



Post-school Education and Training Monitor

MACRO-INDICATOR TRENDS



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

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FOREWORD BY THE DIRECTOR GENERAL



The attention paid to monitoring and reporting the performance of the post-school education and training system has burgeoned internationally over the past few decades. Regular productions of monitoring reports by international bodies such as UNESCO and the OECD have become the norm. Governments also often look to international monitoring reports to inform the development of policies to enhance individuals' social and economic prospects, provide incentives for greater efficiency in education and training, and to help mobilise resources to meet rising demands. This reflects a recognition of the significant role performance

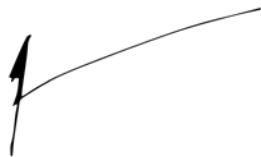
monitoring reports can play as a tool for evaluating trends in levels of economic, education and social development, and for assessing the impact of policy on well-being.

In acknowledging the value of understanding key trends and the performance of the post-school education and training system at country level, it is my pleasure to present to you the third edition of the *Post-school Education and Training Monitor Report*. This report provides an overview of the macro-indicator trends in the South African post-school education and training system and tracks the progress made between 2014 and 2021 against the following key systematic goals, as envisaged in the White Paper on Post-school Education and Training and the National Plan for Post-School Education and Training:

- Expanded *access* to post-school education and training opportunities.
- Improved *quality* of post-school education and training provisioning.
- Improved *success* of the post-school education and training system.
- Improved *efficiency* of the post-school education and training system to ensure the resources are used optimally.
- Enhanced *responsiveness* of the post-school education and training system.

It is important to note that these goals are deeply interdependent and interconnected and have been stated separately for ease of reporting. In addition, equity and transformation are considered cross-cutting goals that underpin all other goals in the system. Therefore, in monitoring the performance and progress made against the abovementioned goals of the post-school education and training system, this report also provides an analysis of the proportional representation of historically and currently disadvantaged populations in all staff, student and graduate components of the post-school education and training system, in terms of age, race, gender and disability.

By compiling these data in one place, this report provides suggestions for improving the design and implementation of educational policies, alerts policymakers to prevailing problems, and hints at some of the causes of the problems. In addition, this indicator report allows the tracking and benchmarking of educational progress against that of international comparator countries. It also serves as a source document for reporting on the progress made on national and international commitments, such as our country's National Development Plan, the African Union's Continental Education Strategy and the United Nations Sustainable Development Goals.

A handwritten signature in black ink, consisting of a vertical line on the left and a long, sweeping curve that arches to the right and then descends.

Dr Nkosinathi Sishi
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Pretoria, South Africa

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ACRONYMS AND ABBREVIATIONS

AU	African Union
BRICS	Brazil, Russia, India, China, South Africa
CET	Community Education and Training
CHE	Council on Higher Education
DHET	Department of Higher Education and Training
DPME	Department of Planning, Monitoring and Evaluation
DBE	Department of Basic Education
E&T	Education and training
ENE	Estimates of National Expenditure
FTE	Full-time equivalent
GDP	Gross domestic product
GER	Gross Enrolment Ratio
GETC-ABET	General Education and Training Certificate: Adult Basic Education and Training
GPI	Gender Parity Index
HEIs	Higher education institutions
HEMIS	Higher Education Management Information System
HLEA	Highest level of educational attainment
ISCED	International Standard Classification of Education
MTSF	Medium-term Strategic Framework
NATED	National Accredited Technical Education Diploma
NC(V)	National Certificate (Vocational)
NDP	National Development Plan
NEET	Not in Education, Employment or Training
NPPSET	National Plan for Post-school Education and Training
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
OECD	Organisation for Economic Co-operation and Development
OIHD	Occupations in high demand
OQSF	Occupational Qualifications Sub-framework
PhD	Doctor of Philosophy
PSET	Post-school education and training
QLFS	Quarterly Labour Force Survey
SET	Science, engineering and technology
SETA	Sector Education and Training Authority
SDP	Skills development provider
Stats SA	Statistics South Africa
TVET	Technical and Vocational Education and Training
TVETMIS	Technical and Vocational Education and Training Management Information System
UN	United Nations
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
WBP	Workplace-based learning
WPPSET	White Paper for Post-school Education and Training

EXECUTIVE SUMMARY

This report provides an overview of macro-indicator trends in the South African post-school education and training (PSET) system. It assesses the progress made from 2014 to 2021 in relation to key goals of the PSET system. These goals are reflected in the National Plan for PSET (NPPSET) (DHET, 2023c), White Paper for PSET (WPPSET) (DHET, 2013) and the National Development Plan (NDP) (National Planning Commission, 2012). The indicators used in the report are based on the following goals: expanding access to PSET, improving the quality of PSET provisioning, improving the success of the PSET system, improving efficiency of the PSET system to ensure optimal allocation of resources, and enhancing the responsiveness of the PSET system.

Many of the indicators selected for this report are also used internationally to monitor global education goals. These indicators are modelled after practices adopted by various international institutions, such as United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Organisation for Economic Co-operation and Development (OECD). UNESCO's *Global Monitoring Report* and the OECD's *Education at a Glance* are examples of highly rated reports on education indicators that address the needs of a range of users, from government workers to researchers who require data for further analysis. The general public also uses these reports to monitor how their countries are progressing in educational outcomes in relation to other countries.

By compiling the selected indicators in one place, this report can provide a macro perspective on the trajectory of the PSET system; it is therefore in a position to alert policymakers to prevailing problems and hint at the causes of these problems. Where possible, it provides suggestions for improving the design and implementation of educational policies. In addition, this indicator report allows educational progress to be tracked and benchmarked against that of international comparator countries. It also serves as a source document for reporting on progress made on national and international commitments, such as the NDP, the African Union's (AU) Continental Education Strategy and the United Nations (UN) Sustainable Development Goals.

This report focuses on the five key subsectors of the PSET system, namely public and private universities, Technical and Vocational Education and Training (TVET) colleges, Community Education and Training (CET) colleges, private colleges and Sector Education and Training Authorities (SETAs).

SUMMARY OF FINDINGS

Demography

- In South Africa, demographic changes have a direct bearing on the PSET system, since student flows determine the resources required to provide educational services. The number of youths within the 15–19 and 20–24 age categories, which are PSET-entering age categories, are smaller than the number of youths in the 25–29 age category who are presumed to have recently left the PSET system.

Level of education in the population

- The number of adults who had matric as their highest level of educational attainment in 2022 has increased significantly since 2014. This indicates a potential rise in the demand for PSET opportunities and underscores the need to expand the PSET system.
- Although the share of adults in the population with a degree increased by almost 2 percentage points (reaching 8.0%) from 2014 to 2022, it has remained noticeably low compared with other middle-income countries, as well as South Africa's BRICS counterparts.
- More females (55.5%) than males (44.5%) in the population had a degree as their highest level of education in 2022.
- The number of doctoral graduates per million of the population increased consistently throughout the period 2014–2021, reaching 59 graduates per million of population in 2021. Although the number of doctoral graduates has grown significantly over the years, the growth is not enough to meet the NDP target of 100 per million of the population.
- Moreover, when compared with other BRICS and OECD countries, South Africa's share of the population aged 25–64 years who attained a doctoral degree or equivalent has remained very low.

Access to PSET

- While the number of students enrolled at universities has increased consistently from 2014 to 2021, the number of students enrolled at TVET colleges has been on a downward trajectory since 2016. This means that while the NDP target for the PSET system to increase enrolments at universities to 1.6 million by 2030 will likely be realised, the same does not apply to TVET colleges. In other words, it is highly unlikely that the NDP target of 2.5 million enrolments at TVET colleges by 2030 will be realised.
- The CET enrolment numbers have also remained very low, and it is highly unlikely that the NDP target of 1 million students enrolled at CET colleges by 2030 will be realised, as enrolments at CET colleges stood at just above 143 000 in 2021.
- The participation rate for public universities stood at 22.5% in 2021, reflecting a significant improvement from 2014. Based on the enrolment growth pattern over the past eight years, it is highly probable that the NDP target of 25% will be achieved by 2030. However, despite the significant increase in the number of students enrolled at universities, university participation rates in South Africa remain relatively low compared with other countries.
- It is encouraging to note that, when it comes to gender parity in higher education institutions (HEIs), South Africa's Gender Parity Index (GPI) is among the highest in the world, and fares better than its BRICS counterparts and the average of OECD countries.

Students living with disabilities participating at PSET institutions

- The number of students living with disabilities participating at universities and TVET colleges increased from 2016–2021, while the number of students with disabilities participating at CET and private colleges decreased significantly.

Foreign students participating at PSET institutions

- There were approximately 68 000 foreign students enrolled at PSET institutions in 2021, constituting 3.6% of total students enrolled.

Quality of the PSET system

- The increase in the number of full-time equivalent (FTE) students has outpaced the expansion of the university academic staff complement, signalling a possible decline in the quality of teaching and learning in universities. More specifically, the number of FTE students at universities increased by 2.5% on average per annum from 2010–2021, while universities' staff complements increased by only 1.6% on average per annum in the same period.
- Despite the increase in the share of academic staff in universities who have a PhD over the past eight years, it is highly unlikely that the NDP target of 75% will be met, given the current growth rate.

Success of the PSET system

- Graduation rates at public universities grew steadily in the last eight years for both males and females. Despite the increase in graduation rates of Black Africans, they remained lower compared with the other population groups.
- At TVET colleges, there has been an overall improvement in the certification rates for all the programmes since 2014, but it is of great concern that there was a decline in certification rates in 2021.
- Apart from the decrease in the certification rates for General Education and Training Certificate: Adult Basic Education and Training (GETC-ABET) Level 4 in CET colleges that can be attributed to the Covid-19 pandemic, the certification rates for GETC-ABET level 4 have been on an upward trajectory since 2014.

Efficiency of the PSET system

- The university sector is becoming more efficient in terms of its throughput rates and declining dropout rates. However, still less than one-third of first-time entering students complete their degrees within three years.
- On the other hand, the throughput rates in TVET colleges have remained markedly low, with only about 11% of first-time entering students for National Certificate (Vocational) (NC[V]) level 2 completing their qualification within three years in 2021. There are also significant differences in throughput in TVET colleges in terms of gender, with the throughput rate for females being almost twice that of males.

Public spending on the PSET system

- South Africa continues to spend a large share of its national budget and wealth on education (both schooling and post-schooling), and even exceeds benchmarks set by UNESCO. Spending on education as a share of gross domestic product (GDP) was 6.4%, while spending on education as a share of total government expenditure was 22.6% in 2021/22.
- Government expenditure on education as a percentage of total government expenditure was relatively high in South Africa compared with other BRICS countries, like Brazil and China, and even exceeded the OECD countries' average and average for high-income countries; it was, however, slightly lower than that of Chile in 2019. When looking at expenditure on education as a percentage of GDP, South African expenditure exceeded that of all the comparative countries except Brazil.
- Although South Africa's spend on tertiary education as a percentage of GDP and total government expenditure was relatively lower than most of its comparator countries, its spend per student relative to GDP per capita surpasses that of many countries, including high-income countries.

Responsiveness of the PSET system

- The extent of skills mismatches between education and the labour market is higher in South Africa than in many other countries. This problem can only be partly attributed to the PSET system's not providing programmes that are responsive to the needs of the labour market; it remains imperative for the PSET system to continuously identify, develop and deliver programmes that are flexible and relevant to the ever-changing needs of the economy and the labour market.
- Labour market research points to a significant demand for science-and-technology-based occupations at both professional and technician levels. Encouragingly, an examination of university enrolment and graduation data reveals that universities are, in a broad sense, responding positively to occupations in high demand (OIHD).
- On the other hand, the number of learners completing artisanal learning programmes required for OIHD is low, which is a cause for concern.



1

Background

1.1 Introduction

Monitoring the PSET system provides valuable insights into the outcomes of existing interventions. It helps policymakers, education and training (E&T) institutions and other stakeholders make informed decisions on policy, resource allocation and programme design, among others. In addition, monitoring the PSET system helps to ensure that students receive high-quality E&T that is relevant to their needs and societal needs, and is aligned with the demands of the labour market. This is particularly important, given the rapidly changing nature of the global economy, and the increasing need for workers to adapt to new technologies and job requirements. Moreover, monitoring the PSET system is crucial to reducing inequality. Access to E&T is not always equal and some groups might face barriers to participation. By monitoring access to PSET, policymakers can identify and address these barriers, and ensure that all learners have equal opportunities to succeed.

The Department of Higher Education and Training (DHET) recognises the importance of using robust and reliable data, information and research to support decision-making on the PSET system. This report, which the DHET publishes biennially, contributes to the evidence the DHET requires to aid its policy, planning and resource allocation processes, among others. As suggested by the subtitle, this report tracks high-level quantitative indicators to monitor the performance of the PSET system. More specifically, it provides an overview of macro trends in the South African PSET system and monitors the progress made between 2014 and 2021 against key goals envisioned for PSET, as reflected in the WPPSET and the government's NDP.

Many of the indicators selected for this report are also used internationally to monitor global education goals. These indicators are modelled after practices adopted by various international institutions, such as UNESCO and the OECD. UNESCO's *Global Monitoring Report* and the OECD's *Education at a Glance* are examples of highly rated reports on education indicators that address the needs of a range of users, from government workers to researchers who require data for further analysis. The general public also uses these reports to monitor how their countries are progressing in educational outcomes in relation to other countries. The indicators used in this report are based on the following PSET system goals:

1. Expanded *access* to PSET opportunities.
2. Improved *quality* of PSET provisioning.
3. Improved *success* of the PSET system.
4. Improved *efficiency* of the PSET system to ensure resources are used optimally.
5. Enhanced responsiveness of the PSET system.

It is important to note that the goals stated above are profoundly interdependent and interconnected, and have been stated separately for ease of reporting. In addition, equity and transformation are considered cross-cutting goals that underpin all other goals in the system. Therefore, in monitoring the performance and progress made against the abovementioned goals, this report also provides an analysis of the proportional representation of historically and currently disadvantaged populations in all staff, student and graduate components of the PSET system in terms of age, race, gender and disability, where the data is available.

By compiling the selected indicators in one place, the report is able to provide a macro perspective on the trajectory of the PSET system. It is therefore positioned to alert policymakers to prevailing problems and hint at the causes of the problems. Where possible, it provides suggestions for improvements in the

design and implementation of education policies. In addition, this indicator report allows educational progress to be tracked and benchmarked against that of international comparator countries. It also serves as a source document for reporting on the progress made on national and international commitments, such as the NDP, the AU's Continental Education Strategy and the UN Sustainable Development Goals.

This is the third report on this topic to be produced and published by the DHET. The first and second reports were published in 2019 and 2021, respectively.

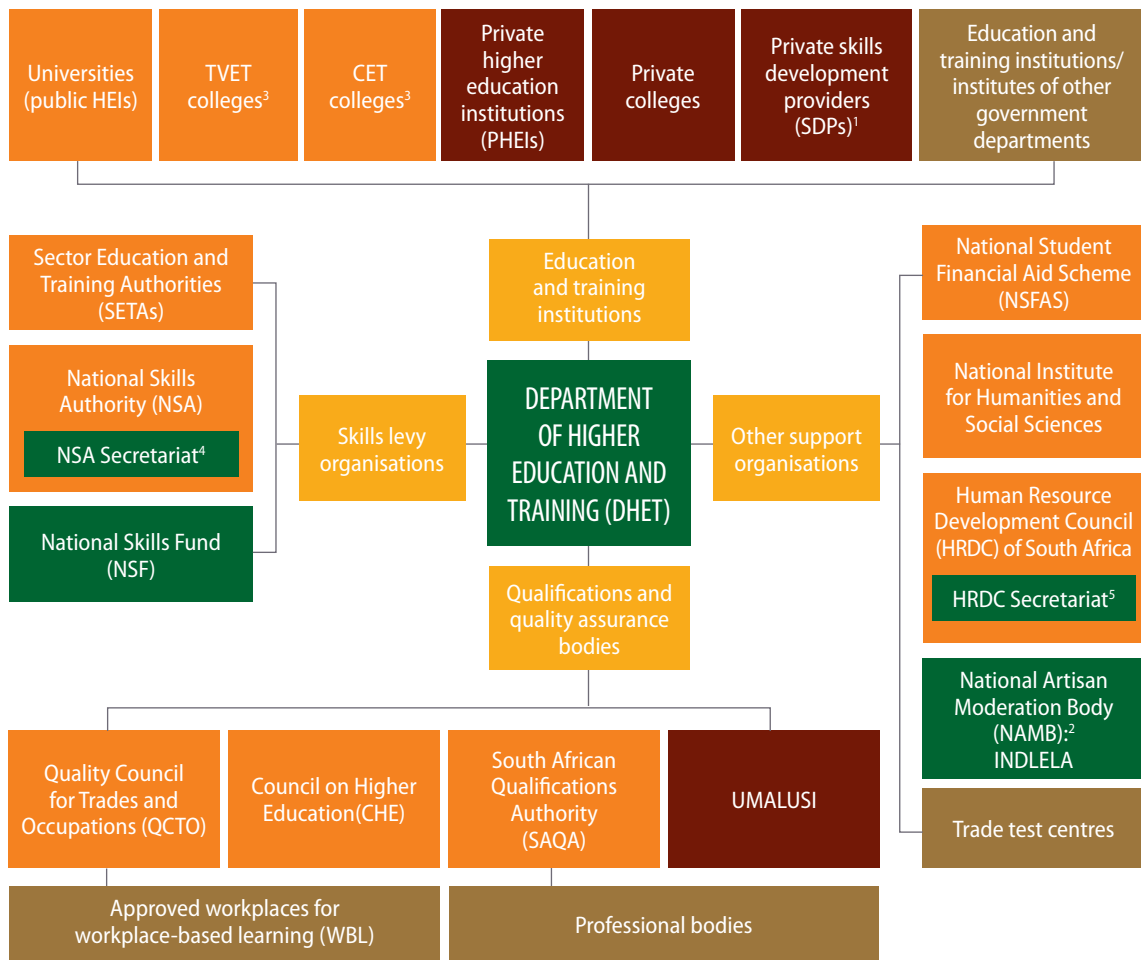
It is important to note that the DHET uses the racial descriptors 'Black African', 'Coloured', 'White' and 'Indian/Asian' for planning, monitoring and funding purposes. The DHET places on record that these racial descriptors, which characterised apartheid policies and practices in the past, are used to provide historical context and comparisons, as well as to describe and measure the effects of present policy and practice on redressing the inequities of the past, as required by the Constitution of South Africa.

1.2 Overview of the PSET system

The E&T landscape has evolved rapidly over the past few decades, with a growing emphasis on the importance of lifelong learning and acquiring new skills to stay competitive in the workforce. In many countries, PSET has become an essential component of an individual's career development, and a crucial driver of economic growth and social mobility. The South African PSET system comprises all E&T for those who have completed primary and secondary schooling, those who did not complete their schooling and adults who never attended school. It is the DHET's vision to lead PSET for economic growth, and to provide national strategic leadership in support of an integrated PSET system for societal development and an improved quality of life for all South Africans.

Figure 1 sets out the current structure of the PSET system, which comprises a range of institutions. Funding sources for PSET differ across organisations and institutions. While public E&T institutions are funded directly by public taxes, skills levy organisations such as SETAs and the National Skills Fund (NSF) are funded by private-sector contributions through the skills levy. Student fees, donations, sponsorships and other mechanisms serve as additional income sources for PSET institutions and skills development providers (SDPs).

FIGURE 1: The PSET system



LEGEND:

- Organisations that are located *inside* the DHET.
- Organisations that are located *outside* the DHET, but in respect of which the DHET has certain legislative functions.
- Organisations that are located *outside* the DHET, which *do not* receive funds from the DHET, but in respect of which the DHET has certain legislative functions.
- Organisations that do not receive funds from the DHET, nor does the DHET have legislative functions in relation to these organisations. However, the DHET entities may have certain legislative responsibilities in relation to these organisations (for example, Quality Councils quality assure formal programmes offered by other government departments, SAQA registers professional bodies and QCTO accredits workplaces for WBL).

Notes:

1. The Skills Development Act makes provision for SDPs.
2. The NAMB is envisaged to be part of QCTO in the future.
3. The DHET manages the personnel budget for TVET and CET colleges (since their staff are DHET employees. College councils have their own employees); however, universities employ their own staff, and therefore manage their own personnel and other budgets.
4. The NSA Secretariat is located inside the Department and services the NSA.
5. The HRDC Secretariat is located within the DHET and provides services to the HRDC.

