BrieflySpeaking

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South African politicians and the media annually focus on the Grade 12 examinations and performance in these exams. While there is a focus on ensuring that a growing number of learners complete the National Senior Certificate (NSC), little attention is given to the range of educational opportunities post-matric. Many consider university as the only option to further education, but this only caters for a small minority of the youth. This monitoring brief considers the extent of the challenge that South Africa faces in providing sufficient, and sufficiently varied, educational opportunities to school leavers and the youth in general.

Educational pathways and opportunities

Introduction

Each year, with the release of the outcomes of the Grade 12 exams, there is extensive coverage of the matric pass rate, and much debate around the quality of the National Senior Certificate (NSC) and the extent to which it prepares students for university study. Currently, there are approximately 600 000 learners preparing to write their National Senior Certificate (NSC) exams.[i] However, the reality is that only a small portion of these learners will be accommodated in the university sector.

Recent student protests around university fees have further increased the focus on the university sector. These protests have highlighted the funding challenges that both universities and university students face. However, these protests have not focused on the fact that a large percentage of the school leavers are not accommodated in the university sector, or are not eligible for university study, and that alternative post-school education opportunities are severely limited.

Currently, approximately 170 000 first-time entry learners gain access to universities on an annual basis. While there were roughly 740 000 enrolments in 2015 in Technical and Vocational Education and Training (TVET) colleges, this includes those enrolled for National Certificate Vocational (NCV) and NSC studies, N1 to N6 courses, and occupational qualifications.[ii] It is, therefore, difficult to estimate how many first-time entry places there are for post-school studies overall. Nonetheless, this shows that there are only opportunities for a portion of the approximately 600 000 learners who write the NSC each year. The challenge South Africa faces is to provide sufficient and relevant educational opportunities to accommodate all these learners.

60% of those who entered Grade 1 wrote Matric; 12% went to university

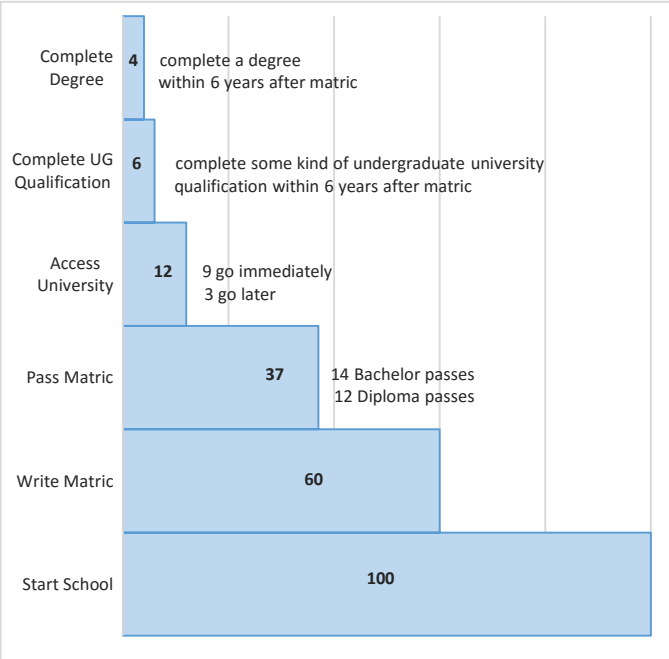
What is the magnitude of the challenge?

In order to understand the need for more post-school educational opportunities, it is necessary to consider the number of learners entering Grade 1, and to compare this to the number who complete the NSC and continue to higher education.

From research conducted by Van Broekhuizen, Van Der Berg & Hofmeyr into the 2008 NSC or Matric cohort, Spaull drew out information on the number of learners entering Grade One compared to the number that Matriculated and attained a degree.[iii] This research indicated that, for the 2008 cohort, 60% of those who entered Grade 1 wrote Matric; 12% went to university; and 10% graduated with a qualification.

