achieved and measured within a particular industry as well as the time frame in which these objectives should be met. It outlines the targets and allocates weightings to each component of empowerment. A company’s weighting score will determine how BEE compliant it is. A BEE complaint company is one that:

1. Meets the requirements of the charter for its specific industry.
2. Is ‘black empowered’ with 25.1% ownership by black people or organizations.
3. Is ‘black controlled’ with 50.1% of blacks managing the corporation.\textsuperscript{20}

Prior to the changes BEE had little impact on firm behavior because the program emphasized ownership and control significantly as opposed to other aspects that are linked to productivity and a greater transformation of the economy as a whole. They have since investigated changing the BEE scorecard by demoting ownership and increasing importance of enterprise and skills development. This illustration provides insight into how BEE has impacted South African business thus far.


\textsuperscript{20} Ibid
This figure shows how BEE has created connections between businesses that would not ordinarily exist. At the same time, however it conveys that these connections are concentrated towards the top, where majority of the pre-existing white-owned firms are, leaving several small black-owned entities without any connections at all. Ideally we would like to see more BEE induced connections (dotted arrow) between the white-owned firms and the black-owned entities and BEE beneficiaries. Although this is helpful in illustrating the effect of BEE on firms, it does very little to explain the impact on the previously disadvantaged. The industry charters set targets and dates by which they should be achieved but says very little as to what happens next. Government has
committed to using its purchasing and licensing power to force companies to comply. If a company wants a government contract or to renew a license or even enter into a partnership with the public sector, it has to prove that it is BEE compliant.21 This gives the government leverage in particular sectors such as mining, however not so much in other areas like manufacturing. This structure creates potential issues in terms of manipulating the scorecard to appear as BEE ‘compliant’ company in order to gain a government contract.

Addressing issues of discrimination that are deeply rooted in a society like South Africa is a difficult task. This is evident in the continual changes made by the BEE commission in hopes of achieving the desired goals. The initial phase was not successful in reaching the average black South African and was therefore altered to include other measures of success such human resource development and employment equity. A lot of emphasis was placed on ownership equity and the government has since realized the importance of transforming this into a more local movement that will allow the average black South African worker with an opportunity to work their way up. Government-mandated discriminatory policies are very much a trial and error process; South Africa is yet to identify what works best given its circumstances and long history of discrimination.

21 Ibid
CHAPTER III
THEORY

This chapter will develop the theory of affirmative action by studying the experience of three different countries with respect to their individual programs and strategies to expand economic opportunities. I will begin by looking at Malaysia, (between 1969 and 1985, the initial phase), this country has extensive experience; going back nearly forty years. With such a comprehensive level of knowledge and familiarity with affirmative action, Malaysia acts as an informative example. I will then contrast the Malaysian experience with that of Sri Lanka and Nigeria to highlight the common themes.

Introduction

Government-mandated discrimination against ethnic groups for redistributive purposes is a widespread phenomenon across the world. Apart from the well known examples, similar policies do exist in other countries like Southeast Asia. The Chinese have been subject to discrimination ranging from special taxes for signs written in Chinese to actual bans from specific professions and Chinese-owned retail and trade.¹ Using examples of redistributive policies around the world we can begin to identify

how they work, what has been done successfully versus what areas need improvement. Previous experience can work to inform the current BEE process in South Africa.

Malaysian Experience

The Malaysian population is characterized by diverse ethnic groups due to large population movements in the 19th and early 20th century.\textsuperscript{2} Approximately 58% of the population of Peninsular Malaysia were Malays (the \textit{bumiputras} or ‘sons of the soil’), 32% were Chinese, 10% Indians with Thais and Eurasians representing less than 1% of the populace.\textsuperscript{3} Given the diverse ethnic composition of the country, the constitution agreed to provide Malays with entitlement to privileges. The three main ethnic political parties formed an alliance that supported the preferential treatment of Malays as a way for the country to achieve post-independence racial harmony. This became problematic for the Chinese community who sought greater representation in politics, social reform and racial integration.

Chinese have been in Malaysia since the fifteenth century. By 1930 their numbers exceeded one million. The majority of Chinese and Indians came as traders and eventually dominated the tin and rubber industries. The Indians later filled civil service and teaching positions. Though Indians are the minority within the three major races, they have a higher percentage of professionals and entrepreneurs, including Malaysia’s richest man, billionaire Ananda Krishnan.\textsuperscript{4} Nevertheless the majority of the Indian population is poor which is highlighted by the fact that they control only 1.2

\textsuperscript{2} Ibid

\textsuperscript{3} Ibid

percent of the economy. Chinese dominated the business sector and as a result became the most economically successful group with the highest standard of living. The economy is dominated by the Chinese, the civil service by the Indians leaving the Malays to work in armed forces or police work or confined to rural areas working as fishermen or farmers. Malaysians dissatisfaction came to head in the 1969 parliamentary elections. Following the election, racial riots ensued and, as a result, the New Economic Policy (NEP) was introduced in 1970. “There is an implication that the race riots reflected underlying interethnic antagonisms over economic matter, thus necessitating the enhanced positive discrimination measures associated with the NEP.”

What is the New Economic Policy (NEP)?

NEP was designed to reform the economy such that Malays control a greater share of the wealth. The primary objectives of this program were to “eradicate poverty” regardless of race and to achieve interethnic economic parity between the Malays and the Chinese by “restructuring society”, all of which would allow for socio-economic conditions that support national unity. The two most important ways to restructure society included wealth distribution and human resource development. These involve increased opportunities for promotion within the business sector as well as improved

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5 Ibid


education systems. Consequentially, educational expenditure increased with greater focus placed on access to higher education. Educational credentials, at the college level, were emphasized and encouraged to ensure access to specific professions.

