

## **English language proficiency and labour market participation in South Africa**

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### **Abstract**

In South Africa, the dominant language of business, education and government is English yet less than half of all working age Africans are considered proficient in English. The majority of working age (15-65 years) Africans are either economically inactive or unemployed. Few studies have examined the effect language proficiency has on labour market outcomes. Using data from the 2008 National Income Dynamics Study (NIDS) this article finds a significant positive effect of English language proficiency on female labour market participation and employment but not for men. For both males and females, notably more individuals who are proficient in English occupy higher-level, managerial positions compared to those who are not proficient.

## 1. Introduction

The importance of language proficiency in the labour market is increasingly being recognised by researchers. Internationally, this work is motivated by the assimilation difficulties faced by immigrants whose mother tongue differs from the main language of the domestic population (Chiswick and Miller 2003, Dustmann and Fabbri 2003, Blackaby *et al.* 2002). In countries that experience a large influx of immigrants there are often severe labour market inequalities between the native and migrant populations in terms of employment prospects and earnings. It is thought that these labour market discrepancies are partly attributed to differences in language ability.

Much of the research on language in the context of the labour market has focused on the relationship between language ability (in terms of speaking, reading and writing) and earnings. These studies suggest that being proficient in the dominant business or formal language of the country where one resides is a significant determinant of earnings (Chiswick and Miller 1995, 2003; Dustmann 1994; Dustmann and Van Soest 2002; Pendakur and Pendakur 1998; Shields and Wheatley-Price 1999; Tainer 1988). Specifically, a strong positive association between language proficiency and earnings is identified in that higher levels of proficiency are associated with higher earnings. The relationship between language ability and employment has also been explored: good language skills can assist in job search activities and may signal individuals' productive capacity to prospective employers thereby increasing the likelihood of employment (Chiswick and Miller 2003; Dustmann and Fabbri 2003; Rooth 2001). In particular language proficiency or fluency is typically shown to have a positive effect on both labour market participation and employment (Dustmann and Fabbri 2003, Leslie and Lindely 2000, Rooth 2001).

In South Africa, there is a diverse multi-cultural population, and this is reflected in its multitude of recognised languages. English is the dominant language of business but is spoken as a mother tongue by only a minority of the population (Casale and Posel 2011). In addition to English there are a further ten official languages, of which nine are spoken predominantly by the majority black (African) population group. Africans in South Africa have persistently experienced lower labour market participation and higher unemployment rates in comparison to the country's other race groups despite two decades of democracy and the implementation of policies to redress the injustices of the past (Banerjee 2007; Bhorat 2005; Burger and Woolard 2005; Casale *et al.*

2004; Kingdon and Knight 2000; Kingdon and Knight 2005; Rospabe 2002). If language ability facilitates job-search and/or signals potential workers' productivity to prospective employers, then those who are English language proficient in South Africa may have greater labour market success than individuals who are not proficient. It is therefore possible that some of the labour market discrepancies between race groups in South Africa could be ascribed to differences in language ability.

The South African literature that focuses explicitly on English language proficiency (in terms of the ability to read and write 'very well' in English) is limited in that it only considers the impact of language on earnings (Casale and Posel 2011; Posel and Casale 2010). Whilst an earlier study by Cornwell and Inder (2008) addressed the relationship between language and employment, it only considered the effect of speaking English as a first language rather than English language proficiency more generally.

This paper addresses the issue of whether or not English language proficiency among working age black South Africans affects the decision to participate in the labour market. Specifically, the study considers whether a lack of proficiency in English serves as a barrier to entry into the South African labour market by examining firstly the effect of English language proficiency on labour market participation, secondly whether being proficient in English increases the likelihood of employment and finally what types of occupations that workers who are proficient in English can access.

The following section presents some background to this study. Section 3 discusses the data utilised in the study and presents descriptive statistics before the multivariate results are presented in Section 4 and Section 5. Section 6 concludes.

## **2. Background**

The motivation for investigating the role of language in the labour market differs in developing and developed countries. In developing countries, the concern relates to the inability of some population groups (typically ethnic minorities) to speak the language of the formal economy (Chiswick *et al* 2000). For developed countries where there has been a large influx of immigrants, the main issue is whether severe labour market inequalities between the native population and immigrants can be attributed to differences in language skills. In both cases, the

effect of language ability on earnings has been a key focus in the international literature. Despite using surveys which capture information on language in different ways, studies typically show that language is a significant and positive determinant of earnings (Chiswick and Miller 1995, 2003; Dustmann 1994; Dustmann and Van Soest 2002; Pendakur and Pendakur 1998; Shields and Wheatly-Price 1999; Tainer 1988). The effect of language ability and proficiency on earnings is seen to work through human capital, where the acquisition of language skills may act as either a direct measure of an individual's productive potential or as a signal of their inherent productivity and ability (Casale and Posel 2011). Language skills may also increase productivity on the job by reducing the costs of communication, and could indicate to employers the quality of education obtained by the prospective employee (Casale and Posel 2011).

In terms of labour market participation and employment, language proficiency is expected to reduce the transaction and informational costs of searching for employment, and individuals who are proficient in the dominant language of a particular labour market may be more likely to engage in job search as they anticipate it being easier to find suitable employment (Chiswick and Miller 2003; Dustmann and Fabbri 2003; Rooth 2001). Language proficiency is also likely to improve potential workers' ability to negotiate the terms of employment and may assist in obtaining higher paying jobs (Dustmann 1994, Casale and Posel 2011).

