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Ralefeta, Neo

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A study of gender differences in job finding strategies

A Research Report presented for the degree of Master of Economics
in the School of Economics and Finance,

University of the Witwatersrand

By

Neo Ralefeta

2260904

Supervised by Professor Dorrit Posel

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Prof Dori,

I am fortunate to have had you as my supervisor.

Thank you for your guidance and for investing your invaluable time in my education.

I will always remember to pay it forward.

To my family:

Mama and Papa – Pulane and Mohale Ralefeta,

my siblings Selaelo and Mokgehle, and

the men and women who defied the odds and raised me to have a decent shot -

for your courage, for your sacrifices, for your love and for your support,

I am eternally grateful

and I hope that I have made you proud!

Declaration

I, Neo Ralefeta, declare that:

1. The research report, except where otherwise indicated, is my original research,
2. This report has not been submitted for any degree or examination at any other university,
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Neo Ralefeta

Date: 30 June 2023

Abstract

Men and women in the South African labour market face different sets of challenges with women persistently having higher unemployment rates when compared to men. How they search for and find work is an important aspect of the country's labour market and may inform policy solutions on how to address the large unemployment gaps between men and women. Active job searching is a costly exercise and individuals may use passive searching methods and rely on their social networks to connect them to job openings. This research report examines the differences in job finding strategies between adult men and women; it groups unemployed individuals into searching and non-searching categories and considers their individual and household characteristics. Using data from the National Income Dynamics study from years 2012 and 2014/2015, the study shows that there is a positive correlation between men's search status and their employment outcomes. However, this is not the case for women whose employment outcomes are not influenced by whether they search for employment or not. For women, a negative correlation is found between social reproductive work and employment outcomes, and a positive correlation is found between educational attainment and employment outcomes. Social reproductive work hinders women more than men from actively searching for employment and being a female lowers the probability of finding employment. This research report contributes to the literature by providing a national analysis of gendered job searching strategies and employment outcomes by using recent nationally representative data.

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1. Introduction

This study is concerned with the different strategies used to find employment in South Africa. These strategies, and how job seekers find out about job openings, may vary from active strategies such as responding to newspaper or noticeboard advertisements, working with employment agencies, waiting outside a factory for a job, knocking on factory gates or visiting shops and homes, asking a former employer, waiting on the side of the road, to more passive methods such as relying on social networks to inform a job seeker about a job opening.

The question of whether differing job finding strategies have differing success rates is an important one for a job seeker. It is also important to analyse the different strategies used by men and women in a quest to reduce the gender employment gap that exists in South Africa (Casale et al., 2021).

Although the female labour force participation rate in South Africa has increased from 40 per cent in 1994 to 54 per cent 2019, and male labour force participation increased from 60 per cent to 67 per cent over the same period, the increase in women's labour force participation has not afforded women an advantage over men when it comes to employment attainment and income earning (Casale et al., 2021). Casale et al. (2021) suggest that the characteristics differentiating the searching and non-searching unemployed are related to the costs and expected benefits of finding employment. Here, women are more likely than men to be living in rural tribal areas and in households with very young children. Both these characteristics may be expected to raise the costs of active job search for women.

On average, men and women in South Africa face different sets of economic outcomes and circumstances. At the root of this is the structural bias of what society expects from men and women relating to the performance of paid and unpaid work. This problem is further exacerbated by the extent of single-adult headed households, the decrease in marriage rates and the likelihood of children being raised by their mothers in the absence of their

fathers (Casale et al., 2021). This additional constraint takes away time from women to actively search for work.

Throughout history, society has established social norms of how men and women should behave, the jobs they should do and a whole host of differing roles for men and women that would be socially (un)acceptable. Societies held perceived differences which constrained and subordinated women (Meyerowitz, 2008) and provided ways of signifying hierarchical relationships between men and women (Meyerowitz, 2008). As an example, in Islamic societies, the socialisation of gender roles is clearly defined, with women required to take roles in the household and men taking power both in the household and in the paid economy (Sabban, 2004). Most of these social norms have led to women's marginalisation, creating structural differences between the positions of men and women in the economy and an uneven division of labour (Himmelweit, 2002). However, economic development has led to increased female labour force participation and a shift in social norms of gender roles (Burstein, 2007), and women have increasingly started to participate in the paid economy and share the public sphere with men (Sabban, 2004).

This subject and study are of importance to the South African economy. From an economic growth perspective, the concentration of individuals in specific predetermined roles and occupations can stifle efficiency and threaten economic progress (Himmelweit, 2002). When men and women are constrained in roles where they cannot fully utilise their capabilities, both the productive and reproductive economies fall short of their potential, leading to injustice for the overall economy. Moreover, when women are the heads of single-parent households and are either unpaid or take lower-paying jobs compared to men, this exacerbates economic inequality (Himmelweit, 2002). Consequently, children born into these disadvantaged households, who possess inherent talents and abilities, may fail to realise their full potential due to inadequate access to quality education and resources that can enhance their skills for the economy's good (van der Berg et al., 2016).

Key findings from this research report are that searching for employment is an important component of men’s employment outcomes, but women’s employment outcomes are not

influenced by whether they search for employment or not. In an environment with high unemployment rates, limited resources and high active job searching costs, social networks are a key influencing factor of how individuals search for job opportunities. Women are more constrained by social reproductive work, which hinders them from searching for work, often leading them to cease job searching. Educational attainment is a significant component of whether men and women have positive employment outcomes. However, this is more of an influence on women than men who are likely to find employment whether they achieve higher educational attainment.

The remainder of this research report is structured as follows: Section 2 provides a review of the literature on the labour market and factors that influence job seekers' searching strategies. Section 3 outlines the research questions and the data and methodology used in this research report. Descriptive analysis of the characteristics of the unemployed individuals aged 18 to 65, according to their search status, are presented in Section 4. Section 5 builds on the descriptive analysis by using multivariate logit models to test the association between search status and the probability of men and women finding employment. Section 6 summarises the findings and concludes the research report.

2. Literature Review

2.1 The labour market

The International Labour Organisation (ILO)[1] defines open unemployment as one of two categories: the international standard (the narrow measure of unemployment), which includes only active searchers in the measure of unemployment, and the relaxed standard (the broad measure of unemployment), which also includes non-searchers and often referred to as "discouraged" work seekers in South Africa.

Suryadarma et al. (2008) point out that including discouraged job seekers in the labour force would make unemployment rates incomparable across countries and that the use of the

[1] The International Labour Organisation is a United Nations agency which brings together governments, employers and workers to set labour standards and develop policies and programmes promoting decent work for women and men.

international standard definition of open unemployment creates a consistent measurement to make labour force comparisons as objective as possible (Posel et al., 2014).

In March 2023, the ILO released a brief by Gomis et al. (2023) highlighting gender gaps in the labour market. They highlight that the global narrow unemployment rate was 5.8 per cent. Although the global unemployment rates between men and women are virtually indistinguishable, with the men and women's unemployment rates sitting at 5.7 and 5.8 per cent, respectively (ILOSTAT, 2023), Gomis et al. (2023) find that significant labour market gaps still exist between men and women. With unemployed individuals being those who are willing to work, and able to take up employment within one week (ILO, 2002), this requirement often disadvantages women (when compared to men) due to their disproportionate responsibility for social reproductive work. This social reproductive work can hinder women from searching for employment as a week's notice is often too short for women to arrange alternatives for the social reproductive work they are primarily responsible for.

Gomis et al. (2023) find that among individuals aged 25 to 54, the global labour force participation (LFP) gap between men and women was 29.2 percentage points: 90.6 per cent of men were participating in the labour force when compared to 61.4 per cent of women, the biggest factor hindering women being child-rearing. For the same age group, when analysing individuals with at least one child under the age of 6 years, the labour force participation rate for women reduced to 53.1 per cent; however, it increased for men to 95.7 per cent - creating a larger gendered labour force participation gap of 42.6 percentage points between men and women. Mothers to young children are less likely to participate in the labour market due to their responsibilities for caring for young children - the 'motherhood penalty' (Gomis et al, 2023). However, these labour market statistics, gaps and the effects of the 'motherhood penalty' vary across countries with differing income groups.[2] In low- and lower-middle income countries (most of which are in Sub-Saharan Africa), women's labour force participation rates may be higher than in high income countries.

[2] Countries are grouped into low income, lower-middle income, upper-middle income and high income based on income per capita.

However, these participation rates may be driven by economic necessity – women must balance social reproductive work with economic work. In these scenarios, there may be the presence of other family members in households that may assist with child-rearing.

South Africa, which falls in the middle-income country group (Lustig, 2016), has one of the highest unemployment rates in the world (IMF, 2023)[3] with the narrow definition and broad unemployment rates sitting at 32.7 and 42.6 per cent, respectively, as at the fourth quarter of the year 2022. When these numbers are disaggregated by gender, women have the highest unemployment rates across both definitions when compared to men (Stats SA, 2023)[4].