NEP prioritized its objectives by attending to the needs of rural Malays first, dealing specifically with stagnated rural projects, lower production yields in the agricultural sector, and rising poverty in their rapidly increasing population.\textsuperscript{10} NEP received recommendations from the public to become more involved in projects aimed at accelerating rural development, facilitating more efficient use of land and reducing state loan requirements. The government also worked to improve public amenities in rural areas as well as provide training opportunities for unemployed youth. Second it was imperative that the government work to reduce dependency on the farming sector by creating a drive for greater Malay exposure in the urban sectors of commerce.\textsuperscript{11}

The success of NEP has been measured using targets such as 30% ownership of corporate wealth by 1990. This is similar to some of the targets set by the South African government whose strategies for success were fairly similar. To achieve this, both governments adopted a highly corporatist, ‘government-in-business’ strategy,\textsuperscript{12} however they both found government acquisitions and equity holdings in major corporations did not work to benefit the average Malay or South African. Progress in terms of share ownership in public companies rose as expected between 1971 and 1975. Shortly after it fell behind and began increasing marginally in the mid-1980s. The

\textsuperscript{10} Ibid

\textsuperscript{11} Ibid

Bumiputera proportion of share capital rose from 1.5 percent in 1969 to 9.2 percent in 1975, 12.5 percent in 1980, 18.7 percent in 1983 and 19.4 percent in 1988\(^{13}\), reflecting the importance of private accumulation of wealth under the NEP. As successful as it may appear, NEP has experienced difficulty assisting the majority of the Malaysian population. Like the initial BEE strategy, NEP had improved the lives of a small number of Malay politicians and well-connected businessmen, relative to the population as a whole. Consequentially the NEP strategies were augmented to include various other measures of success including\(^{14}\):

- Licenses/recruitment quotas to participate in specific economic sectors;
- Subsidies in the agricultural sector provided on a racial basis;
- Easier access to public sector employment for Malays;
- Racial quotas and subsidized education enforced in university admissions;
- A mandatory 30% equity ownership by ethnic Malays;
- Expansion of Malay land rights;
- Greater access to higher paying jobs, management positions, specific professions, tertiary education admission and equity stakes in companies.

This is similar to the change made from the original BEE to the broad based BEE strategy that included other measures of success, like human resource development and employment equity. These strategies and measures of success extended to the private sector with companies being asked to submit a plan that illustrated their efforts with


regards to employing, training and promoting Malays at all levels of operations. Furthermore they had to adhere to the employment quotas that required 40% of the total labor force of a company to be Malays.\textsuperscript{15}

**Outcomes of NEP**

Under NEP the number of state and federal owned enterprises grew significantly from 109 in 1970 to 1010 in 1985.\textsuperscript{16} This increase in public enterprises reflects the growth of the public sector during this period. This was due to increased public sector development expenditure as well as transactions between the state and the Chinese, which consisted of the state buying out existing assets built up by foreign and Chinese sectors. This contributed to the aims of NEP as it allowed for greater control of the economy on behalf of the ethnic Malays. Due to the preferential treatment of Malays regarding public sector employment, the proportion of non-Malay employees in the public sector declined dramatically under the NEP as the number of federal and state enterprises grew.\textsuperscript{17}

The government projected a reduction in the poverty rate, from 49 percent in 1970 to 16 percent in 1990.\textsuperscript{18} The poverty rate of 49 percent in 1970 was for Peninsula Malaysia only; the poverty line defined as $33 per capita per month in 1970.\textsuperscript{19} The poverty rate for Peninsula Malaysia dropped to 17 percent by 1987. There is little doubt

\textsuperscript{15} Ibid

\textsuperscript{16} Ibid

\textsuperscript{17} Ibid


\textsuperscript{19} Ibid
that poverty in Malaysia, as measured by the poverty line, was reduced significantly due to the remarkable economic growth as well as the trickle down effects from the massive increase in public expenditure under the NEP; however there is suspicion regarding the official rates.

Malay ownership of capital increased to 7.9 percent from 2.4 percent in 1970; however this still fell short of the target. Three years after the implementation of the NEP, 98% of all those recruited for government service were Malays, a percentage that exceeded the previous 4:1 Malay ratio. Employment in the commercial and industrial sectors increased to match that in the public service. Also, admissions into higher education institutions increased drastically. The number of Malay students at the University of Malaya increased from 49.7 percent to 66.4 percent between 1970 and 1979. Government expenditure per student grew from RM3, 700 to RM12, 900, all of which was achieved under the NEP. Scholarships and overseas studies were more easily accessible; government encouraged this by providing the necessary funding.

The policy has been successful in achieving one of its objectives, poverty eradication; however the same success has not been experienced in terms of wealth distribution. Under the NEP, Malays were exposed to multiple sectors of business but this alone was not enough to catch up with the Chinese. The Malays experienced difficulty acquiring jobs in Chinese or foreign owned organizations. This is attributed to

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20 Ibid
21 Ibid
22 Ibid
the lack of confidence in Malay entrepreneurial and managerial skill.\textsuperscript{24} It does not help that the Chinese are more inclined to employ Chinese workers as opposed to any of the other ethnic groups.

NEP provided a platform that allowed Malays to mobilize their capital and increase their savings, all of which was achieved through establishing agencies that encouraged this behavior.\textsuperscript{25} Traditionally, religious reasons prevented Malays from embracing the idea of saving. Unlike the Chinese, Malays were not as sophisticated with money. A concerted effort on behalf of the government mobilized Malay capital, further encouraging investment to help build commercial acumen and increase savings.

Malays were provided greater educational opportunities that allow for improved qualifications that would create entrepreneurial savvy. By 1990 NEP created a broadened middle-class section and a variety of professions among Malays. As you can see in figure 3.1 by the year 2000 there were more Malay doctors than Chinese doctors. Malays were also catching up in other professions like architecture, engineering and lawyers.

\begin{flushright}
\textsuperscript{24} Ibid
\end{flushright}
NEP created many government-owned entities that were directly involved in the commercial activities of the nation. Public and state enterprises became supporters of Malay wealth. This was beneficial but equally as problematic in that ownership became concentrated in public enterprise as opposed to the hands of individual Malays. NEP placed significant focus on the economic aspect of capital building but failed to include the psychological and sociological aspects of enterprise creation. For instance, the government provided Malays with easier access to funding without instilling and nurturing entrepreneurial spirit among them as well as providing a conducive environment for their entrepreneurship development.\(^{26}\)

\[^{26}\text{Ibid}\]
The Effect of NEP on Wage Differentials

A similar study to this one was conducted in Malaysia to identify if NEP was successful in reducing racial earnings inequality in Malaysia. The average income of Chinese men, including all birth cohorts and levels of experience, was about 1.92 times that of Malays.\(^\text{27}\) This is slightly below the average household income ratio of 2.2 between the two ethnic groups.\(^\text{28}\) As you can see in figure 3.2 between the period of 1970 and 1979, the mean monthly income of Malays was significantly smaller than that of the Chinese. Over the years the wage gap increased, with Chinese income growing at a more rapid rate.