Only a handful of international studies have explicitly investigated the role of language proficiency with respect to labour market participation and employment. In Finland where there are two official languages, Swedish and Finnish, Saarela and Finneas (2002) show that participation in the labour market is unaffected by being either Swedish or Finnish speaking, but that being Swedish speaking specifically reduced the likelihood of being unemployed. In the United Kingdom, two separate studies find that language fluency increases the probability of the participation and employment of immigrants (Leslie and Lindley 2000 and Dustmann and Fabbri 2003), in particular, Dustmann and Fabbri (2003) find that writing skills have a larger impact on employment as compared to speaking skills. For Sweden, Rooth (2001) finds that reading ability (a critical component of language proficiency) significantly increases the probability of immigrants finding employment. In Bolivia, however, where Spanish is the dominant language of the labour market, research shows that individuals are more likely to be employed if they are bilingual or speak an indigenous language only. The ability to speak Spanish does not seem to drive employment but rather other factors may push people into employment (Chiswick *et al* 2000).

In South Africa, the role of language ability in the labour market has received surprisingly little attention. South Africa has nine indigenous African languages that are spoken as first languages by the majority of the country's population, but English is the dominant language of the formal economy. Compromised educational access and quality, coupled with historical disadvantage in terms of labour market access and employment has, resulted in the African population group bearing the brunt of high rates of unemployment in South Africa. A key area of concern therefore centres around the effect of language on labour market access and outcomes for this group.

The effect of language on the employment and earnings of Africans was examined by Cornwell and Inder (2008) using pooled data from South Africa's 1996, 1997 and 1998 October Household Surveys. The study specifically considered speaking ability (i.e. language spoken most often at home), as information on language proficiency more broadly was not captured in the surveys. English speaking Africans were shown to have a significantly larger probability of employment and higher earnings compared to Africans who spoke one of the main indigenous African languages.

Most recently, Casale and Posel (2011) and Posel and Casale (2010) utilised data from South Africa's first National Income Dynamics Study to investigate the relationship between English language proficiency (measured as the ability to read and write very well in English) and the earnings of African men and to comment on the role of language in South Africa's education policy and practice. Their results show that African men who are proficient in English can expect to earn approximately 55 percent more than African men who are not proficient in English. Their results also suggest that part of the estimated returns to education for African men result from proficiency in English, which may serve as an indicator of the quality of education obtained.

The limited South African research clearly suggests that language has an important effect on the earnings of Africans. However, the effect of English language proficiency on both labour market access and employment is not clear – while the Cornwell and Inder (2008) study did consider access to employment, the authors were only able to measure speaking ability rather than proficiency more generally. This study aims to address this gap by exploring the effect of English language proficiency on the labour market participation and employment of Africans.

The study also considers what types of occupations individuals who are proficient in English can access.

### **3. Data and descriptive statistics**

During the 1990s, comprehensive nationally representative labour market information was collected first by the South African Labour and Development Research Unit (the 1993 Project for Statistics on Living Standards and Development (PSLSD)) and by Statistics South Africa (StatsSA) who introduced the annual October Household Surveys (OHS) in 1993. In 2000, the Labour Force Survey (LFS), also administered by StatsSA, replaced the OHS and was designed to gather extensive information on labour market participation and employment from around 30 000 households. The LFS was originally carried out biannually but became a quarterly survey in 2008 to improve the frequency in which information was provided to researchers. Another nationally representative household survey that contains labour market information is the General Household Survey (GHS) which has been conducted annually by StatsSA since 2002. The GHS also collects data from approximately 30 000 households but it was specifically designed to collect information on living standards and service delivery and is not as detailed on labour market information as the LFS.

None of these surveys have information on language ability and the only questions pertaining to language can be found in the PSLSD<sup>1</sup> and the LFS<sup>2</sup>, both of which ask which language the respondent speaks most often at home. Since becoming a quarterly survey, no questions are asked at all on language in the QLFS. The OHS also does not collect any language information and the GHS simply asks which language the main part of the interview was conducted in<sup>3</sup>. This lack of information pertaining to language ability makes these surveys unsuitable to address the main research objectives of this paper and can also account for the dearth of research on the role of language proficiency in the South African labour market. It is for these reasons that data from the National Income Dynamics Study (NIDS) is used to examine the relationship between language proficiency and labour market participation and employment. This is the same survey used to analyse the relationship between English language proficiency and earnings among African men by Casale and Posel (2011).

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<sup>1</sup> See for example: Labour Force Survey 2007 Questionnaire: question 1.2 (the same question is asked in all the biannual LFSs). No question on language was included in the QLFS.

<sup>2</sup> PSLSD Questionnaire: question 21.

<sup>3</sup> General Household Survey 2011 Questionnaire: question 4.18.

The NIDS was first administered in 2008 by the South African Labour and Development Research Unit (SALDRU) and collects information from 28 000 individuals and over 7 000 households in South Africa. The NIDS tracks the same individuals and households at two-year intervals thereby creating a nationally representative panel study. The survey collected information on a wide range of topics including that on labour market participation and employment. In addition, the NIDS is the first South African household survey to collect data on language ability for both English and home language proficiency (where home language refers to the language an individual speaks most often at home). The first wave (2008 data) was released in 2009 and two further waves of data have subsequently been released. This study specifically utilises data released in the first wave.

Whilst the information contained in the NIDS satisfies the main requirement of this paper, the survey only captures information on reading and writing ability. Information on an individual's speaking ability is not captured. It is widely acknowledged in the literature, however, that an individual's reading and writing ability is of greater worth in the labour market compared to their speaking ability (Casale and Posel 2011, Dustmann 2004, Shields and Wheatley-Price 1999). The lack of information on speaking ability will therefore not hinder the analysis but it should nonetheless be acknowledged that speaking ability may also be of importance in South Africa.

Information on individual's self-assessed reading and writing ability in English is captured in question H38 and H39 of the NIDS 2008 survey. Specifically, the questions ask:

How well can you read in English?