When discussing South Africa's labour market and statistics, the country's history and context of institutionalised racial and gendered discrimination that was inherited from the apartheid regime and its transition into the democratic dispensation must be considered. The apartheid regime had created spatial separation and restricted labour movement between areas where most African people resided and business centers. Migrant labour patterns were formed and entrenched through policies that promoted separate development (Posel and Hall, 2021). During this period, single-sex hostels were developed for migrant workers, which discouraged family co-residence and heterosexual couples living together in the same households. Most of these labour migrants were men, and women's movement was restricted with chiefs, fathers and husbands, reinforcing women's roles in unpaid and rural production work (Posel and Casale, 2003; Casale et al., 2021). In addition to this history of the South African labour market is how employment types and resources were differentiated by race and gender. Women's participation in the labour market and the type of work they could do was legally restricted and structures of control in communities and households pressured men to enforce gendered roles where women were required to perform unpaid and social reproductive work (Casale et al., 2021). South Africa transitioned from the apartheid regime to the democratic dispensation in 1994.

[3] See: IMF - https://www.weforum.org/agenda/2023/02/unemployment-forecast-work-country/

[4] Statistics South Africa (Stats SA) is South Africa's official statistical agency.

At the beginning of this period, male and female narrow unemployment rates were 17 and 25.1 per cent respectively and by year 2019, these unemployment rates had risen to 26 and 31.5 respectively (Casale et al., 2021). This rise in the unemployment rate (and its persistence) in post-apartheid South Africa is a cause for concern. Banerjee et al. (2008) ascribe this sharp rise in the unemployment rate to policies that were put in place by the apartheid regime and the subsequent freedoms that came with the democratic dispensation. Democratic South Africa brought about freedom of individual movement which resulted in an increase in the supply of labour in business centres: 80 per cent of African women migrant workers had migrated from rural areas to urban areas in year 1993 (Posel and Casale, 2003). Most of these African women were unskilled, and this migration was met with a relative fall in the demand for labour primarily for unskilled individuals (Banjeree et al., 2008). The increase in women's labour force participation in democratic South Africa has compounded gender differences in unemployment (Casale et al., 2021). High unemployment rates are persistent and continue to plague the South African labour market which is structurally constrained by its history.

In an effort to address these structural constraints in the labour market and labour force, the democratic South African government introduced laws[5] that protected employees and policies that sought to redress racial and gendered inequality. However, Casale et al. (2021) find that gender divisions of labour in the paid economy and in households persist as women remain responsible for housework and caring labour, which takes away time and energy to participate in the labour market and may make it impossible for women to leave the house in pursuit of employment opportunities (Schoer and Leibbrandt, 2006). In addition, women carry childcare responsibilities as primary caregivers, live far from employment centres (mostly and tribal and rural areas), and have fewer resources to actively search for employment when compared to men (Casale et al, 2021). Due to these constraints, it is expected that women are more likely to use passive job-searching

[5] The Basic Conditions of Employment Act (1997), Employment Equity Act (1998) and the Minimum wage legislation in low wage employment. South Africa is also signatory to a number of regional and international gender protocols (Casale et al., 2021).

strategies to find employment. However, their lack of access to networks when compared to men can also be a disadvantage in a labour market where a majority of employed individuals find their jobs through social networks (Schoer and Leibbrandt, 2006).
Furthermore, the vast spatial separation between rural areas and business districts and unaffordable transportation results in high job search costs that are unsustainable by jobseekers, which may lead to a cessation of active job searching or complete discouragement. This spatial dispersion that was inherited from the apartheid government continues to create exclusions in the labour market and perpetuates spatial segregation (Shah and Sturzenegger, 2022), maintaining job searching as a costly exercise by job seekers.

Klasen and Woolard (2008) find that unemployed individuals rely on the income earned by other household members. With many households in South Africa (and therefore a lot of family support for the unemployed) being in rural areas, rural South Africa remains a refuge for individuals who are unsuccessful in their quests for employment in urban areas (Schoer and Leibbrandt, 2006). In these instances, unemployed individuals may resort to leaving regions that offer higher employment opportunities and return to households with parents or relatives that are in areas that offer lower employment opportunities. The subsequent lower likelihood of finding employment reduces the job searching activity of the unemployed, reducing their prospects of finding employment. This further increases the unemployment rates in rural areas, not because of the structure of their labour markets, but because of where unemployed individuals choose to locate themselves for economic support and not for employment prospects.

Statistics South Africa (Stats SA) defines the official (international standard) unemployment rate as individuals who were not employed during a reference week but had actively sought employment in the 4 weeks preceding the Quarterly Labour Force Survey (QLFS)[6] and were available to work or start a business in the reference week[7]. Active job-searching could be

[6] The QLFS samples 30,000 households in South Africa looking at individuals aged 15 years and older. For each QLFS, a quarter of the sampled dwellings are rotated out and replaced by new households from the same primary sampling units [PSUs].

[7] Reference week refers to the week preceding the survey.

individuals responding to job advertisements seen in the newspaper or on the internet or working through employment agencies to find employment. Stats SA defines discouraged job seekers as individuals who wanted to work, were available to work but did not take active steps to find employment in the 4 weeks preceding the survey. The expanded unemployment rate (relaxed definition) includes both groups of unemployed and discouraged individuals (Stats SA, 2023). However, discouraged job seekers could be using passive job searching methods such as relying on a household member to tell them about a job opening or relying on friends or family members who live in different households to tell them about a job opening. These discouraged job seekers may be as attached to the labour market as active job seekers but may have stopped searching due to the low prospects of finding employment or the costs of searching for employment outweighing the benefits (Diagne, 2010).

In their study of unemployment in developing countries, Suryadarma et al. (2008) find that including non-searching individuals in the unemployment rate only moved the official rate by decimal points in countries with relatively low unemployment rates. In South Africa, including non-searching individuals increased the unemployment rate by 9.9 percentage points as at the fourth quarter of 2022. This significant increase in the unemployment rate from the narrow to the broad definition may indicate that some of the discouraged job seekers may not be genuinely discouraged.

Posel et al. (2014) analyse job searching and the measurement of unemployment in South Africa using data from the National Income Dynamics Study (NIDS)[8] waves 1 and 2. Here, they find that individuals who are unemployed and report to be non-searching can legitimately form part of the labour force as those who report to be searching for employment. This was mainly due to the finding that the unemployment status of

[8] NIDS is the first national household panel study in South Africa. It is an initiative of the Department of Planning, Monitoring and Evaluation and is part of government's effort to track and understand the shifting face of poverty in South Africa. NIDS examines the livelihoods of individuals and households over time. It also provides information about how households cope with positive and negative shocks, such as death in the family or an unemployed relative obtaining a job. See http://www.nids.uct.ac.za/about/what-is-nids

The NIDS data enabled the tracking of individuals over time making it possible to draw a distinction between employment searching status, types of searching strategies and subsequent (un)employment.

individuals in wave 1 (searching or non-searching unemployed) did not determine their employment status in wave 2, with non-searchers in the preceding wave reporting to have found employment in the subsequent wave. The constraints that distinguish the searching from non-searching individuals are related to the costs of searching for employment and the expected benefits of employment (Posel et al., 2014), and given that job-searching is not costless and requires resources, the lack of active searching may not signal a lack of seeking employment (Schoer and Leibbrandt, 2006). With passive job searching being less costly than active job searching, and with women having fewer resources when compared to men, the non-searching unemployed, who are more likely to be women, would be expected to be more likely to rely on being contacted to be informed about job openings (passive searching) which are not recorded as searching activity in South Africa's employment statistics, and thereby excluding individuals who are searching and conflating genuinely discouraged individuals with passively searching job seekers. A larger proportion of non-searching individuals were women living in tribal and rural areas and living in households with very young children (Schoer and Leibbrandt, 2006). Women in South Africa continue to face social reproductive work constraints, which would be expected to hinder them from actively searching for employment (Posel et al., 2014).

2.2 Job Searching

In analysing the determinants of job search, Schoer and Leibbrandt (2006) use the Khayelita/Mitchell's Plain survey (in Cape Town) from year 2000. In this survey, respondents were asked "what kind of job are you looking for?" with pre-coded answers. The answer "any job" suggested that job seekers were indifferent about the type of employment they found if only they could find employment. Schoer and Leibbrandt (2006) assume[9] that most of their sample is semi- and un-skilled individuals and categorised these jobseekers into four categories: exclusive active searchers, exclusive passive searchers, mixed strategy searchers and non-searchers. Exclusive active searchers either looked in newspapers, went to

[9] The assumption by Schoer and Leibbrandt (2006) that their sample represents predominantly semi- and unskilled unemployed was based on the type of employment that respondents said they were seeking. A majority of their sample (66 per cent) had reported that they were looking for any kind of employment, 25 per cent indicated that they were looking for unskilled jobs such as domestic work, construction, gardening or factory work, and 10 per cent looked for semi-skilled or managerial positions. These rates do not add to 100% because individuals were allowed to give multiple answers.

factories and waited outside, knocked on factory gates or visited private homes, phoned or visited old employers and asked for jobs, waited on the side of the road or looked on notice boards in community centres, shopping centres or shops. Exclusive passive job searchers relied on a household member to tell them about a job, relied on friends or family members in different households to tell them about a job, relied on household members to get them a job at their workplace or relied on friends or family members in different households to get them a job at their workplace. Mixed strategy searchers had used a combination of both active and passive job searching methods and non-searchers used neither.

