



Government Expenditure on Future Graduates in South African Higher Education

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ABSTRACT

Education is crucial for a nation's welfare, economic and social development, and advancement. Government spending on higher education in South Africa could significantly impact the employment and social mobility of future graduates. The 2015 to 2016 student protests, sparked by rising tuition prices and decreased government financing, highlighted the industry's vulnerability to social and economic forces. Higher education is seen as the vanguard of this movement, with the knowledge and skills graduates acquire enhancing their employability and income. Governments allocate a large portion of their finances to education, expecting it to indirectly benefit students. This study examines the influence of government spending on future graduates in South African higher education, the financing deficit, and the effects on affordability, quality, and accessibility. The study adopted annual time series data from 1983 to 2023. The study used Autoregressive Distributive Lag (ARDL), and ECM techniques. The results indicate a long-term correlation between government investment and education, which is important when considering the effects on future graduates. The study also found that social mobility and employability are two areas governments need to improve in the higher education system. Higher education institutions must also improve the welfare of future graduates, including their business acumen and readiness for the economy.

Keywords: Government Expenditure, Future Graduates, Funding, South African, Higher Education

JEL Classifications: A23, H51, H52, H53, H75

1. INTRODUCTION

Addressing the social inequalities left behind by the previous apartheid system has been a top priority for the South African government ever since the democratic elections of 1994. Increasing public spending on education has been a key component of the government's approach. However, because of the majority of South Africans being racially disadvantaged due to years of neglect and inequality, one of the most significant challenges facing the country's educational system was fostering an environment that supported inclusive education (Malangeni and Phiri, 2018).

According to Azi and Shikdima (2021), education is the process of promoting learning, or the acquisition of information, abilities,

values, beliefs, and habits. It can happen in formal or informal settings, and any event that shapes a person's thoughts, emotions, or behaviour can be categorised as educational. Raising people's educational attainment not only aims to improve their quality of life but also has a favourable effect on a nation's economic growth (Nduche et al., 2022). The World Bank's Country Director for South Africa, highlighted in 2025 that education is a significant force behind development and one of the most effective ways to combat poverty and advance equality. It serves as the essential basis for a thriving economy (World Bank, 2025). By investing in its citizens, South Africa can promote equality and inclusive growth. A functional basic education system is essential for South Africa's future generations to develop their talents and promote inclusive growth (Kahkonen, 2025).

Education is essential to the social cohesion and economic prosperity of society. South Africa allocated 14.4% of the overall government budget to basic education programs and roughly 1.4% to higher education for the 2019-2020 fiscal year (Bohmer and Kruger, 2024). This money hasn't been used to develop skills the market needs, particularly for university graduates. Government funding for the education sector has increased, although Finance Minister Tito Mboweni declared that spending on education would be reduced over the next three years. As one of the key areas for economic progress, education has drawn the attention of many nations worldwide. To improve their human resources and boost growth, nations spend money on education. Similarly, the South African government views education as the nation's top domestic concern and the most long-term obstacle (Muzekenyi et al., 2023). One of the subjects generating interest in economic literature is the connection between economic growth and the expense of schooling.

To buttress this point further, education is the top priority for the South African government. For instance, in South Africa, education accounts for approximately 20% of all government spending (United State Agency for International Development, 2021). In 2022, government spending on education as a percentage of GDP was 19.75% (World Bank, 2022). Government spending on education is still rising despite this decision (National Treasury, 2021). Approximately R408.2 billion was set up for education in the 2021 to 2022 budget (National Treasury, 2021).

One can then say that some of the government funding is attributed to education. According to Tomic (2015), state funding for education is an investment in human capital, a component of the production function. As such, helping to develop a suitable educational programme is essential to enhancing human capital, which boosts productivity and provides the technological innovation required to support economic growth. This means that the government directly impacts social mobility, employability, and economic growth, as seen by its significant influence over the nation's training and education system. A country's human capital development is largely driven by government spending in the education sector, which also greatly impacts human development indices. These allotments cover a range of topics related to education, such as scientific research, teacher pay, school and university establishment and refurbishment, students' enrolment, educational programmes, and educational resources. How best to allocate the limited funds among different groups is a crucial issue in the context of budgetary restrictions in the education sector (Goldani and Momeni, 2023). These factors prompted this study, which elaborates on the government's role in education in South Africa and how it can benefit future graduates. The results show a significant relationship between government spending on education.