- a) Very well
- b) Fair
- c) Not well
- d) Not at all

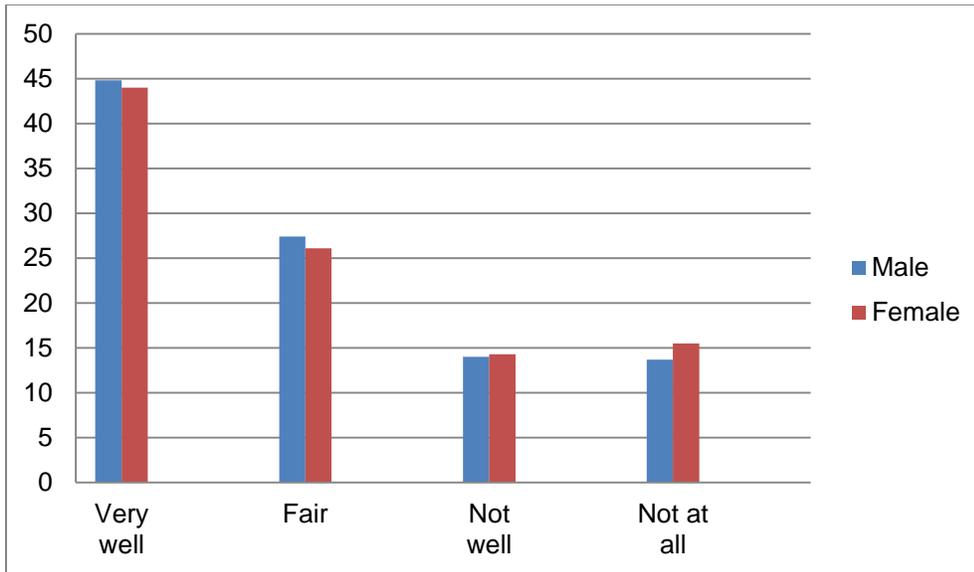
How well can you write in English?

- a) Very well
- b) Fair
- c) Not well
- d) Not at all

Based on these questions, descriptive information on the self-assessed reading and writing ability of working age (15 to 65 years) African men and women is shown in Figures 1 and 2. Less than 45 percent of men and women are reported to be able to read very well in English, and an even smaller percentage are reported to be able to write very well in English. Fewer than

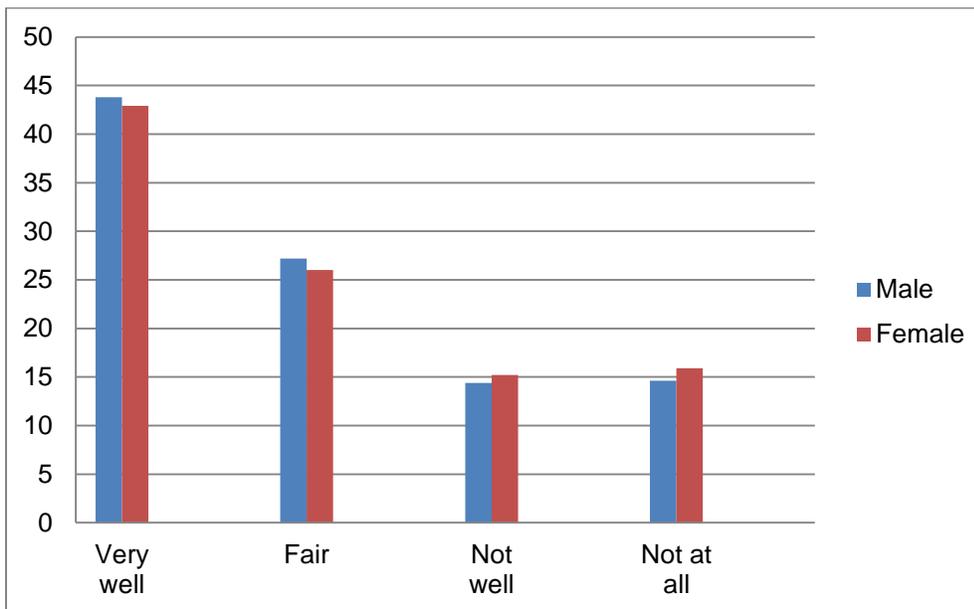
3 out of 10 Africans of both genders are reported to have reading and writing ability that is fair. In addition, approximately 3 out of 10 Africans of both genders are either unable to read or to write well or even at all.

Figure 1: Self-reported reading ability (English)



Source: Authors' calculations, NIDS 2008. Notes: Data have been weighted to represent population-level estimates, %.

Figure 2: Self-reported writing ability (English)



Source: Authors' calculations, NIDS 2008. Notes: Data have been weighted to represent population-level estimates, %.

The information on self-assessed reading and writing ability is combined to generate a variable which can be used as an indicator of proficiency in English. Following the work of Casale and Posel (2011), only those who indicated they could both read and write very well in English are deemed proficient. This approach to defining language proficiency aims to reduce the incidence of over-reporting that is common in self-reported assessments of ability and thus deals with the potential problem of measurement error<sup>4</sup> that could bias the estimated language proficiency coefficients presented later in this paper (Casale and Posel 2011, Dustmann and Van Soest 2001, Dustmann 1994 and Shields and Wheatly-Price 1999).

Based on this classification of English language proficiency, Table 1 below highlights that nearly 60 percent of all working age Africans are not English language proficient. Differences between genders in terms of proficiency are negligible.

*Table 1: English language proficiency of Africans*

	<b>All Africans</b>	<b>Male</b>	<b>Female</b>
<b>Not Proficient</b>	57.5 (0.7)	57.2 (1.1)	57.7 (0.9)
<b>Proficient</b>	42.5** (0.7)	42.8** (1.1)	42.3** (0.9)
<b>Total</b>	100	100	100

*Source: Authors' calculations, NIDS 2008.*

*Notes: Data have been weighted to represent population-level estimates. Estimates are given as percentages for individuals aged 15 - 65 years. Standard errors are in parentheses. Figures marked with \*\* are significantly different at the 5% level compared to the not proficient category.*

The implications of language proficiency for labour market participation among Africans in South Africa are shown in Table 3. Estimates of broad labour market participation are provided as the definition of labour market participation does not require that individuals have actively sought employment and as such, provide higher estimates than those calculated using the strict measures.

