
Rising unemployment amongst South Africa's new generation: the role of overage learner policies and other demographic shifts

INTRODUCTION

South Africa has one of the highest unemployment rates in the world. The rise in unemployment started as early as the 1970s but continued and accelerated in the post-apartheid period. The reversal of discriminatory policies, higher educational attainment and improved economic growth after 1994 all created the expectation that labour market prospects would improve for the majority of the population. Instead, the number of unemployed people has increased, and in spite of improvements in education, the previously disadvantaged remain more likely to be unemployed. The persistence of the problem has led policymakers and researchers to refocus their attention on the evolution of the labour market in an attempt to understand these trends.

A combination of robust economic growth since 1999 (prior to the recent recession) tied with increases in unemployment has given rise to allegations that South Africa suffers from systematic "jobless growth". Two main factors are often quoted as contributing to this phenomenon: (1) Prescriptive labour market restrictions aimed at improving the prospects of previously-marginalised people, which make companies reticent to absorb more labour and (2) The fact that more people are entering into or "participating" in the labour market: So even though firms are hiring more employees, the number of people applying for the jobs on offer is increasing at a higher rate.

To explain these trends, we need to take a long-term view and attempt to understand the microeconomic forces at play, along with the role of demographics, educational attainment and age. Yet doing such analyses has proved difficult because of an insufficient availability of suitable data.

A recent study by Rulof Burger and Dieter von Fintel sets out to analyse the short- and long-term factors affecting unemployment. A panel of cohort data is constructed enabling the comparison of key characteristics for different generations at different points in time, focusing on the impact of the business cycle, generational differences and life-cycle factors. Importantly, it seems that the removal of learners who were too old for their school grade pushed young (predominantly black) people into the labour market without the necessary skills.

PROFILING
UNEMPLOYMENT

Statistics South Africa (Stats SA) started publishing large-sample household surveys on an annual basis since 1995, a bi-annual basis from 2000, and quarterly since 2008. This has enabled more rigorous analysis of the trends in- and characteristics of employment.

Many previous studies have claimed that rising unemployment was mainly caused by an increase in labour market participation, rather than a decrease in the demand for labour. This suggests that we should focus on understanding why more people chose to enter such a saturated labour market.

Firstly, an increased “feminisation” of the labour force saw previously-inactive women enter the labour market, explained by an increase in levels of education amongst women, a decline in the proportion of married women, and by the fact that increasing numbers of women lived in households without income-earning men. Deeper analysis shows, however, that the trend is better explained by the *response* of women to their improved education: Being better educated led to higher expectations and a greater likelihood of entering the labour market in an attempt to capitalise on their skills. In addition to this, there is an age-related trend, showing that younger women are more likely to have entered the labour market than their older counterparts.

Whilst a lot has been written about the effect of educational attainment, little has been said about the effects of shifts in education policy. As was briefly alluded to above, the Department of Education discussed a new strategy in 1995 to reduce the number of over-age learners in schools. Pupils more than two years older than the normal age for their school grade were preferably not allowed to attend that same grade for another year. This was suggested to alleviate the problem of high pupil-to-teacher ratios. Recognising that this may lead to unprepared learners being forced into the labour market, the government’s aim was to encourage those affected to attend Further Education and Training Colleges (FETs).

Former “black” schools have historically experienced higher rates of grade repetition, which means that they were disproportionately affected by the directive. This is borne out by a 21% decline in their matric candidates between 1996 and 2003. Overall, the rates of school enrolment have declined over time for all age groups above the school-leaving age, with the effect especially noticeable at the turn of the century, suggesting that schools progressively started adhering to the new policy, even though it was never officially implemented by government. Importantly, the decrease in school enrolment was not matched by an equivalent increase in those attending FETs, implying that large groups of people who previously would have remained in the schooling system were pushed into the labour market at a younger age, without being equipped with the relevant skills. This presented a problem in a labour market where there was a growth in the demand for skilled labour, and a decrease in the demand for unskilled employees.

At the same time, statutory minimum wages were increased, whilst greater bargaining power was given to trade unions. Some studies claim that these developments increased the wages of unskilled workers compared to those of skilled workers, thereby pricing unskilled workers out of the market, but further analysis of wage trends have shown this to be largely inaccurate.

TAKING A DYNAMIC VIEW

Determining the causes of changes in labour market outcomes has been historically difficult given the shortcomings represented by the available survey data. Typically the concerns relate to the quality of data and the consistency of the methodology according to which they were captured. This makes it hard to construct reliable statistical models, and consequently most studies have simply commented on the comparative changes in averages over time, without being able to identify cause and effect with confidence.