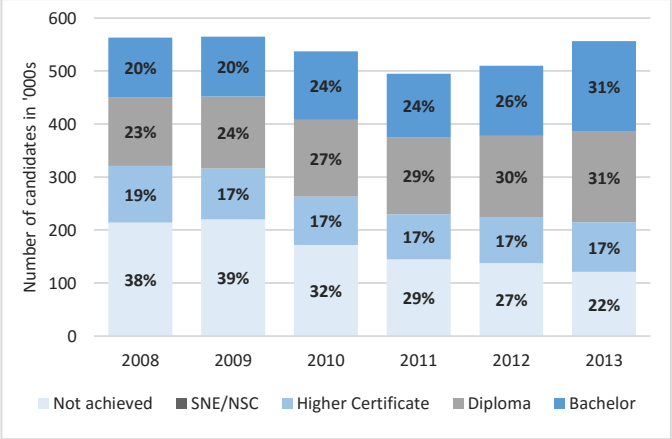
This highlights the need for more educational opportunities to cater for the approximately 80% to 90% of the youth who do not access a university education or graduate with a qualification.

Figure 1: Throughput from Grade 1 to university, 2008 matric cohort[iv]



According to the Department of Basic Education, there has been some improvement in throughput since the 2008 cohort, with their data indicating that a greater percentage of learners remain in school until Matriculation, and that a greater percentage pass Matric with a Bachelor or Diploma pass, giving them the required certificate to enter higher education.[v] Historic data from the Van Broekhuizen *et al* study, which also considered the improved pass rate, is shown below.

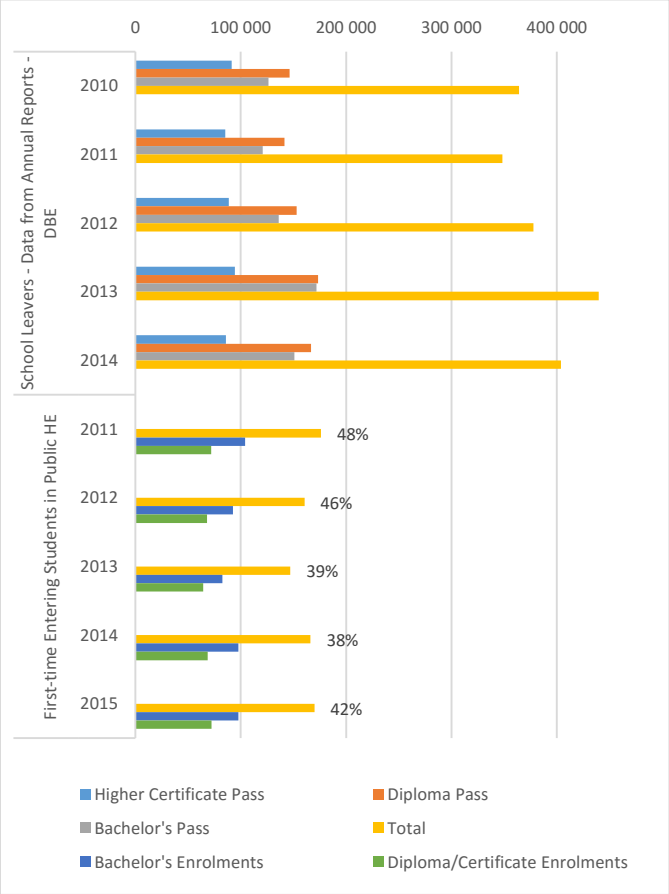
Figure 2: NSC results, 2008 to 2013 matric cohorts[vi]



However, despite the general improvement in pass rate, and in the number of Bachelor and Diploma passes, data indicate that the number of learners accessing higher education has not increased significantly.

The figure below shows the number of learners passing Matric in specific years by pass type, and the number of first-time entering students (at all public universities) for the relevant years thereafter. This is not a cohort analysis, and as such does not indicate how many students from a specific cohort entered university in the following years. However, it does indicate the number of places at university in each of those years as a percentage of the number of learners passing Matric in the preceding year.

Figure 3: Matric passes and first-time entering places at public universities[vii]



	School Leavers - Data from Annual Reports - DBE				
	2010	**2011**	**2012**	**2013**	**2014**
Higher Certificate Pass	91 241	85 296	88 604	94 540	86 022
Diploma Pass	146 224	141 584	152 881	173 292	166 689
Bachelor's Pass	126 371	120 767	136 047	171 755	150 752
Total	**364 147**	**348 117**	**377 829**	**439 779**	**403 874**
	First-time Entering Students in Public HE				
	2011	**2012**	**2013**	**2014**	**2015**
Bachelor's Enrolments	104 096	92 494	82 587	97 627	97 633
Diploma/ Certificate Enrolments	71 967	67 946	64 466	68 558	72 262
Total	**176 063**	**160 440**	**147 053**	**166 185**	**169 895**

The data show that while 364 147 learners obtained a Matric pass in 2010 giving them the necessary certificate to enrol for a Higher Certificate, Diploma or a Bachelor's Degree, only 176 063 new students enrolled in the university sector in 2011. Similarly for 2014, 403 874 learners passed Matric with a certificate allowing access to further study, but only 169 895 new students started university in 2015.