FIGURE 3.2
MEAN MONTHLY INCOME OF MALAYS AND CHINESE


\(^{28}\) Ibid
If the NEP is successful, racial earnings inequality would be reduced at all levels of schooling and experience. The earnings gap should decline and be more evident for cohorts that entered the workforce in 1970 and after, because Malays in the younger cohorts had greater opportunities for employment and education as a result of the NEP. They found that except for entrants into the labor force, the wage ratio between Malays and Chinese was steadily above one at other experience levels. Moreover, the wage gap was narrowing prior to the NEP at all experience levels, suggesting a decline in income inequality in the pre-1970 era. Lastly they found that the wage gap increases at all experience levels after 1970. Young Malays had a slight lead upon entry into the labor force; however this disappeared after the NEP. Despite the aggressive preferential procurement policies that were in favor of the Malays, they did not manage to achieve significant economic progress relative to the Chinese. The NEP is thought to have reversed the pre-1970 trend of narrowing the wage gap between the Chinese and the Malays.

The study created a model that defined government-mandated discriminatory policies as a government regulation that prohibits minorities from access to public sector jobs, while allowing native majority workers to be hired on these jobs with a positive probability. The probability that majority workers can obtain a public sector job is their measure of the extent of governmental control of the labor market. Through this model they were able to show how providing preferential access to high paying

29 Ibid
30 Ibid
31 Ibid
32 Ibid
public sector jobs to specific groups can reduce incentives for skill investment in the private sector. The negative effects on skill investment can outweigh the positive effects of receiving higher wages from public sector jobs. This has potential to make ethnic Malays, the favored group, economically worse off. Preferential treatment of the majority will explicitly lower incentives for skill investment which will ultimately lead to lower economic welfare.\textsuperscript{33} Related affirmative action literature conveys how incentives change according to different labor market policies and can lead to surprising, unintended results. For example, when the government withdrew the diesel price subsidy in 1983, only one percent was bought by small-scale fishermen who were the targeted group of the price subsidy.\textsuperscript{34} The larger boat and engine owners were able to take more advantage of the price subsidy considering that they used larger engines compared to small-scale fishermen who used smaller engines or none at all. Similarly the minimum price scheme for rice benefitted the bigger farmers as opposed to the poor rice farmers. Input subsidies, such as fertilizers are distributed based on the amount of land owned, once again assisting the rich and not the poor.

Given the outcome that NEP had on the wage gap the study provides alternative explanations. This highlights the difficulty in obtaining accurate representations of the situation. There are multiple factors at play that could be impacting the outcome. For NEP, these factors include:

\textsuperscript{33} Ibid

1. **Immigration**

A large proportion of the samples, used in the model above, are immigrants. According to Borjas, immigrant earnings surpass those of native workers within 15 years after controlling for socio-economic characteristics. The evidence suggests that immigrants are more ‘able’.

Narratives of Chinese migration to Malay Peninsula claim that majority of the immigrants were involved with manual labor in mines and plantations. Sowell states that the Chinese immigrants arrived in Malaysia as “largely illiterate as well as destitute”, while Malays were provided with free education by the colonial government.

2. **Culture**

A second explanation for the wage gap could result from cultural factors that contribute to the Chinese being more economically successful than the majority of the population in Malaysia. Malay entrepreneurs in the rural areas are looked down upon for their passion for money and profit, explaining why Malays are hesitant about potential business ventures.

Co-operative work is continually reinforced by the Islamic concept of the ummah, this inspires the giving nature of the Malay. Also, studies on immigrant earnings suggest that cultural differences play a significant role. While culture provides a possible explanation as to why the wage gap exists it does little to

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36 Ibid


38 Ibid
explain how that is inversely related to the degree of preferential treatment of the Malays under the NEP.39

3. Economic Growth

It is important to note that during the NEP phase, real GDP growth was rather high at 7.1 percent, slightly higher than the targeted growth of 6.8 percent per annum.40 The last possible explanation for a semi-successful affirmative action program could be related to the overall economic growth experienced in Malaysia after the 1970s. This was as a result of the export-orientated development strategy. The wage gap between Malays and Chinese may have increased because the economic growth enabled the Chinese to benefit from the expansion in high-growth export sectors. While this may be true, it brings into question why the Malays were not benefitting from the development strategy as well.

The model used in this study shows that following the adoption of preferential policies, income inequality between the favored group, in this case the Malays, will increase. Sowell states, “Income inequality among Malays increased under preferential policies, with the income share of the top 10 percent rising from 42 percent to 53 percent of all income received by Malays.”41 This example, Sowell states, was by no means confined to Malaysia.

40 Ibid
41 Thomas Sowell, Affirmative Action around the World: An empirical study (New Haven, CT: Yale University Press, 2004), 239
There are several examples where minorities achieve more economic success than the majorities, regardless of government-mandated discriminatory policies. Incentive effects are considered to be the primary cause. This is conveyed using the private and public sector in Malaysia where changes in incentives were visible as a result of preferential policies. The native majority was encouraged to be employed within the public sector, excluding the minorities from participating. Although the public sector offered the highest wage rate, the discriminated group remained more victorious. Several ethnic Malays remain concerned about their future once NEP is discontinued, while the Chinese population hopes for an end to ethnic discrimination.42

Sri Lankan Experience

Sri Lanka has undergone changes to encourage a more unified nation by bridging the relationships between its majority and minority populations. The Tamils represent the minority population and were the historically dominant group which created equality issues between the Tamils and the Sinhalese, the majority population. Sri Lankan preferential policies were confined to university admissions and were initially designed to benefit Sinhalese students but later transformed to include regional quota systems across ethnic and religious identities.

