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WHAT IS THE IMPACT OF EDUCATION LEVEL ON YOUTH UNEMPLOYMENT IN SOUTH AFRICA?

KATLEHO LARA

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Acronyms

Acronym	Meaning
LFS	Labour Force Survey
NIDS	National Income Dynamics Study
QLFS	Quarterly Labour Force Survey
NDP	National Development Plan
TVET	Technical and Vocational Education and Training
NEET	Not in Education, Employment or Training
OECD	Organisation for Economic Co-operation and Development
SA	South Africa
Stats SA	Statistics South Africa
SDG	Sustainable Development Goal
NQF	National Qualifications Framework

Topic

What is the impact of education on graduate unemployment in South Africa?

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Abstract

This study investigates the relationship between education levels and youth unemployment in South Africa, focusing on individuals aged 15 to 45 using data from the 2024 Quarterly Labour Force Survey (Q4). Applying a probit regression model, the analysis assesses how different educational attainments, ranging from no education to tertiary qualifications, affect the chances of unemployment among the youth. The findings reveal that higher levels of education are generally associated with a lower probability of unemployment, though the impact varies by level and other socio-economic variables such as location, experience, and gender. The study also integrates qualitative perspectives by considering employer views on graduate employability, highlighting the gap between academic teachings and labour market needs. The results offer policy relevant insights for improving education and employment alignment, promoting practical training initiatives, and addressing structural unemployment challenges among young South Africans.

Key words

Youth unemployment, Education, Labour market, South Africa, Probit model

JEL Classification

I21 (Education), J64 (Unemployment), C25 (Discrete Regression Models)

Introduction

Unemployment is a global crisis, with the youth bearing the bulk of this crisis in South African context. Recent report by the Statistics South Africa (2023) show that at national level, the number of unemployed persons increased from 6,1 million in 2018 to 7,3 million in 2023. Over this period, the number of youths in the labour market has been on a consecutive incline whilst the youth unemployment has been on an increase. The number of youths employed decreased by 333 000 and the number of unemployed increased by 855 000. It is evident that opportunities in the labour market are not aligned with the demand by the youth, this marks a crisis for the South African youth. There are multiple factors to consider.

Education can be seen as a major factor in this, whilst we cannot ignore other factors like corruption and the interruption of foreign nationals in the South African market. Studies suggest that youth with tertiary education are significantly less likely to be unemployed compared to their less-educated peers. “In 2023, about 44,0% of unemployed youth did not finish matric while, 45,3% completed matric and only 10,1% had a tertiary qualification” as reported by Stats SA (2023) report. This can be seen as encouraging for those who are in education. The South African government has taken measures to motivate education in the country by providing free education and subsidizing it at tertiary level for those with financial strains, mainly through a bursary scheme namely “National Student Financial Aid Scheme” (NSFAS). Education is regarded as a fundamental right for all citizens, and it is also seen as key to combat the socio-economic crisis of unemployment.

Recruitment of graduates is vital especially through structured development programs, these channels allow them to gain experience in highly competitive industries like finance, engineering and technology as highlighted by a SAGEA study(South Africa's graduate development imperative |). Graduates with job ready skills are then rare to find, adding to the challenge of skills shortage in South Africa even for jobs that do not require rare skills. This puts emphasis on the gap in the market-place for graduates, accounting for the high unemployment amongst the educated youth. In competitive markets, well structured skills development programmes serve as a key differentiator, giving companies an edge in employee retention as 42% of candidates surveyed by full name (SAGEA) indicate they are likely to stay with their first employer for the first 5 years. Applied learning, graduate programmes and internships along with vacation work are integral in equipping graduates with the necessary skill level required in the work space. It can be argued that businesses in certain fields and industries like finance, technology and engineering need to collaborate more with higher learning institutions to integrate students into the real-world work. Take faculties like Education and Health Science, they have in place, well structured pipelines that equip students with experience by the time they graduate. They are so strict and formalised that they get assessed by their aspiring peers, all graduates in those fields have applied the theory and knowledge learnt in practical work.