Source: National Plan for Post-School Education and Training 2021–2030 (DHET, 2023c).

The focus of this report is on the following five key subsectors of the PSET system: public and private universities (also referred to as HEIs), TVET colleges, CET colleges, private colleges and SETAs.

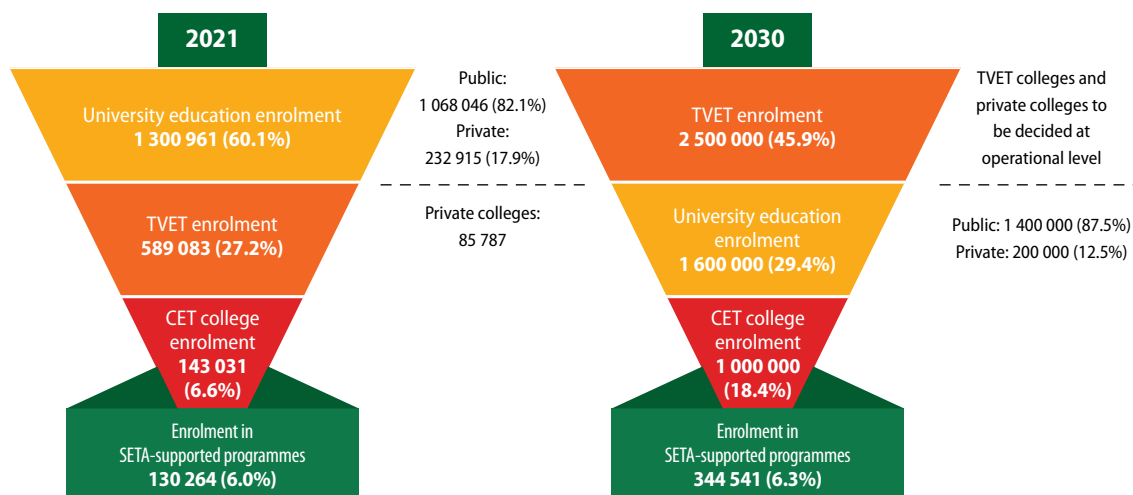
Figure 2 compares the size and shape of the PSET system in 2021 with the targeted size and shape of the PSET system in 2030. To achieve the White Paper’s envisaged growth in enrolments across the PSET system to 5.4 million students by 2030 requires growth in both public and private PSET provision.

As indicated in Figure 2, the total number of enrolments in the PSET system was 2 249 126 students in 2021. The largest share of enrolments was in the university sector (both public and private) at 60.1% (1 300 961), followed by TVET colleges at 27.2% (589 083) and CET colleges at 6.6% (143 031). The enrolments for SETA-supported programmes were 130 264 (accounting for 6.0%). Of the total 1 300 961 enrolments in the university sector, public universities accounted for the greater proportion at 82.1% (1 068 046), while private universities accounted for the remaining 17.9% (232 915) of students.

According to the WPPSET (DHET, 2013), the size and composition of enrolments in the PSET system is envisaged to be transformed by 2030. The White Paper describes the intent to strengthen and expand the PSET system, and to have a total of 5 444 541 enrolments. Of these, TVET should have the largest share of 45.9% (2.5 million), while the university sector should account for 29.4% (1.6 million) and the CET sector 18.4% (1 million), respectively. The remaining 6.3% (344 541) of enrolments should be for SETA-supported programmes.

The universities and SETA-supported programmes are on track, and it is highly likely that their enrolment targets will be achieved by 2030, while the opposite is the case for TVET and CET colleges, where enrolments have remained low and far from the desired levels set for 2030.

FIGURE 2: Comparing the size and shape of the PSET system in 2021 against 2030 targets



Sources: White Paper for Post-School Education and Training (DHET, 2013); Statistics on Post-School Education and Training in South Africa (DHET, 2023a).

2

Demography

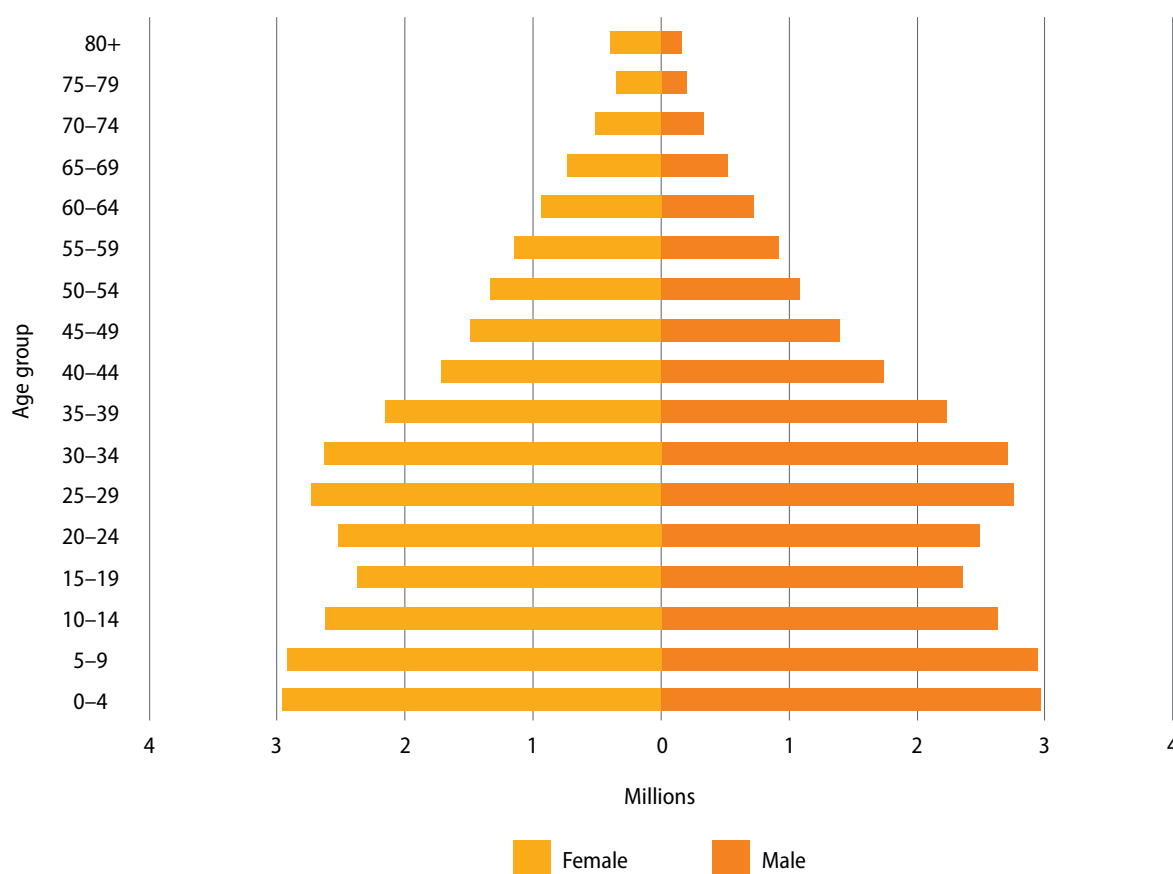


South Africa’s changing demographics (population) has implications for the size of the PSET system, as these changes inform education policies and resource allocation for providing educational services.

The 2022 mid-year population estimates show that Covid-19 deaths had an impact on the structure of the population during 2020–2022, especially in adults aged 60 years and older. The estimated annual growth rate of the population increased from 0.96% for the period 2002–2003 to 1.39% for the period 2019–2020. It declined to 1.03% for the period 2020–2021, mainly due to the increase in deaths during the pandemic and the decline in migration. However, the overall growth rate was estimated to be 1.06% from 2021–2022.

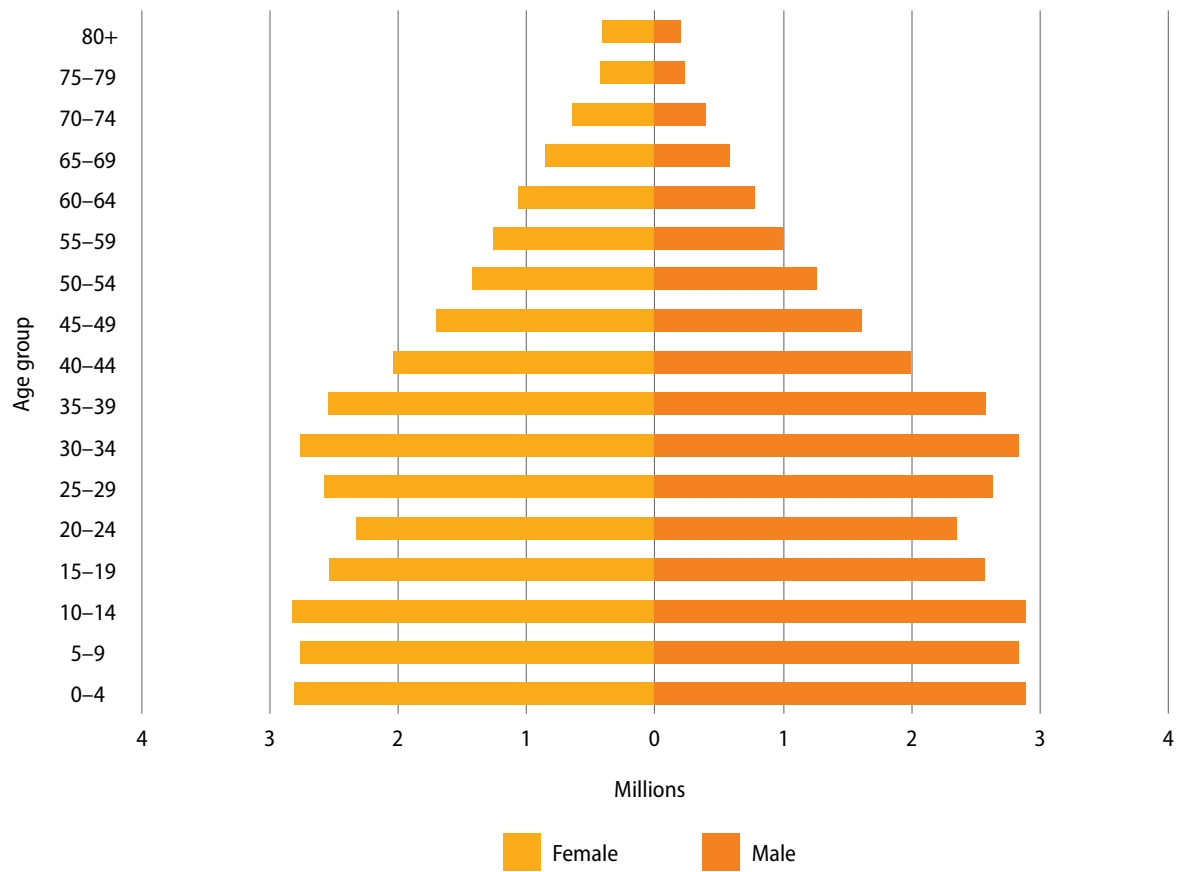
Figure 3 and Figure 4 show the population pyramid for South Africa for 2020 and 2022. Although the age groups 15–19 and 20–24 (the PSET-entering age categories) are smaller than the succeeding age categories, 25–29 and 30–34 years, the preceding cohorts are large, indicating that the demand for PSET opportunities will increase in the foreseeable future as those age cohorts start to exit the basic education system. This is evident when comparing the 2020 and 2022 population pyramids, where the age groups 15–19 and 20–24 have increased in 2022 compared with 2020. Thus, the plans for expanding PSET opportunities should also consider the large number of children who are currently in the age categories 10–14 and 5–9.

FIGURE 3: Population pyramid for South Africa, 2020



Source: Mid-year population estimates (Stats SA, 2020).

FIGURE 4: Population pyramid for South Africa, 2022



Source: Mid-year population estimates (Stats SA, 2022).



3

**Level of
Education in the
South African
Population**

3.1 What is the highest level of educational attainment in the population?

South Africa's commitment to the development of a skilled and capable workforce is reflected in its NDP and strategic plans, such as the Medium-term Strategic Framework (MTSF) (Department of Planning, Monitoring and Evaluation [DPME], 2014). A proxy measure of the skills and capability of South Africa's workforce is its highest level of educational attainment (HLEA). The HLEA is often used globally to compare education levels of people across nations. Such comparisons serve as a barometer of the extent to which countries perform in terms of their education systems and are used by investors to assess investment potential in a country. Moreover, a person's educational attainment is one of the most important determinants of his or her life prospects in terms of employment, income, health status, housing and many other amenities (Belfield & Levin, 2016). More years of schooling in the population reflect a workforce that is more highly skilled and productive, leading to improved long-term economic growth and social outcomes (Barro & Lee, 2010).

Table 1 shows that the education levels of persons aged 25–64 years have improved over the past eight years. The share of the population aged 25–64 years who have completed secondary education as their HLEA (Grade 12 or equivalent) increased from 27.4% in 2014 to 33.2% in 2022, while those who have degrees increased from 5.2% to 7.0% in the same period.

TABLE 1: Number and share of persons in the population aged 25–64 years by HLEA, 2014 and 2022

HLEA	Q3:2014		Q3:2022	
	THOUSANDS	%	THOUSANDS	%
No schooling	1 118	4.4%	674	2.2%
Less than primary schooling	2 526	10.0%	1 976	6.6%
Primary schooling	1 234	4.9%	1 164	3.9%
Some secondary schooling	9 527	37.8%	11 139	37.0%
Secondary (Grade 12 or equivalent)	6 915	27.4%	10 003	33.2%
Certificate	784	3.1%	907	3.0%
Diploma	1 539	6.1%	1 702	5.7%
Degree	1 310	5.2%	2 112	7.0%
Other	271	1.1%	416	1.4%
Total	25 224	100.0%	30 095	100.0%

Source: Quarterly Labour Force Survey (QLFS) Q3:2014 and Q3:2022 (Nesstar, downloaded 04 May 2023).

Notes:

1. 'No schooling' includes the following categories: No schooling and Grade R/0.
2. 'Less than primary schooling' completed includes the following categories: Grade 1/Sub A/Class 1; Grade 2/Sub B/Class 2; Grade 3/Standard 1/AET 1 (KHARI RI GUDE, SANLI); Grade 4/Standard 2; Grade 5/Standard 3/AET 2; Grade 6/Standard 4.
3. 'Primary schooling' completed refers to Grade 7/Standard 5/AET 3.
4. 'Some secondary schooling' completed includes the following categories: Grade 8/Standard 6/Form 1; Grade 9/Standard 7/Form 2/AET 4; Grade 10/Standard 8/Form 3; Grade 11/Standard 9/Form 4; NTC 1/N1/NC (v) Level 2; NTC 2/N2/NC (v) Level 3; Certificate with less than Grade 12/Std 10 and Diploma with less than Grade 12/Std 10.
5. 'Secondary' completed includes the following categories: Grade 12/Standard 10/Form 5/Matric (No Exemption); Grade 12/Standard 10/Form 5/Matric (Exemption/Bachelor's pass) and NTC 3/N3/NC (v) Level 4.
6. 'Certificate' includes the following categories: N4/NTC 4; N5/NTC 5; N6/NTC 6 and Certificate with Grade 12/Std 10.
7. 'Diploma' includes the following categories: Diploma with Grade 12/Std 10 and Higher Diploma.
8. 'Degree' includes the following categories: Post Higher Diploma (Master's, Doctoral Diploma), Bachelor's degree, Bachelor's degree and postgraduate diploma, Honours degree and higher degree (Master's/PhD).
9. 'Other' includes the following categories: Other and Do not know.

Table 2 shows the number and share of persons in the population aged 25–64 years by HLEA and gender in 2014 and 2022. By 2022, more females (55.5%) had a degree as their HLEA compared with 49.0% in 2014, while those who had a diploma as their HLEA remained stable at just below 55%.

TABLE 2: Number and share of persons in the population aged 25–64 years by HLEA and gender, 2014 and 2022

HLEA	Q3:2014						Q3:2022					
	MALE		FEMALE		TOTAL	MALE		FEMALE		TOTAL		
	THOUSANDS	%	THOUSANDS	%		THOUSANDS	%	THOUSANDS	%			
No schooling	478	42.8%	640	57.2%	1 118	267	39.6%	407	60.4%	674		
Less than primary schooling	1 253	49.6%	1 274	50.4%	2 526	1 034	52.3%	942	47.7%	1 976		
Primary schooling	579	46.9%	655	53.1%	1 234	628	54.0%	536	46.0%	1 164		
Some secondary schooling	4 656	48.9%	4 871	51.1%	9 527	5 529	49.6%	5 610	50.4%	11 139		
Secondary (Grade 12 or equivalent)	3 428	49.6%	3 487	50.4%	6 915	4 995	49.9%	5 008	50.1%	10 003		
Certificate	411	52.4%	374	47.6%	784	452	49.8%	456	50.2%	907		
Diploma	695	45.2%	844	54.8%	1 539	773	45.4%	930	54.6%	1 702		
Degree	668	51.0%	641	49.0%	1 310	940	44.5%	1 172	55.5%	2 112		
Other	143	52.7%	128	47.3%	271	254	61.0%	162	39.0%	416		
Total	12 312	48.8%	12 913	51.2%	25 224	14 872	49.4%	15 223	50.6%	30 095		

Source: QLFS Q3:2014 and Q3:2022 (Nesstar, downloaded 04 May 2023).

Notes:

1. 'No schooling' includes the following categories: No schooling and Grade R/0.
2. 'Less than primary schooling' completed includes the following categories: Grade 1/Sub A/Class 1; Grade 2/Sub B/Class 2; Grade 3/Standard 1/AET 1 (KHARI RI GUDE, SANLI); Grade 4/Standard 2; Grade 5/Standard 3/AET 2; Grade 6/Standard 4.
3. 'Primary schooling' completed refers to Grade 7/Standard 5/AET 3.
4. 'Some secondary schooling' completed includes the following categories: Grade 8/Standard 6/Form 1; Grade 9/Standard 7/Form 2/AET 4; Grade 10/Standard 8/Form 3; Grade 11/Standard 9/Form 4; NTC 1/N1/NC (v) Level 2; NTC 2/N2/NC (v) Level 3; Certificate with less than Grade 12/Std 10 and Diploma with less than Grade 12/Std 10.
5. 'Secondary' completed includes the following categories: Grade 12/Standard 10/Form 5/Matric (No Exemption); Grade 12/Standard 10/Form 5/Matric (Exemption/Bachelor's pass) and NTC 3/N3/NC (v) Level 4.
6. 'Certificate' includes the following categories: N4/NTC 4; N5/NTC 5; N6/NTC 6 and Certificate with Grade 12/Std 10.
7. 'Diploma' includes the following categories: Diploma with Grade 12/Std 10 and Higher Diploma.
8. 'Degree' includes the following categories: Post Higher Diploma (Master's, Doctoral Diploma), Bachelor's degree and postgraduate diploma, Honours degree and higher degree (Master's/PhD).
9. 'Other' includes the following categories: Other and Do not know.

Table 3 shows that the levels of educational attainment across all race groups improved markedly over the past eight years. It shows that the proportion of Black Africans in the 25–64 age group with no schooling dropped by 40.4% over the past eight years, while those with Grade 12 as their HLEA increased from about a quarter of the population to almost a third of the population.

In 2022, Black African (39.3%) and Coloured (43.1%) race groups had the largest proportions of the population with some secondary schooling as their HLEA in 2022, while the highest proportion of Whites and Indians/Asians had secondary schooling as their HLEA.

About a quarter each of White and Indian/Asian persons in the 25–64 age group had a degree in 2022, while the corresponding figures for Black Africans and Coloureds were approximately 5.0% per group.

The proportion of Black African adults with a degree as their HLEA increased significantly from 3.1% in 2014 to 4.9% in 2022, although still materially lower than their counterparts.

Furthermore, the findings of the report show that there has also been an improvement in the share of 15–24-year-olds who had some secondary schooling as their HLEA from 2014 to 2022 (see Table 4 in the PSET Monitor Report Full Tables and Figures for detailed information on the HLEA by age group.)