Floppy education expenditures disproportionately affect students and schools in underserved communities that depend on free public education. Due to a lack of funding, provinces frequently find it increasingly difficult to reach the per-student goals comprising school budgets. This implies that students who predominantly

depend on funding find it challenging to cover necessities like purchasing furniture, textbooks, cleaning supplies, and performing critical maintenance (Equal Education Law Centre, 2024). High unemployment rates, skills gaps, budgetary constraints, and a lack of job experience are some of the challenges South African future graduates face due to a collapsing economy and a system that does not adequately educate students for the market.

Budget cuts have presented vicious cycles of underfunding and poor performance in the educational system. One of the studies that draw attention in economic literature is the link between economic growth and education expenditure (Gheraia et al., 2021). Institutions are also under pressure to cut costs, leading to staff reductions. This creates a vicious cycle: with fewer employees, departments struggle to implement and deliver educational programmes and infrastructure projects effectively. As a result, performance suffers, leaving the Treasury puzzled by rising underspending despite the evident connection to reduce staffing and funding (EELC, 2024). To understand the impact of government expenditure on future graduates in South African higher education, this study will explore the following research objectives:

- Examine the employability and social mobility of South African graduates
- Expatiate government contributions and efforts towards the enrollment of students in higher education
- Expand ways in which the government could produce a more skilled workforce with higher productivity potential, which would lead to increased economic output and innovation.

2. LITERATURE REVIEW

This section gathers pertinent empirical evidence and theoretical justifications for this study.

2.1. Theoretical Review

The human capital theory, which is the primary theory guiding government spending on education and economic growth in South Africa, contends that investing in education significantly contributes to economic growth by producing a more skilled workforce with higher productivity potential, in turn leading to increased economic output and innovation (Luthuli, 2017). This is due to the country's history of educational disparities and the need to develop a skilled workforce for a growing economy. The education sector significantly creates knowledge and human capital in the continent's most industrialised and technologically advanced country (Nicholas, 2020). Theoretically, the contributions of human capital development to steady-state dynamic economic growth are credited to growth theorists (Luxolo and Andrew, 2018). Increased funding for the education sector will influence economic growth and prepare future graduates for an uplifted economy since public spending on education is a component of public capital investment and human capital development. As the leading organisation in charge of education, the government is essential to guarantee universal access to education, improve the standard of education, create regional and national initiatives, and closely monitor the educational process.

2.2. Empirical Review

South Africa has implemented substantial reforms to its educational system since the early 1990s to improve access to high-quality education. Although it is common knowledge that sufficient funding can increase educational access, few empirical studies explicitly examine how these small expenditures affect educational access in South Africa (Opeyemi et al., 2024).

Since the 1990s, the government has consistently prioritised expanding technical and vocational education and improving basic education. The South African government has worked to reform the educational system since apartheid ended in 1994 to address the disparities that previously existed year. According to the South African Schools Acts (1996), children aged 7-15 years must attend school which also encourages quality and democratic governance in the educational system. Additionally, it guarantees equal access to high-quality education for all students (Government of South Africa, 2018).

According to the Government of South Africa (2015), the Department of Education has implemented several measures to raise the standard of education in South Africa since the National Development Plan (NDP) was adopted. Some of the ways in which this was achieved include helping to improve learning resources and infrastructure to support effective education; secondly, improving access to high-quality early childhood development; thirdly, improving quality teaching and learning through teacher development programmes; fourthly, improving school management and human resource development; and, finally, intervening in the education sector to support quality education, enhance the performance of the basic education sector, and to secure opportunities for graduate students. Most importantly, this also included implementing various policy documents to ensure effective learning oversight (Government of South Africa, 2015).