These categories are further disaggregated by gender. From Schoer and Leibbrandt's (2006) sample of 972 individuals, 350 were male and 622 were female. When comparing men and women by searching categories, more men than women were exclusively actively searching, less men than women were exclusively passively searching, more men than women were using mixed strategies to search, and less men than women were non-searching. The analysis by Schoer and Leibbrandt (2006) therefore, indicates that females are more likely to engage in passive job searching strategies when compared to males, who are more likely to be active searchers, and they find that exclusive passive job searchers (most of whom are women) are predominantly tied up in domestic duties which leave them with less time to pursue active job searching. Although not as much as exclusively passive job searchers, non-searchers (most of whom are also women) have the highest number of children in their households and are constrained by domestic duties. Exclusive active and mixed strategy job searchers were the least constrained by domestic duties (Schoer and Leibbrandt, 2006).

Schoer and Leibbrandt (2006) find that forty-seven per cent of passive job seekers deem active job seeking to be the best way to look for a job. This finding indicates that there are constraints to job seeking that lead job seekers to adopt passive approaches – searching for a job is a compromise between the associated costs of searching for employment and the benefits of finding employment. The unemployed who do not have strong social networks pursue employment using active job searching strategies. Further, Schoer and Leibbrandt (2006) find that exclusive passive job seekers are mainly occupied by house care duties, making it difficult for them to engage in active job searching strategies. In addition, their

regression analysis finds that being a woman suggested a higher probability of not searching for employment when compared to being a man. However, Schoer and Leibbrandt (2006) draw their sample from a single district, and their findings may not be representative of the South African population.

Posel et al. (2014) use national household survey data that was collected in NIDS waves 1 and 2 to analyse job searching and the measurement of unemployment in South Africa. In this study, they analyse the labour force commitment of the unemployed by testing whether the job searching status (searching nor non-searching) of unemployed individuals in wave 1 predicts their employment in wave 2. Posel et al. (2014) found that the most common job searching strategy was individuals relying on their social networks. This is consistent with Wittenberg's (2001) study, which found that contacts [social networks] are important channels for accessing employment. The passive job finding strategy entails individuals waiting for their friends or relatives to inform them about job openings and reflects the cost of job searching in South Africa, the low success rate of active job searching and the persistently high unemployment rates in South Africa. Posel et al. (2014) found that search status did not predict the likelihood of finding employment. However, they did not disaggregate their analysis by gender.

2.3 Contribution to literature

The purpose of this research report is to shed more light in the field of the study of gender differences in job finding strategies using more recent data which is nationally representative: the National Income Dynamics Study (NIDS) wave 3 and 4 surveys, which were conducted in years 2012 and 2014/2015 respectively. The study contributes to the literature by analysing whether there are gender differences in search behaviour and employment outcomes. The specific research questions and hypotheses which inform the study are outlined in the next section.

3. Data and Methodology

3.1 Data: National Income Dynamics Study (NIDS)

This research report makes use of data from South Africa's National Income Dynamics Study (NIDS) – wave 3 and wave 4 – which was conducted by the Southern African Labour and Development Research Unit. The choice of these two waves serves two purposes: first, this research report uses more recent data which improves on prior research that used NIDS wave 1 and wave 2. Second, it creates a baseline for further research which may have additional research questions and which build on the findings of this research report using wave 5 data.

NIDS is the "first national household panel study in South Africa. It is an initiative of the Department of Planning, Monitoring and Evaluation and is part of the government's effort to track and understand the shifting face of poverty in South Africa. NIDS examines the livelihoods of individuals and households over time. It also provides information about how households cope with positive and negative shocks, such as death in the family or an unemployed relative obtaining a job" (NIDS, 2023)[10]. NIDS has tracked the lives of approximately 28,000 South Africans living in 7,300 households at the start of year 2008. NIDS waves 1 to 5 were conducted in years 2008, 2010, 2012, 2014/2015 and 2017 respectively (Brophy et al., 2018). The NIDS sample size increases across waves because children of the initial sampled members are included in each subsequent wave. However, any new members that may join any specific sampled household would be included in a specific wave's sample but would not be tracked into subsequent waves. The sample size from wave 3 to wave 4 increased by 8.92 per cent (29,431 to 32,056). From these sample sizes, 22,012 of the 22,990 individuals who were interviewed in wave 3 were re-interviewed in wave 4 (4.25 per cent attrition from wave 3 to 4) [Brophy et al., 2018].[11] To correct for

[10] NIDS classifies its sample members as into two categories. First are continuous sample members (CSMs) who are individuals who were originally selected in wave 1 households including children born to females who are CSMs. These CSMs are tracked across waves. Second are temporary sample members (TSMs) who are co-resident in the household with a CSM when the surveys 2 to 5 are conducted. These TSMs are not tracked into subsequent surveys if they no longer live in the same household as the CSM.

[11] For this research report, the sample sizes exclude Temporary Sample Members [TSMs] and children born to Continuous Sample Members [CSMs].

any bias resulting from non-random attrition between waves, the NIDS data uses panel weights to make inferences about the population from the sampled individuals (Branson and Wittenberg, 2019).[12]

3.2 Definitions

NIDS uses the ILO's definitions of employment to categorise respondents into the various employment categories: employed, unemployed (strict and broad definitions) and not economically active (Brophy et al., 2018). To determine individuals' employment status, in the labour market participation section of the survey instrument, NIDS asks a question about what individuals were doing a year ago and asks whether they were searching for employment in the past 4 week. Individuals could be: working for pay, working on a plot or looking after livestock, helping another family member with their business without pay (all of which are classified as employed); a full-time scholar or student; a homemaker looking after children, other individuals or a home; unemployed and actively searching for employment or unemployed and not actively looking for employment. For the purposes of this research report, the terms listed below are used to differentiate between the types of unemployed individuals:

- *Searching unemployed* – individuals who were unemployed in NIDS wave 3 and who reported to have been actively searching for a job in the last 4 weeks before the survey was conducted. Active job searching strategies could either be individuals responding to adverts they saw in a newspaper, on the internet or on a notice board in a community centre or shopping centre, going to a factory and waiting for a job, knocking on factory gates and visiting private homes and shops until they get a job, asking a previous employer about a job or waiting on the side of the road.

- *Non-searching unemployed* – individuals who were unemployed in NIDS wave 3 and reported not to have been actively searching for employment in the last 4 weeks

[12] NIDS Technical Paper no. 9 builds on Technical Paper no. 2 and 6 by Martin Wittenberg which describes the weighting methodology used in constructing the NIDS sample weights.

before the survey was conducted. However, these individuals could be using passive job searching strategies to find employment. These strategies could include either waiting for a household member to inform the unemployed individual about a job opening or waiting for a friend or relative that lives in a different household to inform the unemployed individual about a job.

3.3 Research questions

This research report uses the NIDS data from waves 3 and 4 to explore two questions: First, is the search behaviour of the unemployed in wave 3 significantly correlated with the likelihood of finding employment in wave 4? Second, are there gender differences in search behaviour and employment outcomes?

Hypotheses:

1) Given the high unemployment rate in South Africa and the costs of active job search, it is expected that individuals, regardless of gender, are more likely to use passive job searching strategies to search for employment. Further, there may be gender differences in the effectiveness and outcomes of passive job searching strategies, with women facing additional barriers and potentially experiencing lower employment outcomes when compared to men.
2) Given women's responsibility for caring labour, social reproduction more broadly, and women's lower access to resources to fund job search, men are expected to engage in more active job finding strategies when compared to women. Consequently, it is expected that men will achieve higher employment outcomes when compared to women.

3.4 Methods of data analysis

Given the time between NIDS waves 3 and 4 (two years), individuals who are unemployed may use different job searching strategies that are specified in wave 3, to find employment in wave 4. In the labour market section of the NIDS survey, individuals are asked how they found their employment. However, this question is only asked of individuals who found

wage employment and excludes individuals who found casual employment and those who are self-employed. **Therefore, it is not possible to use updated job searching behaviour by individuals to analyse the relationship between job searching and employment outcomes of individuals who were unemployed in wave 3 and found employment in wave 4**. Rather, the study relies on the search status of the individual, which is specified in wave 3, in the analysis of employment outcomes in wave 4. This is an important limitation of the study, as the search status may have changed over the course of the panel.