<sup>4</sup> In particular, measurement error refers to the over-reporting of ability which could bias the language proficiency estimates downwards.

Table 3: Language proficiency and broad labour market participation of African men and women

	Males		Females	
	Proficient	Not proficient	Proficient	Not proficient
<b>Total labour force (in 000s)</b>	2563.5** (107.4)	3479.6 (117.7)	3067.8** (103.7)	3578.9 (108.1)
<b>Labour force participation rate (%)</b>	67.2 (1.5)	68.6 (1.2)	64.7** (1.3)	55.4 (1.1)
<b>Unemployment rate (%)</b>	26.1	24.1	44.6**	42.2
<b>Total number employed (in 000s)</b>	1893.2**	2639.9	1699.0**	2069.5

Source: Authors' calculations, NIDS 2008.

Notes: Data have been weighted to represent population-level estimates. Estimates are given as percentages for individuals aged 15 - 65 years. Standard errors are in parentheses. . Figures marked with \*\* are significantly different at the 5% level compared to the not proficient category.

The results demonstrate that proficiency in English affects individuals' labour market outcomes. For women, labour market participation rates suggest that participation is almost 10 percent higher among those who are proficient in English, while among men there is little difference in participation rates by proficiency.

However, despite the fact that female participation rates are higher if they are proficient in English, the probability of women being without work is notably higher among women than men. For both women and men, unemployment rates are higher among those who are proficient in English. This indicated that despite those who are English language proficient are more likely to be labour market participants, they are also more likely to be unemployed than those who are not proficient. Language proficiency also has a substantial effect on total employment, with a significantly smaller number of men and women who can read and write very well in English reporting that they have work.

#### 4. Multivariate Analysis

Commonly identified correlates of labour market participation and employment more specifically include educational attainment, age, race, marital status, household size and geographical location (Burger and Jafta 2006; Rospabé 2002). The effect of language proficiency on labour market participation and employment of South Africans has however, yet to be investigated.

One of the concerns with examining the effect of English language proficiency on labour market participation and employment is that English language proficiency may be associated with unobserved characteristics (such as quality of education or aptitude for learning) which could drive both the acquisition of language skills and labour market participation. Consequently, when estimating the effect of English language proficiency on labour market participation (and on employment) the issue of endogeneity becomes a concern. Failure to account for the correlation between English language proficiency and the (unobserved) error term in any multivariate analysis will result in the estimated English language proficiency coefficients being upwardly biased.

In addition, English language proficiency is expected to be correlated with both educational attainment and age. It is expected, that given the possible correlation between education, age and English language proficiency, the size of the coefficient on the language variable would be reduced upon inclusion of these additional explanatory variables. In addition, the more education an African person has, the more likely they are to be proficient in a language. Younger Africans may be more likely to be proficient in English as compared to older Africans given that the older cohort were likely to have been schooled during apartheid and therefore exposed to the English language at a much later stage in their education (Reagan 1987).

In the analysis of labour market participation and employment below, the analysis specifically controls for an individual's age as well as their highest level of education in order to isolate the specific impact of language proficiency on participation and on employment. It is still possible, however, that because of the correlation between English language proficiency, education and age, that the observed effect of English language proficiency on labour market participation and employment will be reduced.

In an attempt to minimise the concerns of endogeneity and multicollinearity, the analysis makes use of the documented strong positive correlation between an individual's English language proficiency and their home language proficiency and includes a control for home language proficiency in the estimations (Casale and Posel 2011). For the African population specifically, home language proficiency is likely to be acquired earlier than English and is not necessarily dependent on educational attainment and other unobserved characteristics, home language proficiency may be used as a proxy for English language proficiency and potentially deal with the concerns raised regarding endogeneity bias and multicollinearity.

The analysis of the effect of English language proficiency on labour market participation and employment is presented below.

#### 4.1 Labour Market Participation

A probit model, represented in equation (i) below is used, where the dependent variable, LFP, is binary and equal to 1 if a person is a labour market participant and 0 if they are economically inactive. For the purposes of this analysis, the broad definition of labour market participation is used.  $X_i$  represents a vector of observable characteristics and  $\varepsilon_i$  is the unobserved error term.

$$LFP_i = \beta'X_i + \varepsilon_i \quad (i)$$

The analysis involves four iterations of (i) for the African (black South African) subset of the population. In the first estimation (I), English language proficiency is the only explanatory variable in the model. In the second iteration (II), the vector of explanatory variables includes both individual and household level indicators such as educational attainment, age, marital status, geographical location and household size. Due to the correlation between educational attainment, age and English language proficiency, it is expected that the magnitude of the estimated coefficient on English language proficiency will be reduced once these additional controls are included in the estimations.<sup>5</sup>

To address the concerns of multicollinearity and endogeneity bias, the third iteration (III) includes home language proficiency in addition to the controls included in model II. Finally in the fourth iteration (IV) home language proficiency replaces English language proficiency.

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<sup>5</sup> The language variables are binary and are equal to 1 if a person self-reported that they can both read and write very well in English (or their Home language) and 0 otherwise.