The aim of this research is to highlight the significance of education on youth unemployment in South Africa. Furthermore, doubling down and assessing the impact of practical training on graduate unemployment. As a developing country, it is imperative to focus on components that contribute to the wellness and wealth of the national income and productivity. Indicators like employment should take precedence as noted by the government as key in the recent (2025) SONA speech, while they have great initiatives to combat unemployment I want to focus on the impact of education and training as tools to fight youth unemployment. There is a pattern in government reports on unemployment, they fail to highlight the extent to which training facilities, education and the various ways government implements employment stimulus impact youth unemployment, each tool on its own measure.

Literature review

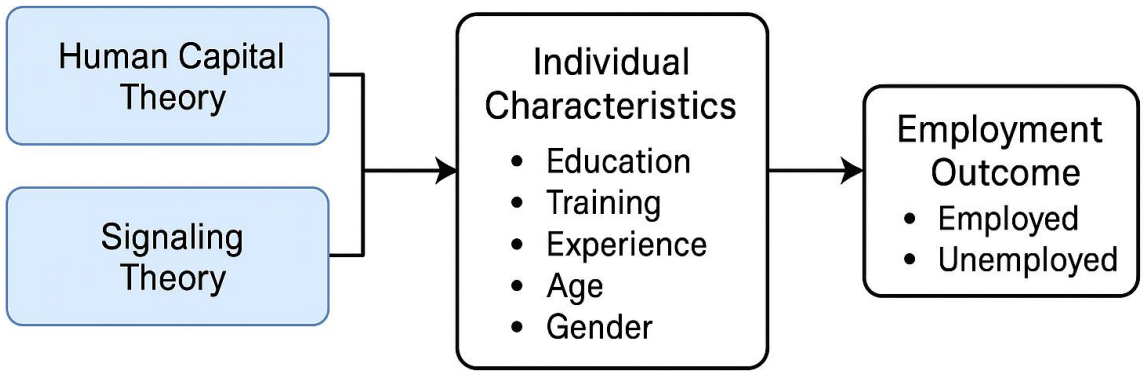
Theoretical literature

This study examines how an individual's character, their education level and experience, can affect their employment status, with emphases on graduates. According to Theodore Schultz (1961), investment in education increases a person's productivity. He defines human capital as the knowledge, skills, assets and experience that an individual has that add value to a company. These assets are acquired through means of learning hence they need to be harnessed, some of their characters include education, experience, tenure, health and training. This theory views these characters as determinants of productivity with a positive correlation, implying that higher education, better training and more experience will lead to higher individual productivity. With this assumption, we can tackle the high youth unemployment, especially those of graduates by means of more programmes that will enhance the knowledge students possess.

Companies already have on the job training and off the job training and are contributing to combatting the struggle against youth unemployment. In this study, I will show the gap that exists between in this space.

Human resource management can use studies like this to improve their preparation, recruitment and retention of employees. This will yield to a higher retention of satisfied employees in the long run. The hypothesis is that individuals with higher levels of education and prior work experience are more likely to be employed.

In 1973, Michael Spence coined the theory signalling theory. Which is made of the core idea that education does not necessarily reflect on an individual's productivity but rather on their ability, discipline or work ethic to employer. In this view, even if education does not improve skills directly, it acts as a signal of a desirable employee. He assumed employers can rely on credentials, that individuals with higher abilities will obtain higher education credentials. When employers lack information about an individual's abilities like their skills level or how they act under tension in the work space, they rely heavily on one's credentials. This is where education matter more than skills, with this the assumption is that higher education level individuals are more likely to get employed.



Empirical review

Numerous empirical studies have investigated the relationship between education and youth unemployment, particularly in developing countries such as South Africa. The general consensus is that higher levels of education are associated with lower levels of unemployment; however, the magnitude and consistency of this effect often vary depending on the type of education, labor market conditions, and socio-economic context.

Banerjee et al. (2008) highlight the mismatch between the expectations of educated youth and the limited opportunities within the formal sector in South Africa, suggesting that unemployment among the educated is not purely a result of low skills but also due to structural rigidities. This is supported by **Rankin, Roberts, and Schöer (2012)**, who find that while tertiary education reduces the probability of unemployment, it does not guarantee employment unless it is aligned with labor market demand.

Mlatsheni and Rospabe (2002), using data from the Labour Force Survey (LFS), find a strong negative correlation between education level and youth unemployment rates. Their study emphasizes the importance of not only increasing educational attainment but also improving the quality of education and its relevance to the job market.