In identifying whether job finding strategies differ between men and women, two methods will be applied: firstly, descriptive methods will used to identify frequencies of different job finding strategies by gender, including comparing the characteristics of the unemployed and the characteristics of individuals that find employment. Secondly, multivariate logit regression models will be used to predict the employment outcomes by gender, with marginal effects being reported. These marginal effects represent the change in the conditional mean of employment outcomes given a 1 unit change in the individual regressors – all else being equal.

The following logit model will be estimated:

$$Y_i = \alpha + \beta X_{i\,1} + \beta X_{i\,2} + \beta' X_i + \varepsilon_i$$

Where Y_i is a binary outcome that denotes the employment outcome for person i (employed = 1 or unemployed = 0), and X_{i1} is a binary variable that denotes whether the individual was searching or not searching for employment in wave 3, and X_{i2} is a binary variable that denotes whether the individual was female or male. The variable $'X_i$ represents additional covariates that will be controlled for include: race (Black, Coloured, Indian or White), age (measured as a quadratic), education (no schooling, grade 1 to grade 8, grade 9 to grade 11, and whether the individual has a degree or diploma), location (urban and rural), marital status (never married, married, widowed or divorced, or cohabitating) and household composition [presence of very young children (aged 3 years and younger), presence of young children (aged between 3 and 8 years), presence of old children (aged

between 8 and 14 years) and the presence of an adult female in the household]. Both men and women could have an adult female living in the same household. In instances where women are analysed, the unemployed woman herself is excluded from the variable 'presence of an adult female in the household'.

Similarly, two separate multivariate logit regressions will be analysed on the sample of women and men who were unemployed in wave 3, to test whether active job search is a stronger predictor of employment outcomes for men than women.

To test hypothesis 1, the sample for the logit regression analysis will be adults in wave 3 who were not employed but who found employment in wave 4. The key variable of interest concerns whether individuals reported to have been searching or non-searching for employment in wave 3.

To test hypothesis 2, the outcome variable is whether the men or women were employed in wave 4 and the key variable of interest concerns whether men or women reported to have been searching or non-searching for employment in wave 3. For the second hypothesis, logit regressions will be estimated for men only and for women only.

4. Descriptive statistics

4.1. Working-age adults in 2012 (wave 3 of NIDS)

While the official definition of the working age population consists of individuals aged 15 to 65, this research report narrows down the working age population to adults aged 18 to 65. This age range was chosen because 15- to 18-year-olds are generally still in school and employees retire at the age of 65.

The strict labour force participation rate includes employed individuals and individuals who are unemployed but searching for employment, while the broad labour force participation rate also includes individuals who are unemployed but not actively searching for employment. The strict unemployment rate only includes the searching unemployed, while the broad unemployment rate includes both searching and non-searching unemployed.

Table 1: Labour market statistics for the working-age population (18 to 65) by gender and geography, South Africa 2012

	Female		Male	
	Urban	**Rural**	**Urban**	**Rural**
Strict labour Force participation rate (%)	63.31	45.52	77.44	63.55
	(1,260)	(1,214)	(1,118)	(1,399)
Broad force participation rate (%)	67.14	49.80	80.11	66.91
	(1,218)	(1,202)	(1,131)	(1,357)
Employment rate (%)	47.15	26.85	64.33	47.28
	(1,327)	(1,076)	(1,419)	(1,570)
Strict unemployment rate (%)	25.52	41.02	16.93	25.61
	(1,34)	(1,941)	(1,214)	(1,539)
Broad unemployment rate (%)	29.77	46.09	19.70	29.24
	(1,417)	(1,826)	(1,253)	(1,589)
Unweighted n:	3 869	3 614	3 099	2 565

Notes: Data are weighted. Standard errors in parentheses. The sample consists of individuals aged 18 to 65.
Source: NIDS wave 3 (2012).

Table 1 shows differences in labour market statistics by gender and geographical location. Individuals could either be living in rural areas, tribal authority areas or urban areas (using the geography type information that was released with the NIDS data). In this research report, a binary variable was used to define location, where rural areas, and tribal authority areas were grouped together as one. Urban areas include both formal urban areas and informal urban settlements (or shack settlements). In South Africa, rural areas are areas outside of urban centres and tribal areas are areas designated for traditional African communities led by kings, chiefs, or other traditional leaders. Informal urban areas or informal settlements are areas that have been typically established through the informal occupation of land and are located in the peripherals of formal urban areas. Similarities between tribal (traditional areas) and farms, and the reason for grouping them together, include their lack of basic infrastructure such as electricity, roads and water, and lack of economic opportunities for people to find employment. In contrast to traditional lands and farms, urban areas provide the highest employment opportunities.

The higher labour force participation rates (both strict and broad) in urban areas when compared to rural areas, shown in Table 1, suggest that individuals in urban areas are more actively engaged in the labour market than individuals in rural areas, indicating that more men and women in urban areas are active in the labour market when compared to women in rural areas. This may be because: individuals in rural areas are more occupied in care work (that may not be deemed as economically active); individuals in rural areas are less engaged in the labour market due to lower expectations of finding employment and fewer resources to search for work; and individuals in rural areas migrate to urban areas to seek employment opportunities, thereby increasing the labour force participation rates in urban areas.

When disaggregating the data by gender, Table 1 indicates that women's labour force participation is lower than that of men in both rural and urban areas. The difference in the strict labour force participation rate in urban areas between men and women (18.04 percentage points) is higher than the difference in the strict labour force participation rate in rural areas (14.13 percentage points). This may suggest that relatively more men are not economically active in the rural areas when compared to men in urban areas. This may be explained by Klasen and Woolard (2009) who find that non-searching men who have been unsuccessful in their job-seeking endeavours or who may have lost their employment have moved back home to their parents' home in rural areas where there is economic support for their survival.

The difference in the strict and broad unemployment rates in urban areas is higher for women than it is for men (3.83 and 2.68 percentage points respectively), and the difference in the strict and broad unemployment rates in rural areas is also higher for women than it is for men (4.28 and 3.36 percentage points respectively). Although these differences indicate that there are relatively more women and men searching for employment in urban areas when compared to rural areas, the data suggests that women are less likely to be active job seekers in both urban and rural areas when compared to men. This suggests that women may face relatively greater constraints to actively engaging with the labour market when

compared to men. This may be due to women being pre-occupied with social reproductive work when compared to men, or to women having fewer resources to engage in active job search.

Table 2: Wave 3 (2012) characteristics of the searching unemployed and non-searching unemployed disaggregated by gender

	Searching unemployed		non-searching unemployed	
	Female	**Male**	**Female**	**Male**
Age	31,00^	30,69	35,06	32,12
	(0,393)	(0,483)	(1,259)	(1,112)
African	0,89	0,91^	0,74	0,76[&]
	(0,015)	(0,020)	(0,055)	(0,053)
Coloured	0,07	0,06	0,13	0,17
	(0,011)	(0,012)	(0,043)	(0,046)
Indian	0,02	0,01	0,01	0,00[13]
	(0,009)	(0,004)	(0,008)	0
White	0,02	0,03	0,11	0,07
	(0,008)	(0,017)	(0,046)	(0,036)
No Schooling	0,02	0,02^	0,07	0,05
	(0,005)	(0,005)	(0,016)	(0,021)
Grade 1 to 7	0,10*	0,18	0,16	0,15
	(0,011)	(0,020)	(0,026)	(0,030)
Grade 8 to 11	0,48	0,48	0,52	0,59
	(0,022)	(0,026)	(0,048)	(0,049)
Matric	0,22	0,20	0,16	0,16
	(0,017)	(0,020)	(0,032)	(0,038)
Diploma/Degree	0,18	0,12	0,10	0,04[&]
	(0,020)	(0,018)	(0,037)	(0,018)
Never married	0,66*	0,81	0,54[$]	0,81
	(0,021)	(0,020)	(0,048)	(0,035)
Married	0,22	0,12	0,31[$]	0,12
	(0,019)	(0,015)	(0,047)	(0,029)
Divorced or widowed	0,04	0,02	0,07	0,02
	(0,007)	(0,007)	(0,016)	(0,011)
Cohabitating	0,09	0,05	0,08	0,05
	(0,012)	(0,012)	(0,021)	(0,020)
Living in urban area	0,61	0,62	0,61	0,62
	(0,021)	(0,023)	(0,042)	(0,046)
Presence of very young child (age </= 3)	0,45*	0,17	0,37[$]	0,20
	(0,022)	(0,018)	(0,045)	(0,041)
Presence of young child (3 < age </= 8)	0,45*	0,29	0,39	0,33
	(0,021)	(0,022)	(0,044)	(0,046)
Presence of old child (8 < age </= 14)	0,45*	0,35	0,47	0,36
	(0,022)	(0,023)	(0,048)	(0,046)
Presence of adult female (age >/= 18) [%]	0,55*	0,69	0,59[$]	0,90[&]
	(0,022)	(0,028)	(0,048)	(0,030)
Unweighted n:	**1 269**	**910**	**295**	**199**

Notes: Data are weighted. Standard errors in parentheses. The sample consists of individuals aged 18 to 65. Superscripts indicate that comparisons between specified groups are statistically significant at a 95 per cent confidence level.