TABLE 3: Number and share of persons in the population aged 25–64 years by HLEA and race, 2014 and 2022

HLEA	BLACK AFRICAN				COLOURED				INDIAN/ASIAN				WHITE			
	Q3:2014		Q3:2022		Q3:2014		Q3:2022		Q3:2014		Q3:2022		Q3:2014		Q3:2022	
	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%	THOUSANDS	%
No schooling	1 062	5.4%	633	2.6%	43	1.8%	36	1.3%	10	1.3%	2	0.2%	3	0.1%	3	0.1%
Less than primary schooling	2 255	11.5%	1 775	7.3%	234	9.7%	178	6.6%	16	2.1%	19	2.3%	22	0.9%	4	0.2%
Primary schooling	1 061	5.4%	991	4.1%	159	6.6%	151	5.6%	12	1.6%	8	1.0%	3	0.1%	14	0.6%
Some secondary schooling	7 894	40.3%	9 537	39.3%	1 040	43.1%	1 162	43.1%	189	25.1%	161	19.1%	404	16.2%	280	12.2%
Secondary (Grade 12 or equivalent)	4 933	25.2%	7 867	32.4%	647	26.8%	802	29.8%	321	42.6%	334	39.5%	1 014	40.8%	999	43.4%
Certificate	590	3.0%	733	3.0%	52	2.2%	57	2.1%	16	2.1%	19	2.3%	126	5.1%	98	4.3%
Diploma	953	4.9%	1 200	4.9%	126	5.2%	110	4.1%	73	9.7%	85	10.1%	387	15.6%	307	13.4%
Degree	612	3.1%	1 191	4.9%	82	3.4%	139	5.1%	111	14.7%	205	24.3%	505	20.3%	577	25.1%
Other	209	1.1%	329	1.4%	31	1.3%	59	2.2%	7	0.9%	10	1.2%	24	1.0%	18	0.8%
Total	19 568	100.0%	24 256	100.0%	2 414	100.0%	2 693	100.0%	754	100.0%	845	100.0%	2 487	100.0%	2 301	100.0%

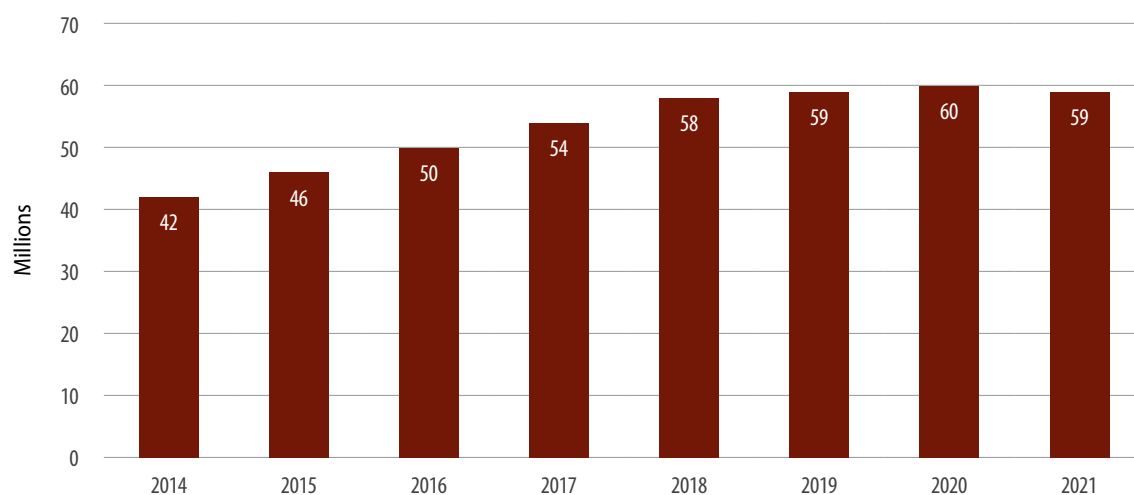
Source: Stats SA QIFS Q3:2014 and Q3:2022 (Nesstar, downloaded 08 May 2023).

Notes:

1. 'No schooling' includes the following categories: No schooling and Grade R/0.
2. 'Less than primary schooling' completed includes the following categories: Grade 1/Sub A/Class 1; Grade 2/Sub B/Class 2; Grade 3/Standard 1/AET 1 (KHARI RI GUDE, SANLI); Grade 4/Standard 2; Grade 5/Standard 3/AET 2; Grade 6/Standard 4.
3. 'Primary schooling' completed refers to Grade 7/Standard 5/AET 3.
4. 'Some secondary schooling' completed includes the following categories: Grade 8/Standard 6/Form 1; Grade 9/Standard 7/Form 2/AET 4; Grade 10/Standard 8/Form 3; Grade 11/Standard 9/Form 4; NTC 1/N1/NC (v) Level 2; NTC 2/N2/NC (v) Level 3; Certificate with less than Grade 12/Std 10 and Diploma with less than Grade 12/Std 10.
5. 'Secondary' completed includes the following categories: Grade 12/Standard 10/Form 5/Matric (No Exemption); Grade 12/Standard 10/Form 5/Matric (Exemption/Bachelor's pass) and NTC 3/N3/NC (v) Level 4.
6. 'Certificate' includes the following categories: N4/NTC 4; N5/NTC 5; N6/NTC 6 and Certificate with Grade 12/Std 10.
7. 'Diploma' includes the following categories: Diploma with Grade 12/Std 10 and Higher Diploma.
8. 'Degree' includes the following categories: Post Higher Diploma (Master's, Doctoral Diploma), Bachelor's degree and postgraduate diploma, Honours degree and higher degree (Master's/PhD).
9. 'Other' includes the following categories: Other and Do not know.

The number of doctoral graduates per million of the population produced annually is an essential indicator of the country's progress towards building the human capital stock of high-level skills needed to stimulate productivity in an economy. Figure 5 indicates that the number of doctoral graduates per million of the population increased consistently throughout the period 2014 to 2021. There were 59 doctoral graduates per million of the population in 2021. Although the number of doctoral graduates produced per year has doubled since the inception of the NDP, it is not enough to reach the NDP target of more than 100 doctoral graduates per million of the population by 2030, especially given that the population has grown over the years. This means that the targets for doctoral graduates need to be reviewed and aligned with the projected population estimates by 2030.

FIGURE 5: Number of doctoral degree graduates per million of the population per year, 2014–2021

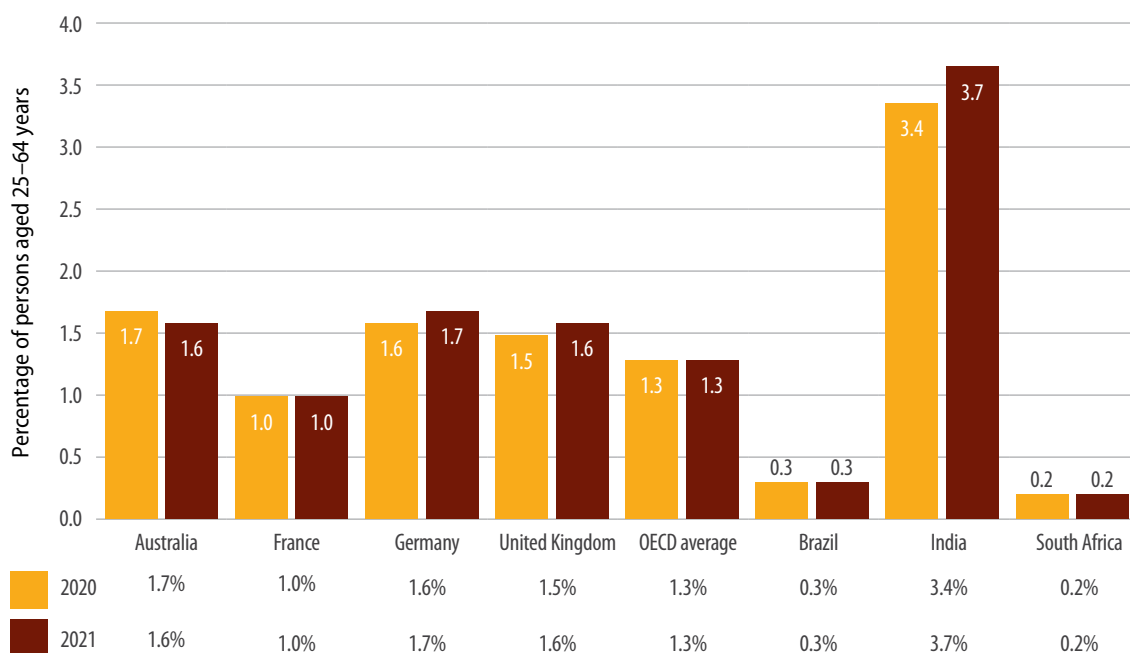


Sources: DHET HEMIS database and Stats SA Mid-year population estimates.

Figure 6 makes an international comparison of doctoral degree graduates as proportions of selected countries' populations aged 25–64 years that attained doctoral or equivalent (ISCED 8) degrees in 2020 and 2021. The respective indicator is calculated by dividing the number of persons aged 25–64 years who hold a completed doctoral or equivalent degree by the total population of the same age group and multiplying the result by 100.

The share of South Africa's population aged 25–64 years that attained a doctoral degree or equivalent was low, remaining stable at 0.2% in 2020 and 2021. In 2021, India recorded the largest share of the population aged 25–64 years with a doctoral degree or equivalent (3.7%), followed by Germany (1.7%), and Australia and United Kingdom (1.6%).

FIGURE 6: Share of population aged 25–64 years that attained doctoral degrees or equivalent (ISCED 8) (%) by country, 2020–2021

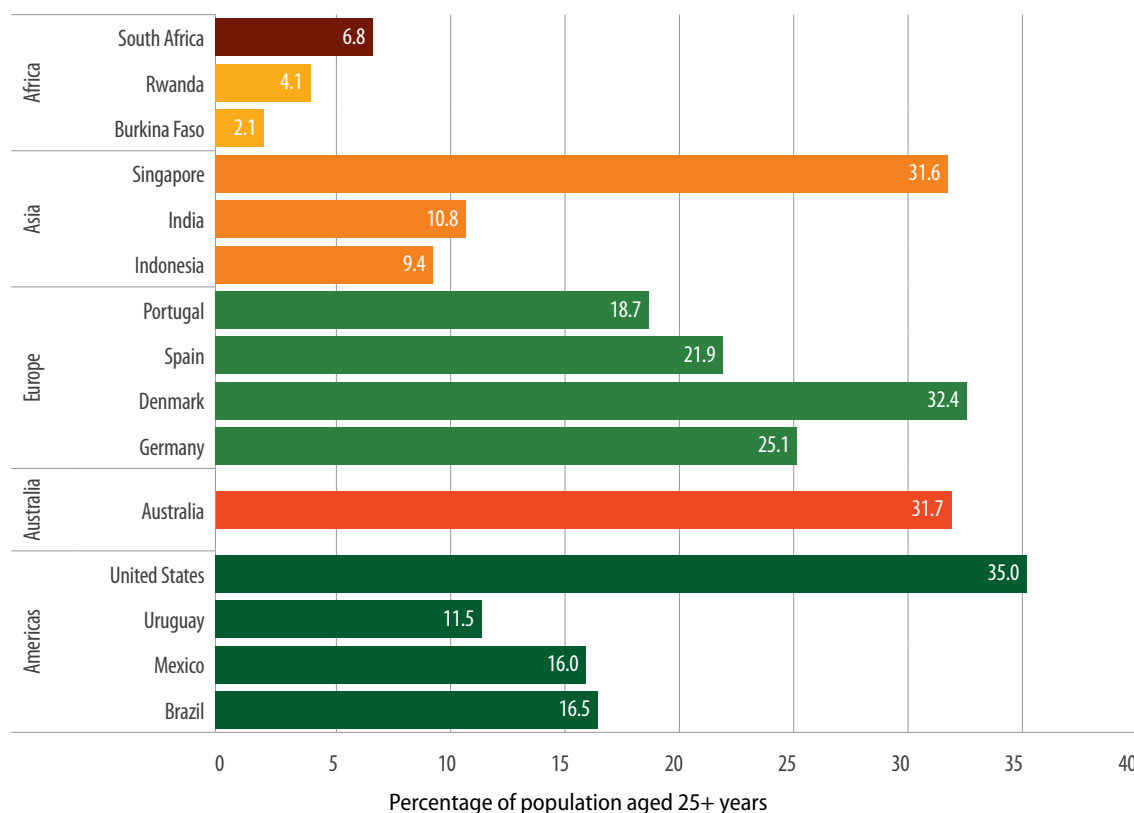


Sources: Stats SA, General Household Surveys 2020 and 2021; OECD, Education at Glance (2020 and 2021).

Note: The proportions for all other countries were obtained from the OECD, while proportions for South Africa were calculated using data from Stats SA.

Figure 7 presents an international comparison of persons who completed university education (at least a Bachelor's or equivalent degree [ISCED 6 or higher]) relative to the population. According to the graph, the percentage of the South African population aged 25 years and above with at least a completed Bachelor's or equivalent degree stood at 6.8% in 2018. South Africa's performance in this regard was substantially higher relative to other African nations such as Rwanda (4.1%) and Burkina Faso (2.1%); however, it was significantly lower than that of many other countries. South Africa's position relative to BRICS countries such as India (10.8%) and Brazil (16.5%) was considerably low, but more so compared with Singapore (31.6%) and United States (35.0%).

FIGURE 7: The percentage of the population aged 25 years and over with at least a completed Bachelor's or equivalent degree (ISCED 6 or higher) by country, 2018



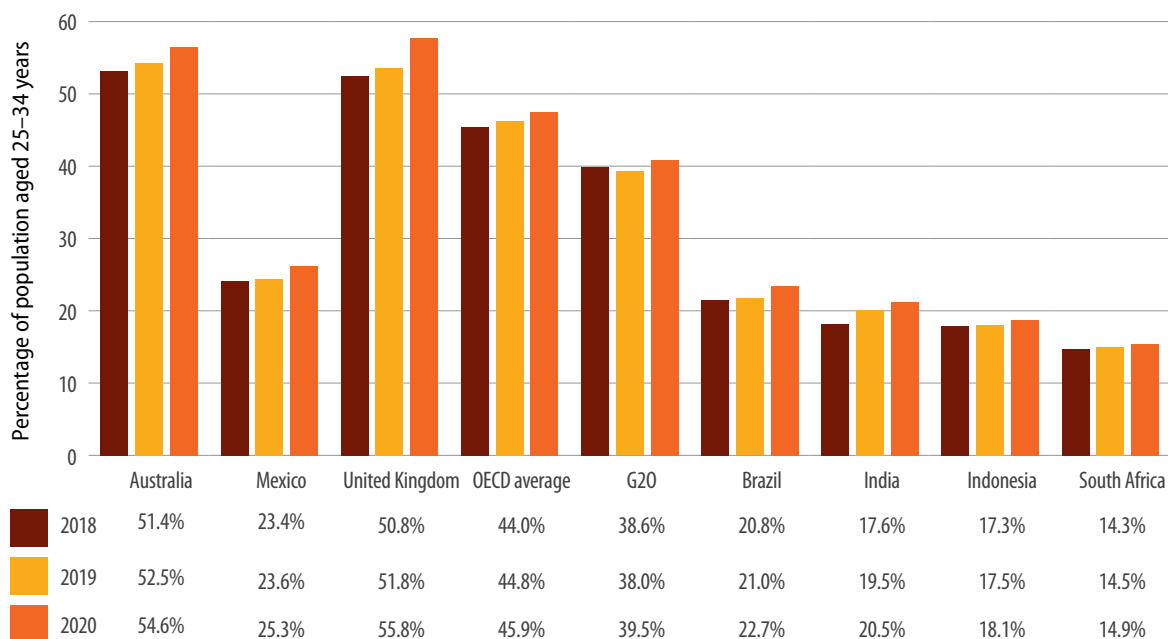
Sources: World Bank (Downloaded 11 May 2023) and Labour Market Dynamics 2018 (Nesstar Downloaded 11 May 2023).

Note: The proportions for all other countries were obtained from the World Bank, while proportions for South Africa were calculated using data from Stats SA.

To inform suitable education and skills policy interventions in response to changing economic and labour market conditions, the knowledge base and specialised skills of individuals needs to continually improve to meet the needs of labour markets. Against this backdrop, it is essential for a country to monitor the share of its population by age group, with tertiary education and ensure improvement over time. The OECD defines the population with tertiary education as those having completed the highest level of education, by age group. Tertiary education includes both theoretical programmes leading to advanced research or high-skill professions and more vocational programmes leading to the labour market.

Figure 8 presents the share of the population aged 25–34 years with tertiary education in South Africa relative to those of the same age category in selected countries around the world, expressed as a percentage. South Africa’s performance, which stood at 14.9% in 2020, compares poorly and was substantially lower than the OECD average of 45.9% in 2020. Moreover, South Africa’s performance in 2020 was lower than Mexico’s (25.3%) and Brazil’s (22.7%).

FIGURE 8: The percentage of the population aged 25–34 years with tertiary education by country, 2018–2020



Source: OECD.Stat (Extracted 12 May 2023).

3.2 How does educational attainment affect participation in the labour market?

Table 4 presents the number of employed and unemployed persons in the population aged 25–64 years by their HLEA in 2014, 2019 and 2022. In 2022, South Africa had 14.7 million employed and about 6.2 million unemployed persons. Although employment rates have generally decreased from 2014 to 2022, irrespective of HLEA, the data continues to show a positive correlation between higher levels of education and higher employment rates. In 2022, employment rates were highest for those with degrees (80.5%), followed by those with diplomas (72.5%) and certificates (63.5%). In 2022, unemployment rates were highest among those with some secondary education (39.1%), followed by primary schooling (32.2%) and less than primary schooling (31.6%). The unemployment rate for persons with degrees was the lowest at 9.5%.

TABLE 4: Number of employed and unemployed¹ persons in the population aged 25–64 years by HLEA, and the absorption and unemployment rates, Q3:2014, Q3:2019 and Q3:2022

HLEA	EMPLOYED						UNEMPLOYED					
	Q3:2014		Q3:2019		Q3:2022		Q3:2014		Q3:2019		Q3:2022	
	THOUSANDS	ABSORPTION RATE (%)	THOUSANDS	ABSORPTION RATE (%)	THOUSANDS	ABSORPTION RATE (%)	THOUSANDS	UNEMPLOYMENT RATE (%)	THOUSANDS	UNEMPLOYMENT RATE (%)	THOUSANDS	UNEMPLOYMENT RATE (%)
No schooling	378	33.8%	286	32.4%	151	22.4%	73	16.2%	68	19.2%	48	24.1%
Less than primary schooling	1 003	39.7%	913	39.7%	650	32.9%	283	22.0%	305	25.0%	301	31.6%
Primary schooling	561	45.5%	587	46.3%	427	36.7%	164	22.6%	199	25.3%	202	32.2%
Some secondary schooling	4 603	48.3%	5 017	46.5%	4 401	39.5%	1 878	29.0%	2 509	33.3%	2 820	39.1%
Secondary (Grade 12 or equivalent)	4 243	61.3%	4 884	58.8%	5 339	53.4%	1 114	20.8%	1 586	24.5%	2 126	28.5%
Certificate	546	69.7%	638	65.3%	576	63.5%	119	17.9%	199	23.7%	196	25.4%
Diploma	1 250	81.2%	1 293	76.0%	1 234	72.5%	123	9.0%	189	12.7%	235	16.0%
Degree	1 114	85.0%	1 459	83.6%	1 701	80.5%	51	4.4%	110	7.0%	178	9.5%
Other	167	61.6%	195	61.7%	221	53.2%	25	13.2%	34	15.0%	46	17.2%
Total	13 865	55.0%	15 273	54.0%	14 700	48.8%	3 831	21.6%	5 197	25.4%	6 153	29.5%

Source: Stats SA QIFS Q3:2014 and Q3:2022 (Nesstar, downloaded 10 May 2023).