In an attempt to compensate for the gaps left by the lack of appropriate data, some studies have grouped surveyed individuals into **cohorts** - i.e. aggregated according to the year in which they were born. This approach enables statistical models to account for specific factors affecting employment that are not measured by surveys. These include the quality of education received, and societal views on the relative merits of staying at home vs. entering the labour market. It is likely that people born in the same year will exhibit similar characteristics when it comes to these variables, so following a generational approach is a good way to control for these factors.

Following a generational approach also allows for the implicit capture of some time-specific factors that may affect employment outcomes, such as life-cycle effects and the up- and down swings of the economic business cycle.

MODELLING TRENDS

The aim is to build a model that expresses certain labour market outcomes (e.g. labour market participation) as a function of variables that explain those outcomes. The explanatory variables used are summarised as follows:

- Demographic changes
- Characteristics of cohorts across certain phases of their life-cycle
- Short term time-specific effects that are driven by the business cycle

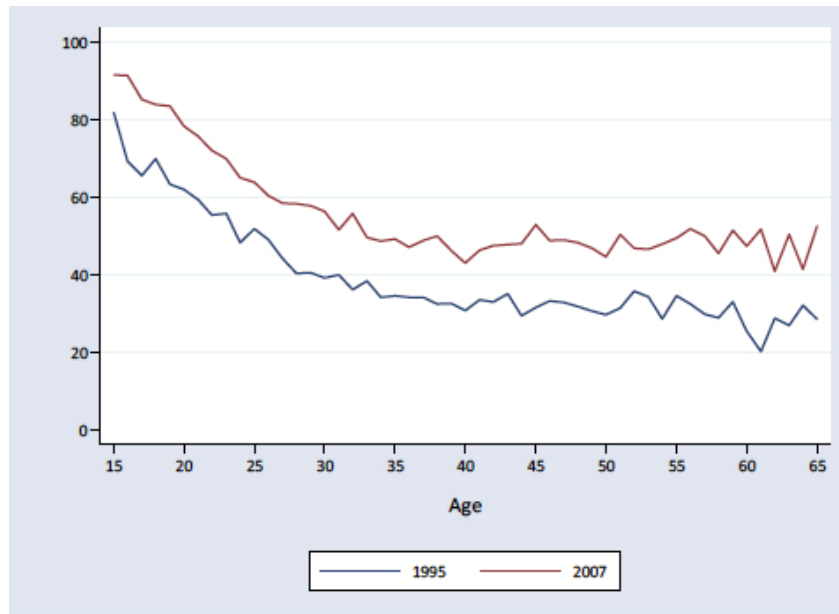
In addition, the impact of certain generational factors is considered, specifically:

- The higher levels of educational attainment of younger generations.
- The lower marriage rates of younger generations of females.
- The lower proportion of overage learners among younger generations.

ACCOUNTING FOR AGE AND TIME

Why is such an approach useful?

Figure 1: Unemployment Rate by Age



Source: OHS (1995) and LFS (2007b)

Figure 1 looks at the employment rate by age group as captured in 1995 and 2007 respectively. It shows that unemployment rates increased for every age group, but that the relative distribution of unemployment rates across different age groups has remained consistent. It does not show, however, whether this shift is due to generational changes (e.g. changes in attitudes towards work or educational quality), or due to other time-dependant factors between 1995 and 2007 (e.g. changes in labour market legislation).

Using the decomposition technique above should help identify the likely causes of this shift, as the below results will show.

DEFINING THE UNEMPLOYMENT RATE

For each cohort, the rate of unemployment can be expressed as the number of people unemployed, divided by the number of people actively participating in the labour market (either working or seeking work). This means that the unemployment rate will increase as a result of either:

- A decrease in the number of people employed (determined by labour demand)
- An increase in the number of people participating (labour supply)

Wages can be used as an additional measure to disentangle the causes of rising unemployment- i.e. an increase in wages may imply that there was an increased demand for labour, whereas a decrease in wages could imply that there was an increase in labour supply (i.e. more people competing for the same pool of jobs, driving down

“prices”). It is important to note, however, that changes in labour supply and demand may not occur uniformly across race and gender groups, so it becomes necessary to build these factors into our model as a control. We will apply the same logic as above in terms of age effects and time-specific shocks when explaining changes in wages.