** indicates a comparison between searching females and searching males.*

^indicates a comparison between searching females and non-searching females.

&indicates a comparison between searching males and non-searching males.

$indicates a comparison between non-searching females and non-searching males.

[13] The data suggests that there were no non-searching unemployed Indian men.

% The variable 'presence of adult female' excludes the unemployed women herself.
Source: NIDS wave 3 (2012)

Table 2 reports the characteristics of searching and non-searching unemployed individuals. The characteristics are disaggregated by gender. According to NIDS wave 3, the unweighted sample of individuals aged 18 to 65 who reported to have been unemployed is 2,673.

When comparing the non-searching unemployed women and men, the weighted statistics indicate that women who are not actively searching for work are significantly more likely than men to be married, significantly more likely to live with very young children and significantly more likely to be living with an adult female in their households.. This suggests that women are more likely to be constrained by social reproductive work when compared to men, which may limit women's ability to engage in paid work outside their homes. Social reproductive work takes time and may hinder women who are responsible for this type of work and may leave them with less time to devote to active job-searching or employment.

The data also indicates that 10 per cent of searching unemployed women had only attained primary school education, compared to 18 per cent of the searching unemployed men; while 18 per cent of searching unemployed women reported post-secondary schooling, compared to only 12 per cent of men. This suggests that lower levels of education are not the reason for women being less likely than men to engage in active job search. In addition, 81 per cent of searching unemployed males reported having never been married compared to 66 per cent of searching unemployed women. Lastly, searching females were more likely to be living with children in their households when compared to searching males. Again, this indicates that social reproductive work may hinder women more than men from active job searching.

Comparing searching women to non-searching women, non-searching women are significantly more likely to have no schooling, significantly more likely to be older than searching women and significantly more likely to be African. The relatively higher likelihood of no schooling for non-searching women may make it harder for them to find employment resulting in non-searching women being discouraged from seeking employment. Second,

the likelihood of non-searching women being older than searching women suggests that older women may be likely to carry the burden of social reproductive work more than younger women, which may limit older women's ability to search for employment actively. Third, non-searching women are more likely to be African, perhaps because African women are relatively more likely to live in rural areas, where there are fewer job opportunities and there is, therefore, less reason to search for work. African women are also more likely than other women to be resource-constrained, which would limit their ability to search for work.

Comparing searching men to non-searching men, searching men are significantly more likely to have attained a diploma or degree. This finding is consistent with the above comparisons, suggesting that educational attainment is an important differentiator between searchers and non-searchers. Non-searching men are also significantly more likely to have an adult woman in their households suggesting that non-searching men may be living in homes with their mothers or older women who provide financial (or physical) support. It is also possible that non-searching men who have been unsuccessful in their job-seeking endeavours or who may have lost their employment have moved back home to their parents' home, or to another household, where there is a presence of an adult female (Klasen and Woolard 2009). For example, Klasen and Woolard (2009) find that unemployed individuals respond to their difficulties by being attached to households (often in rural areas) that have adequate resources for survival and avoidance of destitution. They define this response by individuals as using a 'private safety net'. The resources that are received in these households are often in the form of social pensions (referred to as public safety nets) that elderly household members receive. Conversely, searching men may have migrated from their home to seek employment opportunities.

Considering the suggestions by the data that searching and non-searching individuals (both men and women) are more likely to be African, the data may be indicating that the effects and legacy of apartheid, which enforced racial segregation and discrimination, may still persist, resulting in African people being marginalised in the labour market. These lasting effects of the apartheid regime may explain why non-searching individuals are more likely to be African.

Table 3: Main reasons behind the cessation of job search by gender

	Female	Male
Care work	26,89	3,54
	(2,520)	(1,320)
Find it costly to search for employment	14,97	19,76
	(2,050)	(3,420)
Other	58,14	76,70
	(2,720)	(3,530)
Unweighted n:	**3078**	**1480**

Notes: Data are weighted. Standard errors in parentheses. The sample consists of individuals aged 18 to 65.
Source: NIDS wave 3 (2012)

Table 3 reports the reasons why individuals had ceased searching for employment when the NIDS wave 3 survey was conducted. Care work is defined as individuals falling pregnant or having children, individuals having family responsibilities that prevented them from looking for a job or individuals getting married. These reasons have been combined into a single group for social reproductive work named 'care work'. 'Other' comprises individuals being discouraged from searching for employment or choosing not to look for employment, individuals deciding that they are too old to work, individuals deciding to go back to school or to further their studies, individuals becoming disabled, or individuals finding that wages that are being offered are too low.

As expected, the data shows that among those who had stopped looking for work, more females than males were occupied with care work (26.89 per cent of females compared to 3.54 per cent of males). This suggests that many households still rely on women to perform social reproductive work, making it difficult for women to undertake active job searching due to the limitations of time and the possible trade-off between social reproduction responsibilities and active job searching. Furthermore, the possible lack of accessible and affordable childcare facilities can add additional constraints to women's balancing childcare responsibilities with job searching and employment.

When assessing the main reasons behind the cessation of job search among the NIDS wave 3 unemployed, 14.97 per cent of women found it costly to search for employment when

compared to 19.76 per cent of men. The relatively small difference between women and men (4.79 percentage points), which is not statistically significant, suggests that the cost of searching for employment is a universal constraint in the South African labour market. However, men who have specific employment preferences and search for extended periods may find job searching costly because of the duration of searching.

4.2 Working-age adults in 2014 (wave 4 of NIDS)

From the unweighted sample of searching and non-searching unemployed adults from wave 3, Table 4 indicates how many of these individuals were re-interviewed in wave 4 and how many of them found employment in wave 4. In wave 4, 97.02 per cent of the individuals who were unemployed and aged 18 to 65 in NIDS wave 3 were successfully re-interviewed. The low attrition rate between NIDS waves 3 and 4 is indicative of a stable sample of adults; and because the risk of selection bias is lower, there are lower probabilities of biased results. This enhances the validity and reliability of this research report's results.

Table 4: Unemployed individuals from wave 3 (2012) who found employment in wave 4 (2014/2015)

Wave 3 employment status	Searching unemployed		non-searching unemployed	
	Female	Male	Female	Male
Unweighted sample in wave 3	1275	917	297	200
Wave 3 unemployed appearing in wave 4	1240	893	286	190
Attrition from wave 3 to wave 4	35	24	11	10
Percentage attrition	2,75	2,62	3,70	5,00
Unweighted wave 4 employed	411	418	77	62
Percentage employed	33,15	46,81	26,92	32,63
Weighted overall proportions of employed individuals	0,46 ^ (0,018)		0,34 (0,036)	
Weighted proportion of employed individuals, by gender	0,39 * (0,023)	0,55 & (0,027)	0,35 (0,050)	0,32 (0,050)

Notes: Standard errors for the weighted data in parentheses. The sample consists of individuals that were aged 18 to 65 when NIDS survey wave 3 was conducted in year 2012.
Superscripts indicate that comparisons between specified groups are statistically significant at a 95 per cent confidence level.
^ indicates a comparison of searching individuals and all non-searching individuals
** indicates a comparison between searching females and searching males.*
&indicates a comparison between searching males and non-searching males

Source: NIDS wave 3 (2012) and wave 4 (2014/2015)

The data indicates that although more women found employment in absolute terms, in relative terms, more men found employment (33.15 per cent of searching women compared to 46.81 per cent of searching men, and 26.92 per cent of non-searching women compared to 32.63 per cent of non-searching men). This is because absolutely more women than men were unemployed (both searching and non-searching). The unweighted data therefore suggests that men had a higher probability of finding employment when compared to women. Table 4 also reports the weighted statistics which describe higher percentages employed among those who had been unemployed in wave 3, but the employment patterns are the same as the unweighted data.

Overall, the data indicates that a higher percentage of individuals who were searching for employment found employment when compared to individuals who were non-searching: 46 per cent of searching individuals who were unemployed in wave 3 found employment in wave 4 when compared to 34 per cent of individuals who were non-searching – showing a 12.01 percentage point difference. The data suggests that individuals had a higher probability of finding employment when they were searching for employment.