The nature of discrimination within Sri Lanka is not based primarily on race but extends to include religious and linguistic disparity. Rivalries existed between Sri Lanka’s minorities, Muslims and Tamils, divisions amongst the Tamils themselves and lastly between the Sinhalese and Tamils. Political and ethnic pressures were placed on universities once English replaced Tamil and Sinhalese as the medium in higher classes.

of the secondary schools. This intensified competition for entry into universities making the procedure for admissions a more political issue that created a hostile environment amongst the main ethnic groups. “The crux of the problem was that the indigenous Tamils who constituted 11.1% of the population had for years enjoyed a predominant position in the faculties of science, engineering and medicine.”43 This was attributed to higher literacy rates in English and the excellent facilities for education in science within particular districts. Language became a problematic factor as well because now there were two distinct categories of students seeking admission into university, one educated in Tamil and the other in Sinhalese.44 Affirmative action policies were introduced into the university admissions process; they now required Tamil students to obtain higher aggregate marks than Sinhalese students to gain admission to science, engineering and medical faculties of the university.45 This was maintained for a few years before changes were made. These changes included a new district quota system that encouraged a balance of students; in favor of rural areas and backward communities. Again, this benefitted the Sinhalese and Muslim community while simultaneously contributing to the further deterioration of ethnic relations that saw the alienation of the Tamil youth. The government took over more than 2000 private schools “to ensure equality of educational opportunity to all children regardless of race, religion economic condition or social status” and to provide a kind of education “which is national in its scope, aims and objectives and in conformity with the cultural,

44 Ibid
religious and economic aspirations of the people.”  

The number of universities increased by two and the places available in the universities, especially in medicine and engineering, where the demand was highest, also increased. The number of students admitted annually to undergraduate courses increased from 3,500 in 1976 to 6,000 in 1985. In terms of employment the Tamils dominated the public sector and were well established in the professional services. Given the growing number of newly educated people seeking employment, the Tamils now faced increased Sinhalese competition making their (Tamils) position in government employment a point of contention and division. With the improvement of the education standards among the Sinhalese, the next twenty five years saw the Tamils being overtaken in almost every sector of state employment and in the professional services. By 1973 the Sinhalese had overtaken the Sri Lankan Tamils in education and incomes.

Nigerian Experience

To deal with the tension created by ethnic diversity and inequalities, Nigeria introduced an affirmative action program that includes ethnic balancing through the use of explicit quotas. Nigeria’s population consists of approximately 140 million people with between 250 and 400 ethnic groups. The ethnic groups are divided into ethnic

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48 Ibid
49 Ibid
majorities and minorities. The major ethnic groups are the Hausa-Fulani of the North, the Yoruba of the Southwest and the Igbo of the Southeast. The three majority ethnic groups represent 57.8% of the national population while eleven of the largest ethnic minorities combined constitute only 27.9% of the population.\textsuperscript{51} The nature of discrimination in Nigeria is more complex than the other countries because tensions exist between the three majority groups themselves, as each competes for political and economic resources, as well as between the three majority ethnic groups and the 350 odd minority groups, between the North and South and lastly between different religious affiliations. Educational inequalities also contribute to the tension between groups with the Northern zones being educationally disadvantaged relative to their share of the population. Consequentially the educational inequalities are reflected in the human capital inequalities. In 2003, the three Northern zones with 53% of the population had only 10% of engineers, 15% professors, 10% of architects, 25% of lawyers, 8% of bank executives and less than 2% of insurance practitioners.\textsuperscript{52} Economic inequalities also exist with 70% of registered companies in Nigeria being located in the Southwest, 16% in the three Northern zones and 14% in the two other Southern zones. Additionally the capital city, Lagos, accounted for 48% of all deposits and 69.96% of all loans in 2006, while the three Northern zones combined accounted for only 10.75% of deposits and 8.5% of loans.\textsuperscript{53} The Northern zones are consistently behind. Given the imbalances, the Nigerian government introduced the Federal Character Commission

\textsuperscript{51} Ibid
\textsuperscript{52} Ibid
\textsuperscript{53} Ibid
(FCC) to ensure proportional representation. Their objectives were to institute a framework for ethno-regional politics, give autonomy to ethnic minorities and take the power away from specific regions and place it into the centre of the country.

There were various informal ways in which the Nigerian government practiced favoritism towards one ethnic group over another but more formal systems of ethnic preferences were imposed under the requirement that numerous activities must “reflect the federal character of the country.” Seeking to redress regional and therefore ethnic imbalances in education, the federal government established both universities and pre-university remedial educational institutions in more educationally backward regions. This was maintained by controlling admissions to the country’s universities, using ethnic quotas. Similar principles of regional and ethnic balance were applied to a wide range of government activities and projects. For example, government got involved in building roads, hospitals, and schools in locations that were previously lacking basic infrastructure. Emphasis is placed on balancing the location of socio-economic projects in the North with those in the South. The iron and steel project of the country was delayed to ensure that the location aspect was balanced which also occurred with the construction of the oil refinery in Kaduna, an area where no crude oil was previously produced.

Conclusion

The nature of the discrimination between the four countries examined in this study is entirely different ranging from issues of racial discrimination to inequalities in religious beliefs to regional imbalances. There are common themes however that link

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some of these countries together and furthermore contribute to the successes of affirmative action programs. Contrary to the Nigerian, Sri Lankan and Malaysian trajectory, South Africa took a different, more market-oriented route. The fundamental components of the BEE program, ownership and membership on boards, is different to the examples used in the three other countries. Their main objectives are related to education and employment equity in the form of quotas. The educational aspect has been key to the advancement of discriminated groups, especially in the case of Malaysia and Sri Lanka. It allowed for progression within professions. South Africa’s plan is concentrated in business ownership. Educational opportunities are provided within the framework of employment, for instance the mining industry provides opportunities once an individual is a part of that particular sector, employing a top-down approach as opposed to bottom-up.
CHAPTER IV

ANALYSIS

The three principle measures of equality used in this study include the income ratio, which measures the ratio between high income groups relative to low income groups for each race and gender\(^{55}\), levels of education, which measures the percentage of the white population relative to the black population with higher education and lastly changes in the high skilled occupations, which measures the percentage of the white population relative to the black population that is employed within high skilled categories\(^ {56}\). The success of the BEE program would be evident if positive changes have been made to these three dependent variables. Over time we would expect to see a lower income ratio which would suggest narrowing of the wage gap between the white and black population. Education and occupation are also essential components to ensuring higher wages. To earn higher wages the black population must achieve higher educational attainment, ideally equal to the white population. This will reduce the black to white ratio of the population obtaining higher education to a number closer to 1. Higher educational attainment will provide greater opportunities for the black population in terms of high skilled occupation. In addition to these factors BEE would be successful if

\(^{55}\) The percentage of the population earning less than R, 3500 ($470) per month are placed within the low income category and the percentage of the population earning R30, 000 ($4029.67) or more are placed within the high income category.