Ismail (2017) explores the returns to education across different demographic groups in South Africa and finds that the benefits of completing secondary and tertiary education are significantly higher for youth. However, the study also notes disparities based on location (urban vs. rural) and race, indicating that education alone may not be sufficient to address youth unemployment without addressing broader structural inequalities.

More recent research by **Graham and De Lannoy (2016)** in their work with the Centre for Social Development in Africa highlights that young South Africans face a "transition trap" — prolonged periods between school and employment — largely due to a lack of access to practical experience and social networks. This is echoed in **Reddy et al. (2016)**, who argue that vocational training and work-integrated learning programs have a significant role in improving youth employment outcomes.

Collectively, the empirical literature underscores that while educational attainment is an important determinant of employment prospects, it must be complemented by policy interventions that bridge the gap between education and employment — such as internships, career guidance, and employer partnerships.

Methodology

Theoretical methodology

This study explores the relationship between education levels, experience and the employment status among South African youth. In the formation of our analyses, we used two theories, namely Human Capital Theory and Signalling Theory. These theories were crucial in the selection of our variables and the formation of our hypotheses.

According to Schultz (1961) and Becker's (1964) Human Capital Theory suggests that individuals invest in education, similarly to how businesses invest in machinery capital. This investment will transpire through education, training, experience. It assumes a positive relationship between human capital and employability. In contrast to this theory, Spence (1973) suggests education is only a signalling tool to employers, in the Signalling Theory. According to Spence, human capital reflects on an individual's character and willingness to see activities through. Nonetheless, both of these theories are of the view that higher education levels lead to a higher chance of employability.

Human Capital Theory supports variables like education level, experience and training. These are forms of human capital that an individual can accumulate and harness to improve productivity. Signalling Theory supports educational attainment and institutional type as variables. These serve as observable qualities that may reflect on discipline whilst they two theories, in conjunction, support age, gender, location and marital status as control variables that influence the attainment of education.

Based on Human Capital and Signalling theories, this study hypothesizes that:

- H1: Individuals with higher levels of education are more likely to be employed.
- H2: Individuals with prior work experience or training have higher employment probabilities.

These theoretical frameworks guide the model specification and variable selection in the empirical section of this study, where a multinomial logistic regression is applied to estimate the probability of being employed, unemployed, or not economically active (inactive) based on individual characteristics.

Empirical methodology

Data description

This study uses data obtained by Stats SA (Quarterly Labour Force Survey) by means of face-to-face and Computer Assisted Personal and Telephone interviews (CAPTI) from October 2024 to December 2024. The LFS is a nationally representative household survey capturing a wide array of labour market indicators. This study restricts the sample to an extended definition of youth aged 15 to 45 years. For the purpose of this study, the data was sorted and limited to 36 972 observations.

Model specification

Given the nature of the dependent variable—employment status, which falls into three mutually exclusive and unordered categories: employed, unemployed, and inactive (not economically active)—a multinomial logistic regression model is appropriate.

Let Yi denote the employment status of individual i, with the categories defined as follows:
- Yi = 0: Inactive
- Yi = 1: Unemployed
- Yi = 2: Employed

The model estimates the log odds of being in category j relative to a base category, typically "inactive." The multinomial logit model is specified as:

$$\log(P(Y_i = j) / P(Y_i = 0)) = \beta_{j0} + \beta_{j1}X_{1i} + \beta_{j2}X_{2i} + \ldots + \beta_{jk}X_{ki}$$
for $j = 1, 2$

Where:
- X_{ki} are the explanatory variables
- β_{jk} are the coefficients to be estimated
- $P(Y_i = j)$ is the probability of individual i being in category j.

Description and justification

Variables description

Variable	Description	Expected Sign (vs. Inactive)
Education Level	Categorical: No schooling, Primary, Secondary, Tertiary	Positive for Employed
Age Group	Categorical: 15–24, 25–34, 35–45	Mixed: Mid-age more likely employed
Gender	Binary: 1 = Female	Negative for Employed
Location Type	Binary: 1 = Urban	Negative for Employed (urban saturation)
Province	Dummy variables for each province	Varies
Race	Dummy variables (African, Coloured, Indian, White)	Varies
Marital Status	Binary: 1 = Married	Positive (stability linked to employment)
Household Size	Number of members in household	Negative or Neutral
Training Received	Binary: 1 = Has received skills training	Positive for Employed
Work Experience	Binary: 1 = Prior employment history	Strongly Positive

Estimation

The multinomial logit model is estimated using Maximum Likelihood Estimation (MLE).