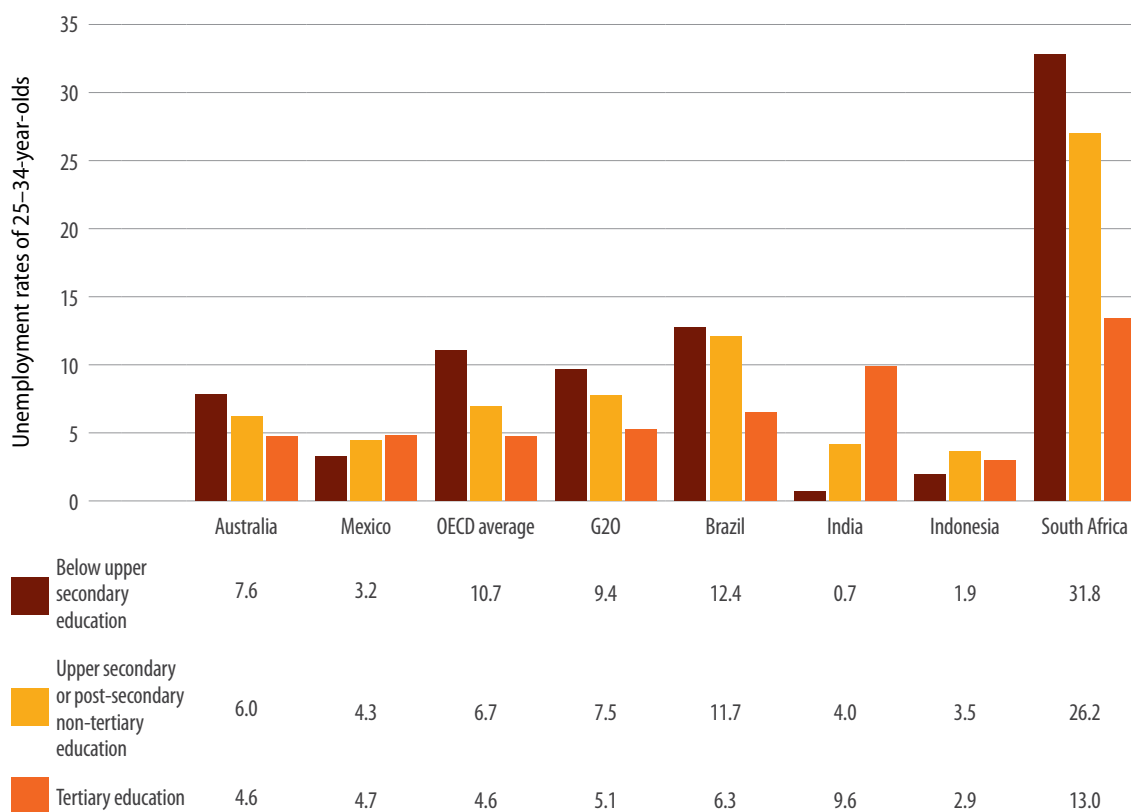
Notes:

- 'No schooling' includes the following categories: No schooling and Grade R/0.
- 'Less than primary schooling' completed includes the following categories: Grade 1/Sub A/Class 1; Grade 2/Sub B/Class 2; Grade 3/Standard 1/AET 1 (KHARI RI GUDE, SANLI); Grade 4/Standard 2; Grade 5/Standard 3/AET 2; Grade 6/Standard 4.
- 'Primary schooling' completed refers to Grade 7/Standard 5/AET 3.
- 'Some secondary schooling' completed includes the following categories: Grade 8/Standard 6/Form 1; Grade 9/Standard 7/Form 2/AET 4; Grade 10/Standard 8/Form 3; Grade 11/Standard 9/Form 4; NTC 1/N1/NC (v) Level 2; NTC 2/N2/NC (v) Level 3; Certificate with less than Grade 12/Std 10 and Diploma with less than Grade 12/Std 10.
- 'Secondary' completed includes the following categories: Grade 12/Standard 10/Form 5/Matric (No Exemption); Grade 12/Standard 10/Form 5/Matric (Exemption/Bachelor's pass) and NTC 3/N3/NC (v) Level 4.
- 'Certificate' includes the following categories: N4/NTC 4; N5/NTC 5; N6/NTC 6 and Certificate with Grade 12/Std 10.
- 'Diploma' includes the following categories: Diploma with Grade 12/Std 10 and Higher Diploma.
- 'Degree' includes the following categories: Post Higher Diploma (Master's, Doctoral Diploma), Bachelor's degree and postgraduate diploma, Honours degree and higher degree (Master's/PhD).
- 'Other' includes the following categories: Other and Do not know.

¹ The narrow or official definition of unemployment was used.

Figure 9 presents unemployment rates of South African persons aged 25–34 years by their HLEA relative to the OECD average and those of Australia, Brazil, G20, Indonesia, India, and Mexico in 2020. South Africa’s unemployment rates for persons in the specified age category among each of the three groups of educational attainment (below upper secondary, upper secondary or post-secondary non-tertiary, and tertiary) were much higher relative to the analogous unemployment rates of specified countries and the OECD average. Across all countries, unemployment rates by level of educational qualification generally declined as persons attained higher levels of educational attainment.

FIGURE 9: Unemployment rates² of 25–34-year-olds, by HLEA, 2020

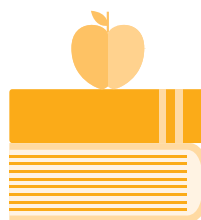


Source: OECD.Stat (Extracted 12 May 2023).

² Unemployment rates as a percentage of 25–34-year-olds in the labour force.

4

Access to post-school education and training



4.1 To what extent is there access to PSET?

This chapter provides an analysis of participation rates in the PSET system by making use of the following two indicators: the Gross Enrolment Ratio (GER) and the GPI. It also presents an analysis of enrolment trends relative to the overall population and the number of persons who are not in employment, education or training (NEET) to assess whether the PSET system is making a transformational impact on access to E&T while reducing the numbers of those who are NEET.

4.1.1 Enrolment at PSET institutions relative to the population

Table 5 shows the population trends of persons aged 15–64 years relative to enrolment in the PSET system. It reveals that growth in student enrolment in the PSET system is not keeping pace with population growth. While the population of 15–64-year-olds increased by 12.0% from about 35.5 million in 2014 to 39.7 million in 2021, PSET enrolment declined by 5.6% from about 2.4 million to 2.2 million in the same period. The decline in PSET enrolment is due largely to considerable reductions in enrolment in the CET sector (noting that enrolment in HEIs actually increased). The data indicates that enrolment in the PSET system is noticeably lagging behind population growth and is unable to meet the education needs of the population.

TABLE 5: Working-age population (15–64 years) versus PSET enrolment, 2014 and 2021

	2014	2021	% GROWTH
	THOUSANDS		
Population	35 489	39 745	12.0%
Enrolment	2 384	2 249	-5.6%

Sources: *Statistics on Post-School Education and Training in South Africa (DHET: 2016 and 2023a)*; *QLFS 2014–2021 (Stats SA, 2022)*.

Notes:

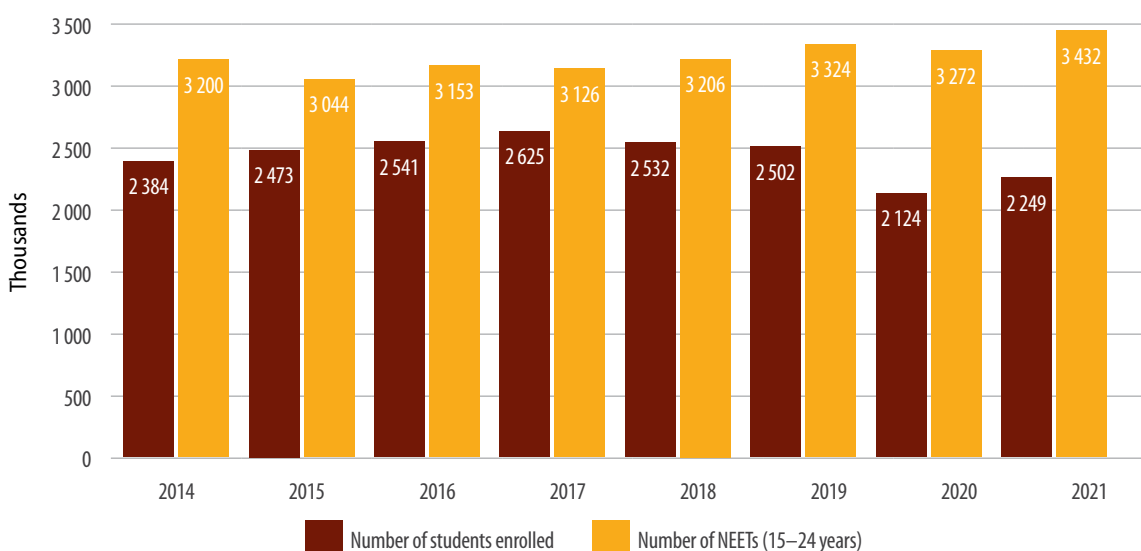
1. The 2021 total enrolment for CET colleges is based on a response rate of 88.3%.
2. The enrolment figures reflected in this table include enrolment in both public and private PSET institutions.
3. The 2021 figure for private colleges represents enrolment at only 100 of the 133 registered private colleges that responded to the departmental Annual Survey.

4.1.2 Enrolment at PSET institutions relative to persons who are NEET

Although South Africa has made remarkable progress in expanding student enrolment and promoting equitable access to PSET institutions over the past decade, enrolment in PSET has been on a downward trajectory since 2017, but increased slightly in 2021. On the other hand, the number of NEETs has continued to increase steadily, hindering the achievement of the NDP enrolment targets.

Figure 10 shows that in 2021, 2.2 million students were enrolled in PSET institutions (irrespective of age), while the number of NEETs aged 15–24 years was over 3.4 million. Enrolment in PSET has been on a downward trend from 2017 to 2020 and increased slightly in 2021. The sharp decrease in the number of students enrolled in PSET institutions in 2020 can be attributed to the impact of Covid-19 that disrupted teaching and learning, not only in South Africa but the world over. This further widened the gap between the NEETs aged 15–24 years and students enrolled in PSET institutions (irrespective of age).

FIGURE 10: Total number of students attending PSET institutions (all age groups) compared to NEET youth (15–24-year-olds) in thousands, 2014–2021



Sources: QLFS 2014–2022 (Stats SA, 2022); Statistics on Post-School Education and Training in South Africa (DHET: 2019a, 2020a, 2021a and 2022a).

4.1.3 Access to universities

In 2021, there were 26 public universities and 124 private universities³ in South Africa, with the total public and private enrolment being over 1.3 million in that year (DHET, 2023a). The NDP and the WPPSET envisage enrolments at universities (both public and private) to increase to 1.6 million by 2030. For this target to be realised, enrolments at universities need to increase at an average growth rate of 2.3% per annum from 2022 to 2030. Past trends suggest that this growth rate is realisable and the NDP target therefore achievable.

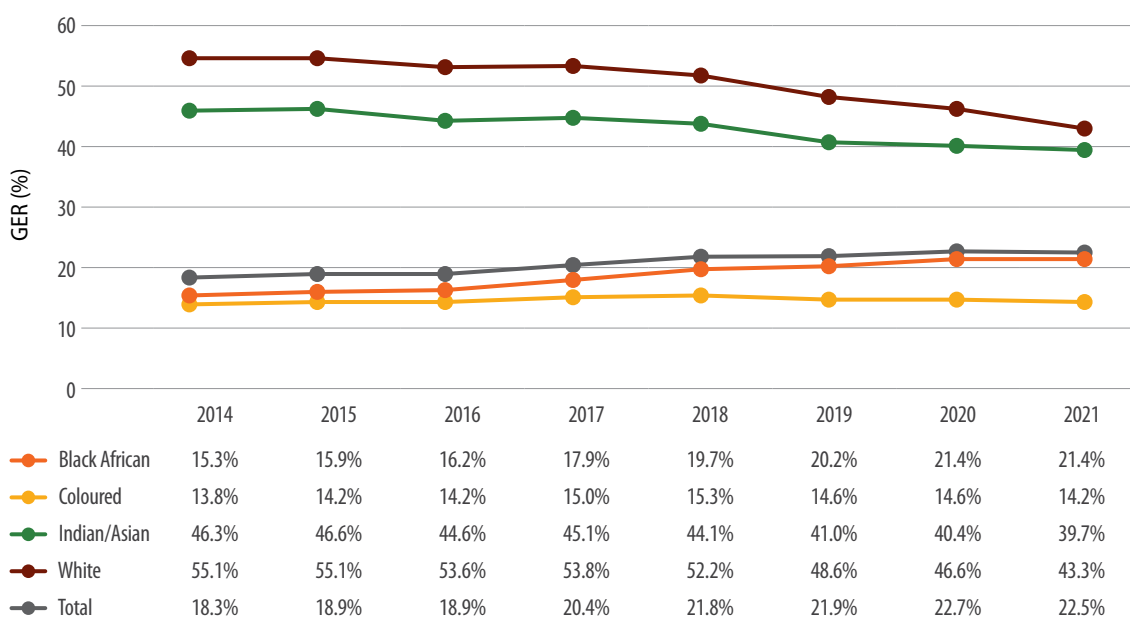
³ Legally, the term ‘private higher education institutions’ (PHEIs) is used to refer to what is commonly known as private ‘universities’.

4.1.3.1 Gross Enrolment Ratio (GER) – Public universities

Figure 11 shows the GER at public universities, by race, from 2014 to 2021. The total GER for public universities stood at 22.5% in 2021, an increase from 18.3% in 2014, reflecting a significant improvement over the period under review. Based on enrolment growth trends over the past eight years, it is likely that the GER target of 25.0% set in the WPPSET (DHET, 2013a) for university participation rates will be met by 2030.

Although racial disparities in participation rates at public universities continue to reflect overall historical patterns of inequitable access, noticeable changes are evident over the past eight years. Despite being lowest relative to other racial groups, the GER for Black Africans improved steadily from 15.3% in 2014 to 21.4% in 2021. On the other hand, although the GER for Whites remained the highest relative to other racial groups in 2021, it declined by over 10 percentage points over the past eight years, from 55.1% in 2014 to 43.3% in 2021. Similarly, the GER for Indians/Asians steadily declined from 46.3% in 2014 to 39.7% in 2021. The declines in the GER of Whites and Indians/Asians at public universities are offset by their increasing participation rates in private universities, as shown below. The participation rates of Coloureds at public universities remains disappointingly low. See table 8 in the document containing additional tables and figures for PSET Monitor report.

FIGURE 11: Public universities: GER by race, 2014–2021



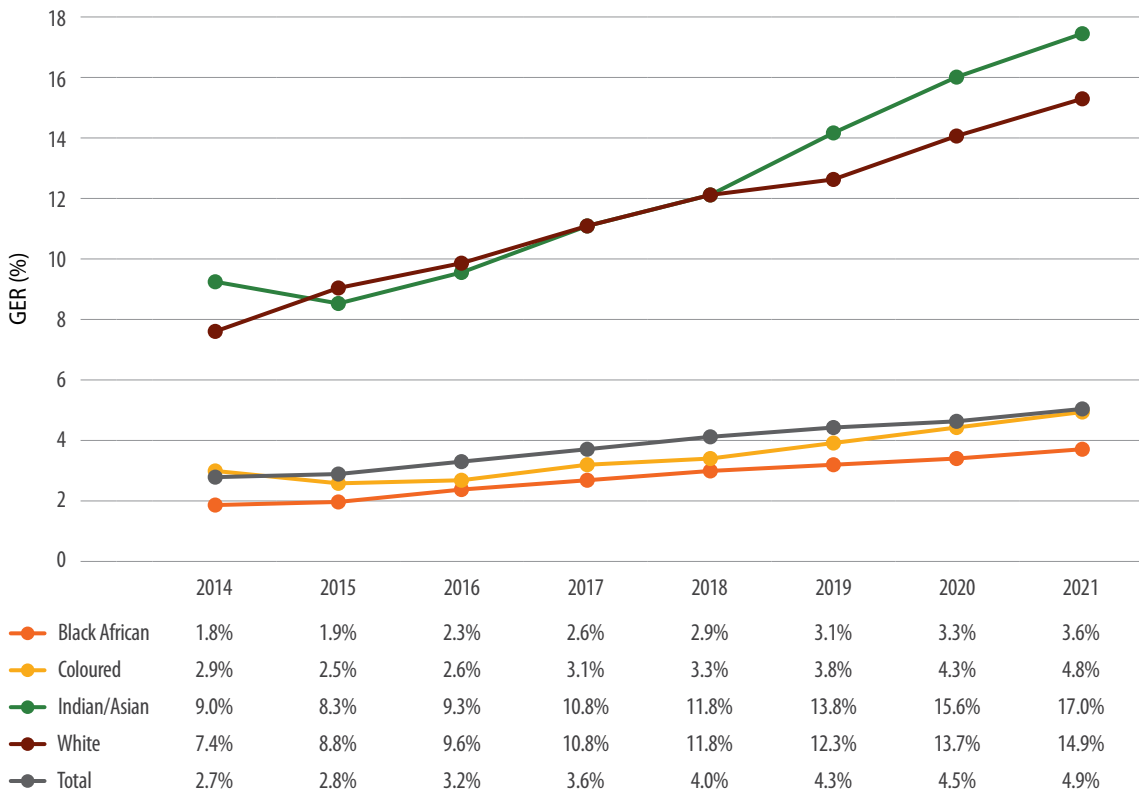
Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

Note: This report uses the age group 20–24 to calculate the GER for universities.

4.1.3.2 Gross Enrolment Ratio (GER) – Private universities

Figure 12 shows the GERs for private universities, by race, during the period 2014–2021. The overall GER of students enrolled at private universities was 4.9% in 2021, having increased by 2.2 percentage points from 2.7% in 2014. Indians/Asians and Whites enrolled at private universities recorded the highest GER of 17.0% and 14.9%, respectively, while Black Africans recorded the lowest GER of 3.6% in 2021.

FIGURE 12: Private universities: GER by race, 2014–2021



Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET, 2023a).

Note: This report uses the age group 20–24 to calculate the GER for universities.

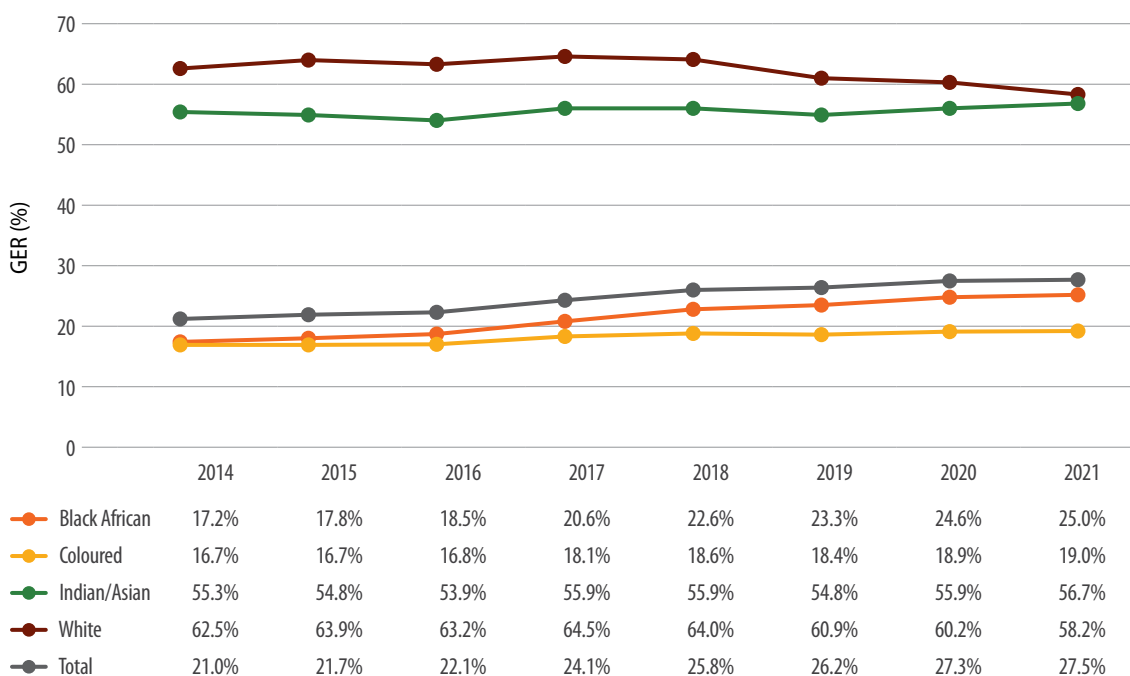
Enrolment by Black African students recorded the largest growth rate of 8.4% per annum between 2014 and 2021, while Coloured students recorded the least average growth of 6.8% during the period under review. See table 9 in the document containing additional tables and figures for PSET Monitor report.

4.1.3.3 Gross Enrolment Ratio (GER) – Public and private universities

Figure 13 presents the GER, by race, for both public and private universities over the period 2014 to 2021. The overall GER for the South African university sector (public and private) was 27.5% in 2021. This reflects a significant improvement of 6.5 percentage points from 21.0% in 2014. This increase was primarily a result of the increasing GER for Black African students, which consistently improved by 7.8 percentage points from 17.2% in 2014 to 25.0% in 2021. The GER for Whites remained the highest but steadily declined from 64.5% in 2017 to 58.2% in 2021.