\(^{56}\) The high skilled categories include legislators, senior officials, managers and professionals and lastly technicians and associate professionals.
it created balance between genders and within the regional locations of South Africa.

The aim of this program is not only to bridge the gap between blacks and whites but also between men and women across South Africa as a whole. This involves reduced income ratios, higher educational obtainment and a greater proportion of the population in high skilled occupations amongst all races and between genders, all of which requires equal opportunities in every province.

Data

The data was collected through publicly available records provided on Statistics South Africa.\(^{57}\) Within the period of interest (1990-2010) I was able to obtain three comprehensive sets of data for the years 1996, 2001 and 2007. The lack of annual data created a challenge in forming a complete time-series dataset for the period of interest. To address this challenge I created a dataset using year, province, gender and race to create unique observations. This allowed me to combine several variables to compile a time-series and cross-sectional database. By identifying these as 0/1 variables I created a dataset consisting of 216 observations.

\(^{57}\) [www.statisticssouthafrica.co.za](http://www.statisticssouthafrica.co.za)
TABLE 4.1

VARIABLES DETERMINING OBSERVATIONS

<table>
<thead>
<tr>
<th>Province</th>
<th>Years</th>
<th>Gender</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Cape</td>
<td>1996</td>
<td>Male</td>
<td>Black</td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>2001</td>
<td>Female</td>
<td>Colored</td>
</tr>
<tr>
<td>Western Cape</td>
<td>2007</td>
<td></td>
<td>Indian</td>
</tr>
<tr>
<td>Limpopo</td>
<td></td>
<td></td>
<td>White</td>
</tr>
<tr>
<td>North West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free State</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mpumalanga</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gauteng</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kwazulu-Natal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Variables

Province – The 9 provinces in South Africa are organized into 8 provincial variables. The provinces are Northern Cape, Eastern Cape, Western Cape, Limpopo, North West, Free State, Mpumalanga, Gauteng and Kwazulu-Natal (See Figure 4.1). These are included in the study to examine regional differences. Each province is distinguished by a dummy variable.
Gender – A male/female variable is included in the study to identify differences and changes between genders.

Ethnicity – The major categories of race in South Africa are black, colored, Indian and white. This is an important factor given that BEE is a discriminatory policy attempting to eliminate inequality created by apartheid. This will reflect changes amongst race. These are dummy variables.
Year – The dataset covers three years: 1996, 2001 and 2007. Given the difference in the periods between censuses dummy variables have been used to reflect the effect of progress over time.

Age – An age variable has been included in the study to detect any outside influences affecting the working age population (15-64).

**Occupation Variables**

Unemployment Rate – The rate of unemployment identifies the effects of the labor market on the success of the BEE program.

Percentage of the population whose occupation falls within high skilled categories – This measures BEE’s ability to increase employment opportunities for blacks in high skill occupations.

Ratio of the population that falls within the three high skilled categories versus the seven low skilled categories\(^{58}\) – A ratio will detect any shifts from low to high skilled occupations to identify whether the black population is still dominant in lower skilled jobs.

Percentage of the population working in the agricultural, mining and manufacturing industries – The use of this percentage is important to establish if there has been a shift from working in the agricultural, mining or manufacturing sector into business commerce.

Black to white ratio of the population working in agricultural, mining and manufacturing industries – measures racial changes within these individual sectors of the labor market.

\(^{58}\) The lower skilled categories include clerks, service workers, skilled agricultural and fishery workers, craft and related trade workers, plant and machine operators and assemblers, elementary occupations.
**Education Variables**

Percentage of the population with secondary education – detects changes in educational attainment.

Percentage of the population with higher education – measures whether there has been an increase in the proportion of the population obtaining higher education.

Ratio of blacks and whites with secondary education – highlights racial differences in education.

**Dependent Variables**

Low to High Income Ratio – The income ratio variable is important as it identifies changes in wage differentials but also influences ability to obtain education.

Black to white ratio of the percentage of the population in the three high skilled categories – identifies any racial changes within occupation and will verify whether the gap between blacks and whites with high skilled jobs has been reduced or remains just as large.

Ratio of blacks and whites with higher education – This ratio is important in establishing racial differences in higher education attainment.
### TABLE 4.2