Variance Inflation Factor (VIF) will be computed for all independent variables to ensure no high multicollinearity, VIF < 10 acceptable.

Likelihood Ratio Test and Pseudo R-squared will be used to assess model goodness-of-fit. Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) will be compared across alternative model specifications.

Average Marginal Effects (AMEs) will be calculated to interpret the practical effect of variables on the predicted probabilities of employment status.

Diagnostic tests

The Independence of Irrelevant Alternatives (IIA) assumption will be tested using the Hausman-McFadden test to ensure that the choice between two alternatives is unaffected by the presence of a third.

Empirical results

The multinomial logistic regression model was used to investigate the determinants of graduate employment status, with employment outcomes categorized into three groups. For interpretive purposes, the employment category was used as the reference group.

In the regression table below, under Unemployed vs Employed, the education status each show the following:

No Schooling with coefficient (coef) of -0.499), individuals with no schooling are less likely to be unemployed than employed. This likely reflects labour market discouragement, inactive people, they exit the labour force rather than remain unemployed.

Other, which reflects on people whose status is unknown, with a coef of -0.651. Also less likely to be unemployed than employed.

Primary Completed, coef of 0.188, slightly more likely to be unemployed than employed, marginally significant.

Secondary Completed, coef of 0.061, it is not significant.

Secondary Not Completed with a coef of 0.364, significantly more likely to be unemployed. These individuals may seek work but lack qualifications for employment.

Tertiary with a coef of -1.149, reflects a strong negative relationship. Those with tertiary education are less likely to be unemployed, and more likely to be employed.

Tertiary education serves as security against both inactivity and unemployment. People with lower education levels are either discouraged and drop out of the labour force, or actively unemployed but struggling to find work. With a strong sample size of 36 926 observations and a modest explanatory Pseudo R square of 0.065, the Chi square value of 5 046.515 and p value less than 0.000, the model is statistically significant.

With reference to the multinominal logit results 2 under appendices, it can be concluded that Eastern Cape has significantly poorer employment outcomes compared to other provinces across the country. The White people demographics are significantly less likely to be unemployed relative to the Black demographic whilst the Indian/Asian are also less likely to be unemployed and the is not significant difference between the Black and Coloured demographics. Males are significantly more likely to be employed than their counterparts.

Multinomial Logistic Regression Results: Employment Status (Base: Employed)

Education Status	Coef.	St. Err.	t-value	p-value	[95% Conf Interval]	Sig
Employed	0	.	.	.	.	.
		Inactive vs Employed				
Education Status: Inactive	0	.	.	.	.	.
No schooling	0.651	0.098	6.61	0	[0.458, 0.844]	***
Other	-0.928	0.116	-7.97	0	[-1.156, -0.699]	***
Primary completed	-0.033	0.085	-0.38	0.7	[-0.2, 0.134]	
Secondary completed	-1.466	0.060	-24.47	0	[-1.584, -1.349]	***
Secondary not comp~d	-0.329	0.059	-5.63	0	[-0.444, -0.215]	***
Tertiary	-2.385	0.068	-35.14	0	[-2.518, -2.252]	***
Constant	1.527	0.054	28.17	0	[1.421, 1.634]	***
		Unemployed vs Employed				
Education Status: Unemployed	0	.	.	.	.	.
No schooling	-0.499	0.137	-3.64	0	[-0.767, -0.231]	***
Other	-0.651	0.149	-4.37	0	[-0.942, -0.359]	***
Primary completed	0.188	0.102	1.84	0.065	[-0.012, 0.388]	*
Secondary completed	0.061	0.071	0.85	0.393	[-0.078, 0.199]	
Secondary not comp~d	0.364	0.071	5.15	0	[0.226, 0.503]	***
Tertiary	-1.149	0.079	-14.59	0	[-1.304, -0.995]	***
Constant	0.189	0.066	2.84	0.005	[0.059, 0.319]	***

Model Summary:

Mean dependent var: 2.046

SD dependent var: 0.718

Pseudo r-squared: 0.065

Number of observations: 36926

Chi-square: 5046.515

Prob > chi2: 0.000

Akaike Information Criterion (AIC): 72446.284

Bayesian Information Criterion (BIC): 72565.517

*** p<0.01, ** p<0.05, * p<0.1

Conclusion

Higher education levels significantly increase the chances of being employed or unemployed compared to being not economically active, suggesting that educated individuals are more engaged in the labour market. However, a higher education score is unexpectedly linked to lower odds of both employment and unemployment, potentially indicating overqualification or discouragement effects. Gender has a strong effect, with males more likely to be both employed and unemployed than inactive, highlighting great resilience from the men. Provincial differences also play a role, slightly increasing the odds of labour market participation. Lastly, population type significantly reduces the likelihood of being unemployed, possibly reflecting lower job-seeking activity in certain areas.

Evidently, education matters in the likelihood of employment. Higher education increases the odds of employment, however the more educated individuals do face levels of uncertainty in employment. This may be due to skills mismatch or lack of experience. To counter this, expansionary monetary policy must be implemented, lowering interest rates will allow businesses to borrow more and therefore afford to increase their workforce. There is a definite in the market place where students are graduating without the necessary skillset. Businesses have a lot to gain in investing in graduate programmes, vocational work and expanded internships. Whilst the government can also promote industry partnership between learning institutions and businesses. These will close the gap in skills mismatch of graduates. Promoting graduate employment will cause a snowball effect, encouraging individuals to further their educational careers.

Provincial location significantly affects employment, this has the potential to reflect unequal regional development. The government can support job creation, with a focus on provinces with higher unemployment rates. Expansionary fiscal policies like investing in infrastructure and industry zones to attract more business and investment. Introduction of remote work programs for soft skills, targeting certain industries and regions.

Tailored employment and training programmes that will ensure all graduates have the necessary experience to combat in the labour market. South Africa's efforts so far cannot go unmentioned, free education and youth unemployment programmes, there is more that can be done with a shift of focus to the educated youth. A multi-faceted, inclusive policy approach is necessary to ensure that education translates into meaningful employment and that no demographic is left behind in the labour market.

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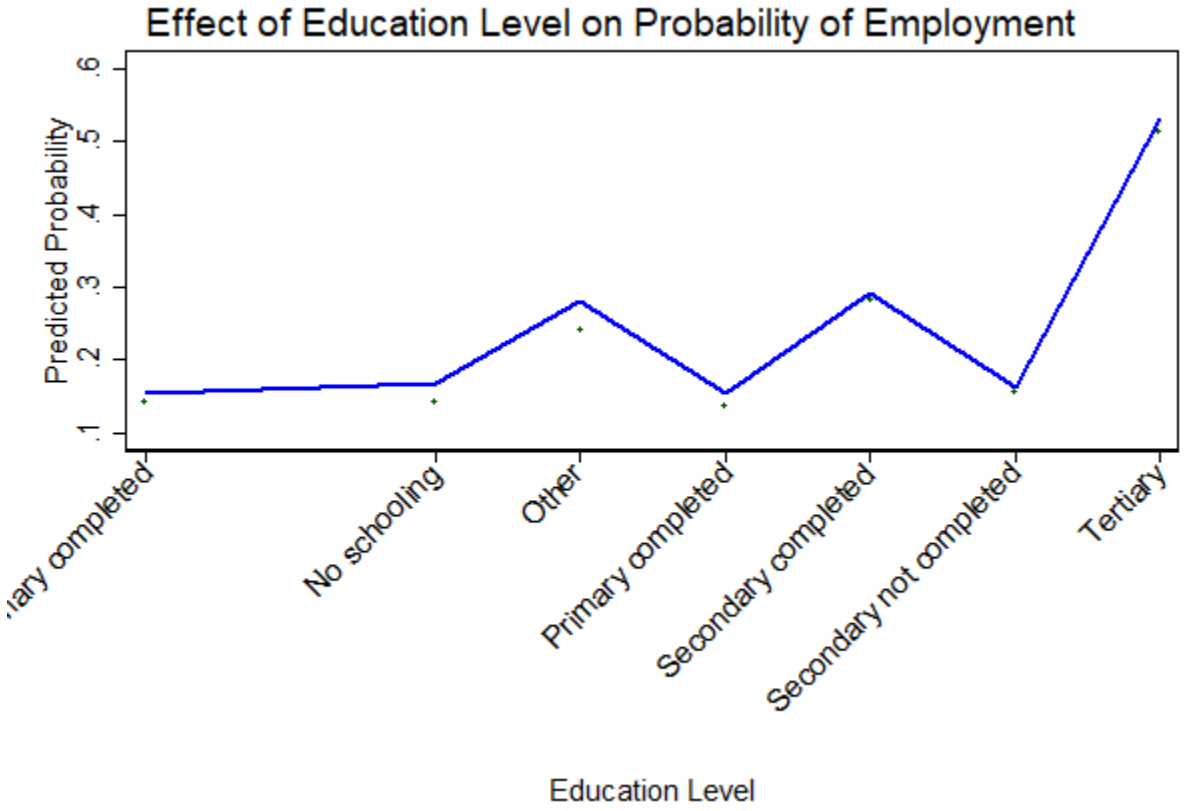
Appentices