While enrolment by Black African students grew by an average of 3.9% per annum between 2014 and 2021, enrolments by Whites declined by an average of 3.5% during the same period. Total enrolments in both public and private HEIs grew by an average of 2.3% per annum over the period under review. See Table 10 in the PSET Monitor Report Full Tables and Figures for detailed information on enrolment trends at public and private universities.

FIGURE 13: Public and private universities: GER by race, 2014–2021



Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

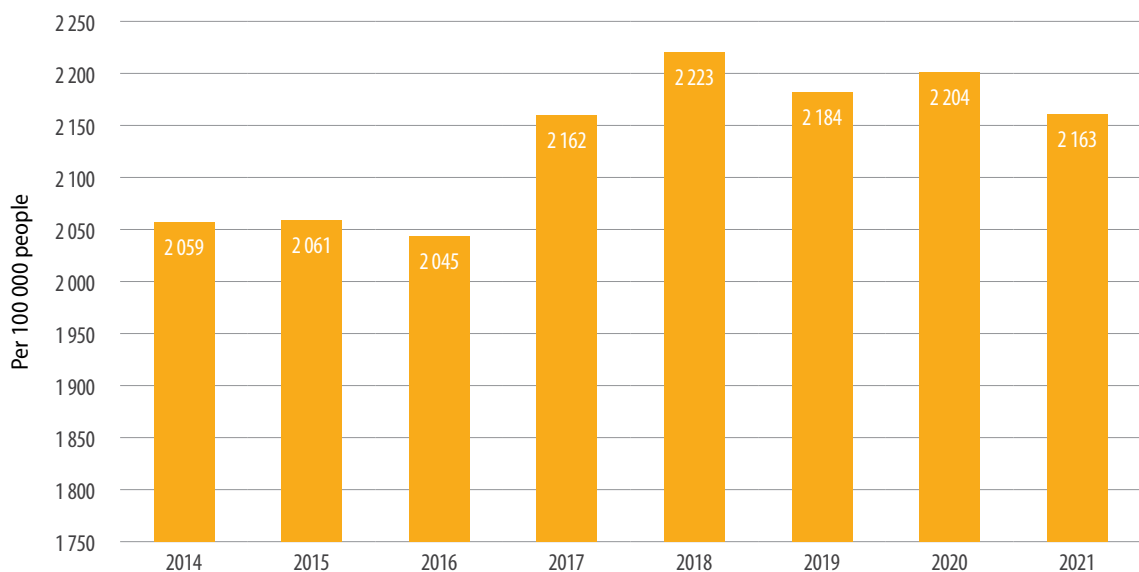
Note: This report uses the age group 20–24 to calculate the GER for universities.

4.1.3.4 Enrolment per 100 000 people

Measuring the enrolment in higher education per 100 000 people in the total population serves as an alternative way of assessing the extent of student participation in the higher education sector (Department of Basic Education [DBE], 2009). This approach avoids referencing the age of the population, thus providing a different perspective on access. This measure assists in comparing year-on-year enrolment, despite fluctuations in the size of the 20–24-year age group, which is used in the calculation of the GER referred to in the above sections.

Figure 14 shows student enrolment at public and private universities per 100 000 members of the population. The enrolment at tertiary education institutions per 100 000 of the population was 2 163 students in 2021. Although the enrolment at tertiary education institutions increased by 104 over the past seven years from 2 059 students per 100 000 in 2014, it fluctuated over the same period.

FIGURE 14: Enrolment at tertiary education institutions per 100 000 of the population, 2014–2021



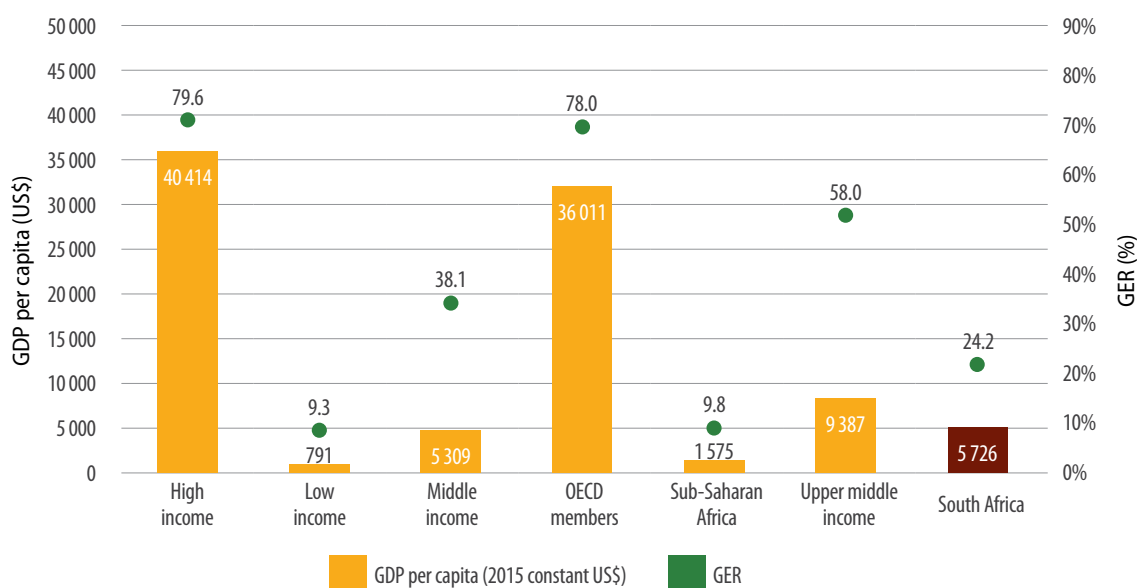
Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

Note: Enrolments at tertiary education level include both public and private HEIs.

4.1.3.5 International comparison of the GER

Figure 15 compares South Africa's GDP per capita and its GER for tertiary education vis-à-vis that of other countries in 2020. Despite significant growth in the participation rate of students at universities over the period 2014–2021, South Africa's GER, which stood at 24.2% in 2020, was significantly below the average of middle-income countries, which stood at 38.1% in 2020. South Africa's visibly low participation rates in tertiary education relative to middle-income countries is disconcerting, given its higher GDP per capita. South Africa's GER was also considerably low compared with high-income states and OECD nations, where average participation rates stood at 79.6% and 78.0%, respectively. However, it fares much better than low-income and sub-Saharan African countries, where average participation rates stood at 9.3% and 9.8%, respectively.

FIGURE 15: GERs for tertiary education by GDP per capita (PPP US\$), 2020



Source: World Bank (Extracted 17 May 2023).

Note: The value for the GER for tertiary in this table is different from the one above in Figure 13, as only students enrolled for ISCED level 5 and above were considered. In the previous tables, all students enrolled in universities, irrespective of their qualification, were included in the calculation of the GER.

4.1.3.6 Overview of GPI in selected PSET institutions

Table 6 shows the GPI for enrolment and completion in selected types of PSET institutions in 2021. The GPI for enrolment was markedly in favour of females in all three PSET institutional types (namely, HEIs, TVET colleges and CET colleges). The GPI for completion was also in favour of females, though to a lesser extent.

TABLE 6: GPI for enrolment and completion by institution type, 2021

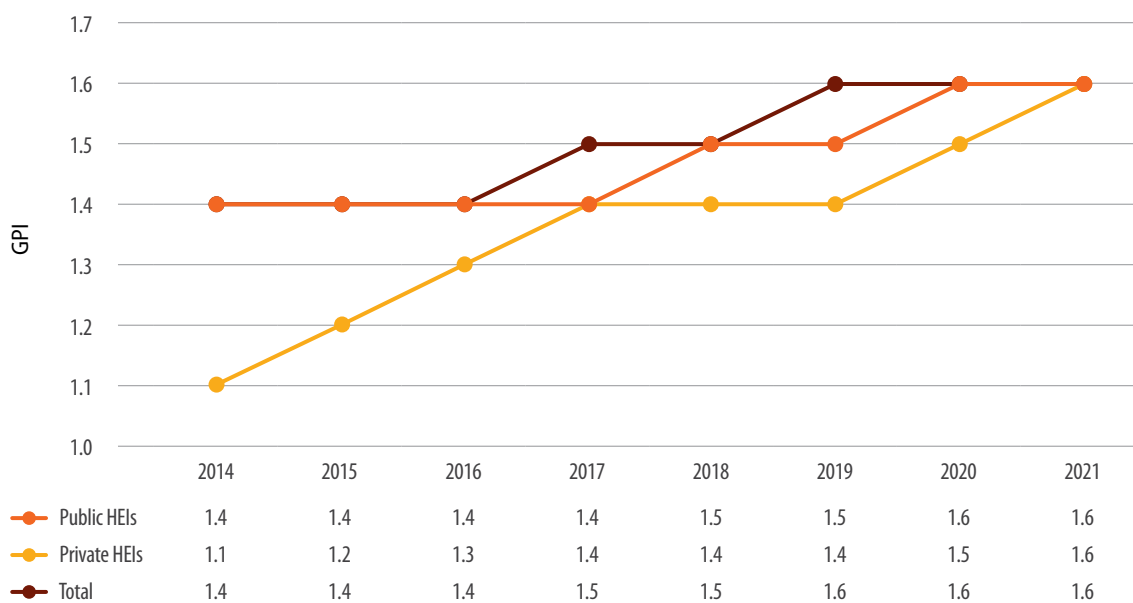
INSTITUTION	GPI: ENROLMENT	GPI: COMPLETION
HEIs (public and private)	1.56	1.12
TVET colleges	1.73	1.09
CET colleges	2.52	1.18

Sources: Own calculations based on Statistics on Post-School Education and Training in South Africa (DHET, 2023a); Mid-year population estimates (Stats SA, 2022).

4.1.3.7 GPI – Universities

Figure 16 shows that more females than males participated at both public and private universities over the period 2014 to 2021, resulting in a GPI of 1.6 in 2021. The trend reveals a consistent upward trajectory at both public and private universities. While gender parity in participation at universities is welcomed, the high GPI index in 2021 suggests some level of male marginalisation, a matter that requires further attention.

FIGURE 16: Trends in GPI, 2014–2021



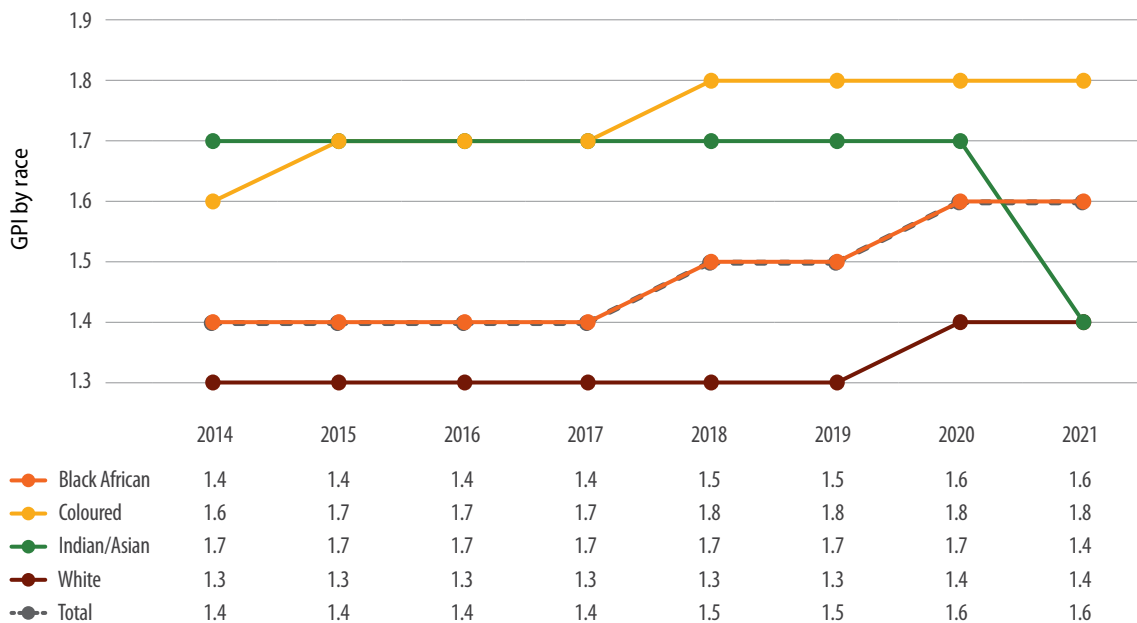
Sources: Own calculations based on *Statistics on Post-School Education and Training in South Africa* (DHET: 2016, 2017a, 2018a, 2019a, 2020a and 2021a; Mid-year population estimates (Stats, SA: 2020 and 2021); DHET Annual report submitted by PHEIs for the 2016, 2017, 2018, 2019, 2020 and 2021 year of reporting.

Notes:

1. A GPI of 1 indicates equitable gender participation. A GPI above 1 indicates higher female participation, while a GPI below 1 indicates higher male participation.
2. The value for GPI for tertiary in this figure is different from the one above in Figure 15, as only students enrolled for ISCED level 5 and above were considered in the calculation of GER. In the calculation GER of Figure 15, all students enrolled in universities irrespective of their qualification. While all students enrolled in universities irrespective of their qualification are included in the calculation of GER in this figure.

Figure 17 presents the GPI by population group in public universities. In 2021, the GPI was highest among Coloured students at 1.8, and lowest among Indian/Asian and White students, both at 1.4. The GPI for Coloured students was higher than the national GPI, which stood at 1.6 in 2021. Figure 17 shows a sharp decline in the GPI among Indian/Asian students over the past two years, from 1.7 in 2020 to 1.4 in 2021. The reason for this phenomenon needs to be explored through research. Notwithstanding the positive gains in female participation in South African universities (both public and private), the GPI in South African universities could have several implications. On the one hand, it could be a cause for concern, if it suggests that males are being left behind or facing barriers to accessing higher education. This could have negative implications for the overall development of the country, as both males and females need access to education to contribute fully to society. It is important to examine the underlying factors driving the gender gap in university participation rates and take steps to address any barriers that may be preventing males from accessing higher education.

FIGURE 17: Public universities: GPI by race, 2014–2021



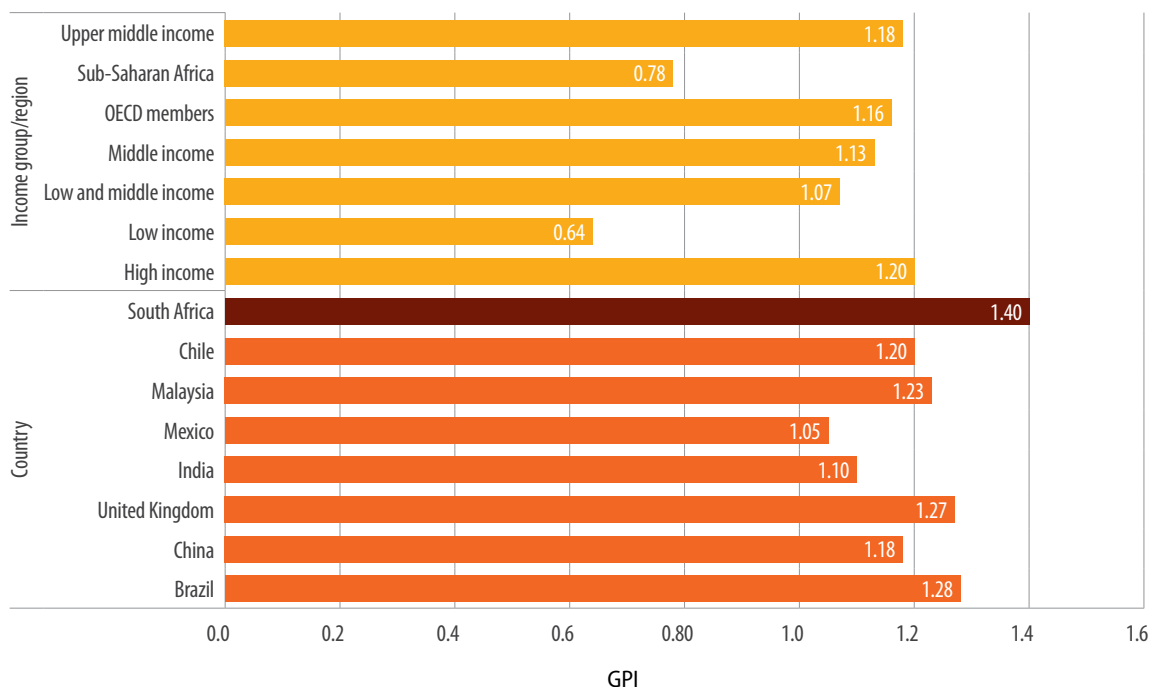
Sources: Own calculations based on Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a and 2021a); Mid-year population estimates (Stats SA, 2020 and 2021).

Note: A GPI of 1 indicates equitable gender participation. A GPI above 1 indicates higher female participation, while a GPI below 1 indicates higher male participation.

4.1.3.8 International comparison of GPI

Figure 18 shows that South Africa’s GPI for tertiary education is the highest in the world. In 2020, the GPI for South Africa stood at 1.4, compared with the averages for high-income countries (1.2), upper middle-income nations (1.2) and OECD members (1.2). In addition, South Africa’s GPI was higher than that of other BRICS countries and United Kingdom.

FIGURE 18: GPI for gross tertiary enrolment, 2020



Source: World Bank, 2023 (Accessed 23 May 2023).

4.1.4 Access to TVET colleges

TVET colleges are expected to be the cornerstone of the country's skills development system, as outlined in the WPPSET (DHET, 2013). The WPPSET also notes that the main purpose of TVET colleges is to train young school-leavers and provide them with the skills, knowledge and attitudes necessary for employment in the labour market. To achieve this, the White Paper indicates that TVET colleges must expand access, improve quality of provisioning, become more efficient, and ensure that their programmes are more responsive to the needs of the economy and the labour market. There were 50 public TVET colleges with 311 registered campuses in 2021.

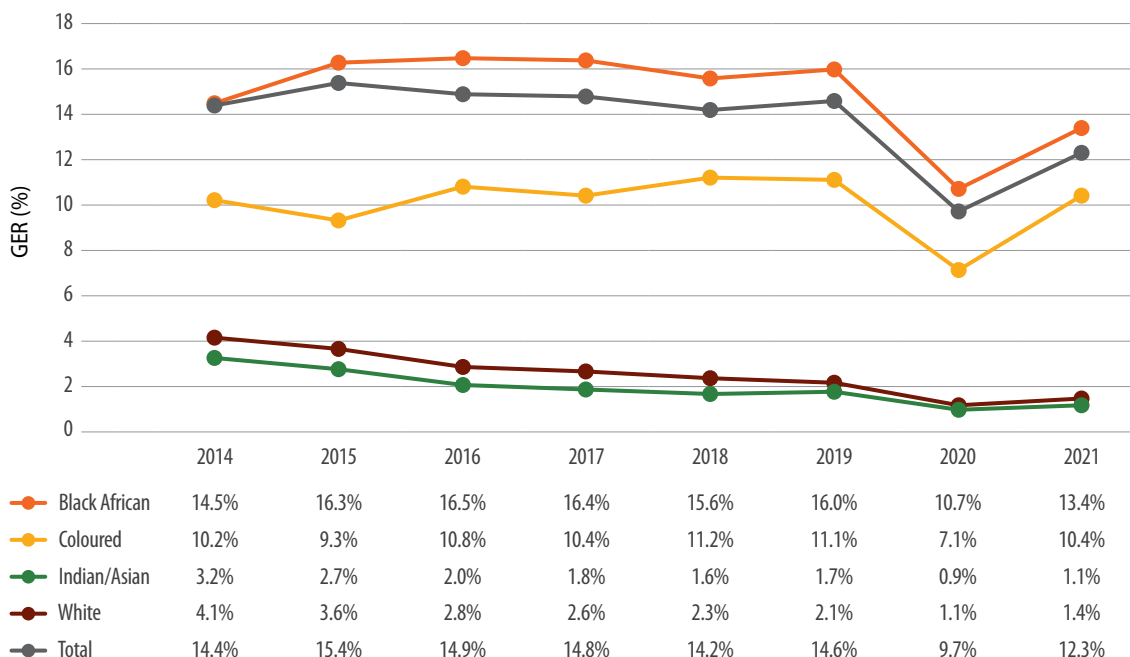
The number of students enrolled in TVET colleges decreased at an average annual rate of 2.5% from 702 383 in 2014 to 589 083 in 2021 (DHET, 2023a). The biggest decline was recorded in 2020 and it was attributed to the Covid-19 pandemic, as there were no enrolments in TVET colleges in the second semester of 2020; however, the number of students enrolled increased by 30.2% from 2020 to 2021. Based on trends in the number of students enrolled in TVET colleges in the eight years under review, it is highly unlikely that the target of 2.5 million students enrolled in TVET colleges set out in the WPPSET will be met. For this target to be realised, enrolments in TVET colleges must increase by an average annual growth rate of 17.4% in the remaining nine years before 2030. See table 12 in the document containing additional tables and figures for PSET Monitor report.