The college sector does not currently have the capacity to absorb all these learners

University places accommodate fewer than 50% of those completing matric with a certificate which makes them eligible for further study. These are students who assume, from their NSC, that they have earned the opportunity to further their education. What happens to the other 50% who have passed with such a certificate, and to those who have not passed Grade 12?

Is there a link between not accessing university and coming from a poor household?

The Van Broekhuizen *et al* analysis of the 2008 cohort also considered performance and access in terms of school quintile. Schools in Quintiles 1 to 3 are free, and cater for poorer communities, while Quintile 4 and 5 schools are public, fee-paying schools, in more affluent communities. The study did not include private schools. The analysis found that many university-qualifying learners did not access higher education in the year immediately after completing Grade 12, and that delayed access was especially prominent among learners from Quintile 1 to 3 schools. This could point to the need for these schools to focus more on providing learners with information on further education opportunities, and information on when to apply for further study and bursaries.

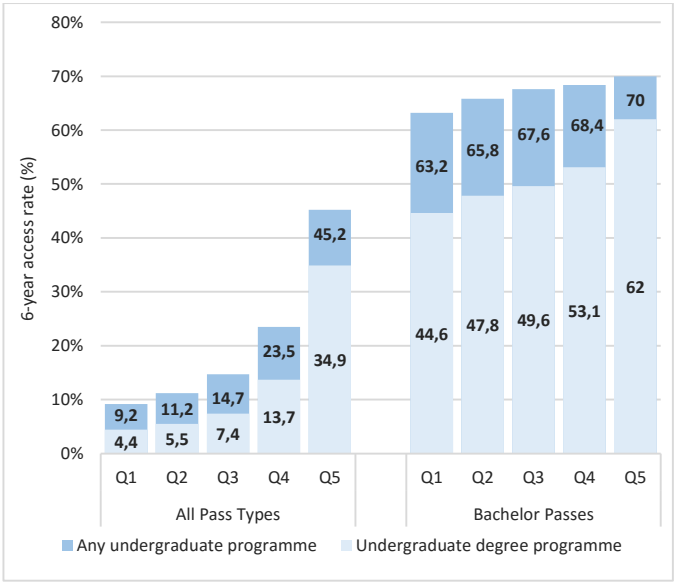
The analysis also found that few learners from Quintile 1 to 3 schools attend university, even when taking into account those who enrol at a later stage. The graph below (left) shows access to university by school quintile for the 2008 cohort. Considering Quintile 1 schools – fewer than 10% of the learners who completed their Matric proceeded to university, highlighting the need to provide educational opportunities for the majority of these learners. The proportion of learners from Quintile 5 schools continuing to university is more than four times that of Quintile 1 schools.

An interesting finding from the 2008 cohort analysis is that for those who do succeed in a Quintile 1 school, the likelihood of attending university is not that different from those from a Quintile 5 school (graph on the right).[viii] In fact, 63% of those from Quintile 1 schools with a Bachelor's pass enrolled in a university (45% into a degree programme), compared to 70% of those with a Bachelor's pass from a Quintile 5 school (with 62% entering a degree programme). This indicates that the lack of access for students from poorer communities is mainly as a result of school performance, which results in few Bachelor passes, rather than mainly due to hurdles preventing access to universities for poorer students.

Similarly, the study found that when considering six years at university, the difference in throughput (i.e. those to graduate with a qualification) for those from Quintile 1 and those from Quintile 5 schools was not substantial.[ix] They found that '45% of learners from quintile 1-3 schools who had enrolled in undergraduate studies had completed undergraduate qualifications by the end of 2014, while the equivalent proportion of learners from quintile 4 schools was 46% and from quintile 5 schools 56%.'[x]

These findings highlight the need to cater sufficiently for those students who do not obtain a Bachelor's pass in Matric. The key problem is not about access to university, but rather about providing different educational pathways to accommodate all school leavers, particularly those who do not achieve a Bachelor's pass.