Summary of Factors Associated with Graduate Employment Status

Variable	Association with Employment Status (Employed vs. Unemployed)	Notes
Education Level	Higher education → Higher employment probability	TVET/university grads more likely employed
Age Group	Mid-age adults (25–34) → Higher unemployment	Youth most vulnerable
Gender	Women → Slightly higher unemployment	Gender gap persists
Location (Urban/Rural)	Urban → Higher unemployment	Possible saturation in urban job markets
Training/Experience	Prior work experience → Higher employment	Important for policy focus

Multinomial Logistic Regression Results: Employment Status by Education Level

	Employed	Not Economically Active	Unemployed
Education Level	0.147*** (0.009)	0.000 (.)	0.121*** (0.008)
Province	0.069*** (0.006)	0.000 (.)	0.028*** (0.006)
Education Score	-0.068*** (0.003)	0.000 (.)	-0.060*** (0.002)
Population Type	0.012 (0.012)	0.000 (.)	-0.594*** (0.022)
Gender	0.500*** (0.027)	0.000 (.)	0.219*** (0.026)
Constant	-1.759*** (0.088)	0.000 (.)	-0.132 (0.081)
Observations	36926	36926	36926



Multinomial Logit Results 2

emp_stat_num	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Q17EDUCATION : bas~e	0	.	.	.	.	.	
Bachelors Degree a~a	-.536	.247	-2.17	.03	-1.02	-.051	**
Certificate with ~10	-.336	.154	-2.19	.029	-.638	-.035	**
Certificate with l~e	-.129	.418	-0.31	.757	-.948	.69	
Diploma with Grad~10	-.392	.11	-3.55	0	-.609	-.176	***
Diploma with les~12/	-1.191	.403	-2.96	.003	-1.981	-.402	***
Do not know	-2.005	.162	-12.34	0	-2.323	-1.686	***
Grade 1/Sub A	-2.849	.232	-12.28	0	-3.304	-2.394	***
Grade 10/Standard ~3	-2.555	.093	-27.51	0	-2.737	-2.373	***
Grade 11/Standard ~4	-2.085	.092	-22.72	0	-2.265	-1.905	***
Grade 12/Standard ~r	-1.995	.107	-18.60	0	-2.205	-1.785	***
Grade 12/Standard ~r	-1.241	.087	-14.24	0	-1.412	-1.07	***
Grade 2/Sub B	-3.331	.21	-15.83	0	-3.743	-2.919	***
Grade 4/Standard 2	-3.084	.147	-21.04	0	-3.371	-2.797	***
Grade 5/Standard	-2.754	.137	-20.14	0	-3.022	-2.486	***