In South Africa, one of the main areas where the government has made significant investments is basic and higher education. The Bill of Rights mandates that the government gradually make education affordable and accessible in reasonable ways, while the South African Constitution states that every South African has a right to a basic education (Government of South Africa, 2018). Consequently, higher education in South Africa strives to ensure students can access education, promoting their employability. This makes this research and topic necessary in South Africa. Therefore, this study aims to empirically examine how government spending on education contributes to economic growth and to oversee the future of these students after graduation. Hakoomba & Seshamani (2017) used an Error Correction Model (ECM) to analyse secondary time series data from 1970 to 2013 to investigate the relationship between human capital and economic growth in Zambia. Their results supported the notion that developing human capital is crucial to raising national productivity since they showed that government spending on health, education, and secondary school enrollment had a beneficial impact on economic growth.

By evaluating the impact of human capital on economic growth using educational data from 55 nations and regions between 1960

and 2009, Wang et al. (2016) supported their findings and found a positive correlation. According to Kuwar (2021), the advantages of education for economic productivity are more noticeable in regions with a high percentage of highly educated workers who can successfully apply their knowledge to real economic breakthroughs.

Pegkas and Tsamadias (2014) examine the cointegration relationship between economic growth and education in Greece from 1960 to 2009 using the Vector Error Correction Model (VECM). For the data, the study looks at a positive relationship between economic growth and educational attainment. Mariana (2015) also examines the connection between economic development and education in the Romanian economy from 1980 to 2013 using comparable VECM modeling methodologies. The empirical findings show that education has a beneficial impact on long-term economic growth.

The World Bank (2023) asserts that education and other forms of human capital help people realise their full potential and improve economic performance. Underinvestment in education has serious repercussions since it jeopardises future economic possibilities and affects productivity. South Africa's economic and social development has advanced significantly in recent decades, especially in tackling the remaining post-apartheid educational disparities (World Bank, 2023).

To buttress these points further, Reza and Valeecha (2012) use a straightforward Ordinary Least Square (OLS) regression analysis to examine the association between education and growth for data gathered in Pakistan between 1981 and 2010. In contrast to the findings of Afzal et al. (2010), the authors detect a substantial long-term association between the two variables. However, they cannot establish any short-term relationship between government spending and education.

South Africa's economic development and government spending were examined by Molefe and Choga (2017). Government spending has been shown to be counterproductive to economic expansion. To find out how government consumer spending affects economic growth, Eid and Awad (2017) employed the MSDR. It was discovered that while government consumption spending in state 2 (the low recessionary state) lowers economic growth by 0.25%, it increases economic growth by 0.04% in state 1. There are ambiguities in the relationship between government spending and economic growth, according to study by Nyasha and Odhiambo (2020). It can have a positive or negative impact; other studies have even shown no effect at all, leaving them unclear. Using the EVC model, Mose (2020) discovered that a 1% increase in government spending has a 0.02% detrimental effect on regional growth.

Although the South African government has made great strides in expanding access to health and education services, more funding is still desperately needed in education. This can be confirmed by Mohamed et al. (2023), who predicted that real per capita spending on education will decline resulting in lower spending per student from 2025 to 2026 than from 2016 to 2017. This trend may result in

long-term effects on the nation's educational system and economic prospects. Thus, it affects the capability of the government to produce more skilled future graduates.

Considering these domestic and international empirical reviews, this study will close the gap by clarifying how government spending on education impacts the lives of future graduates and contributes to economic development in South Africa.

3. THEORETICAL MODEL SPECIFICATION

This study examines the theoretical aspect of education spending and how it affects future graduates. The study will proceed by employing the classical production function theory according to Mallick et al., 2016.

Which is stated as: $O = F(L, K)$ (1)

Where "O" is the output level in the economy, L represents the amount of labour, and K represents the capital. As a result of the impact of government spending on future graduates, which impacts the economy, it can be included as an indispensable variable in the production functions mentioned above.

According to Mallick et al. (2016), they also employed endogenous growth production functions such as:

$GDP = F(EXP, EMP, HIGHEdu, CAP)$ (2)

Where GDP indicates the total economic growth, EXP indicates government expenditure on education, EMP indicates employability, HIGHEdu indicates higher education and enrolments, and CAP indicates human capital formation, which can increase the skilled labour force. In the long run, this has a positive impact on economic growth.