When disaggregating these statistics by gender, the data shows that on average, a higher percentage of searching unemployed men found employment when compared to searching unemployed women, and that a higher percentage of searching men found employment when compared to non-searching men. The difference between searching and non-searching men indicates that searching men have a higher likelihood of finding employment when compared to non-searching men: 46.81 per cent of searching men found employment in wave 4 when compared to 32.63 per cent of non-searching men indicating a difference of 14.18 percentage points in employment outcomes between the searchers and non-searchers.

When comparing employment outcomes for searching and non-searching women, the data shows a difference of 6.22 percentage points suggesting that employment outcomes for women are less likely influenced by search status when compared to the employment

outcomes for men. This indicates that women are less likely than men to find employment regardless of their searching status. Similarly, among unemployed women in wave 3, being employed in wave 4 does not differ significantly according to their search status in wave 3. Therefore, active job search appears to be a more effective job-search strategy for men than women.

Table 5 below shows the characteristics of women and men who found employment in wave 4.

Table 5: Characteristics of those who found employment in wave 4 (2014/2015)

	Wave 4 employed	
	Female	**Male**
Age	32,71 (0,672)	30,73 (0,628)
African	0,86 (0,031)	0,92 (0,019)
Coloured	0,07 (0,018)	0,07 (0,017)
Indian	0,02 (0,015)	0,00 (0,003)
White	0,05 (0,024)	0,01 (0,009)
No Schooling	0,01 (0,004)	0,03 (0,009)
Grade 1 to 7	0,08 (0,015)	0,14 (0,024)
Grade 8 to 11	0,44 (0,034)	0,49 (0,036)
Matric	0,25 (0,029)	0,19 (0,026)
Diploma/Degree	0,21 (0,035)	0,15 (0,027)
Never married	0,62 ^ (0,035)	0,82 (0,024)
Married	0,27 ^ (0,035)	0,13 (0,20)
Divorced or widowed	0,05 (0,012)	0,02 (0,012)
Cohabitating	0,06 (0,035)	0,03 (0,008)
Living in urban area	0,61 (0,035)	0,66 (0,030)
Presence of very young child (age </= 3)	0,40 ^ (0,035)	0,16 (0,022)
Presence of young child (3 < age </= 8)	0,40 (0,033)	0,28 (0,030)
Presence of old child (8 < age </= 14)	0,44 (0,036)	0,32 (0,030)
Presence of adult female (age >/= 18) [%]	0,54 (0,035)	0,68 (0,039)
Unweighted n:	**482**	**476**

Notes: Data are weighted. Standard errors in parentheses. The sample consists of individuals that were aged 18 to 65 when NIDS survey wave 3 was conducted in year 2012.
Superscript indicates that the comparison between the specified groups is statistically significant at a 95 per cent confidence level.
% The variable 'presence of adult female' excludes the unemployed women herself.
Source: NIDS wave 3 (2012) and wave 4 (2014/2015)

When comparing unemployed women and men who found employment in wave 4, Table 5 suggests that men were significantly more likely to have never been married when compared to women, and that women were significantly more likely to have been married when compared to men. The data indicates that 82 per cent of men who found employment in wave 4 had never been married when compared to 62 per cent of women, and 13 per cent of men who found employment in wave 4 were married when compared to 27 per cent of women. The data suggests that marriage is a significant factor in employment outcomes, particularly for women who (perhaps surprisingly) have a significantly higher likelihood of finding employment due to being married. The data further indicates that women who found employment had a higher likelihood of having a very young child in their households.

While the above suggests that marriage is not a hindrance to women finding employment when compared to men, Rogan (2013) points to the hardships faced by females who head their households and must balance commitments of earning an income and managing their households. While in South Africa, the definition of a female household head generally assumes the absence of a male heterosexual partner, Rogan (2013) finds that only 25.8 per cent of married females who are heads of households live with their partners when compared to 88.6 per cent of males who are heads of households, and that the highest levels of poverty exist in households where females are married but do not live with their partners. Thus, the finding that a lower percentage of women found employment in wave 4 when compared to men, that women who found employment are likely to be married (and more likely to not be living with their partners when compared to men (Rogan, 2013)) and more likely to be living with very young children when compared to men, perhaps points to the need for women to balance both social reproductive work earning an income to support their households.

Table 6 shows the type of employment that was found in wave 4 by individuals who were searching and non-searching unemployed. The unweighted sample shows that of the 2,673 individuals aged 18 to 65 who reported to be unemployed in NIDS wave 3, 968 of these individuals reported to have found employment in wave 4 (i.e., 35 per cent of these individuals found employment). While these individuals reported to have found employment, only 98 per cent and 95 per cent of the wave 3 searching and non-searching unemployed respectively reported on the type of employment they found. Therefore, the sums of the proportions of wage and self-employed individuals who were searching, and non-searching do not add up to 1.

Table 6: Type of employment found in wave 4 (2014/2015) by different wave 3 (2012) unemployment statuses, disaggregated by gender

Wave 3 employment status	Searching unemployed		non-searching unemployed	
	Female	Male	Female	Male
Wage employed	0,76	0,80	0,79	0,83
	(0,038)	(0,033)	(0,062)	(0,079)
Overall wage employment	0,78		0,80	
	(0,034)		(0,050)	
Self-employment	0,20	0,17	0,15	0,12
	(0,036)	(0,030)	(0,055)	(0,076)
Overall self-employment	0,19		0,15	
	(0,024)		(0,045)	
Unweighted n:	**411**	**418**	**77**	**62**

Notes: Data are weighted. Standard errors in parentheses. The sample consists of individuals that were aged 18 to 65 when NIDS survey wave 3 was conducted in year 2012.
Source: NIDS wave 3 (2012) and wave 4 (2014/2015)

Of the 751 of the unweighted sample of individuals who reported to have found employment: 592 (61 per cent) found regular wage employment, 159 (16 per cent) found casual wage employment and 142 (15 per cent) were self-employed with 75 (8 per cent) missing observations. Although the comparisons between specified groups in table 6 are not statistically significant, there is some suggestion that women (across both searching and non-searching unemployed) were more likely to be self-employment when compared to men.

Adults who are unemployed may have used different job searching strategies in wave 3 and in wave 4 (which are two years apart). For example, individuals who were searching in wave

3 may have stopped searching within a year, and then relied on passive strategies to find employment. In the labour market participation section of the survey instrument, NIDS asks questions about how adults found their employment. However, this question is only asked of wage employed individuals with regular employment and it excludes casual wage employment and self-employed individuals. This means that it is not possible to use information on updated search behaviour when looking at the relationship between job search and employment outcomes of all the unemployed in wave 3, who were then employed in wave 4. **As mentioned in the Data and Methodology section, this is an important limitation of this research.**

5. Regression analysis

This section builds on the descriptive analysis which suggested that certain individual and household characteristics may hinder or facilitate employment outcomes. The descriptive analysis strongly suggests that social reproductive work and education are the biggest hindrances or facilitators of whether individuals choose to search for employment actively or passively. However, the descriptive statistics do not control for other characteristics that may differ between men and women, or among women and among men. This section uses logit regressions to estimate the likelihood that women and men who were unemployed in wave 3 found employment in wave 4, the focus being on individuals' wave 3 unemployment statuses. The purpose of the multivariate analysis is to control for individual and household characteristics that may influence the employment outcomes of individuals. For all regressions, these characteristics include race [Black, Coloured, Indian or White), age (measured as a quadratic), education (no schooling, grade 1 to grade 8, grade 9 to grade 11, matric, and whether the individual has a degree or diploma), location (urban and rural), marital status (never married, married, widowed or divorced, or cohabitating) and household composition (presence of very young children (aged 3 years and younger), presence of young children (aged between 3 and 8 years), presence of old children (aged between 8 and 14 years] and the presence of an adult female in the household. Both men and women could have an adult female living in the same household. In instances where women are analysed, the unemployed woman herself is excluded from the variable 'presence of an adult female in the household'. The sample includes all individuals who were surveyed with the dependent variable (Y) measuring whether or not they found

employment (wage- and self-employed) in wave 4. The sample is then disaggregated by gender. The binary dependent variable equals 1 when an individual found employment in wave 4, and 0 when the individual did not find employment in wave 4. The first independent variable is a binary variable equals 1 when the individual was actively searching for employment in wave 3 and 0 when the individual was classified as a non-actively searching individual.

Table 7 reports the marginal effects from these logit regressions, where the marginal effects measure the likelihood of finding employment when controlling for the specified covariates and represent the change in the conditional mean of employment outcomes given a 1 unit change in the individual regressors – all else being equal. Specification l shows the marginal effects of the logit regressions of the pooled sample of men and women who were surveyed, with the dependent variable (Y) measuring whether or not they found employment; while specifications II and III restrict the samples to women and men specifically.