Figure 4: University access by school quintile – for all candidates and Bachelor pass candidates [xi]



How many students need educational opportunities?

While the graph above shows positive progression into higher education for those with a Bachelor's pass, the stark reality is that 'only about 12% of learners [overall] from quintile 1-3 schools enrolled in undergraduate programmes at some point between 2009 and 2014, the corresponding proportions for learners from quintile 4 and 5 schools were roughly 24% and 45% respectively'.[xii]

These numbers are low across all quintiles, and in accordance with Figure 3, they indicate that more than 50% of Grade 12 matriculants do not go to university. This percentage excludes all the learners who dropped out before Grade 12 and all those who failed their NSC.

These are the learners requiring an alternative path to further education, and who should be accommodated within the broader post-school education and training sector.

The inverted pyramid

Having considered progression to university education, it is necessary to consider the PSET sector more broadly. The Community college (CET), and Technical and Vocational (TVET) college sectors are designed to provide an educational path to learners who either have completed Grade 12 but have not proceeded to university or who have not completed their schooling. This is the majority of the youth.

However, when considering enrolment numbers in the college sector (shown below in comparison to those in the university sector) it is evident that the college sector does not currently have the capacity to absorb all these learners. The figure shows how, in South Africa, the number of university enrolments actually exceeds those in either the TVET or Community college sectors, unless CET and TVET colleges are combined, in which case places are almost equal. The numbers shown in this graph combine both public and private higher and further education and training institutions.

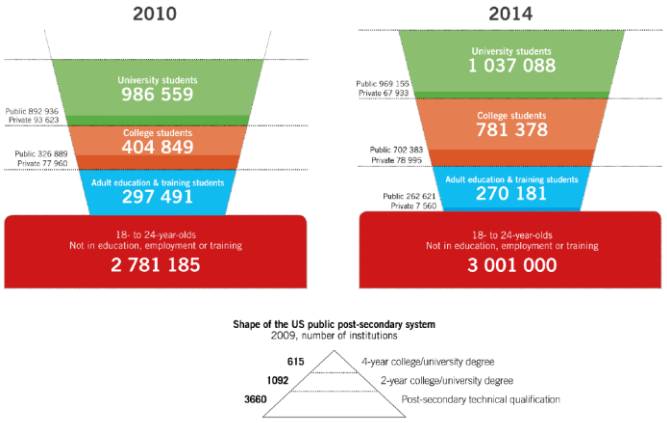
Bearing in mind the small percentage of students (who have completed Grade 12) progressing to university education, and that a portion of students have dropped out before reaching Grade 12, it is clear that the PSET system does not provide sufficient educational opportunities to provide for South Africa's youth.

Below the figures showing the shape of the South African system, is a pyramid of the American PSET system. The pyramid highlights the need (in the economy) for a greater proportion of individuals with technical and vocational education and training, than with university education. In South Africa, the pyramid should be inverted.

Therefore, even though the university sector should grow, albeit slowly, the focus in the short to medium term should be on the expansion of the college sector in order to accommodate a greater percentage of school leavers, and in order to provide a greater variety of skills and qualifications to ensure absorption into the economy.

Challenge of over 3 million young people who are not in employment, education or training

Figure 5: South African PSET, 2010 and 2014[xiii]



What is the consequence of the lack of educational opportunities?

The diagram above highlights not only the challenge of an inverted pyramid and the fact of insufficient educational opportunities, but also the challenge of over 3 million young people who are not in employment, education or training (NEET). The figure shows that this number is increasing, and that the number of NEETs is larger than the combined number of students in higher and further education and training (i.e. in universities, TVETs and CETs). The real challenge facing South Africa is to provide post-school education to these individuals and to increase their likelihood of employment.

To consider the problem of the NEETs with more clarity, it is useful to consider unemployment in South Africa and how it relates to level of education.