**INCOME MODEL**

<table>
<thead>
<tr>
<th></th>
<th>Log_income ratio</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>_cons</td>
<td></td>
<td>7.1438</td>
<td>1.4433</td>
<td>4.98</td>
</tr>
<tr>
<td>Year2001</td>
<td></td>
<td>-2.1062</td>
<td>0.2986</td>
<td>-7.05*</td>
</tr>
<tr>
<td>Year2007</td>
<td>(omitted)</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Province</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Cape</td>
<td>1.2266</td>
<td>0.3251</td>
<td>3.77*</td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>1.7815</td>
<td>0.3402</td>
<td>5.24*</td>
</tr>
<tr>
<td>Western Cape</td>
<td>0.1669</td>
<td>0.3740</td>
<td>0.45</td>
</tr>
<tr>
<td>Limpopo</td>
<td>1.0747</td>
<td>0.4579</td>
<td>2.35*</td>
</tr>
<tr>
<td>North West</td>
<td>1.1183</td>
<td>0.3416</td>
<td>3.27*</td>
</tr>
<tr>
<td>Free State</td>
<td>0.9952</td>
<td>0.2922</td>
<td>3.41*</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>0.4742</td>
<td>0.2505</td>
<td>1.89**</td>
</tr>
<tr>
<td>Gauteng</td>
<td>-1.5001</td>
<td>0.4718</td>
<td>-3.18*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>-1.7324</td>
<td>0.3224</td>
<td>-5.37*</td>
</tr>
<tr>
<td>Black</td>
<td>2.3533</td>
<td>0.6881</td>
<td>3.42*</td>
</tr>
<tr>
<td>Coloured</td>
<td>1.5561</td>
<td>0.5909</td>
<td>2.63*</td>
</tr>
<tr>
<td>Indian</td>
<td>0.5249</td>
<td>0.2938</td>
<td>1.79**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Coef.</th>
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<th>t</th>
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</thead>
<tbody>
<tr>
<td>SecEd</td>
<td>0.0230</td>
<td>0.0223</td>
<td>1.03</td>
</tr>
<tr>
<td>HigherEd</td>
<td>-0.0729</td>
<td>0.0252</td>
<td>-2.9*</td>
</tr>
<tr>
<td>Black/White (BW) Ratio SecEd</td>
<td>6.0995</td>
<td>1.3601</td>
<td>4.48*</td>
</tr>
<tr>
<td>Black/White Ratio HigherEd</td>
<td>-1.2441</td>
<td>3.9803</td>
<td>-0.31</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of HighSkilled workers</td>
<td>-0.1136</td>
<td>0.0409</td>
<td>-2.78*</td>
</tr>
<tr>
<td>Ratio of High/Low Skilled workers</td>
<td>0.0368</td>
<td>0.0153</td>
<td>2.4*</td>
</tr>
<tr>
<td>BW Ratio HighSkilled workers</td>
<td>-0.1924</td>
<td>0.0126</td>
<td>-1.53</td>
</tr>
<tr>
<td>% in AgriMiningManufacturing</td>
<td>0.0023</td>
<td>0.0108</td>
<td>0.21</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>UnRate</td>
<td>-0.0371</td>
<td>0.0215</td>
<td>-1.73**</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0125</td>
<td>0.0198</td>
<td>-0.63</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of obs</td>
<td>143</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.00</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.935</td>
</tr>
<tr>
<td>Root MSE</td>
<td>0.5536</td>
</tr>
</tbody>
</table>

* 95% statistical significance
** 99% statistical significance
Before analyzing the results of the regression, I must note that the income ratio was highly skewed. As a result I removed a few observations but found that generating a new dependent variable produced the best results. I took the log of the dependent variable which normalized the data distribution but created much smaller coefficients than seen in the original regression. With the dependent variable in its log-transformed state and the independent variables in their original metric, remember that the scale of the dependent variable changes states. The format for interpretation is that the dependent variable changes by \(100\times(\text{coefficient})\) percent for a one unit increase in the independent variable while all other variables in the model are held constant.\(^5\)

The year 2001 is a significant variable with a negative coefficient meaning that between 1996 and 2001 the high to low income ratio decreased. The change between 2001 and 2007 was not attainable through this regression analysis. 2007 was omitted from the study due to multi-collinearity. Solving this problem would require combining the data or removing that variable altogether. By combining it that would produce a considerably different set of results and for that reason omitting this variable was the only viable option.

Six of the provinces are statistically significant; Gauteng being the only province with a negative coefficient suggesting that it is the only one that saw a decrease in the low to high income ratio.

The gender variable is also statistically significant with a negative coefficient. This indicates that males are better off than females.

\(^5\)Log Dependent Variable
http://www.ats.ucla.edu/stat/sas/faq/sas_interpret_log.htm
Black and colored are the two race variables that are statistically significant with positive coefficients. Therefore being black or colored is associated with a higher income ratio.

The percentage of the population with higher education and the black to white ratio of the population with secondary education are the two statistically significant education variables. The black to white ratio with secondary education has a positive coefficient indicating its contribution to increases in the low to high income ratio. On the other hand, the percentage of the population with higher education has a negative coefficient reducing the low to high income ratio.

**Implications of Income Model**

The income ratio model shows that there has been no stable and consistent growth over time or between race and gender as a result of the BEE program. There is still great disparity in education and occupation based on race and gender. Inequality between females is significantly higher than that between males. Interestingly, even amongst whites where generally the income disparity is lower, the difference between males and females is still visible. Essentially the worst position to be in is black and female with the best position being white and male. The income model also shows the imbalances between provinces with only Gauteng having experienced progress in the reduction of income ratios. Given that Johannesburg is the provincial capital of Gauteng, there is bound to be significant differences. Johannesburg is one of the world’s leading financial centers and is the economic and financial hub of South Africa,
producing 16% of South Africa’s gross domestic product, and accounting for 40% of
Gauteng’s economic activity.\textsuperscript{60}

\textbf{TABLE 4.3}

\textbf{EDUCATION MODEL}

<table>
<thead>
<tr>
<th>Black/White Ratio HigherEd</th>
<th>Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>_cons</td>
<td>0.0984</td>
<td>0.0125</td>
<td>7.86</td>
<td></td>
</tr>
<tr>
<td>Year2001</td>
<td>0.0498</td>
<td>0.0029</td>
<td>17.39*</td>
<td></td>
</tr>
<tr>
<td>Year2007</td>
<td>-0.0228</td>
<td>0.0033</td>
<td>-6.85*</td>
<td></td>
</tr>
<tr>
<td>Northern Cape</td>
<td>0.0226</td>
<td>0.0051</td>
<td>4.39*</td>
<td></td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>0.0541</td>
<td>0.0044</td>
<td>12.27*</td>
<td></td>
</tr>
<tr>
<td>Western Cape</td>
<td>0.0202</td>
<td>0.0034</td>
<td>5.9*</td>
<td></td>
</tr>
<tr>
<td>Limpopo</td>
<td>0.1144</td>
<td>0.0048</td>
<td>23.69*</td>
<td></td>
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<tr>
<td>North West</td>
<td>0.0605</td>
<td>0.0056</td>
<td>10.72*</td>
<td></td>
</tr>
<tr>
<td>Free State</td>
<td>0.0316</td>
<td>0.0037</td>
<td>8.58*</td>
<td></td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>0.0356</td>
<td>0.0036</td>
<td>9.99*</td>
<td></td>
</tr>
<tr>
<td>Gauteng</td>
<td>0.0636</td>
<td>0.0030</td>
<td>21.05*</td>
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</tr>
<tr>
<td>Male</td>
<td>-0.4468</td>
<td>0.0024</td>
<td>-18.61*</td>
<td>Sex</td>
</tr>
<tr>
<td>Black</td>
<td>0.0129</td>
<td>0.0088</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td>Coloured</td>
<td>0.0109</td>
<td>0.0074</td>
<td>1.48</td>
<td></td>
</tr>
<tr>
<td>Indian</td>
<td>0.0036</td>
<td>0.0040</td>
<td>0.89</td>
<td>Race</td>
</tr>
<tr>
<td>SecEd</td>
<td>0.0004</td>
<td>0.0003</td>
<td>1.28</td>
<td>Education</td>
</tr>
<tr>
<td>IncomeRatio</td>
<td>-1E-06</td>
<td>2.1E-07</td>
<td>-5.11*</td>
<td>Income</td>
</tr>
</tbody>
</table>