Table 7: logit regressions on wave 4 employment status among the wave 3 unemployed; marginal effects displayed

	I		II		III	
	Pooled		**Female**		**Male**	
Y = Employed in wave 4 (Yes = 1 and No = 0)	**Marginal Effect**	**t-statistic**	**Marginal Effect**	**t-statistic**	**Marginal Effect**	**t-statistic**
Searching unemployed	0.10^^	2.42	0.02	0.40	0.20^^^	3.65
	(0,043)		-0.058		(0,057)	
Female	-0.14^^^	-4.19				
	(0,033)					
Age	0.03^^	3.01	0.03^^	2.36	0.03^	1.95
	(0,010)		(0,015)		(0,014)	
Age^2	-0.00^^	-2.82	-0.00^^	-2.00	-0.00^	-2.12
	(0,000)		(0,000)		(0,000)	
African	-0.10	-0.62	-0.07	-0.35	-0.01	-0.04
	(0,161)		(0,195)		(0,225)	
Coloured	-0.08	-0.45	-0.04	-0.20	-0.01	0.07
	(0,174)		(0,208)		(0,249)	
Indian	-0.06	-0.21	0.07	0.21	-0.27	-0.81
	(0,264)		(0,304)		(0,328)	
No schooling	-0.20^^	-2.28	-0.32^^^	-3.69	-0.02	-0.11
	(0,089)		(0,087)		(0,147)	
Grade 1 to grade 7	-0.18^^	-2.88	-0.21^^	-2.71	-0.15	-1.47
	(0,062)		(0,076)		(0,100)	
Grade 8 to grade 11	-0.10^	-1.86	-0.10	-1.49	-0.08	-0.99
	(0,053)		(0,067)		(0,084)	
Matric	-0.01	-0.20	0.02	0.22	-0.04	-0.48
	(0,057)		(0,072)		(0,091)	
Married	0.04	0.84	0.02	0.34	0.13	1.29
	(0,049)		(0,05)		(0,102)	
Divorced or widowed	0.03	0.29	0.03	0.34	-0.03	-0.18
	(0,089)		(0,100)		(0,177)	
Cohabitating	-0.16^^	-2.79	-0.12^	-1.90	-0.17	-1.56
	(0,057)		(0,065)		(0,112)	
Living in an urban area	0.02	0.58	0.00	0.11	0.04	0.91
	(0,030)		(0,039)		(0,045)	
Presence of a very young child (age </= 3) in household	-0.06^	-1.75	-0.06	-1.42	-0.07	-1.23
	(0,033)		(0,039)		(0,058)	
Presence of a young child (3 < age </= 8) in household	-0.04	-1.40	-0.06	-1.62	0.00	0.01
	(0,032)		(0,039)		(0,053)	
Presence of an old child (8 < age </= 14) in household	-0.02	-0.65	-0.03	-0.71	-0.03	-0.57
	(0,031)		(0,040)		(0,051)	
Presence of an adult female in household [%]	-0.02	-0.58	0.01	0.28	-0.07	-1.05
	(0,036)		(0,044)		(0,065)	
Unweighted n:	**2354**		**1410**		**944**	

Notes: The sample consists of individuals that were aged 18 to 65 who were unemployed when the NIDS survey wave 3 that was conducted in year 2012, and who have non-missing observations for all the covariates. Standard errors are in parentheses.
The data are weighted using the NIDS panel weights that account for attrition.
Superscripts indicate statistical significant at: ^ a 90 per cent, ^^ a 95 per cent and ^^^ 99 per cent confidence level.
Specification I is the pooled sample of men and women who were unemployed in wave 3
Specification II is for women who were unemployed in wave 3
Specification III is for men who were unemployed in wave 3
% The variable 'presence of adult female' excludes the unemployed woman herself

The omitted variable for race is white individuals, the omitted variable for marital status is individuals who have never been married and the omitted variable for educational attainment is individuals who have a degree or diploma.
Source: NIDS wave 3 (2012) and wave 4 (2014/2015)

The main finding of this research report is identified in the comparison of regression specifications ll and lll, with specification II suggesting that searching for employment is not a significant predictor of women's employment outcomes while specification III indicates that men are 20 per cent more likely to find employment when they are searching, statistically significant at a 99 per cent confidence level. This suggests that searching or not searching for employment does not influence the likelihood of women finding employment, however it is significant predictor of the likelihood of men finding employment.

Specification I indicates that individuals that search for employment are 10 per cent more likely to find employment when compared to similar individuals who do not search for employment – statistically significant at a 95 per cent confidence level, and that women were 14 per cent less likely to find employment when compared to men – statistically significant at a 99 per cent confidence level. This adds to the descriptive statistics which suggested that although more women found employment in absolute terms, in relative terms, more men found employment. This was because absolutely more women than men were unemployed (both searching and non-searching), suggesting that men had a higher probability of finding employment when compared to women.

Overall, the data indicates that a higher percentage of individuals who were searching for employment found employment when compared to individuals who were non-searching suggesting that individuals had a higher probability of finding employment when they were searching for employment.

From a gender perspective, the descriptive analysis indicated that a higher percentage of searching unemployed men found employment when compared to searching unemployed women, and that a higher percentage of searching men found employment when compared to non-searching men – a difference of 14.18 percentage points. The difference between

searching and non-searching men indicates that searching men have a higher likelihood of finding employment.

The regression shows evidence of the significance of educational attainment on employment outcomes, with the pooled regression suggesting that when compared to individuals with degrees or diplomas, individuals with no schooling were 20 per cent less likely to find employment, those with educational attainment from grade 1 to 7 were 18 per cent less likely to find employment, and individuals with educational attainment from grade 8 to 11 were 10 less likely to find employment - indicating that higher educational attainment is associated with a higher likelihood of individuals who were unemployed in wave 3 finding employment in wave 4. This was to be expected because education provides individuals with the necessary knowledge and skills required for specific jobs and roles, and equips individuals with technical expertise and problem-solving abilities and competencies which may increase an individual's productivity and make them valuable to potential employers (Dias and Posel, 2007). By hiring individuals with educational attainment, employers can have confidence in their abilities and competencies (Dias and Posel, 2007). The descriptive analysis indicated that lower levels of education are not the reason for women being less likely than men to engage in active job search and showed that non-searching women are significantly more likely to have no schooling when compared to searching women. Further, searching men are significantly more likely to have attained a diploma or degree when compared to non-searching men. Specification II indicates that, when compared to women with degrees or diplomas, women with no schooling and with educational attainment from grade 1 to 7 had a 32 per cent and 21 less likelihood of finding employment respectively. However, specification III indicates that educational attainment is not a significant predictor of men's employment outcomes suggesting that men can find employment whether they are educated or not.

The descriptive analysis indicated that women who were not actively searching for work were significantly more likely than men to be married and significantly more likely to live with children in their households. Searching women were likely to be living with children in their households when compared to searching men, and searching unemployed men were more likely to have never been married when compared to searching unemployed women.

This suggested that women are more likely to be constrained by social reproductive work when compared to men which may limit women's ability to engage in paid work outside their homes. While regression specification l indicates that being married is not significant predictor of individuals' employment outcomes, it indicates that individuals in cohabitating arrangements have a 12 per cent less likelihood of finding employment when compared to individuals who have never been married. It further indicates that individuals who live with very young children in their households have a 6 per cent less likelihood of finding employment when compared to individuals who do not live with very young children in their households.

Specification III suggests that cohabitating is not a statistically significant predictor of men's employment outcomes, however, this is not the case for women with specification II suggesting that women have a 12 per cent less likelihood of finding employment when they are cohabitating. This suggests that when women live in the same household as their partners, they may be expected to perform social reproductive duties and may leave them with less time to devote to active job-searching, hindering their ability to find employment. The descriptive analysis indicated that men who found employment in wave 4 were significantly more likely to have never been married when compared to women, that women were significantly more likely to have been married when compared to men, and that cohabitating arrangements were not a significant factor that influenced employment outcomes for both men and women.

Surprisingly, the descriptive analysis suggested that marriage is a significant factor in employment outcomes, particularly for women who have a significantly higher likelihood of finding employment due to being married. Perhaps an explanation of marriage being an insignificant factor for women's employment outcomes could be Rogan's (2013) finding that females face hardships of balancing social reproductive work and paid work for their households' survival. In these instances, a smaller proportion of married women who are heads of their households live with their partners when compared to a larger proportion of men who are heads of their households. Rogan (2013) further finds that the highest risk of poverty is in households of married women who are heads of their households. Therefore, women may be working out of the necessity of providing for the families while also having

to perform social reproductive work, with the descriptive analysis suggesting women (across both searching and non-searching unemployed) were more likely to be in self-employment and less likely to be in wage employment when compared to men. The type of businesses that men and women establish when they are self-employed is not in the scope of this research report and may be subject to further research.