This study further employed the Cobb-Douglas model function, which is specified as:

$GDP = F(EXP, EMP, HIGHEdu, CAP)$ (3)

The equation can be rewritten as follows:

$$GDP_t = \beta_0 + \beta_1^{exp} + \beta_2^{emp} + \beta_3^{capital} + \beta_4^{highedu} + \varepsilon_t$$

Therefore, it can be presumed that:

$\beta_1, \beta_2, \beta_3, \beta_4 > 0$. This indicates that GDP positively correlates to government expenditure, employability which indicates labour, higher education, and capital, which signifies human capital formation.

Research hypothesis:

H_0 = There is no correlation between education spending and employability

H_1 = There is correlation between education spending and employability.

4. METHODOLOGY

The empirical analysis carried out in this study employed a quantitative research approach with non-human participants. Using econometric methodologies, an annual time series of data that covers the period 1983-2023, based on the availability of data, was used in this study. Data relating to the national estimate on government spending in higher education was obtained from the Statistics South Africa Reserve Bank website (SARB) for financial statistics and the World Bank Development Indicator website (WDI). To ascertain data stationarity, the analysis used the Autoregressive Distributed Lag method with Error Corrections Model (ADRL-ECM) and unit root tests (ADF), including diagnostic test. The effect of government investment on education with future graduates in view was examined using the cointegration model, long-run estimations, and the ECM. Because of its benefits in cointegrating relationships and the possibility of long-term parameters, the ARDL and ECM are used. In a VAR and OLS, this is difficult to accomplish. The model has also been employed by other researchers, such as Kirikkaleli and Ozbeser (2022) and Ronewa (2023). This study used the EViews 12 software to analyse the data, which is suitable for time series analysis. Results were analysed based on the variables generated from the research objectives of this study and the results indicated positive relationship between government expenditure and education in South Africa during the period of study.

5. EMPIRICAL RESULTS AND DISCUSSION

Using econometric methodologies, this study empirically examined the relationship between South Africa's government investment in education and its impact on future graduates. This method examined the possibility of a long-term correlation between government education spending, employability, higher education impact, and other explanatory factors. The short-term dynamics were modeled using ARDL Error Correction Regression to account for any delayed reaction from government expenditure. Before applying empirical approaches to time-series data, it was necessary to analyse the time series properties of the variables to determine the sequence of integration for multivariate series.

This step is essential in empirical research to avoid erroneous regression, in particular, the Augmented Dickey-Fuller test (ADF) was used in the investigation. The purpose of this technique is to test stationarity and to ensure that there are no second difference variables in the model, as this would prevent us from using the ARDL estimator. To test the null hypothesis that a unit root exists in a time series sample, the Augmented Dickey-Fuller test (ADF) is employed using GDP as dependent variable and employment, capital, expenditure, higher education as independent variables. In the test for stationarity, it is assumed that the null hypothesis asserts the existence of a unit root at any given degree of confidence.

Table 1 presents the results of the unit root tests for all the variables under investigation.

The results presented in Table 1 explain that all the variables were not stationary at levels, but when they differed at the first

Table 1: Unit root results

Variables	Model specification	Level	First level	Probability of level	Probability of first difference	Order of integration
GDP	Trend and Intercept	[1.032338] (-3.526609)	[-6.8960]** (-3.5298)	0.9277	0.0000	I (1)
Employment	Trend and Intercept	[-2.8862] (-3.5298)	[-3.6767]** (-3.5298)	0.1778	0.0361	I (1)
Capital	Trend and Intercept	[-1.8476] (-3.5298)	[-4.0472]** (-3.5298)	0.6621	0.0151	I (1)
Expenditure	Trend and Intercept	[1.5744] (-3.5266)	[-5.4468]** (-3.5298)	1.0000	0.0004	I (1)
Higher education	Trend and Intercept	[-0.9138] (-3.5403)	[-6.2984]** (-3.5403)	0.9433	0.0000	I (1)