POTENTIAL DATA ISSUES

Stats SA implemented progressive changes in sample and questionnaire design to improve the reliability of the data captured. This is problematic when we want to make comparisons over time, and is especially prevalent in the case of low-income / informal sector workers. For this reason the analysis does not count informal sector workers amongst the employed. This does not discount the importance of the informal sector in the South African economy, but it is necessary if we want to identify relationships and trends with confidence. Focusing on the formal sector enables us to do so. It does mean that our “formal sector unemployment” rate will be much higher than if we also counted informal workers as being employed.

RESULTS

The analysis covers data from 1995 to 2007, and is applied to each of the identified key variables, giving the following results:

Unemployment Rate by cohort

Decomposing the unemployment rate according to cohort, age and year identifies the following:

Generational effect:

- People born more recently experience higher rates of unemployment than those born earlier, at any given age. E.g. someone born in 1977 (aged 18 in 1995) is more likely to suffer unemployment than someone who was born in 1974, at the time when they were 18. This is troubling because it implies that there should be sustained increases in overall unemployment as cohorts with low unemployment rate exit the economically active population, replaced by cohorts with typically high unemployment rates.

Life cycle effect

- The probability of being unemployed is high for the young, but decreases gradually until the age of 40, after which it increases again, so older workers are again more likely to be unemployed.

Cyclical effect

- There was an 11 percentage point increase in cyclical unemployment between 1995 and 2001, followed by a steady decline after 2001. This suggests that the rate of unemployment is affected by the business cycle, although it appears to lag the business cycle by a year or two

The generational effects should be of particular concern to policymakers, since they imply that particular cohorts will systematically experience higher unemployment

throughout their lifetime, which is compounded by the increases in unemployment up to the age of 40 experienced by all cohorts.

Unemployment rate by cohort, race and gender

The analysis above is further refined by breaking down the cohorts by race and gender:

Generational effect:

- Black women, followed by black men, experience the highest rate of unemployment across all birth cohorts. Comparatively low unemployment rates exist for all the cohorts of white men and women
- Importantly, unemployment amongst black people has increased steadily across generations, while it has remained stable at a low rate for all generations of whites.

Life cycle effect:

- Unemployment rates for black men and women decrease up to the age of 40, after which they increase again, whereas the rate amongst white people appears to be far more constant and unaffected by age

Cyclical effect:

- The unemployment rates for black men and woman are far more responsive to changes in the business cycle than is the case for white people.

Employment, participation and wage rates

Participation in the labour market:

Generational effect:

- For older generations (both black and white), male participation is much higher than female participation. This difference becomes smaller for people aged 20 or less in 1995, suggesting strongly that the labour participation gender gap is closing.
- There is a strong upward trend in the rate of labour market participation as we move from older to younger generations, with a noticeable spike amongst the younger generations

Life cycle effect:

- The participation rate for young white people starts increasing about three years earlier in their lifecycle, compared to their black counterparts. This is probably because young white individuals leave school earlier or are more likely to enter the labour market whilst still at college or university. This response is likely driven by the observation that young white groups have in the past easily obtained employment, while blacks' peers have remained unemployed, prompting delayed entry into the labour market.

Cyclical effect:

- As was the case with unemployment, white participation rates are less sensitive to changes in the business cycle. By implication, blacks' short-term choices to

look for work is more responsive to their likely prospects in the economy.

Employment rate:

Generational effect:

- People born more recently are less likely to be employed than those born earlier, at any given age. Across all ages and cohorts employment rates are the highest for white men, the lowest for black women and more moderate for black men and white women.
- Amongst the white population, recent labour market entrants are more likely to be employed than those who have entered before them. The opposite is true for the black men. In the case of black women, time since labour market entry appears to have little impact on the probability of being employed.

Life cycle effect:

- In general white people are much more likely to be employed than black people, and the employment rate for younger whites peaks much earlier than is the case for young black people. The employment rate for black men reaches its peak around the age of 35, after which it declines rapidly, whereas the rate decreases far more gently, and from a later age, for other race and gender groups.

Cyclical effect:

- Changes in employment move alongside the business cycle for all groups, contradicting the notion of jobless growth. Swings in employment rates are more marked in the case of black people, suggesting that they suffer most in downswings and are best off when jobs are created.

Wages

Generational effect:

- Recent entrants into the labour market benefit from slightly higher wages than older entrants, for all of the included race and gender groups

Life cycle effect:

- Wages increase over the life cycle for all groups, and are generally higher for white males and females

Cyclical effect:

- Wages change in accordance with the business cycle, with wider variation in the case of black people

To summarise the main trends, employment and wages increase in early years of life, and decrease in later years of life. This is mainly due to better productivity early in the working life due to increases in skills and experience. These effects tail off as people grow older.