Table 5: The effect of language proficiency on labour market participation

Variables	Model Specification							
	I		II		III		IV	
	Male	Female	Male	Female	Male	Female	Male	Female
<b>English Language Proficiency</b>	-0.01 (0.02)	0.09*** (0.02)	-0.02 (0.02)	0.07*** (0.02)	-0.03 (0.02)	0.06*** (0.02)	-	-
<b>Home Language Proficiency</b>	-	-	-	-	0.04* (0.02)	0.02 (0.02)	0.03 (0.02)	0.04* (0.02)
<b>Educational Attainment (in Years)</b>	-	-	0.01*** (0.00)	0.03*** (0.00)	0.01*** (0.00)	0.03*** (0.00)	0.01*** (0.00)	0.03*** (0.00)
<b>Age</b>	-	-	0.10*** (0.00)	0.11*** (0.00)	0.10*** (0.00)	0.11*** (0.00)	0.10*** (0.00)	0.11*** (0.00)
<b>Age Squared</b>	-	-	-0.12*** (0.01)	-0.13*** (0.01)	-0.12*** (0.01)	-0.13*** (0.01)	-0.12*** (0.01)	-0.13*** (0.01)

Source: Authors' calculations, NIDS 2008.

Notes: Data have been weighted to represent population-level estimates. Estimates presented represent the marginal effects as calculated from the probit estimations. Marginal effects estimated at the means of the continuous variables. The results are for African individuals aged 15 - 65 years. Standard errors are in parentheses. Figures marked with \*\*\*, \*\* or \* are significant at the 1%, 5% or 10% level respectively. All other individual and household level explanatory variables have the expected signs and significant with regards to labour market participation.

The results of these estimations testing the relationship between English language proficiency and labour market participation are presented in Table 5. Across specifications I, II and III, the results suggest that English language proficiency has no significant effect on the labour market participation of men. For women, however, the probability of participating in the labour market is raised by between 6 and 9 percent among those who are proficient in English. In addition, the impact of age and educational attainment on labour market participation appears to be consistent and significant in each of the model estimations. Thus, despite the anticipated relationship between education levels, age and English language proficiency, the inclusion of controls for education and age do not substantially alter either the magnitude or significance of the effect of English language proficiency on labour market participation for men and women. Thus it appears that English language proficiency has significant independent effects on female participation but not on male participation.

Given the concerns regarding potential issues relating to the endogeneity of English language proficiency and potential multicollinearity, the third and fourth specifications deliberately control for home language proficiency. The results of model III show that whilst English is not a significant determinant of participation for African men, home language proficiency is. For

women, the marginal effect of English is slightly reduced upon inclusion of the variable for home language proficiency, however it is still positive and significant such that a women is six percent more likely to participate if proficient in English even when accounting for home language proficiency.

Lastly, when English language proficiency is excluded from model IV it was found that, specifically for African men, the significance of home language is completely removed. This indicates that on the whole, language proficiency itself does not impact on their labour market participation. Interestingly though, for women, the coefficient on home language confirms the importance of language proficiency on female participation.

In both models III and IV, the marginal effects of education and age are once again consistent and are not altered by the addition of the home language proficiency variable. This may suggest that the acquisition of language skills (whether it be English or home language) may be largely attributed to unobserved factors rather than to educational attainment and age specifically. These unobserved factors may be related to education, such as the quality of education or type of school an individual attends or may depend on family dynamics such as parent educational attainment and household socio-economic status. Some of these factors may also be driving labour market participation itself, hence there is still a concern regarding endogeneity. However, based on the results from Table 5, it appears that male participation is independent of language skill whilst language ability appears to be a strong determinant of female participation.

#### 4.2. Employment

Following the analysis of labour market participation above, the effect of proficiency in English upon job search and employment of black South Africans was investigated. Equation ii shows the basic model to be estimated using a multinomial logit where the dependent variable (ES) is an unordered choice variable with the following categories:

$ES = 0$  if economically inactive,

$ES = 1$  if unemployed, not searching for work,

$ES = 2$  if unemployed, searching for work and

$ES = 3$  if employed.

$$ES_i = \alpha'X_i + \varepsilon_i \text{ (ii)}$$

Following the method and reasoning outlined for labour market participation, four iterations of the model are estimated. Individuals who are unemployed and not searching for work serve as the base category. It is expected that proficiency in English will raise the likelihood of individuals both obtaining work as well as searching for work if they are unemployed in comparison to individuals who are not proficient in English.

The probability of employment is measured with respect to the base category (unemployed and not searching for work) (Table 6). In model I, English language proficiency is not a significant determinant of employment for men and this result is consistent in model II. In addition, it appears that a man's age and educational attainment positively impact on employment (though these effects are relatively small). Upon inclusion of the control for home language proficiency in model III, as a means to deal with the potential endogeneity of English language proficiency, home language proficiency is found to increase the probability of employment by 8 percent. The coefficient on English however is negative implying that a man is 7 percent less likely to be employed compared to being unemployed and not searching for work. This finding contradicts expectations and may infer that the types of jobs that men acquire are not necessarily reliant on English literacy skills. In the final model (IV), where English is completely excluded, the effect of home language proficiency remains positive but the effect is somewhat reduced.

For African women, English language proficiency is consistently identified as an important driver of female employment raising the likelihood of employment by between four and eight percent. The results appear to contradict the expectation that inclusion of age and education variables would reduce the marginal effect of English ability. The effect of English language proficiency actually increases and remains consistent from model II to model III when home language proficiency is added. Home language itself however is insignificant. In the final model estimation (IV) when English is omitted, the effect of home language becomes significant highlighting that language skills are especially important in the case of female employment.