*At 10% level, statistically significant, **At 5% level, statistically significant, ***At 1% level statistically significant, () Stands for test critical value, [] Stands for test statistics Significance at 5%. Source: Authors' own computation

Table 2: Long-run coefficients of ARDL

Variables (same as Table 1)	Coefficient	Std error	t-Statistics	Probability
C	0.883577	0.437400	2.020067	0.0616
LGDP (-1)*	-0.106178	0.084263	-1.260073	0.2269
LCAPITAL (-1)*	0.199990	0.071937	2.780064	0.0140
LEMPLOY (-1)	-1.152206	0.091204	-1.668852	0.1159
LEXP. (-1)**	0.086845	0.022886	3.794758	0.0018
LHIGHEDU**	-0.115780	0.039390	-2.939348	0.0102

Source: Authors' own computation

Table 3: ARDL bound test

F-Bounds test			Null hypothesis: No levels relationship	
Test statistic	Value	Significance (%)	I (0)	I (1)
F-statistic	21.24399	10	2.2	3.09
k	4	5	2.56	3.49
		2.5	2.88	3.87
		1	3.29	4.37
Actual sample size	38		Finite sample: n=35	
		10	246	346
		5	2.947	4088
		1	4093	5532

Source: Authors' own computation

level of the ADF test, they became stationary at the first level of significance. The significance of government spending on education to the advancement of future graduates in South Africa was calculated using the ADF approach, which revealed stationarity indicating that GDP and other factors are related to government spending on higher education. Which indicated that there is significance relationship between government expenditure and economic growth. This makes using the Auto Regressive Distributive Lag (ARDL) model possible. This further indicates that, the t-statistics are accordingly below the crucial values at the 5% level of significance.

As a result, the study can proceed to Auto Regressive Distributive Lag (ARDL).

The Table 2 presents the long-term ARDL results, noting that the signs of the coefficients are inverted, which also reflects short-term causal effects. At the 5% significance level, the capital $P = 0.0140$ is <0.05 , while the education expenditure on higher

Table 4: ARDL error correction regression

Variable	Coefficient	Standard error	t-statistic	Probability
D (LCapital)	0.45517	0.03396	13.40194	0.0000
D (LHIGHEDU)	0.08685	0.00947	9.17265	0.0000
D (LEMPLOY) (-1)	-1.54333	0.17598	-8.77003	0.0000
CoIntEq(-1)	-0.10618	0.00815	-13.03656	0.0000
R-squared	0.97197			

Source: Author's own compilation

Table 5: Serial correlation test

Breusch-Godfrey serial correlation LM test: Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	1.237334	Prob. F (2,16)	0.3165
Obs*R-squared	4.822174	Prob. Chi-square (2)	0.0897

Source: Author's own compilation

education $P = 0.0102$ is $<0.05\%$. Consequently, we can conclude that employment, capital, gross fixed capital formation, and government expenditure on higher education have a short-term causal impact on economic growth as measured by GDP.

Furthermore, we can conclude that every variable namely GDP, employment, capital, government spending, and higher education except employment (labor) positively affects South Africa's economic growth. Moreover, since the study has indicated that government spending on education for future graduates is significant to economic growth and that there is a need for improvement in the more skilled labour force for more productivity (see Objective 3), the study, therefore, proceeded to conduct the ARDL Bound test to identify the co-integration among the variables.

Table 6: Summary of findings

The objectives	The expected results
Future graduates' employability and social mobility in South Africa	<ul style="list-style-type: none"> • This explains the government's engagement in people's educational attainment and their post-graduation contributions to society (Uche & Nwamiri, 2022). • The World Bank Director, Satu Kahkonen, asserts that education aids future graduates in overcoming poverty. • It facilitates the development of future graduates' skills and fosters inclusive growth (Press Release, 2025). • In summary, it is evident through the long and short-term results that the contribution of government expenditure boosts economic growth through the participation of future graduates by increasing the workforce in society.
Government support and initiatives for students' enrolment in postsecondary education	<ul style="list-style-type: none"> • To increase national output, the government works to enrol students in higher education. • The administration is adamant that more students attending postsecondary schools would raise the calibre of future graduates and eventually enhance economic growth. • The findings revealed that more skilled labour is still at stake in higher education institutions. There is a need for more qualified lecturers. According to the findings, in the long term the impact of labour, which is measured as employability, is insignificant, indicating a need for the government to increase the number of qualified and high-quality lecturers. Though the results were significant in the short term, there is still a need for more improvements
Investing in a better competent workforce with greater productivity potential will help the government grow, which will boost economic output and innovation.	<ul style="list-style-type: none"> • By controlling the country's training and educational system, the government affects the number of skilled workers investing in education. • The main idea in South Africa, known as the human capital theory, holds that education spending contributes to the development of a more productive and trained labour force, which boosts economic production.