Increases in labour market participation over the life cycle happen more gradually for

black men and women than for whites, suggesting that the former two groups took longer to leave the school system and enter the labour market (abstracting from the surge in participation registered by the youngest generations).

Black men and women experience a decrease in employment at a much younger age than their white counterparts, due to the fact that they are more likely to be employed in low-skill occupations. The share of people expressing a desire to work remains high up to the age of 50, after which it decreases for all groups. In the case of white workers, actual employment figures decrease accordingly, but for other groups employment starts decreasing much earlier than participation, which means that unemployment rates are comparatively higher at these points in the life cycle.

For those born between 1930 and 1975, there is a steady increase in labour market participation, especially for the most recent entrants. Black men and women born between 1972 and 1982 experienced a sudden surge in participation, which levelled off for those born after 1982. This is most probably explained by the removal of over-aged learners discussed before, since people born in this period would have been in their late teens and twenties at the time that the policy was first proposed. This is verified below.

Wages have not decreased as a result of increased labour market participation. More recent labour market entrants can expect to earn roughly the same as older generations. This wage rigidity can potentially be explained by the strong bargaining power of labour.

The demand for younger black female workers remains stable, irrespective of how recently they have entered the labour market. This is not true in the case of their male counterparts, who are much less likely to be employed if they have entered the labour market recently. Although there has been an increase in educational attainment amongst young black men, it appears that such improvements have not kept pace with the demands of employers.

FURTHER ANALYSIS

To obtain a deeper understanding, control variables based on statistics captured in the survey data are introduced in an attempt to explain the variations across age groups and generations identified above.

Given that most of the recent rise in unemployment can be explained by changes in the labour participation rate, the focus here is on explaining intergenerational differences in participation patterns. The analysis is done exclusively for the black population because the changes in unemployment and participation are most noticeable for this group.

Specifically, we test the impact that the following three variables have on recent labour market entrants' decision to participate:

- Changes in educational attainment

- Changes in marital rates for females
- Other changes in household structure

The most noticeable effect of adding these controls can be seen in our generational analysis, especially in the case of black males. Once we remove the statistical effect of the above variables, the rate of participation for recent labour market entrants is much closer to that of older entrants. Assuming that societal and household-structure changes have a minimal impact on the male population (since they mainly pertain to the role of females in society), we can deduce that the initial difference in participation was mainly due to educational factors.

Even when controlling for these factors, those born between 1975 and 1982 still show a greater propensity to participate in the labour market than older black people. It therefore seems that we cannot ascribe the differences in participation to educational attainment alone. In addition, the rate of participation for black females is still marked across generations, even when controlling for the above factors. It seems that another external factor or shock must have been responsible for the generational shift in participation.

As discussed before, the population born between 1975 and 1982 are most likely to have been affected by the over-age learner policy. Indeed, the proportion of those aged 18 to 30 still in education declined substantially from 1995 to 2007.

To analyse this we need to add further control to our analysis, representing the proportion of non-participants currently in school for each cohort. Removing the statistical effect of this variable delivers a far more even distribution of participation rates across recent and older labour market entrants. Put differently, it seems that decreases in the proportion of younger people still in school had a big impact on the participation rate: People forced out of school chose to enter the labour market rather than subscribing to tertiary education.

Two questions arise:

- Do we need to revise the policy relating to grade repetition?
- How do we entice more older school leavers to attend FETs?

CONCLUSION

This study moves us closer to a dynamic view of the forces that determine outcomes in the labour market. It is evident that younger black generations suffer from higher levels of unemployment compared to their older counterparts. The trend is explained by an increase in participation rates that is not matched by an equivalent rise in labour demand and absorption. In spite of better educational attainment, it seems that there is room for improvement to equip workers (especially black men) with the skills demanded by the market.

It seems that being part of a particular generation can have a decisive impact on an individual's labour market prospects. The problem is that such disadvantages will follow individuals throughout their working lives. Long-term intervention and re-training both become essential.

The study's most important finding, however, sheds light on the occurrence of increased unemployment in spite of macroeconomic policies targeting growth. It is popular to assume that such policies were simply ineffective in creating sufficient employment growth, but the results here indicate that there were other factors at play. Specifically, the removal of overage learners from the schools system lead to a surge in participants in the late 1990s, many of whom were ill equipped to find employment in an already-competitive labour market.

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FURTHER READING Burger, R and Von Fintel, D. 2009. *Determining the Causes of the Rising South African Unemployment Rate: An Age, Period and Generational Analysis*. Stellenbosch Economic Working Papers 24/09.