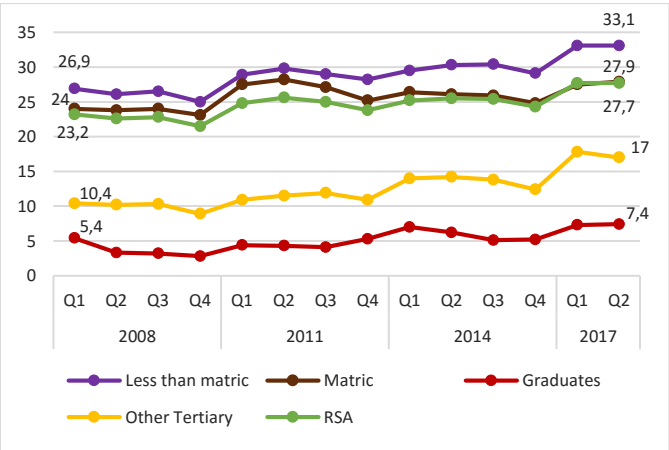
The link between employment and education

In August 2017, Statistics South Africa (StatsSA) released the latest *Quarterly Labour Force Survey*, covering the second quarter of 2017.[xiv] The survey report included a graph (reproduced below) indicating unemployment by level of education over the last nine years.[xv] The figure indicates a clear link between lack of education and unemployment.

A striking feature of the graph is the persistent gap between the top three lines and the bottom two lines. The green line (third from the top) shows that unemployment in the country as a whole has increased from 23.2% in the first quarter of 2008 to 27.7% in the second quarter of 2017. The other two lines at the top represent unemployment among South Africans with either a Matric (brown) or with less than a Matric (purple) as their highest level of education.

The clear gap in the graph between these three lines and those representing those with post-school education, highlights the important role that post-school education and training plays in providing employment opportunities. Among those with less than Matric, unemployment has increased from 26.9% in the first quarter of 2008 to 33.1% in the second quarter of 2017.

Figure 6: Unemployment rate by education status, Q1: 2008 to Q2: 2017[xvi]



Education level		Less than matric	Matric	Graduates	Other tertiary	RSA (National rate)
2008	Q1	26,9	24	5,4	10,4	23,2
	Q2	26,1	23,8	3,3	10,2	22,6
	Q3	26,5	24	3,2	10,3	22,8
	Q4	25	23,1	2,8	8,9	21,5
2011	Q1	28,9	27,5	4,4	10,9	24,8
	Q2	29,8	28,2	4,3	11,5	25,6
	Q3	29	27,1	4,1	11,9	25
	Q4	28,2	25,2	5,3	10,9	23,8
2014	Q1	29,5	26,4	7	14	25,2
	Q2	30,3	26,1	6,2	14,2	25,5
	Q3	30,4	25,9	5,1	13,8	25,4
	Q4	29,1	24,8	5,2	12,4	24,3
2017	Q1	33,1	27,5	7,3	17,8	27,7
	Q2	33,1	27,9	7,4	17	27,7

It is clear that the employment opportunities for those with any tertiary education are considerably better than for those without any post-school education or training. These statistics highlight the importance of developing post-school opportunities to include a far greater portion of school-leaving and unemployed youth.

Unemployment by level of education

Another table in the report indicates the number of individuals (aged 15 to 64) who are employed, unemployed, or unemployed and not economically active, by level of education.[xvii] The difference between those 'unemployed' and 'not economically active' is that the unemployed must have been actively looking for work/ developing a business in the four weeks preceding the survey, and must be ready/ able to work; or must have a job/ business with a definite start date in the future.[xviii]

Figure 7: Employed, unemployed and not economically active by level of education, April to June 2017 (numbers in thousands)[xix]

Highest level of education	Employed		Unemployed		Not economically active	
	Number	%	Number	%	Number	%
No schooling	341	2	72	1	639	4
Less than primary completed	1 063	7	361	6	1 460	10
Primary completed	592	4	278	5	978	7
Secondary not completed	5 333	33	2 901	47	8 007	54
Secondary completed	5 200	32	2 014	33	3 124	21
Tertiary	3 388	21	513	8	582	4
Other	183	1	39	1	151	1
TOTAL	**16 100**		**6 117**		**14 941**	

As with the previous graph, these numbers indicate that the largest number of individuals who are either unemployed or not economically active, are those with some secondary education or with completed secondary education (i.e. Matric).

Of those who are not economically active, almost 6 million are currently at school or in higher or further education and training. However, even if 6 million is subtracted from the numbers, this does not alter the fact that the main challenge is employment among those with Matric or some secondary education.

These numbers highlight the need to focus on providing additional educational opportunities for those with Matric or with some secondary education in order to assist in substantially reducing unemployment. The percentage with no schooling, less than primary and only primary schooling is relatively small compared to those with some secondary education or secondary education completed. The latter group should, therefore, be the main focus of any expansion of educational provision.