3~2							
Grade 6/Standard 4	-2.782	.122	-22.79	0	-3.021	-2.543	***
Grade 7/Standard 5~3	-2.925	.107	-27.27	0	-3.135	-2.714	***
Grade 8/Standard 6~1	-3.176	.103	-30.77	0	-3.378	-2.974	***
Grade 9/Standard 7~4	-3.061	.099	-30.76	0	-3.256	-2.866	***
Grade R/0	-3.113	.772	-4.03	0	-4.627	-1.599	***
Higher Degree (Mas~)	-.672	.206	-3.26	.001	-1.075	-.268	***
Higher Diploma	-.478	.182	-2.62	.009	-.836	-.121	***
Honours Degree	-.118	.181	-0.65	.514	-.473	.236	
N4/NTC 4	-.843	.242	-3.48	.001	-1.317	-.368	***
N5/NTC 5	-.794	.3	-2.65	.008	-1.381	-.206	***
N6/NTC 6	-.068	.259	-0.26	.793	-.576	.44	
NTC II/N2/NIC/(v) ~3	-2.042	.334	-6.12	0	-2.695	-1.388	***
NTC III/N3/NIC/(v)~4	-1.187	.27	-4.40	0	-1.717	-.658	***
NTC I/N1/NIC/(v) L~2	-2.973	.503	-5.91	0	-3.958	-1.987	***
No schooling	-3.514	.118	-29.66	0	-3.746	-3.282	***
Other	-2.235	.18	-12.39	0	-2.588	-1.881	***
Post Higher Diplom~o	-.605	.297	-2.04	.041	-1.188	-.023	**
Province : base Ea~e	0	.	.	.	.	.	
Free State	.303	.072	4.22	0	.162	.444	***
Gauteng	.392	.052	7.47	0	.289	.494	***
KwaZulu-Natal	.211	.055	3.80	0	.102	.32	***
Limpopo	.378	.061	6.16	0	.257	.498	***
Mpumalanga	.601	.066	9.06	0	.471	.731	***
North West	.262	.074	3.53	0	.117	.407	***
Northern Cape	.479	.087	5.50	0	.308	.649	***
Western Cape	.789	.063	12.59	0	.666	.912	***
Q15POPULATION : ba~a	0	.	.	.	.	.	
Coloured	.031	.055	0.56	.578	-.077	.139	
Indian/Asian	-.247	.092	-2.69	.007	-.426	-.067	***
White	-.689	.055	-12.51	0	-.797	-.581	***
Q13GENDER : base F~e	0	.	.	.	.	.	
Male	.616	.029	21.47	0	.56	.672	***
Education_Status :~a	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
4o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	
6o	0	.	.	.	.	.	
7o	0	.	.	.	.	.	
8o	0	.	.	.	.	.	
Constant	.748	.094	7.97	0	.564	.932	***
Q17EDUCATION : bas~e	0	.	.	.	.	.	
2o	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
4o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	
6o	0	.	.	.	.	.	
7o	0	.	.	.	.	.	
8o	0	.	.	.	.	.	

9o	0	.	.	.	.	.	
10o	0	.	.	.	.	.	
11o	0	.	.	.	.	.	
12o	0	.	.	.	.	.	
13o	0	.	.	.	.	.	
14o	0	.	.	.	.	.	
15o	0	.	.	.	.	.	
16o	0	.	.	.	.	.	
17o	0	.	.	.	.	.	
18o	0	.	.	.	.	.	
19o	0	.	.	.	.	.	
20o	0	.	.	.	.	.	
21o	0	.	.	.	.	.	
22o	0	.	.	.	.	.	
23o	0	.	.	.	.	.	
24o	0	.	.	.	.	.	
25o	0	.	.	.	.	.	
26o	0	.	.	.	.	.	
27o	0	.	.	.	.	.	
28o	0	.	.	.	.	.	
29o	0	.	.	.	.	.	
31o	0	.	.	.	.	.	
32o	0	.	.	.	.	.	
33o	0	.	.	.	.	.	
Province : base Ea~e	0	.	.	.	.	.	
2o	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
4o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	
6o	0	.	.	.	.	.	
7o	0	.	.	.	.	.	
8o	0	.	.	.	.	.	
9o	0	.	.	.	.	.	
Q15POPULATION : ba~a	0	.	.	.	.	.	
2o	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	
Q13GENDER : base F~e	0	.	.	.	.	.	
2o	0	.	.	.	.	.	
Education_Status :~a	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
4o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	
6o	0	.	.	.	.	.	
7o	0	.	.	.	.	.	
8o	0	.	.	.	.	.	
o	0	.	.	.	.	.	
Q17EDUCATION : bas~e	0	.	.	.	.	.	
Bachelors Degree a~a	-1.525	.554	-2.76	.006	-2.61	-.44	***
Certificate with ~10	.623	.178	3.50	0	.274	.973	***
Certificate with l~e	.712	.446	1.60	.11	-.162	1.586	
Diploma with Grad~10	.032	.144	0.22	.825	-.251	.315	
Diploma with les~12/	.095	.426	0.22	.824	-.74	.93	
Do not know	-.982	.194	-5.06	0	-1.362	-.602	***