Table 6: The relationship between language proficiency and labour market status

	Model Specification							
	I		II		III		IV	
	Male	Female	Male	Female	Male	Female	Male	Female
<b>Employed</b>								
English Language Proficiency	-0.02 (0.02)	0.04** (0.02)	-0.04 (0.03)	0.08*** (0.03)	-0.07** (0.03)	0.08*** (0.03)	-	-
Home Language Proficiency	-	-	-	-	0.08** (0.03)	0.02 (0.03)	0.05* (0.02)	0.04* (0.03)
Educational Attainment (in Years)	-	-	0.02*** (0.00)	0.02*** (0.00)	0.01*** (0.00)	0.02*** (0.00)	0.01** (0.00)	0.03*** (0.00)
Age	-	-	0.07*** (0.01)	0.08*** (0.01)	0.07*** (0.01)	0.08*** (0.01)	0.07*** (0.01)	0.08*** (0.01)
Age Squared	-	-	-0.08*** (0.01)	-0.09*** (0.01)	-0.08*** (0.01)	-0.09*** (0.01)	-0.08*** (0.01)	-0.09*** (0.01)
<b>Unemployed and Searching for Work</b>								
English Language Proficiency	0.03** (0.01)	0.06*** (0.01)	0.03 (0.02)	0.01 (0.02)	0.03 (0.02)	0.01 (0.02)	-	-
Home Language Proficiency	-	-	-	-	-0.00 (0.02)	0.00 (0.02)	0.01 (0.02)	0.01 (0.02)
Educational Attainment (in Years)	-	-	0.00 (0.00)	0.01** (0.00)	0.00 (0.00)	0.01** (0.00)	0.00 (0.00)	0.01*** (0.00)
Age	-	-	0.03*** (0.00)	0.04*** (0.00)	0.03*** (0.00)	0.04*** (0.00)	0.03*** (0.00)	0.04*** (0.00)
Age Squared	-	-	-0.03*** (0.01)	-0.06*** (0.01)	-0.03*** (0.01)	-0.06*** (0.01)	-0.03*** (0.01)	-0.06*** (0.01)
<b>Not Economically Active</b>								
English Language Proficiency	0.01 (0.02)	-0.09*** (0.02)	0.03 (0.02)	-0.09*** (0.03)	0.04* (0.02)	-0.08*** (0.03)	-	-
Home Language Proficiency	-	-	-	-	-0.05** (0.03)	-0.03 (0.03)	-0.04 (0.02)	-0.05* (0.03)
Educational Attainment (in Years)	-	-	-0.01*** (0.00)	-0.03*** (0.00)	-0.01*** (0.00)	-0.03*** (0.00)	-0.01*** (0.00)	-0.03*** (0.00)
Age	-	-	-0.10*** (0.01)	-0.13*** (0.01)	-0.10*** (0.01)	-0.13*** (0.00)	-0.10*** (0.01)	-0.13*** (0.01)
Age Squared	-	-	0.12*** (0.01)	0.16*** (0.01)	0.12*** (0.01)	0.16*** (0.01)	0.12*** (0.01)	0.16*** (0.01)

Source: Authors' calculations, NIDS 2008.

Notes: Data have been weighted to represent population-level estimates. Estimates presented represent the marginal effects as calculated from the multinomial logit estimations. Marginal effects estimated at the means of the continuous variables. The results are for African individuals aged 15 - 65 years. Standard errors are in parentheses. Figures marked with \*\*\*, \*\* or \* are significant at the 1%, 5% or 10% level. All other individual and household level explanatory variables have the expected signs and significant with regards to labour market participation. A test of Independence of Irrelevant Alternatives was performed and there is no evidence to suggest that the assumption of IIA is violated.

With regards to unemployment, for both men and women it is expected that being proficient in English would aid job search activity, however this is only noteworthy in the first model specification where English is the only explanatory variable (I). This implies that other factors such as educational attainment have more of an impact on job search activity. As soon as the other explanatory variables are controlled for (in model II), the effect of English ability becomes insignificant whereas the marginal effects of education and age are significant positive determinants of whether an African female actively searches for work. For men, educational attainment does not improve the probability of job search whereas age does. The probability of searching for work compared to not searching could also be explained by unobserved characteristics such as access to social networks.

The results for the economically inactive category are consistent with the results from the probit model for labour market participation presented in Section 4.1 above. These figures suggest that the probability of being economically inactive is reduced if a woman is proficient in English, however language skills once again appear to have no effect on male labour market participation. For men, the inclusion of both language variables in model III illustrates that men are significantly more likely to be inactive compared to being unemployed and not searching for work if they are proficient in English. A plausible explanation for this would be that men with skills in English are more likely to be engaging in further education and training, thereby not participating in the labour market. This notion is confirmed by the negative effect of age whereby younger men are more likely to be inactive. An important consideration here is that despite the increase in female labour market participation as a result of proficiency in English, females are significantly more likely to be unemployed and not searching for work (discouraged). This has been indicated in previous literature regarding the feminisation of the labour force whereby participation rates have increased overall but females are still over-represented in unemployment (Burger and Woolard 2005; Casale and Posel 2003; Casale 2004).

### **4.3. Summary of findings**

The results presented in Section 4.1 and 4.2 above highlight the importance of English language proficiency for women in terms of both labour market participation and employment. The results for men are not as striking and it seems that only home language proficiency improves their probability of employment. If we consider the high degree of correlation between home language proficiency and English language proficiency, we can conclude that the effect of English is partially reflected in the home language coefficients.

It is acknowledged that men and women face different constraints in their labour market participation. Certain unobserved factors such as a male's desire to provide for their family together with excessive cultural pressures may drive their participation even if they are not English language proficient. Women on the other hand face unique constraints in their labour market participation including considerable domestic responsibilities such as child care. The results suggest that an English proficient woman is more likely to enter the labour market and find employment. However, a woman not proficient in English may feel that she has no opportunity or that the costs of job search outweigh the potential rewards within the labour market ultimately causing her to remain voluntarily out of the labour force. Thus, a lack of English ability may in fact serve as a barrier to female labour market participation. This barrier to entry is not applicable to men who are not as constrained in their labour market participation and who have access to jobs that may not necessitate an ability to read and write very well in English.