According to the ARDL's rule, one cannot rule out the null hypothesis that there is no long-term link and, as a result, infer that there is no cointegration if the computed F-statistic is less than the critical value for the lower bound I (0). However, we can reject the null hypothesis, which states that there is no long-term link between the dependent variables, if the F-statistic is higher than the critical value for the upper bound I (1).

Applying this rule to the result presented, the study's F-statistics are 21.24399, higher than the I (1) critical value bound of 3.49 (Table 3). Consequently, the analysis confirms a long-term relationship between the dependent variable (GDP) and the explanatory variables-capital, employability, government expenditure, and higher education-thereby rejecting the null hypothesis of no equilibrium relationship. It can be ascertained that a link exists between these variables. To ascertain this, ARDL correction regression was done as shown below.

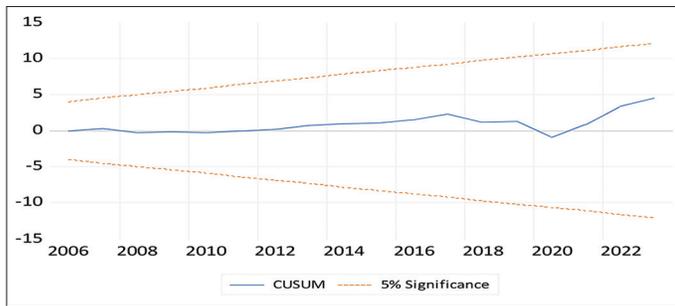
The ARDL error correction regression results, the Error Correction Term (ECT), in Table 4, explain in detail the short-run results in the ARDL model. This explained the CoinEq (-1) which has a correct negative sign and has an associated coefficient estimate of -0.10618 with a $P = 0.0000$. This indicates that the short run to long run adjustment in Table 2 is made at a high speed, and the return adjustment from the short run to the long run takes -0.10618. This also means that about (1.1%) of any movements into disequilibrium are correlated within a year. This result suggests that there is a perfect relationship between GDP and government spending in higher education and their contribution to the enrolment of students at higher education levels with future graduates in view. However, to provide a more detailed explanation of how government expenditure can be supportive of higher education and its impact on future graduates, the study employed more diagnostic tests.

5.1. Testing for Cumulative Sum of Residuals (CUSUM) Test

The ARDL-Error Correction Model's short-term movements and long-term parameter stability are assessed using the CUSUM test. According to the rule, the hypothesis that every coefficient in the supplied regression is stable cannot be rejected if the plots of the CUSUM statistics remain within the critical boundaries at the 5% level of significance. On the other hand, the CUSUM statistics are inside the 5% crucial boundaries, as the Table 5 demonstrates. This indicates the stability of the ARDL-Error Correction Model's short- and long-run coefficients. In connection with the above analysis is the CUSUM test indicating the importance of government expenditure on higher education and the employability of future graduates. The results in Figure 1, showed a correlation between government spending on higher education students. However, the CUSUM statistics remain below crucial boundaries, which shows the stability of the ARDL both in the short and long term.

After demonstrating the first diagnostic, the study used a serial correlation test to further explain how the availability of a higher-skilled labour force influences government spending on future graduates. This test only showed that each variable is independent of the others and that there is no serial association.