4.1.4.1 Gross Enrolment Ratio (GER) – TVET colleges

This section provides an analysis of the extent to which young people, particularly in terms of their age and gender, participate in TVET colleges. The GER for TVET colleges, which provides a measure of participation, is calculated as the total enrolment cycle count (regardless of age) expressed as a percentage of the appropriately aged population aged 16–20 years. The age group is aligned with the current policy objective to target 16–18-year-olds for NC(V) programmes (leading to a matric qualification) and 19–20-year-olds for N4–N6 programmes, particularly because entry into N4 programmes requires the completion of matric.

Figure 19 shows the GER, by race, in TVET colleges from 2014 to 2021. Following the decline in the number of students enrolled, the overall GER for TVET colleges was 12.3% in 2021. The GER declined by 2.1 percentage points from 14.4% in 2014. Based on the trends of the number of students enrolled and the GER observed in TVET colleges in the eight years under review, it is highly unlikely that the NDP target of 25% GER will be met by 2030. Figure 19 also shows that participation at TVET colleges is dominated by Black Africans followed by Coloureds.

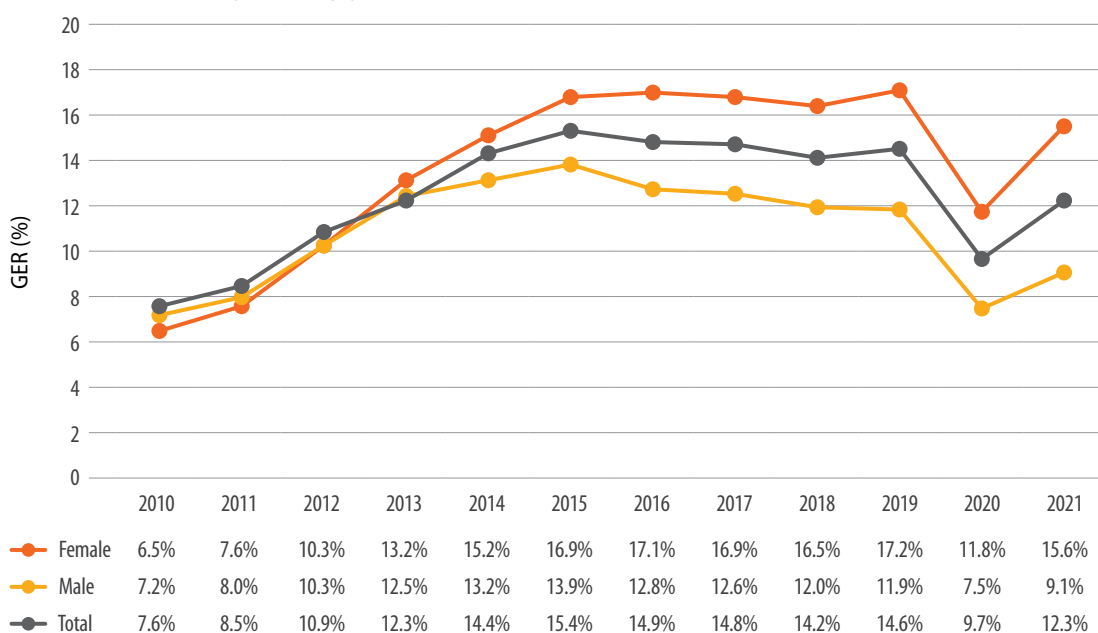
FIGURE 19: TVET colleges: GER by race, 2014–2021



Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET, 2019a, 2020a, 2021a and 2022a).

Figure 20 shows the GER in TVET colleges, by gender, from 2014 to 2021. The participation rate of female students (15.6%) was significantly higher than that of males (9.1%) in 2021. While the female participation rate fluctuated in the period under review, the male participation rate has been on a downward trajectory since 2016 and only increased slightly from 2020 to 2021.

FIGURE 20: TVET colleges: GER by gender, 2014–2021 (%)

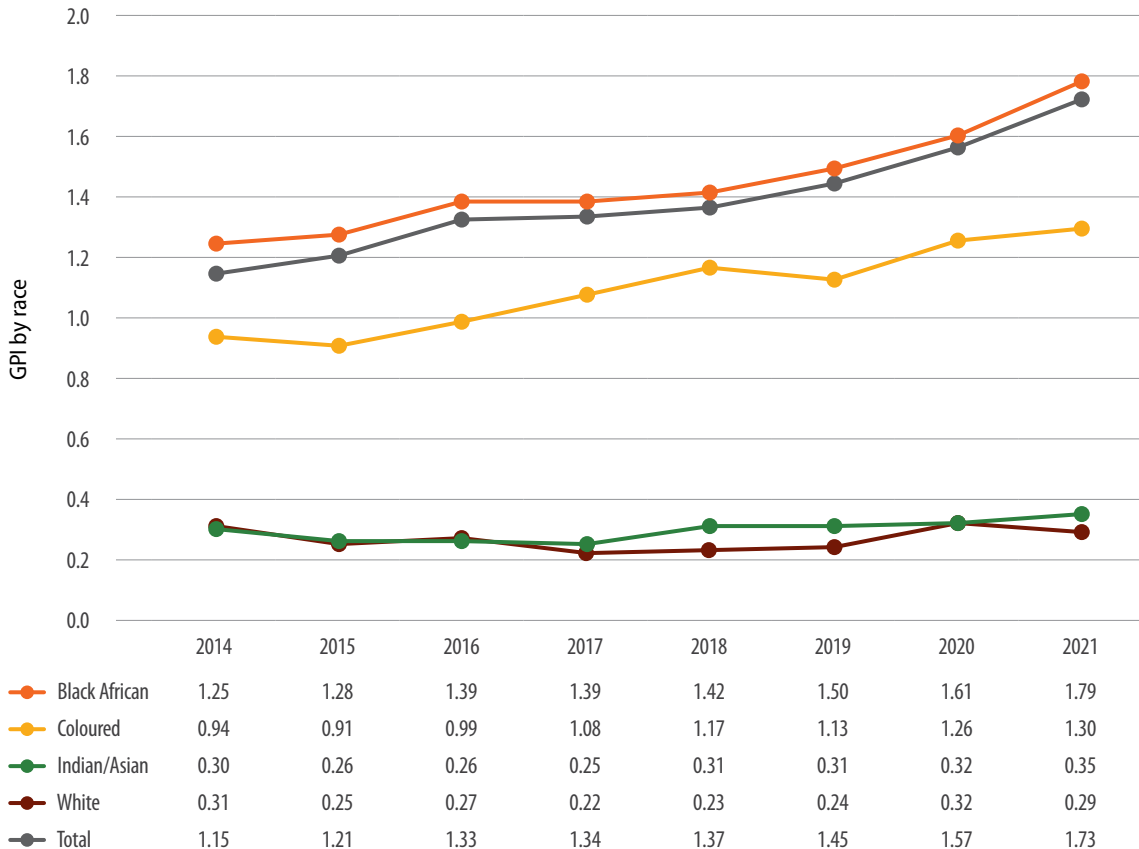


Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET, 2019a, 2020a, 2021a and 2022a).

4.1.4.2 GPI – TVET colleges

In line with the comparatively high female participation rate, Figure 21 shows that there was overall disparity in favour of females in terms of TVET college enrolment from 2014 to 2021. When cross-tabulated with population groups, the high level of female participation in TVET colleges is largely due to the extraordinarily high levels of participation by Black African females. In contrast, female participation rates in TVET colleges were lower among Indian/Asian and White population groups.

FIGURE 21: TVET colleges: GPI by race, 2014–2021



Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2019a, 2020a, 2021a, 2022a and 2023a).

Note: A GPI of 1 indicates equitable gender participation. A GPI above 1 indicates higher female participation, while a GPI below 1 indicates higher male participation.

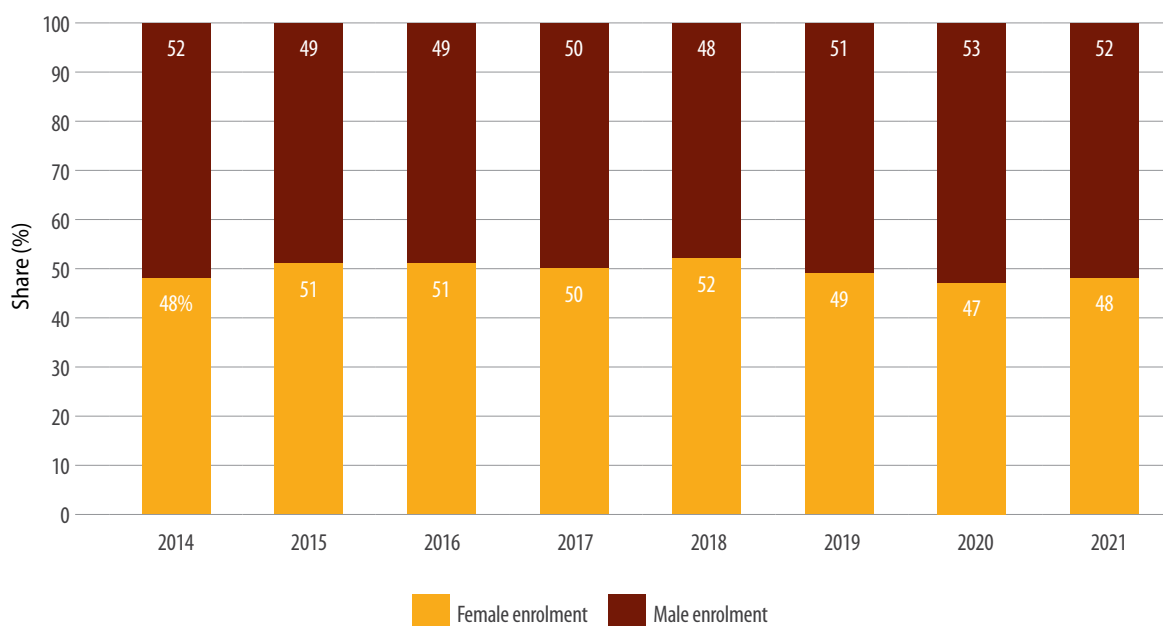
4.1.5 Access to private colleges

Private colleges are a relatively small but important component of the PSET system. In 2021, 133 private colleges were registered with the DHET. There was a decline in the number of registered private colleges from 287 in 2019 due to Communiqué 1 of 2020 (DHET, 2020b), which notified the public that SDPs that offer occupational qualifications and part-qualifications on the Occupational Qualifications Sub-Framework (OQSF) are no longer required to register with the Department. Of the 133 registered colleges in 2021, 80.5% submitted data to the DHET. Given low levels of enrolment in private colleges (85 787 as at 2021), it is of little value to provide information about the overall participation rates of private colleges in this report. However, race and gender patterns of participation can help to understand some aspects of the private college component of the PSET system.

Figure 22 shows that, unlike the case at other PSET institutions, there were more male students (52%)

enrolled in private colleges than female students (48%) in 2021. The ratio of male to female students fluctuated in the period under review.

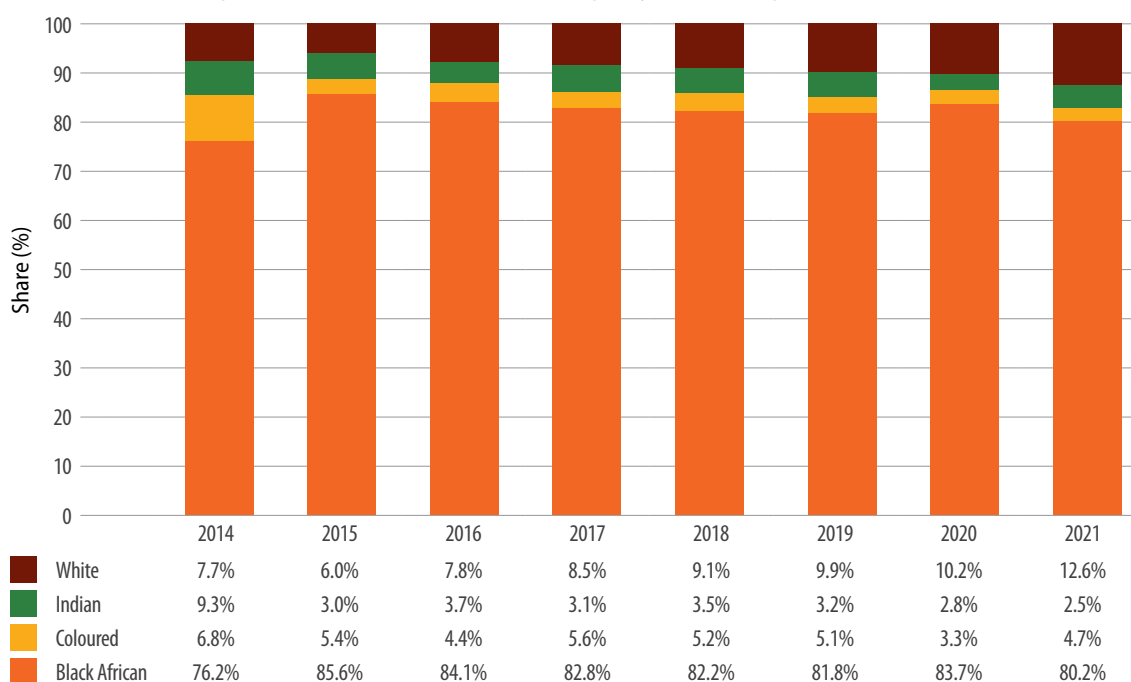
FIGURE 22: Percentage of students enrolled at private colleges by gender, 2014–2021



Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a and 2022a).

Figure 23 shows the percentage of students enrolled in private colleges, by population group, for the period 2014 to 2021. Most of the students enrolled in private colleges in 2021 were Black Africans (80.2%), followed by Whites (12.6%).

FIGURE 23: Percentage of students enrolled at private colleges by population group, 2014–2021



Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a and 2022a).

4.1.6 Access to CET colleges

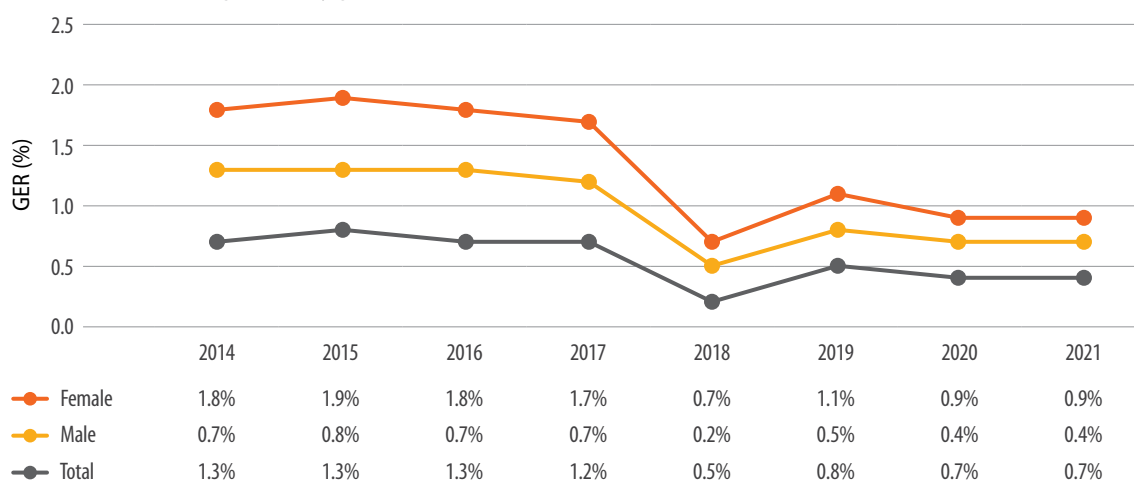
The purpose of CET colleges is to cater for the needs of unemployed youth and adults with lower levels of education who are not studying. This is expected to help them progress into other post-school institutions, improve their chances of finding work and start businesses. There are currently nine CET colleges in South Africa, with one in each province. The WPPSET (DHET, 2013) and the NDP envisages one million students enrolled in CET colleges by 2030. To achieve this target, enrolments in CET are expected to increase at an average of 10.5% year-on-year from 2019 to 2030 (DHET, 2019c). However, it is highly unlikely that this target will be realised, as enrolment in the CET sector was only 143 031 in 2021, much lower than the projected 375 035 (DHET, 2019c).

4.1.6.1 Gross Enrolment Ratio (GER) – CET colleges

Figure 24 shows the participation rate of youth and adults at CET colleges, by gender, for the period 2014 to 2021. The participation rate (GER) for CET colleges is calculated as the total headcount (regardless of age) relative to the size of the population aged 15–35 years. Although CET colleges target both youth and adults for its programmes, the 15–35-year age group was selected for the calculation of the GER because it is currently the dominant group among CET college-going students. Figure 24 shows that the overall GER for CET colleges was 0.7% in 2021, almost half of that in 2014 when the GER was 1.3%. The decline in the participation rate in CET colleges is worrisome, considering the high number of NEETs in the country, who are the target group for these colleges.

The GER of females at CET colleges was 0.9% in 2021, while the male GER was 0.4%. The participation rate of females in CET colleges has remained marginally higher than that of males in the period under review.

FIGURE 24: CET colleges: GER by gender, 2014–2021 (%)



Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2018a, 2019a, 2020a, 2021a, 2022a and 2023a); CET College Annual Survey (2014 and 2015); Mid-year population estimates (Stats SA, 2021).

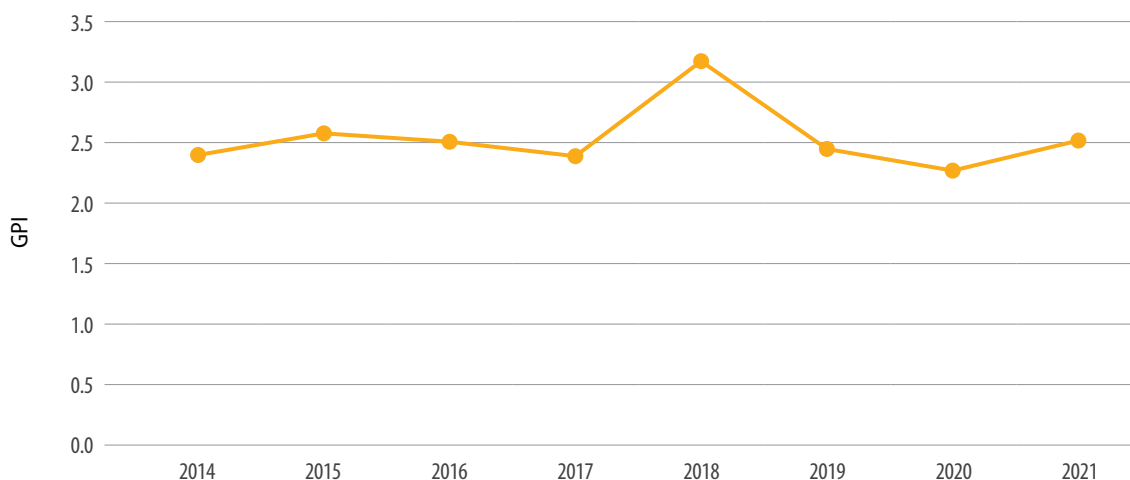
Notes:

1. GETC: ABET level 4 registration data for examinations was used as a proxy for reporting 2018 enrolment.
2. The 2019 enrolment is based on a 70.7% response rate.
3. The 2020 enrolment is based on a 63.1% response rate.

4.1.6.2 GPI – CET colleges

Figure 25 shows that the GPI at CET colleges was 2.52 in 2021, indicating a considerably higher female participation rate in CET colleges than that of males. Disparity in favour of female students is likely to continue, given the consistent trend over time. This suggests that more needs to be done to attract male students to CET colleges.

FIGURE 25: CET colleges: trend in GPI, 2014–2021



Sources: *Statistics on Post-School Education and Training in South Africa* (DHET: 2018a, 2019a, 2020a, 2021a and 2022a); *CET College Annual Survey* (2014 and 2015); *Mid-year population estimates* (Stats SA, 2021).