## **5. Occupations**

The results thus far suggest that the effect of English language proficiency on labour market participation and employment differs between men and women. A lack of proficiency in English seems to be a notable barrier to entry into the labour market for females specifically whilst male participation is not significantly affected by English language proficiency. Similarly, the likelihood of women being employed is higher amongst women who are proficient in English in comparison to those who are not, while among men English language proficiency has no significant effect on employment once other observed factors are taken into account. It is only through home language proficiency that language skills become important determinants of male employment. The final section of the analysis considers what affect, if any, English language proficiency has on the sorts of occupations that both men and women access. In particular that women and men are not likely to be equally represented in all occupations and some occupations are likely to require more language skill than others. It would be expected that managerial or service-sector occupations will require English language proficiency whereas jobs that demand more physical labour or rudimentary skills would be less likely to demand such abilities. Figures 3 and 4 below show the distribution of workers by occupation and English language proficiency for men and women respectively.

Overall, the percentage of both men and women who are employed in higher level jobs (such as professional, technical and managerial positions) is greater for those proficient in English. The majority of employed men, regardless of their English proficiency are craft workers and tradesman. Given that English is the main language of business, it is expected that plumbers, electricians, builders, managers and professionals are required to be proficient in English given the need to communicate with clients and other business professionals. Jobs involving manual labour such as crafting, farming, fishing and some elementary occupations are not expected to necessitate English language proficiency. African men who are proficient in English tend to occupy jobs as craft or trade workers (23.1 percent), service workers (21 percent) and plant and machinery operators (13.8 percent). This pattern is very similar for men who are not proficient in English.

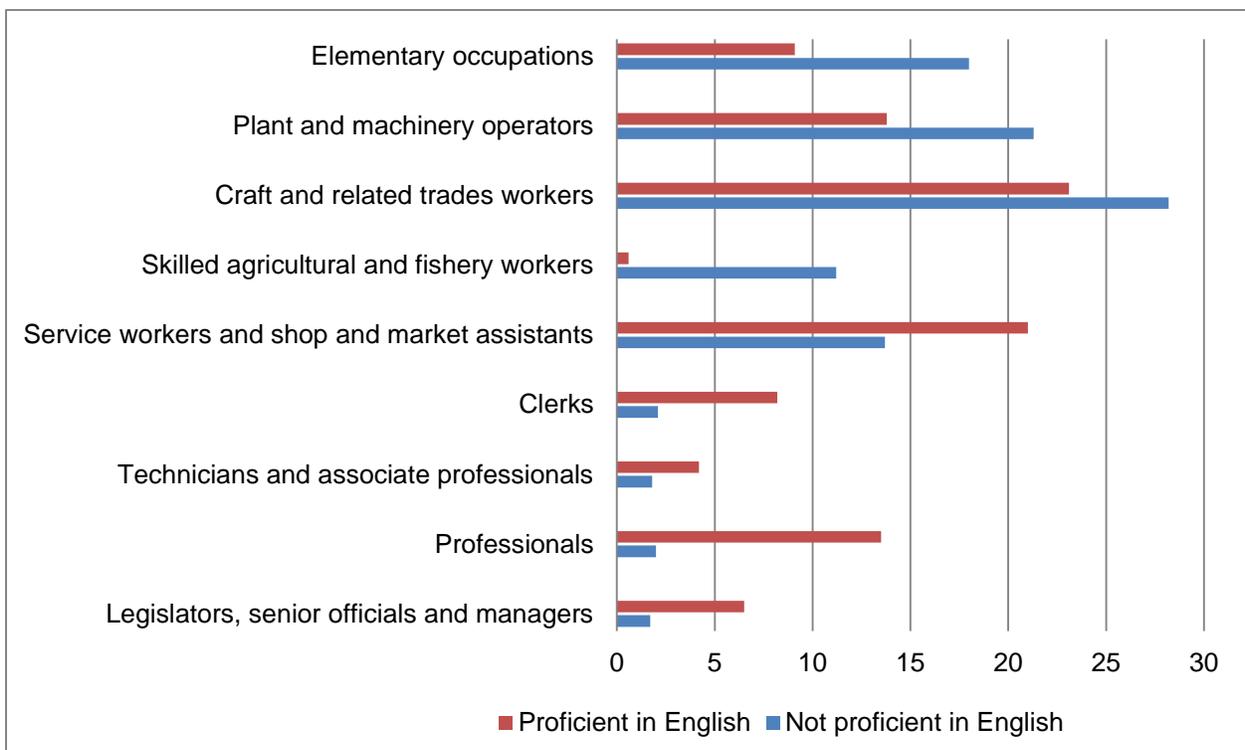
The results of the multivariate analysis presented in sections 4.1 and 4.2 have indicated that English language proficiency itself is not a significant determinant of male labour market participation and employment. However, home language proficiency notably raises the likelihood of male employment. Historically, African men have been selected into jobs that involve manual labour which do not necessarily require English language skills. Given that the distribution of men amongst each occupation type is relatively similar irrespective of English ability, it may be inferred that job type is independent of their language ability. However, those who are proficient in English may hold more senior positions within these same occupations whilst men who are not proficient might instead be physical labourers. English language proficiency would therefore still be important in terms of the types of positions they hold within a particular occupation category. Thus the true impact of English language proficiency is likely to be reflected in the earnings of African men. It has been established using the same NIDS 2008 data that English language proficiency substantially raises earnings (by 55 percent) (Casale and Posel 2011).

It is found that of all African women who are proficient in English, nearly 30 percent are employed in professional occupations, about 20 percent are employed as clerks and a further 13 percent are employed in the service sector (Figure 4). These are all occupations where the ability to communicate effectively in English is desirable. In contrast, more than two-thirds of women who are not proficient in English are employed in elementary occupations which are typically associated with poor pay and few (if any) benefits. Being proficient in English therefore appears to substantially improve the types of occupations women can access. If English

language proficiency is seen as a form of human capital, then these findings are consistent with the literature on the South African labour market which highlights that human capital significantly enhances the likelihood of attaining a high skilled job (Rospabé 2002).