| Number of obs | 215 |
| Prob > F       | 0.000 |
| R-squared      | 0.899 |
| Root MSE       | 0.017 |

* 95% statistical significance
** 99% statistical significance

\textsuperscript{60} Johannesburg Central
Both time variables are statistically significant but while 2001 has a positive coefficient, 2007’s is negative. This illustrates that the ratio of blacks to whites with higher education increased between 1996 and 2001 and decreased between 2001 and 2007.

All of the provincial variables are statistically significant with positive coefficients. Although some provinces are better off than others, this does suggest that there has been no significant change in educational attainment amongst blacks in South Africa as a whole.

Once again the gender variable is statistically significant with a negative coefficient emphasizing that males are superior to women in educational advancement.

None of the race variables are statistically significant and all of them have positive coefficients. It is visible however that blacks are the worst off, followed by colored, Indian and finally whites.

The income ratio is statistically significant with a negative coefficient suggesting that as the income ratio decreases so will the black to white ratio of the population obtaining higher education.

**Implications of Education Model**

The regression results for the education model show that the ratio of blacks to whites with completed higher education is inconsistent between the years 1996, 2001 and 2007. There are provincial differences; by observing the results one can see that Northern Cape, Western Cape, Free State and Mpumalanga have the lowest positive coefficients suggesting that the ratio is smallest within these regions. This highlights how the dynamics of education differ amongst the regional areas of South Africa. This can be attributed to several factors some of which include a greater desire for
educational attainment in specific areas, better educational opportunities and infrastructure or better access to scholarships and funding. The black and colored populations remain highly uneducated in comparison to whites or Indians. Income plays a huge role in the ability to obtain an education and with the income ratio highest amongst blacks and colored it comes as no surprise that majority do not have a sufficient enough income to fund for schooling.
### TABLE 4.4

**OCCUPATION MODEL**

<table>
<thead>
<tr>
<th>Black/White Ratio HighSkilled Workers</th>
<th>Robust Coef.</th>
<th>Robust Std. Err.</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>_cons</td>
<td>8.6531</td>
<td>8.8852</td>
<td>0.97</td>
</tr>
<tr>
<td>Year2001</td>
<td>-11.2445</td>
<td>1.6982</td>
<td>-6.62*</td>
</tr>
<tr>
<td>Year2007 (omitted)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northern Cape</td>
<td>-4.0384</td>
<td>1.6973</td>
<td>-2.38*</td>
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<td>Eastern Cape</td>
<td>10.8852</td>
<td>2.3329</td>
<td>4.67*</td>
</tr>
<tr>
<td>Western Cape</td>
<td>-14.6096</td>
<td>1.4980</td>
<td>-9.75*</td>
</tr>
<tr>
<td>Limpopo</td>
<td>7.4842</td>
<td>3.4280</td>
<td>2.18*</td>
</tr>
<tr>
<td>North West</td>
<td>0.6326</td>
<td>2.2847</td>
<td>0.28</td>
</tr>
<tr>
<td>Free State</td>
<td>-5.0088</td>
<td>1.8044</td>
<td>-2.78*</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>-4.7189</td>
<td>1.5451</td>
<td>-3.05*</td>
</tr>
<tr>
<td>Gauteng</td>
<td>-16.3694</td>
<td>2.4970</td>
<td>-6.56*</td>
</tr>
<tr>
<td>Male</td>
<td>-7.9804</td>
<td>1.7096</td>
<td>-4.67*</td>
</tr>
<tr>
<td>Black</td>
<td>3.2495</td>
<td>3.4034</td>
<td>0.95</td>
</tr>
<tr>
<td>Coloured</td>
<td>2.4630</td>
<td>2.4535</td>
<td>1.00</td>
</tr>
<tr>
<td>Indian</td>
<td>0.3187</td>
<td>1.0208</td>
<td>0.31</td>
</tr>
<tr>
<td>BW Ratio SecEd</td>
<td>29.0021</td>
<td>9.8831</td>
<td>2.93*</td>
</tr>
<tr>
<td>BW Ratio HigherEd</td>
<td>142.3466</td>
<td>26.1921</td>
<td>5.43*</td>
</tr>
<tr>
<td>Ratio of High/Low Skilled workers</td>
<td>0.0183</td>
<td>0.0280</td>
<td>0.65</td>
</tr>
<tr>
<td>% in AgriMiningManufacturing</td>
<td>0.0234</td>
<td>0.0547</td>
<td>0.43</td>
</tr>
<tr>
<td>UnRate</td>
<td>-0.0971</td>
<td>0.1476</td>
<td>-0.66</td>
</tr>
<tr>
<td>Age</td>
<td>0.0444</td>
<td>0.1198</td>
<td>0.37</td>
</tr>
</tbody>
</table>

| Number of obs                       | 144          |
| Prob > F                             | 0.000        |
| R-squared                            | 0.9271       |
| Root MSE                             | 3.8806       |

* 95% statistical significance
** 99% statistical significance
The year 2001 is a statistically significant variable with a negative coefficient indicating that the black to white ratio of workers employed within the high skilled categories decreased between 1996 and 2001. 2007 was omitted from the study due to multicollinearity but by observing the data we can conclude there is no consistency between years.