Conclusion

A large percentage of school-leaving youth do not have access to higher or further education and training. Many of these youth end up unemployed. This is a challenge which requires the urgent, and combined, attention of government, entities such as Sector Education and Training Authorities (SETAs), and business and industry.

The majority of these youth should be accommodated within the TVET and CET sectors, but it is well-known that these sectors face a number of challenges around funding, curriculum relevance and pathways to the workplace. Attention should be given to developing and funding relevant education and training which can provide access to job opportunities and a path out of poverty.

South Africa faces challenges of extreme inequality and high levels of unemployment. The research above indicates that less than twenty percent of those coming from poorer communities (Quintile 1 to 3 schools) access a university education. The lack of sufficient and sufficiently varied educational opportunities is thus perpetuating inequality and poverty.

The statistics also highlight the link between employment and level of education. The current unemployment rate for graduates is 7% and for those with other post-school education is 17%, which compare favourably to the national unemployment rate of 28%.

The inverted pyramid illustrates the need to increase educational opportunities other than university education. These opportunities should be designed to absorb a variety of learners, including those without a Matric, and those with a Matric but without a Bachelor's pass. This will ensure a population with more varied skills, which will also assist in growing the economy.

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[i] In 2014, 532 860 wrote the NSC Matric, but in 2015 this increased to 644 536 as a result of progressed learners. In 2016 it declined to 610 178 (excluding part-time learners), from: Department of Basic Education (DBE) (2017) *National Senior Certificate Examination report*, 2016, p. 7, 21, 26.

[ii] DHET (2017) *Statistics on Post-School Education and Training in South Africa, 2015*, p. 27.

[iii] Van Broekhuizen, H.; S. Van Der Berg & H. Hofmeyr (2016) 'Higher Education Access and Outcomes for the 2008 National Matric Cohort' in Stellenbosch Economic Working Papers: 16/16; N. Spaull (2016), 'Important research inputs on #FeesMustFall' from https://nicspaull.com/2016/09/29/important-research-inputs-on-feesmustfall/, accessed 15 September 2017.

[iv] Figure redrawn from: Spaull (2016), 'Important research inputs on #FeesMustFall' from https://nicspaull.com/2016/09/29/important-research-inputs-on-feesmustfall/, accessed 15 September 2017.

[v] Department of Basic Education (2017) *National Senior Certificate Examination report*, 2016, p. 19-23, 40.

[vi] Figure redrawn from: Van Broekhuizen; Van Der Berg & Hofmeyr (2016) 'Higher Education Access and Outcomes for the 2008 National Matric Cohort' in Stellenbosch Economic Working Papers: 16/16, p. 2.

[vii] Own graph and table drawn using school leavers data from: DBE (annual) *Education Statistics in South Africa,* Table 12; and university data from: Higher Education Management Information System (HEMIS) annual data.

[viii] Van Broekhuizen; Van Der Berg & Hofmeyr (2016) 'Higher Education Access and Outcomes for the 2008 National Matric Cohort' in Stellenbosch Economic Working Papers: 16/16, pp. 64-66.

[ix] Ibid., p. 66.

[x] Ibid., p. 66.

[xi] Figure redrawn from: Spaull (2016), 'Important research inputs on #FeesMustFall' from https://nicspaull.com/2016/09/29/important-research-inputs-on-feesmustfall/, accessed 15 September 2017.

[xii] Van Broekhuizen; Van Der Berg & Hofmeyr (2016) 'Higher Education Access and Outcomes for the 2008 National Matric Cohort' in Stellenbosch Economic Working Papers: 16/16, p. 65.

[xiii] Figure from CHET (2016), 'University Fees in South Africa: A story from evidence', Presentation to the Commission on Higher Education and Training on 11 August 2016, from http://www.chet.org.za/presentations, accessed 19 September 2017.

[xiv] Statistics SA (2017) 'Quarterly Labour Force Survey: Quarter 2: 2017', 7 August 2017, Statistical release PO211, from http://www.statssa.gov.za/publications/P0211/P02112ndQuarter2017.pdf accessed 15 September 2017.

[xv] Ibid., p. 14.

[xvi] Figure redrawn from: Ibid., p. 14.

[xvii] Ibid., pp. 77-78.

[xviii] Ibid., p. 19.

[xix] Table redrawn from: Ibid., pp. 77-78.