At 0.3165, the F-statistic $P > 0.05$. The findings indicate that the null hypothesis, according to which there is no serial association, cannot be rejected. Consequently, we can say that serial autocorrelation does not exist. This implies that there is no serial correlation between government spending on higher education and South Africa's economic growth. This implies that government investment in education to improve future graduate does not impact GDP. Instead, it indicates that past values have no bearing on the current values. Additionally, it indicates that

Figure 1: Cumulative sum of residual test

no pattern or information is pointing to a correlation between observations across time.

This study examined how government spending on higher education impacts future graduates and their contribution to the nation's economic growth using the auto-regressive distributive lag ARDL approach. Annual time series data for the years 1983-2023 were obtained from the South Africa Reserved Bank and the World Bank Development Indicator for use in this research. The data included 41 observations and had an annual frequency. The optimal lag length criterion, unit root (stationarity), ARDL, diagnostic tests, tests were all conducted using the Eviews 12 software package.

At the level of significance, the stationary test results showed that none of the variables were stationary, and that the variables only became stationary following the first differencing under the ADF. Implying that their integration was arbitrary. The ARDL model was used in the investigation. However, the data demonstrated a long-term association between the factors under consideration namely economic growth, employability, government expenditure, capital, and higher education.

The F-statistic value of 21.24399, which is higher than the I (1) critical bound, in Table 3 of the ARDL Bound test provided more confirmation of the relationship and contributions of government expenditure on higher education and the expected employability, which yields an increase to the nation's GDP. The findings also showed that education spending has a short-term impact on economic growth since it influences future graduates and fixed capital formation. However, in the long-term, the labour force, is not closely related. These findings are comparable to those of (Ronewa, 2023), who found a positive correlation between government spending on education and economic growth in South Africa. Additionally, studies on education and economic growth in South Africa revealed a significant association which was carried out by (Nicholas, 2020).

The CUSUM test result, showed that the model coefficients are stable. Given that the F-statistics p-value of 0.3165 is higher than 0.05, the diagnostic test findings showed that there is no serial correlation between the variables. A summary of the study's result is explained in tabular form in Table 6.

In summary, the study's goals regarding government spending on education with an eye toward future graduate employability demonstrated that it is the government's duty to ensure that

people's educational attainment is met by giving them suitable employment opportunities after school, rather than letting them live on the streets, which will aid in the country's efforts to eradicate poverty. However, when the government promotes and supports students' enrolment in postsecondary education, this may be feasible. Additionally, in order to increase productivity, more qualified lecturers are required, and the government can only do this by funding the training of skilled individuals to stimulate the economy.

6. CONCLUDING REMARKS

The results of the study demonstrated a favourable and significant relationship between government spending on education in South Africa and future graduates, in turn contributing to economic growth. Long and short-term ARDL results show a substantial positive correlation. The diagnostic findings also showed that employability outcomes were altered by government involvement through student enrolment. Furthermore, the findings showed that government spending greatly stimulates economic growth in the short and long terms through its effects on human capital. However, to enhance the productivity of future graduates and develop a broader and more skilled workforce is essential to strengthen the presence of high-quality professionals within our higher education system.

The notion that education and other human capital may enable people to realise their full potential and improve economic performance was supported by the World Bank in 2023. Underinvesting in education has serious repercussions since it jeopardises future economic expansion.

The government should allocate more funding to education which the nation can take pride in. In other words, more students should be enrolled in postsecondary schools. Furthermore, updating and regularly observing education policy will assist in generating wealth. This implies that in addition to making significant investments in education, the government will consider the economy's status to optimize the benefits of education for economic expansion. Students pursuing higher education must be guaranteed work in the future and experience less dissatisfaction. For the departing graduates, there must be hope that their employability and the realities of social mobility will enable them to contribute to economic progress. The government should also enhance the supply of qualified lecturers and teachers in postsecondary institutions.

To evaluate how this measure has affected the labor force and, consequently, its influence on economic growth and expansion in South Africa, the study might be expanded to include the quality of education variable. Future research could also determine whether educational level—primary, secondary, or tertiary—contributes most to South Africa's economic expansion. This will make it possible for policymakers to allocate funds to the educational sector that makes the least contribution to South Africa's economic growth.

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