Notes:

1. GETC: ABET level 4 registration data for examinations was used as a proxy for reporting 2018 enrolment.
2. The 2019 enrolment is based on a 70.7% response rate.
3. The 2020 enrolment is based on a 63.1% response rate.
4. A GPI of 1 indicates equitable gender participation. A GPI above 1 indicates higher female participation, while a GPI below 1 indicates higher male participation.

4.1.7 Students with disabilities participating at PSET institutions

The NDP and the WPPSET aim to foster a more dynamic, equitable and inclusive society. The WPPSET provides a blueprint for inclusive PSET provisioning in South Africa to address the challenge of disability across the PSET landscape. The DHET therefore embraces the principles of mainstreaming (ensuring that persons with disabilities participate equally with others in any activity and service as intended for the general public) and including people with disabilities in all PSET institutions, as reflected in the Strategic Policy Framework on Disability for the Post-school Education and Training System (DHET, 2018b).

Participation of students living with disabilities in the PSET sector has remained disappointingly low. Although little formal evidence is available about the reasons for this, it is generally known that the absence of proactive interventions, and lack of capacity and resources contribute to this phenomenon.

Table 7 shows the enrolment of students with disabilities at PSET institutions from 2016 to 2021. There were 18 304 students with disabilities enrolled at PSET institutions in 2021, accounting for 1% of total enrolment for the year. The share of students with disabilities across institutional types was also low at 1.2% at public universities, 0.8% at TVET colleges, 0.2% at CET colleges and 0.6% at private colleges.

TABLE 7: Enrolment of students living with disabilities at PSET institutions by institution type, 2016–2021

YEAR	PUBLIC HEIs (UNIVERSITIES)			TVET			CET			PRIVATE COLLEGES		
	TOTAL ENROLMENT	STUDENTS WITH A DISABILITY	% OF STUDENTS WITH A DISABILITY	TOTAL ENROLMENT	STUDENTS WITH A DISABILITY	% OF STUDENTS WITH A DISABILITY	TOTAL ENROLMENT	STUDENTS WITH A DISABILITY	% OF STUDENTS WITH A DISABILITY	TOTAL ENROLMENT	STUDENTS WITH A DISABILITY	% OF STUDENTS WITH A DISABILITY
2016	975 837	7 525	0.8%	705 397	2 076	0.3%	273 431	2 380	0.9%	168 911	1 546	0.9%
2017	1 036 984	8 004	0.8%	688 028	1 708	0.2%	258 199	2 592	1.0%	187 354	1 838	1.0%
2018	1 085 568	9 040	0.8%	657 133	1 624	0.2%	100 286	No data	No data	219 837	2 684	1.2%
2019	1 074 912	10 753	1.0%	673 490	2 537	0.4%	171 409	1 354	0.8%	151 136	1 763	1.2%
2020	1 094 808	11 617	1.1%	452 277	4 258	0.9%	142 538	983	0.7%	96 754	390	0.4%
2021	1 068 046	12 877	1.2%	589 083	4 596	0.8%	143 031	349	0.2%	85 787	482	0.6%

Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

4.1.8 Foreign nationals participating at PSET institutions

The presence of foreign students in the South African PSET system is part of a broader globalisation process and represents an attempt to transform the system. This process seeks to configure a new PSET system that opens up E&T institutions to a globalised world of knowledge, employment and investments relating to the production of knowledge. A fundamental aspect of this globalisation process is student travel mobility for South African students going abroad, as much as for foreign students coming to South Africa who seek to begin or finish their post-school studies.

Table 8 shows that there were just over 68 000 foreign students enrolled at PSET institutions in 2021, constituting 3.6% of total students enrolled. Most foreign students were enrolled at public universities (compared with private universities). However, as indicated in Table 8, private universities enrolled the largest share (6.2%) of foreign students compared with public universities (4.4%) and TVET colleges (0.4%). See table 17–20 in the document containing additional tables and figures for PSET Monitor report.

TABLE 8: Number of foreign students enrolled at South African PSET institutions, 2021

INSTITUTION	TOTAL ENROLMENT AT PSET INSTITUTIONS	NUMBER OF FOREIGN STUDENTS ENROLLED AT SOUTH AFRICAN PSET INSTITUTIONS	FOREIGN STUDENTS AS A % OF TOTAL STUDENTS ENROLLED AT PSET INSTITUTIONS
Public universities	1 068 046	47 306	4.4%
Private universities	232 915	14 404	6.2%
TVET colleges	589 083	2 528	0.4%
Total	1 890 044	68 035	3.6%

Sources: Statistics on Post-School Education and Training in South Africa (DHET, 2022a); TVETMIS 2020.

4.1.9 Access to SETA-supported workplace-based learning programmes

Table 9 shows the number of workers and unemployed persons registered and certificated for SETA-supported learning programmes (learnerships, internships and skills programmes) for the period 2014/15 to 2021/22. The number of workers and unemployed persons registered for SETA-supported learning programmes was 130 264 in 2021/22, representing an average annual decline of 7.7% from 2014/15. Similarly, the total number of certificated individuals was on a downward trajectory from 2018/19 to 2021/22.

TABLE 9: Number of workers and unemployed persons registered and certificated at SETA-supported learning programmes by programme type, 2014/15–2021/22

YEAR	REGISTERED				CERTIFICATED			
	LEARNERSHIPS	INTERNSHIPS	SKILLS PROGRAMMES	TOTAL REGISTERED	LEARNERSHIPS	INTERNSHIPS	SKILLS PROGRAMMES	TOTAL CERTIFICATED
2014/15	77 931	12 006	137 880	227 817	40 891	3 663	106 459	151 013
2015/16	94 369	13 135	123 593	231 097	43 322	3 352	127 144	173 818
2016/17	101 447	17 216	131 017	249 680	58 080	6 777	116 141	180 998
2017/18	111 681	12 935	144 531	269 147	48 002	6 496	122 979	177 477
2018/19	105 548	15 482	150 674	271 704	61 841	6 123	144 460	212 424
2019/20	81 988	11 784	128 438	222 210	57 888	7 711	114 032	179 631
2020/21	46 546	6 022	65 973	118 541	37 684	7 405	81 636	126 725
2021/22	71 921	9 598	48 745	130 264*	44 164	3 607	46 944	94 715*
Average annual growth from 2011/12 to 2021/22	-1.1%	-3.1%	-13.8%	-7.7%	1.1%	-0.2%	-11.0%	-6.4%

Sources: Statistics on Post-School Education and Training in South Africa (DHET, 2023a).

Note: *'Total registered' and 'Total certificated' includes 3 401 (1 021 registrations and 2 380 certifications) records with unspecified economic status.

4.1.10 Persons in the population who have access to the internet

The UN Sustainable Development Goal 9 target (9.C) sets out to significantly increase access to information and communications technology, and strives to provide universal and affordable access to the internet in least developed countries by 2020. The internet has become one of the leading tools for research, teaching and learning (Arthur & Brafi, 2013). According to the Internet Society (2017), the internet has a great potential to improve the quality of education, which is one of the pillars of sustainable development. It opens doorways to a wealth of information, knowledge and educational resources, increasing opportunities for learning in and beyond the classroom. It can also help rectify the inequalities in education experienced by girls and women.

Table 10 shows the percentage of the population that has access to the internet, by age and gender. In 2021, 83.2% of those aged 15–24 had access to the internet, with more females having access to the internet than males. Access to the internet for the 15–24-year-old age group increased by a significant 16 percentage points in 2021 compared with 2016. As Table 10 shows, age did not affect access to the internet very significantly, except in the case of older persons, who, not surprisingly, had lower access to the internet.

TABLE 10: Percentage of the population who have access to the internet by age and gender, 2016–2021

YEAR	15–24			25–34			35–44			45–54			55–64		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
	%														
2016	66.5	69.9	68.1	66.5	68.8	67.7	63.6	69.0	66.2	61.2	66.3	63.9	58.7	62.8	61.0
2017	68.7	71.0	69.8	67.9	72.1	70.0	65.0	69.7	67.3	63.0	68.1	65.7	61.5	64.6	63.2
2018	71.5	74.4	73.0	72.6	75.0	73.8	68.6	72.3	70.4	66.2	71.9	69.1	63.6	66.2	65.0
2019	70.3	73.5	71.9	69.7	73.5	71.6	67.3	71.7	69.5	66.0	71.7	69.0	63.9	65.5	64.8
2020	77.7	78.3	78.0	80.3	80.7	80.5	78.2	77.9	78.0	77.1	79.9	78.5	73.0	74.4	73.8
2021	82.6	83.7	83.2	83.3	84.5	83.9	80.4	83.3	81.8	79.3	81.8	80.6	77.2	78.7	78.0

Sources: Stats SA General Household Survey (2016, 2017, 2018, 2019, 2020 and 2021).



5

**Quality of PSET
provisioning**

5.1 Quality of the PSET system as measured by student:staff ratio and the qualification of its lecturing staff

Providing an exact definition of quality (and, therefore, of identifying the indicators of quality) is more difficult than is the case for access. The nature of some inputs to the PSET system can, however, provide some signals to the quality of teaching and learning. For example, a measure of adequate and well-qualified staff members who have good pedagogic competencies and the appropriate content knowledge can provide some insights into the quality of education. In this report, the share of academic staff members with a PhD who teach at universities is used as an important indicator of staff competence. Additionally, the ratio of FTE⁴ student enrolment in relation to the number of academic staff indicates the ability of staff to provide quality learning inputs, as well as high-quality research outputs.

The NDP acknowledges that academic professions require renewal if South African universities are to expand, compete, and drive the knowledge society and economy (National Planning Commission, 2012). The Plan also notes that there is a shortage of academics, especially in the human, natural, engineering and actuarial sciences.

Table 11 shows the FTE student:staff ratio for the period 2010 to 2021 and indicates that the ratio was 30.0:1 in 2021. It fluctuated between a low 25.5:1 in 2016 and a high 30.9:1 in 2020. The number of FTE students increased by 2.5% on average per annum from 2010 to 2021, while the number of FTE staff increased by 1.6% on average per annum in the same period, indicating that the increase in FTE students outpaced the expansion of public universities' academic staff complements. This trend signals a possible decline in the quality of teaching and learning in universities. However, deeper research needs to be undertaken to explore the effects of growing FTE student:staff ratios on the quality of education.

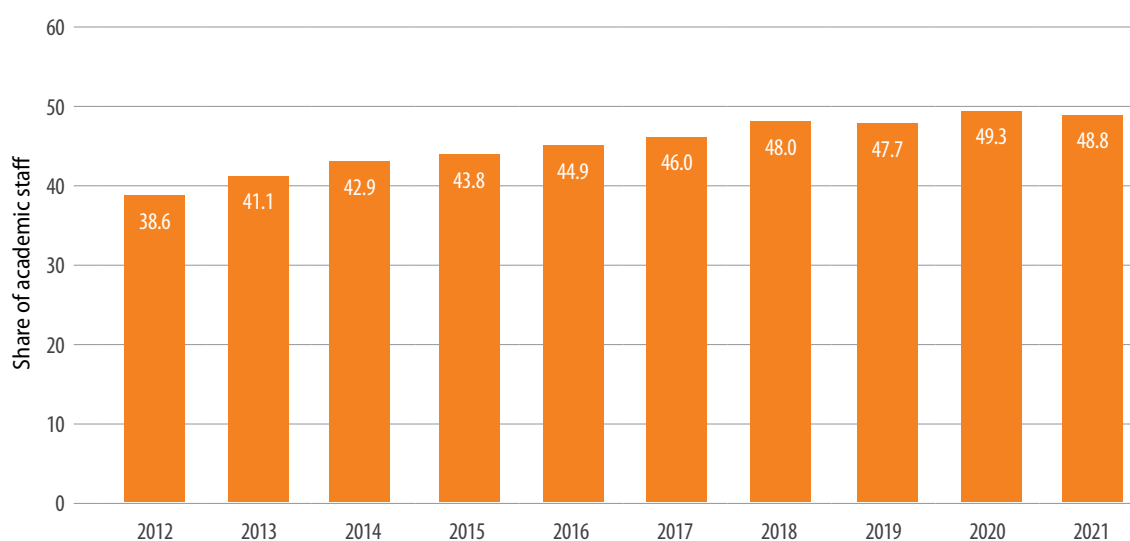
⁴ The number of FTE students adjusts for the number of credits each student is enrolled for in a given year. Thus, a student enrolled for only half the required credits of a full academic year will be counted as half an FTE student.

TABLE 11: Public universities: FTE student:staff ratio, 2010–2021

YEAR	FTE STUDENTS	FTE STAFF	STUDENT:STAFF RATIO
2010	600 002	21 968	27.3
2011	628 410	23 274	27.0
2012	634 549	24 089	26.3
2013	665 857	24 282	27.4
2014	666 946	24 806	26.9
2015	678 842	25 814	26.3
2016	685 297	26 894	25.5
2017	731 602	27 938	26.2
2018	775 808	28 054	27.7
2019	760 362	26 070	29.2
2020	803 029	26 019	30.9
2021	787 228	26 254	30.0
AVERAGE ANNUAL GROWTH			
2010–2021	2.5%	1.6%	

Source: DHET HEMIS database (2010–2021).

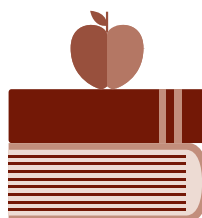
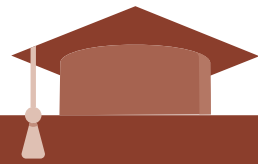
The NDP proposes improving the qualifications of academic staff in higher education and increasing the percentage of PhD-qualified staff to 75% by 2030. The level of academic qualification is often regarded as a useful measure of quality education. The achievement of a PhD is seen as the gold standard of quality research. Figure 26 shows that 48.8% of academic staff had a PhD in 2021. Given the current growth rates, it is highly unlikely that the target will be met. The percentage of PhD-qualified staff needs to increase by at least 2.9 percentage points per annum in the remaining nine years for this target to be met.

FIGURE 26: Share of academic staff with a PhD in universities, 2012–2021

Source: Own calculations based on DHET HEMIS database (2012–2021).

6

**The success
of the PSET
system**



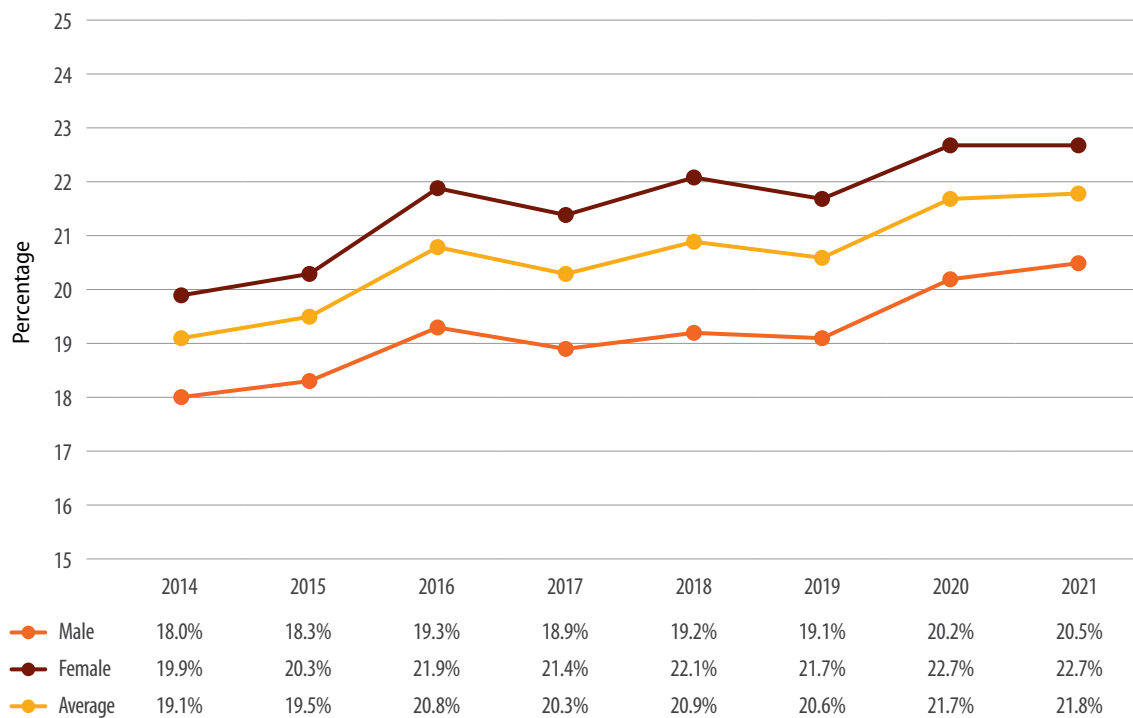
6.1 Graduate output in the PSET system

Graduation rates (for universities) and certification rates (for TVET colleges) are two indicators of success in the PSET system. Graduation rates are defined as the number of students who graduated in a particular year, irrespective of the first year of study, divided by the total number of students enrolled at public universities in that particular year. Certification rates are defined as the number of students who successfully completed a qualification in an academic year as a percentage of the number of candidates who were eligible to complete a qualification, and who wrote the examinations in that particular year.

6.1.1 University graduation rates

Figure 27 shows university graduation rates by gender over the period 2014–2021. The average university graduation rate in 2021 stood at 21.8%, reflecting a good improvement from the 2014 graduation rate, which sat at 19.1%. Graduation rates for female students remained consistently higher than those for male students during 2014–2021. However, both graduation rates for males and females generally improved over the period under review.

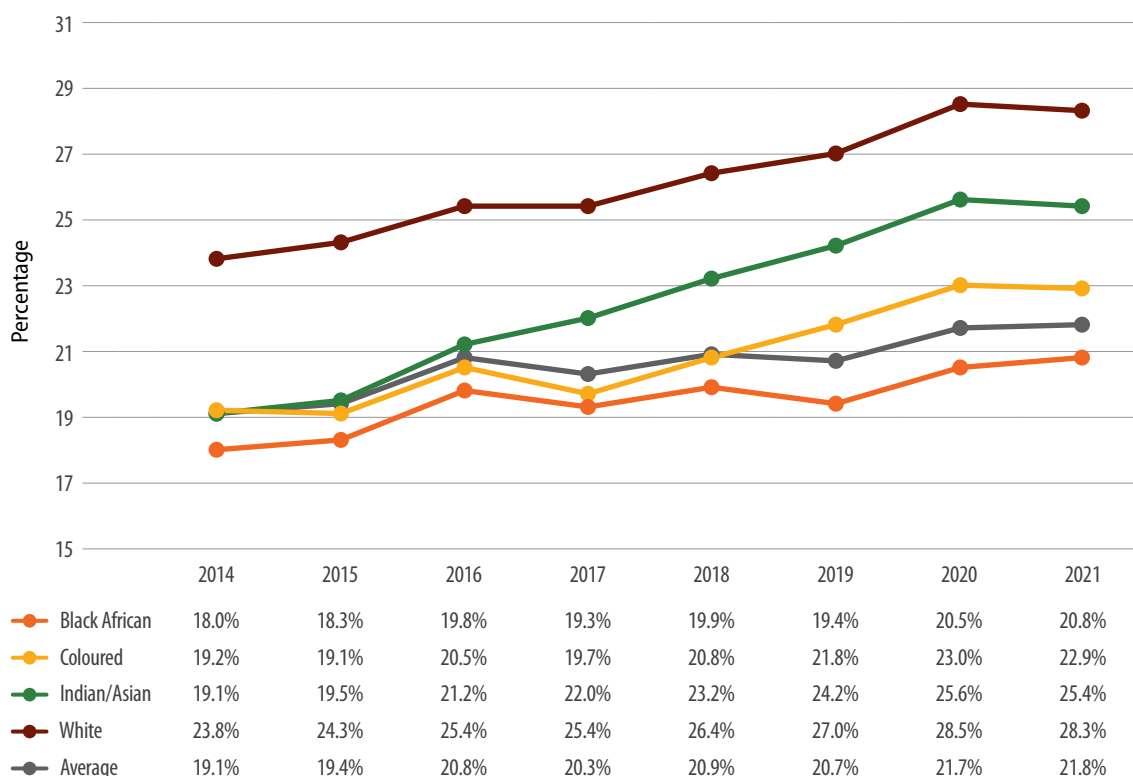
FIGURE 27: Graduation rate at public universities by gender, 2014–2021



Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

Differentials in graduation rates by race in higher education provide important insights into racial gaps in student academic success, and can thus inform suitable policy measures and support interventions. Figure 28 shows graduation rates by race over the period 2014–2021. Despite the increase in the graduation rate of Black African students from 18.0% in 2014 to 20.8% in 2021, the figures for this group consistently remained below the average graduation rate. The graduation rate of Whites grew from 23.8% in 2014 to 28.3% in 2021. The graduation rates of Coloured, Indian/Asian and White students were above the 21.8% overall graduation rate in 2021. These statistics suggest that Black African students are less likely to graduate relative to students in other race groups, while White students are more likely to graduate than students in the other race groups.