Seven of the provincial variables are statistically significant and two of those have positive coefficients while the remaining five are negative. Gauteng has the most negative coefficient suggesting that this province has seen the biggest reduction in the black to white ratio of workers in high skilled labor categories. Following Gauteng is the Western Cape and the Free State.

The gender variable is statistically significant with a negative coefficient conveying, once again, how males have better chances of advancing into jobs that require a higher set of skills.

Race is not statistically significant with positive coefficients. The ratio of workers in high skilled labor categories is highest for blacks, followed by coloreds, Indians and lastly whites.

Both education variables in this model are statistically significant with positive coefficients suggesting that the structure of education in South Africa negatively impacts the black to white ratio of workers in high skilled labor categories.
Implications of Occupation Model

The occupation model highlights the provincial imbalances, while some have experienced significant growth i.e. Gauteng, others like the Eastern Cape need to improve to gain a more stable ratio over time. This is also evident across race and gender. For example the black/white male ratio in the Eastern Cape is significantly steadier than that of females in the Eastern Cape. However, the greatest improvement is seen amongst the female population, given that their ratio was significantly higher to begin with. In terms of race it is most economically conducive to be of white descent as opposed to black. As expected the ratio of blacks to whites with complete higher education is more beneficial to obtaining high skilled jobs, with a much higher coefficient than that for secondary education. Education is the key to higher skilled employment and therefore should be the primary focus of the BEE program.
CHAPTER V

CONCLUSION

This research paper examines the use of government-mandated discriminatory policies on wage differentials in South Africa. It includes a study of education and occupation as each of these is equally influential in reducing wage gaps. It looks specifically at whether Black Economic Empowerment has been effective in reducing the wage differentials between the favored groups (whites) versus the previously disadvantaged (people of color and/or women)? Using an ordinary least squares regression three models were created to determine any changes in income ratio, educational attainment amongst the black population as well as changes in skill required employment.

The result showed that race is still very much a determinant in wealth accumulation in South Africa. The income ratio started off so high for the black and colored population that the greatest changes were seen between 1996 and 2001. Since 2001 however there has been miniscule change. In terms of higher education, the ratio between blacks and whites increased in 2001 and began decreasing in 2007. Lastly in terms of employment it was hard to determine any particular trend. The results show fluctuation between years indicating that BEE is not making any significant and steady change for the South African population.
The most certain conclusions from this study are that education, income and employment are extremely different based on gender, race and province. For each model males were consistently better off than females. Consequentially there was more room for improvement amongst females given their inferior position. Second whites are the most superior in all aspects, followed by Indians, coloreds then blacks. There has been no significant change over the years that have allowed blacks to move up the social ladder. Last BEE has outlined a detailed and elaborate plan that has failed to include the most important aspect of all, education. There has been change over the years but not enough to destroy the stereotypes and place black people in a position of power. Malaysia, Sri Lanka and Nigeria’s affirmative action programs emphasize the need for education to allow the discriminated group to work from the bottom up. My analysis and the experience of other countries indicate that education is essential. BEE has strategies involving ownership and management which involve taking people who already have an education or a semi-skilled job and moving them to the top. It is not a bottom-up approach leaving majority of the black population in the same position they have always been. Governments focus should be making education an option for the children of South Africa and like Nigeria doing it in way that allows for ethno-regional balance.
Limitations of the study

Firstly I was hoping that this study would incorporate a much larger dataset, one that included data from a few years before the BEE program even started. That way the results would be more informative in terms of changes between the pre-BEE and post-BEE eras. Twenty years of data (1990-2010) would have provided much more insight on a yearly basis as opposed to information every five to six years. There are several years left unaccounted for and there is little to be said about what could have potentially occurred within that space of time. Furthermore either of the years used in this study could be outliers and fall away from the actual pattern over the last 20 years. Based on these three years it is difficult to make solid conclusions on any particular province for example, because there is not enough information to form a pattern of behavior. It all seems to fluctuate between all three years making it difficult to pinpoint actual progress as a result of BEE.

Additionally the results were not as helpful as they could have been in terms of identifying changes that occurred over time. For two of the three models the time variable was incomplete and 2007 was omitted from the study due to multi-collinearity. There was little that could be done to fix the problem and combining the variables would have changed the meaning of the study altogether. The only way of gaining any knowledge into what might have occurred between 2001 and 2007 was by observing and manipulating the actual dataset itself. Had 2007 been a part of these models the results could have look entirely different.
Questions for Further Research

Affirmative action is a broad area of study, especially in South Africa, a country with such a long history deeply rooted in discrimination. This is such a controversial topic particularly because researchers are yet to determine how to get it right and make a success of government-mandated discriminatory policies. There is no one way to be successful given that it is highly situational and specific to individual struggles and countries. There is plenty of research still to be done on BEE in South Africa. There are a variety of angles that can each provide insight on how to improve the situation that South Africa faces. There have been several studies done on specific industries and how BEE has worked to improve particular job markets/sectors. It would be interesting to look at how successful BEE has been on the firm level, have they achieved their goals in the 3-4-5-6 program for instance? How successful have they been in creating black-owned enterprise? Based on the affirmative action programs in Malaysia, Sri Lanka and Nigeria and the emphasis they put on education, it would be most useful to study the effect of BEE on education in South Africa. Education has always been easily accessible to those that are able to fund it, a small minority in comparison to the population at large. What has the South African government done to make education an option for everyone? Is it more worthwhile to fund education or equity transactions?

A qualitative study would also be very interesting. It is difficult because racism and discrimination can be a sore topic but it would be extremely useful to gain opinions from South Africans themselves. What do they feel is working and where can improvements be made?
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Log Dependent Variable

Map of South Africa

Population Census 1996, 2001 and 2007 by province, gender, race, age group, employment status, industry, highest education level, occupation, unemployment and income
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www.statisticsouthafrica.co.za (accessed Nov, 2011)

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