Lastly, all three regression specifications indicate that older individuals are significantly more likely to have found employment, but the relationship is quadratic, i.e., the association between age and employment attenuates over time. This suggests that initially, as individuals grow older and accumulate education, work experience and skills, their likelihood of finding employment increases significantly. However, as they continue to age, the effect of age weakens and attenuates. Van Broekhuizen (2015) finds that South Africa faces a paradox of high levels of unemployed graduates and a shortage of skills in the labour market; therefore, as older individuals retire, employers may replace retiring employees with younger individuals (Makhubela and Nhoepe, 2018).

6. Conclusion

In this research report I set out to investigate whether men and women use different job finding strategies to find employment in South Africa and investigate individual and household characteristics that may influence their employment outcomes. I do this using the NIDS data which tracks South Africans' lives over time. This research report uses NIDS waves 3 and 4 which were conducted in years 2012 and 2014/2015 respectively, and tracks individuals who were unemployed in wave 3 to their employment outcomes in wave 4. Specifically, I ask the following questions: First, is the search behaviour of the unemployed in wave 3 significantly correlated with the likelihood of finding employment in wave 4? Second, are there gender differences in search behaviour and employment outcomes?

For this report, I group individuals into two unemployment categories: searching and non-searching unemployed. The searching unemployed individuals are individuals who were unemployed in NIDS wave 3 and who reported to have been actively searching for a job in the last 4 weeks before the survey was conducted. The non-searching unemployed individuals are individuals who were unemployed in NIDS wave 3 and reported not to have

been actively searching for employment in the last 4 weeks before the survey was conducted.

Consistent with the global unemployment rates presented by the ILO (2023), the descriptive statistics indicate that unemployment rates for women in South Africa are higher than those of men. When looking at these rates from a geographical perspective, unemployment rates in rural areas are higher than in urban areas. The labour force participation rates are higher in urban areas than rural areas, suggesting that individuals in urban areas are more actively engaged in the labour market than those in rural areas. Three reasons may explain this: first, individuals in rural areas may be more occupied with care work, which takes away time from actively searching for work. Second, individuals in rural areas may be less engaged with the labour market due to low employment prospects. Third, individuals in rural areas may have migrated to urban areas to find employment opportunities, thereby increasing the labour force participation in urban areas and reducing it in rural areas.

While the data indicates that there are absolutely more women and men searching for employment in urban areas when compared to rural areas, there are suggestions that women are less likely to be active job seekers in both urban and rural areas when compared to men. This may indicate that women face relatively greater constraints to actively engaging with the labour market when compared to men and may be due to persisting gendered roles in South Africa which required women to perform social reproductive work while men are required to work in the paid economy, or women having fewer resources to engage in active job search. Indeed, the descriptive statistics suggest that, compared to non-searching men, non-searching unemployed women are significantly more likely to be married and significantly more likely to be living with children in their households. This social reproductive work takes away time from women to devote to active job searching. When analysing the main reasons why individuals had stopped searching for employment, 26.89 per cent of women (compared to only 3.54 per cent of men) indicated that they stopped searching due to social reproductive work, emphasizing that women remain primary caregivers. This responsibility creates a tradeoff between social reproductive responsibilities and active job searching. In addition, 14.97 per cent of women found it costly to search for employment when compared to 19.76 per cent of men. While the

difference between men and women is relatively small and not statistically significant, the data suggests that the cost of searching for employment in South Africa is universal in the South African labour market. However, men who have more resources when compared to women and are less constrained by social reproductive work, may be able to search for longer periods of time, finding that job searching is costlier because of the duration of searching.

The main finding of this research report is that unemployed men who search for employment are more likely to be successful when compared to unemployed men who do not search for employment. However, for women, searching for employment does not influence the chances of finding employment. This suggests that searching or not searching for employment does not influence the likelihood of women finding employment; searching for employment significantly improves men's chances of finding employment. Active job search appears to be a more effective job-search strategy for men than for women. However, even when comparing the employment outcomes of the non-searching men and women, a higher proportion of men found employment when compared to women. If non-searchers were using passive searching methods, men still had an advantage over women, suggesting that men may have stronger social networks that connect them to job opportunities when compared to women. It may also be possible that women have stronger social networks when compared to men, but women's social networks may not be as effective as men's for positive employment outcomes.

When comparing individuals who found employment in wave 4, men were significantly more likely to have never been married, however, women who were married were significantly more likely to find employment when compared to men who were married. This is a surprising finding as the expectation was that social reproductive work, which includes marriage, would hinder women's employment outcomes more than men. Rogan (2013) finds that females face hardships of having to balance social reproductive work and paid work for their households' survival. In these instances, a smaller proportion of married women who are heads of their households live with their partners when compared to a larger proportion of men who are heads of their households. Rogan (2013) further finds that

the highest risk of poverty is in households of married women who are heads of their households.

Lastly, considering the finding by Posel et al. (2014) that individuals who are classified as not actively searching for employment are likely to be passively searching, this research report finds a suggestion by the data that non-searching individuals are likely to find wage employment compared to searching individuals adding to Schoer and Leibbrandt (2006) that passive job seeking through social networks has a higher likelihood of resulting in employment. Compared to men in both searching and non-searching categories, women had lower employment outcomes, suggesting that they may not have strong social networks. Further, searching individuals were likely to be self-employed when compared to non-searching individuals; however, women – both searching and non-searching- were more likely than men to be self-employed.

Another key finding from the regression analysis, against the expectation of this research report, is that marriage or having children in the household are not predictors of whether men or women find employment. Marriage, falling in the definition of social reproductive work, which is generally women's responsibility, was expected to come up as hindrance to women's employment in the regressions. However, the regressions show that women in cohabitating arrangements are less likely to find employment with men unaffected by cohabitating arrangements. With more adult heterosexual couples increasingly choosing to cohabitate (World Family Map, 2015), it appears that gendered roles persist in cohabitating arrangements. The descriptive statistics show that married women had a higher likelihood of finding employment when compared to men: 27 per cent of married women found employment compared to 13 per cent of men. In addition, 40 percent of women who found employment lived with very young children in their households when compared to 16 per cent of men. This finding contradicts the expectation that social reproductive work hinders women from finding employment, but the composition of households in South Africa and the presence of partners in heterosexual marriages needs to be considered. Rogan (2013) finds that when married women are heads of their households, only 25.8 per cent are likely to live in the same households as their husbands. This suggests that married women who are heads of their households are more likely to live in different households than their

partners and, therefore must find means to earn an income to survive thereby balancing both social reproductive work and income earning activities. Despite this, when analysing the characteristics of the individuals who found employment, the descriptive statistics indicate that a higher proportion of individuals who have never been married found employment, suggesting that social reproductive work does indeed hinder individuals – more so women than men - from actively searching for employment which, in turn, hinders women from finding employment. However, the regressions (against the expectations of this report) show that social reproductive work does not significantly influence employment outcomes.

The final key finding of this research report from the regression analysis is that educational attainment is a significant factor that influences individuals' employment outcomes. Higher educational attainment significantly increases the likelihood of finding employment for women, but not so for men. Of significance is the suggestion by the regressions that women's employment outcomes are more responsive to educational attainment when compared to men.

Given the above, policy could focus on improving the quality of South Africa's education (particularly the matric qualification) and providing childcare facilities so that women can have alternatives for childcare so that they can dedicate time to building social networks, job searching and income earning. With women having to balance income earning and social reproductive responsibilities, flexible working arrangements can be promoted and normalised within the South African labour market. However, government policy may have little influence on company specific policies. An alternative would be for the government to provide tax incentives to companies that establish on-site childcare facilities which may encourage companies to offer these facilities and make it easier for women to search for and find employment. A more sustainable solution would be government to establish and increase the availability of subsidised childcare centres which can provide an alternative to childcare at relatively lower costs to private facilities. This could be coupled with the provision of training and support for childcare workers to ensure that they are able to provide quality care for children. This can help ensure that children are safe and well-cared

for while their parents are at work, giving parents peace of mind to focus on their employment.

To address shortfalls in education and skills, government can increase partnerships between schools and industry, and ensure that students are learning the skills and knowledge that are in demand in the labour market. Potential employers can also provide schools with feedback around skills that are required. This intervention may increase educational attainment and skills in the South African economy, strengthen the employee productivity signal for employers, reduce the reliance on social networks for both searching unemployment individuals and employers which may ultimately bridge the gap between men and women's employment outcomes.

A limitation of this research report is that adults who are unemployed may have used different job searching strategies in wave 3 and in wave 4 (which are two years apart). It was not possible to use information on updated search behaviour when looking at the relationship between job search and employment outcomes of all the unemployed in wave 3, who were then employed in wave 4.

Despite the abovementioned limitation, this report has provided an analysis of the employment outcomes of individuals when they were searching or not searching for employment and has also provided an analysis of measurable factors that influence gender employment outcomes. Further research may look further to NIDS wave 5 and analyse whether different job searching strategies by gender lead to stable employment.

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