Grade 1/Sub A	-1.674	.235	-7.14	0	-2.134	-1.214	***
Grade 10/Standard ~3	-.776	.117	-6.64	0	-1.005	-.547	***
Grade 11/Standard ~4	-.301	.116	-2.59	.01	-.529	-.073	***
Grade 12/Standard ~r	-.589	.13	-4.52	0	-.845	-.334	***
Grade 12/Standard ~r	.321	.115	2.80	.005	.096	.546	***
Grade 2/Sub B	-2.136	.216	-9.89	0	-2.56	-1.713	***
Grade 4/Standard 2	-1.735	.157	-11.05	0	-2.042	-1.427	***
Grade 5/Standard 3~2	-1.313	.148	-8.85	0	-1.604	-1.023	***
Grade 6/Standard 4	-1.428	.139	-10.25	0	-1.702	-1.155	***
Grade 7/Standard 5~3	-1.321	.126	-10.49	0	-1.568	-1.074	***
Grade 8/Standard 6~1	-1.523	.123	-12.38	0	-1.764	-1.282	***
Grade 9/Standard 7~4	-1.211	.12	-10.12	0	-1.446	-.976	***
Grade R/0	-2.682	1.05	-2.55	.011	-4.74	-.624	**
Higher Degree (Mas~)	-1.761	.492	-3.58	0	-2.724	-.798	***
Higher Diploma	-.02	.23	-0.09	.93	-.471	.43	
Honours Degree	-1.48	.366	-4.04	0	-2.197	-.763	***
N4/NTC 4	.091	.277	0.33	.743	-.451	.633	
N5/NTC 5	.384	.32	1.20	.23	-.243	1.011	
N6/NTC 6	1.524	.265	5.74	0	1.004	2.045	***
NTC II/N2/NIC/(v) ~3	-.062	.29	-0.21	.83	-.631	.506	
NTC III/N3/NIC/(v)~4	.505	.272	1.86	.063	-.027	1.038	*
NTC I/N1/NIC/(v) L~2	-.876	.369	-2.37	.018	-1.599	-.152	**
No schooling	-2.76	.147	-18.74	0	-3.048	-2.471	***
Other	-1.452	.228	-6.36	0	-1.899	-1.005	***
Post Higher Diplom~o	-1.26	.521	-2.42	.016	-2.281	-.239	**
Province : base Ea~e	0	.	.	.	.	.	
Free State	.214	.064	3.36	.001	.089	.339	***
Gauteng	.339	.047	7.22	0	.247	.431	***
KwaZulu-Natal	.169	.049	3.45	.001	.073	.265	***
Limpopo	.28	.054	5.16	0	.174	.386	***
Mpumalanga	.56	.059	9.52	0	.444	.675	***
North West	.521	.062	8.41	0	.4	.643	***
Northern Cape	.447	.079	5.63	0	.292	.603	***
Western Cape	-.049	.066	-0.75	.454	-.178	.08	
Q15POPULATION : ba~a	0	.	.	.	.	.	
Coloured	-.314	.057	-5.51	0	-.425	-.202	***
Indian/Asian	-1.314	.115	-11.40	0	-1.539	-1.088	***
White	-2.68	.106	-25.31	0	-2.888	-2.473	***
Q13GENDER : base F~e	0	.	.	.	.	.	
Male	.268	.027	10.04	0	.216	.321	***
Education_Status :~a	0	.	.	.	.	.	
3o	0	.	.	.	.	.	
4o	0	.	.	.	.	.	
5o	0	.	.	.	.	.	

6o	0	.	.	.	.	.
7o	0	.	.	.	.	.
8o	0	.	.	.	.	.
Constant	-.11	.118	-0.93	.351	-.341	.121

Mean dependent var	2.046	SD dependent var	0.718
Pseudo r-squared	0.113	Number of obs	36926
Chi-square	8740.940	Prob > chi2	0.000
Akaike crit. (AIC)	68899.859	Bayesian crit. (BIC)	69649.326

*** *p<.01*, ** *p<.05*, * *p<.1*