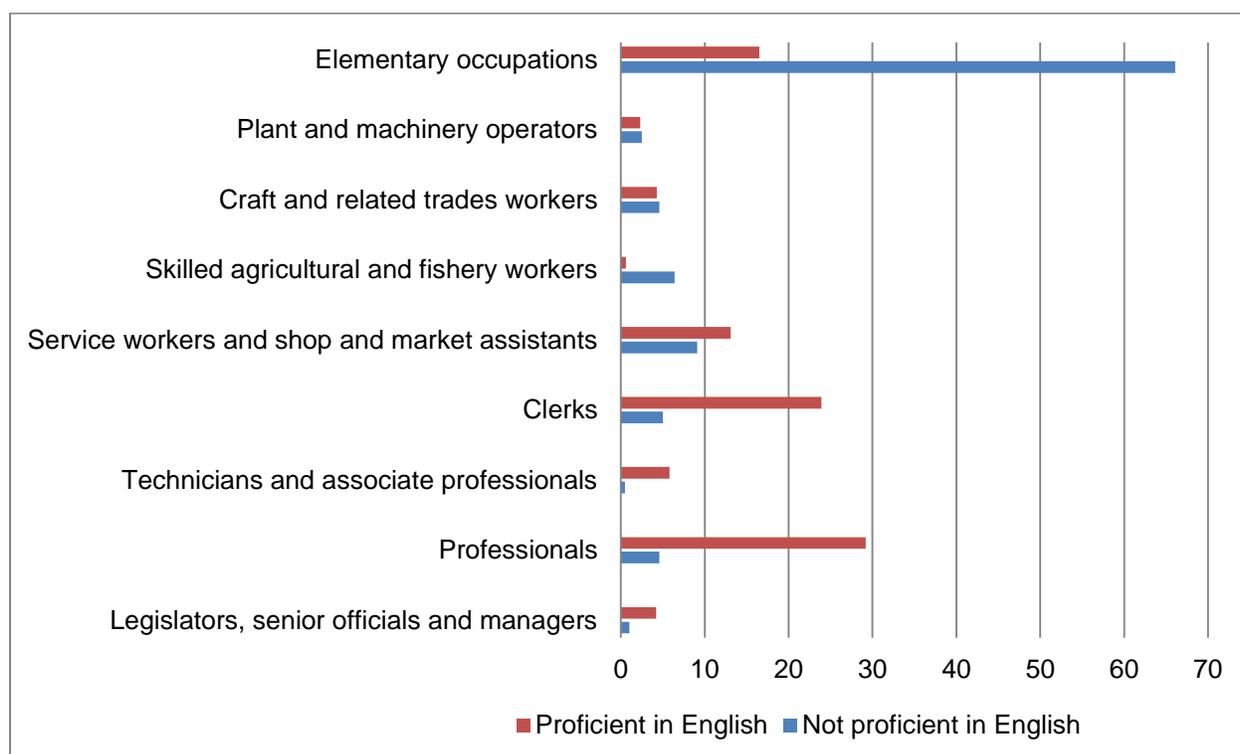
It is however, evident across both genders that significantly more English language proficient individuals hold higher level jobs. The percentage of men and women who occupy managerial or professional occupations is six times greater compared to the sub sect of individuals who are not proficient in English.

Figure 3: Occupations of African Men, by English language proficiency



Source: Authors' calculations, NIDS 2008. Notes: Data have been weighted to represent population-level estimates.

Figure 4: Occupations of African Women, by English language proficiency



Source: Authors' calculations, NIDS 2008. Notes: Data have been weighted to represent population-level estimates.

## 6. Discussion and Conclusion

There are few papers that have explored the role of language in the South African labour market (Casale and Posel 2011, Cornwell and Inder 2008 and Posel and Casale 2010). Both the international and South African literature has emphasised the importance of language in terms of labour market outcomes. Internationally policy makers view language ability as the most significant adjustable factor that can improve the social and economic integration of immigrants (Dustmann and Van Soest 2002). In South Africa where the lingua franca is English, less than half of all working age Africans are proficient in English and they are largely over represented in unemployment. It is for this reason that the labour market participation and employment of African males and females was examined with respect to English language proficiency.

The results from the multivariate analysis indicate a significant positive effect of English language proficiency on female labour market participation and employment but not for men. Only home language proficiency appeared to improve an African man's access to employment. Language proficiency and education were both found to be significant determinants of female

participation and employment, whereas educational attainment had little effect on male participation. This signals that educational attainment and English language proficiency, particularly reading and writing ability should be emphasised in order to assimilate African females into the labour market. Section 5 identifies that females who are not proficient in English are over represented in low-skilled, low-paying jobs such as domestic work whereas females who are proficient in English occupy higher level professions. Whilst significantly more men who are proficient in English occupy higher-level, managerial positions compared to men who are not proficient in English, the distribution of men amongst occupation-type is very similar irrespective of language proficiency.

The role of English language proficiency in the labour market is likely to become increasingly important given the structural changes to the South African employment sector and the recent emergence of a more sophisticated services sector which may demand English language skills (Burger and Woolard 2005). The importance of human capital is well documented and language ability, particularly reading and writing ability have been recently identified as an essential component of human capital. With regards to African men, it is evident that there are a multitude of factors driving male participation and employment but that once a male is employed they have greater earnings potential if they are proficient in English. Arguably, the implications for female labour market participation and employment are the most important policy making considerations to emerge from this analysis given that despite higher labour market participation rates, women are still more likely to be unemployed. Thus, in order to address the high unemployment rates of African females and to improve the socioeconomic status of African men, it will be necessary to focus on the quality of schooling and the development of English language skills. Much of the research on the South African schooling system highlight the low quality education received by pupils in poorer schools, most of which are in rural areas (Spaull 2011). It is evident that addressing these issues may assist in assimilating females into more stable, better paying jobs and providing men with more substantial earnings upon employment.

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