FIGURE 28: Graduation rate at public universities by race, 2014–2021



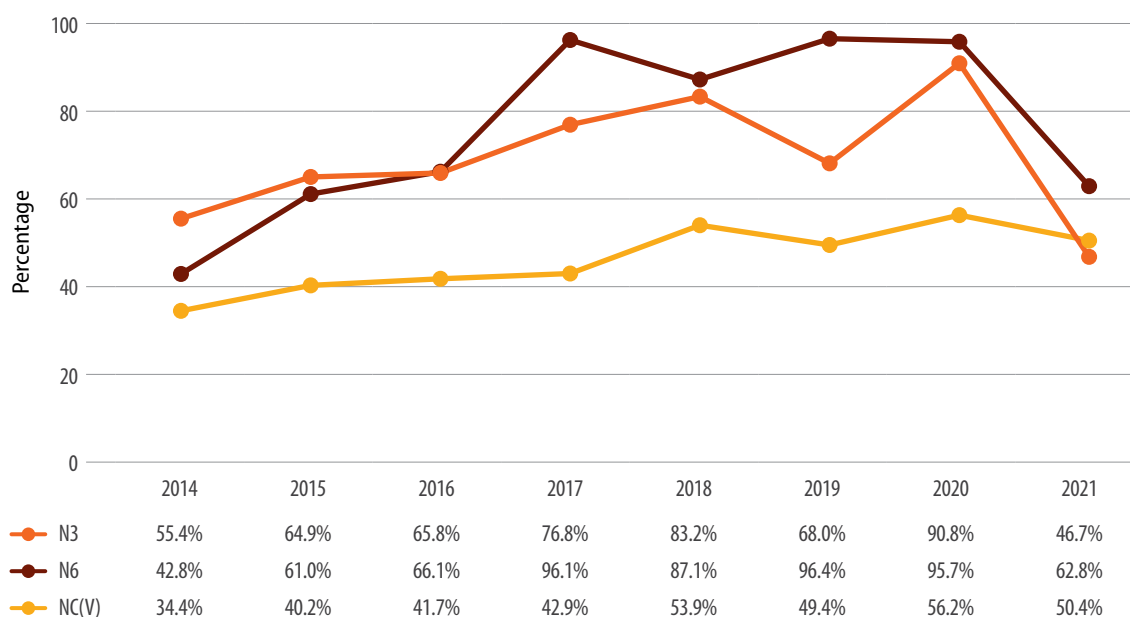
Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2018a, 2019a, 2020a, 2021a, 2022a and 2023a); HEMIS database 2014–2021.

6.1.2 TVET college certification rates

TVET colleges offer two main qualification types: the NC(V) and the National Accredited Technical Education Diploma, referred to as the NATED. The NATED comprises six components or part-qualifications – the N1 to N6 qualifications – with each component assessed separately via a national examination. This report provides certification rates for the N3 and N6 part-time qualifications and the NC(V). Detailed information on the examination candidates and passes is available in the PSET Monitor Report Full Tables and Figures (see Figures 25–27).

Figure 29 shows the certification rate for N3, N6 and NC(V) in TVET colleges for the period 2014–2021. The certification rate for N3 at TVET colleges was 46.7% in 2021, showing a decrease of 44.1 percentage points compared with 2020. The certification rate for N6 also decreased by 32.9 percentage points from 95.7% in 2020 to 62.8% in 2021, while the certification rate for NC(V) declined slightly by 5.8 percentage points from 56.2% to 50.4% in the same period. The decrease might be due to waiving the 80% attendance requirement for admission in exams in the 2021 academic year, which could have led to lower attendance of classes and, subsequently, poor performance. The high certification rates in 2020 can be attributed to low registrations in 2020, as semester 2 and trimester 3 intakes were forfeited. It is of great concern that the certification rates for NC(V) have remained relatively low compared to the other qualifications in TVET colleges.

FIGURE 29: Certification rates for N3, N6 and NC(V) at TVET colleges, 2014–2021



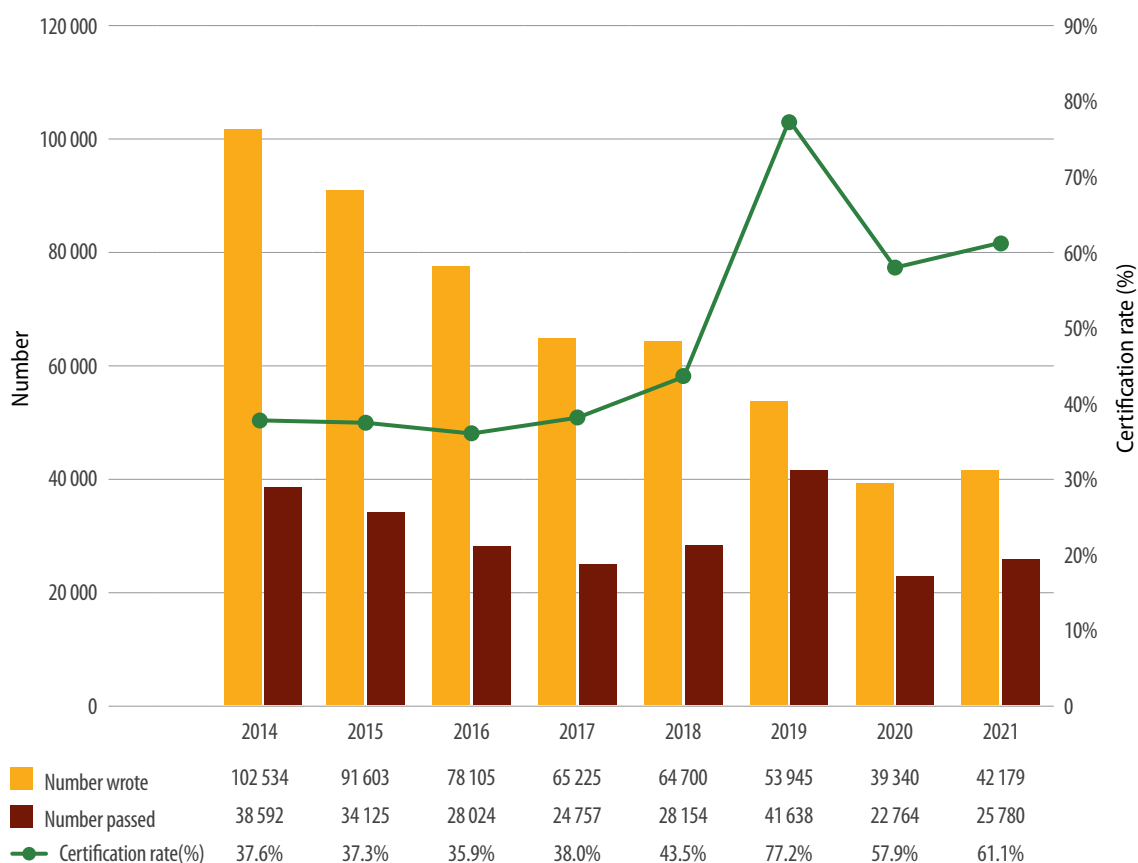
Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2018a, 2020a, 2021a, 2022a and 2023a); Examination data (DHET: 2017b and 2019b).

Note: The certification rate (also known as the completion rate) is the proportion of students who successfully completed a qualification in an academic cycle expressed as a percentage of the number of students who were eligible to complete the level and were assessed in that academic cycle.

6.1.3 CET college certification rates

Figure 30 shows the certification rate for GETC: ABET Level 4 in CET colleges from the period 2014–2021. The number of students who completed GETC: ABET Level 4 was 25 780 in 2021, or 61.1%. This reflected an increase of 3.2 percentage points compared with 2020. Apart from the decrease from 2019 to 2020 that can be attributed to the Covid-19 pandemic, the certification rate for GETC: ABET Level 4 has been on an upward trajectory since 2014. These young people and adults were equipped with a general educational foundation, which enables them access to further learning and training, particularly vocational education at TVET colleges.

FIGURE 30: Examination candidates, passes and certification rates for GETC: ABET Level 4 at CET colleges, 2014–2021



Sources: *Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2018a, 2020a, 2021a and 2022a); Examination data (DHET: 2017b and 2019b).*

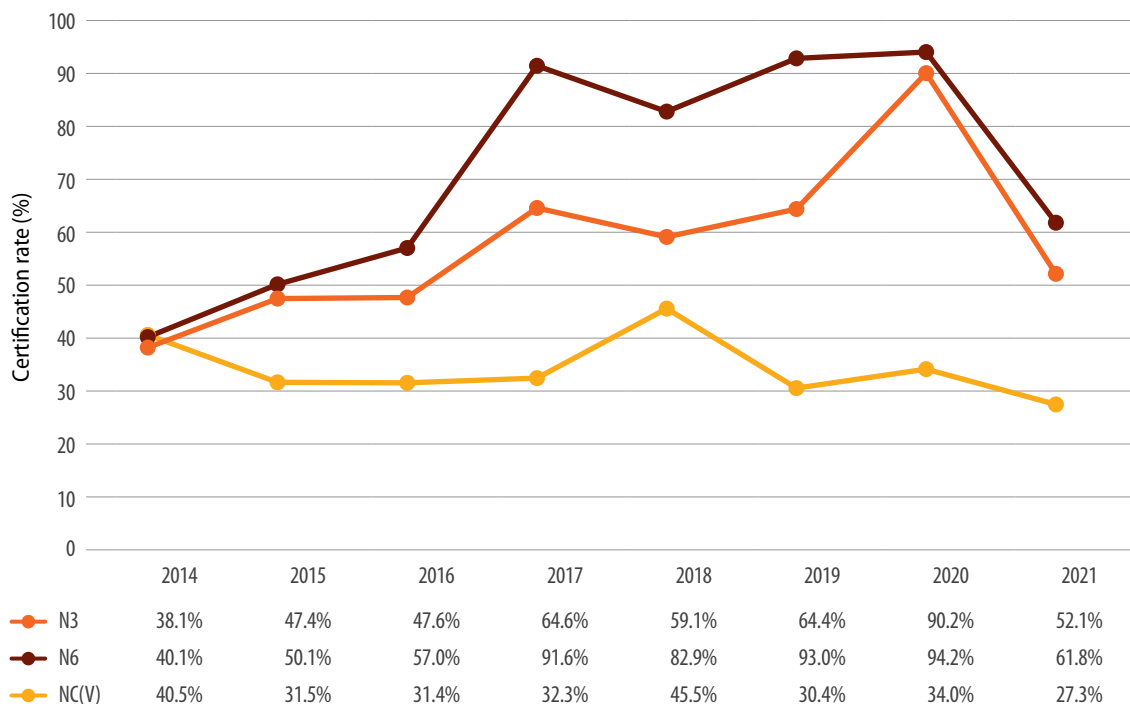
Note: The certification rate (also known as the completion rate) is the proportion of students who successfully completed a qualification in an academic cycle, expressed as a percentage of the number of students who were eligible to complete the level and were assessed in that academic cycle.

6.1.4 Private college certification rates

This section provides certification rates for the N3 and N6 part-time qualifications and the NC(V). Detailed information on the examination candidates and passes is available in the PSET Monitor Report Full Tables and Figures (see Figures 29–31).

Figure 31 shows the certification rate for the N3, N6 and NC(V) qualifications at private colleges for the period 2014–2021. Like the certification rates for TVET colleges, the certification rate for N3 was 52.1% in 2021, showing a drastic decrease of 38.1 percentage points from 90.2% recorded in 2020. The certification rate for N6 also decreased drastically from 94.2% in 2020 to 61.8% in 2021.

FIGURE 31: Certification rates for Report N3, N6 and NC(V) at private colleges, 2014–2021



Sources: Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2018a, 2020a, 2021a and 2022a); Examination data (DHET: 2017b and 2019b).

Note: The certification rate (also known as the completion rate) is the proportion of students who successfully completed a qualification in an academic cycle expressed as a percentage of the number of students who were eligible to complete the level and were assessed in that academic cycle.

7

The efficiency
of the PSET
system



Efficiency measures how well the PSET system uses its resources to achieve its objectives. It speaks to a PSET system that makes optimal use of resources, systems and time to serve the needs of the nation (DHET, 2021c). There are several aspects to the idea of efficiency. This section addresses the two most relevant aspects, which are:

- The analysis of throughput, dropout and repetition rates, as well as the average time it takes for a student to complete the qualification.
- The optimal use of financial resources to produce the outputs and immediate outcomes of the PSET system.

7.1 How efficient is the PSET system as measured by throughput and dropout rates?

An efficient system is one that is characterised by high rates of retention (low dropout) of the students it admits. Furthermore, it enables as many students as possible to complete their studies within the required minimum timeframe, or as close to it as possible, without compromising quality. This section provides an analysis of the throughput rates of both public universities and TVET colleges⁶ as one good indicator of efficiency. Throughput rates for universities are defined as ‘the number of first-time entry undergraduate students of a specific cohort of a specific year who have graduated either within the minimum time, or up to two years beyond the minimum time, to the number of students in the baseline enrolments of that cohort’ (Council on Higher Education [CHE], 2019). On the other hand, throughput for TVET colleges is defined as the rate at which a student cohort successfully completes a qualification within the stipulated timeframe for that qualification (DHET, 2021b). The throughput rate of TVET colleges, which is currently based only on NC(V) students, is calculated by dividing the total number of students who completed NC(V) Level 4 in year 3 by the total number of new entrants (newly enrolled students) who enrolled for NC(V) Level 2 in year 1, multiplied by 100. This calculation is based on a comparison of the same cohort of students who enrolled for the first time in year 1 and who completed in year 3.

7.1.1 Throughput rates for public universities

Table 12 shows the throughput rate of university undergraduate students in three-year degree programmes (both contact and distance learning modes) for the intake years 2009–2019. For the 2019 cohort of first-year students, 28.3% of students graduated within the expected three-year timeframe. This was a substantial increase from 18.8% for the 2009 cohort. Despite the noticeable improvement in throughput rates, there are still far too many students who take too long to complete their university degrees, thereby burdening the system in terms of funding and available space for potential students. As indicated in Table 12, even 10 years later, only 60.9% of first-time entering students who enrolled in 2009 completed their three-year degree.

⁶ In the case of TVET colleges, throughput rates are only provided for the NC(V) qualification. In the future, throughput rates will be provided for the N6 part-qualification.

TABLE 12: Throughput rates by intake year for first-time-entering student cohort in three-year degree programmes through contact and distance learning modes, 2009–2019 intake years

NATIONAL TOTAL: CONTACT AND DISTANCE								
Intake year	Graduates (%)							
Year 1	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2009	18.8	35.1	46.0	52.0	55.7	58.1	59.7	60.9
2010	21.5	39.0	50.3	55.8	59.3	61.4	62.8	63.9
2011	20.9	38.0	49.0	54.6	57.7	59.9	61.3	62.8
2012	22.9	40.7	52.0	57.5	60.9	62.9	64.7	65.9
2013	26.8	46.5	58.0	63.9	67.3	69.6	71.0	
2014	28.3	48.1	60.0	66.0	69.6	71.7		
2015	28.6	49.1	60.8	67.0	70.4			
2016	29.9	50.3	63.5	68.9				
2017	27.3	49.6	62.2					Data not available
2018	27.1	49.4						
2019	28.3							

Source: 2000 to 2020 first-time-entering undergraduate cohort studies for public Higher Education Institutions (DHET, 2023b).

Table 13 presents the throughput rate of university undergraduate students in three-year degree programmes (contact learning mode only), for the intake years 2009–2019. Of the 2019 cohort, 31.6% graduated within the expected three-year timeframe. Throughput rates improved overall over the past decade.

TABLE 13: Throughput rates by intake year of first-time-entering students in three-year undergraduate degree programmes (contact learning mode only), 2009–2019 intake years

NATIONAL TOTAL: CONTACT								
Intake year	Graduates (%)							
Year 1	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2009	25.0	45.6	58.4	64.7	68.1	70.2	71.5	72.6
2010	27.9	49.4	62.4	68.4	71.6	73.4	74.7	75.7
2011	28.6	50.2	63.3	68.9	71.9	73.9	75.2	76.4
2012	29.1	50.4	63.1	68.8	72.0	73.9	75.4	76.4
2013	30.4	51.7	63.7	69.5	72.9	75.0	76.3	
2014	31.1	52.0	64.2	70.2	73.6	75.7		
2015	31.9	53.6	65.8	71.9	75.1			
2016	32.2	53.5	66.9	72.3				
2017	31.0	54.7	67.9					Data not available
2018	30.8	54.6						
2019	31.6							

Source: 2000 to 2020 first-time-entering undergraduate cohort studies for public Higher Education Institutions (DHET, 2023b).

Table 14 presents the throughput rate of university undergraduate students in three-year degree programmes (distance learning mode only), for the intake years 2009–2019. Only 4.2% of the 2019 cohort graduated within the expected three-year timeframe. Throughput rates for distance learning have remained very low compared to that of contact learning. After 10 years, only 30.4% of the 2012 cohort enrolled for distance learning had completed their degrees as opposed to 76.4% of those enrolled for contact learning (see Table 13). This data demonstrates that throughput rates of students in distance learning mode programmes are significantly lower than for those in contact learning programmes.

TABLE 14: Throughput rates by intake year of first-time-entering students in three-year undergraduate degree programmes (distance learning mode only), 2009–2019 intake years

NATIONAL TOTAL: DISTANCE								
Intake year	Graduates (%)							
Year 1	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2009	2.8	7.8	13.6	19.0	23.1	26.6	28.7	30.5
2010	2.0	7.5	13.6	18.3	22.6	25.5	27.4	28.9
2011	1.7	7.9	13.9	19.5	23.1	25.7	27.5	29.5
2012	1.9	7.7	14.6	19.4	23.4	25.9	28.5	30.4
2013	3.4	12.9	21.1	27.3	31.0	34.6	36.5	
2014	4.2	15.0	24.1	30.3	35.4	38.4		
2015	4.5	16.3	25.2	32.2	36.5			
2016	6.0	18.1	28.2	34.2				
2017	4.6	18.3	27.8					
2018	4.5	17.3						
2019	4.2							

Source: 2000 to 2020 first-time-entering undergraduate cohort studies for public Higher Education Institutions (DHET, 2023b).

An alternative way of evaluating the efficiency of the university sector is by analysing dropout rates. Table 15 shows the cumulative percentage of students who dropped out after successive years of study for the first-time-entering cohorts that entered three-year degree programmes (contact learning mode only) from 2009–2020. For the 2020 cohort, 8.6% of students dropped out after one year of study, almost half the rate of the 2009 cohort. The decrease in dropout rates signals an improvement in retention of students in the system.

TABLE 15: Dropout rates by intake year of first-time-entering students in three-year undergraduate degree programmes (contact learning mode only), 2009–2019 intake years

NATIONAL TOTAL: CONTACT									
Intake year	Graduates (%)								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2009	16.5	19.2	20.5	20.8	22.1	22.5	22.6	22.1	21.7
2010	14.1	17.5	18.2	19.6	20.0	20.2	20.0	19.5	19.5
2011	13.8	16.3	18.3	19.3	19.8	19.4	19.0	18.8	18.6
2012	13.1	17.6	18.8	19.3	19.3	18.9	19.2	18.9	19.0
2013	15.3	18.4	17.9	17.6	17.7	18.0	17.9	18.0	
2014	15.3	16.9	16.3	16.4	17.0	17.5	17.5		
2015	11.8	14.7	14.8	15.5	16.4	16.7			
2016	11.3	14.4	15.2	16.2	16.5				
2017	10.3	13.8	15.0	14.8					
2018	10.1	13.9	13.2						Data not available
2019	9.9	11.2							
2020	8.6								

Source: 2000 to 2020 first-time-entering undergraduate cohort studies for public Higher Education Institutions (DHET, 2023b).

Table 16 shows the cumulative percentage of students who dropped out after successive years of study for the first-time-entering cohorts that entered three-year degree programmes (distance learning mode only) from 2009–2020. Of the 2020 cohort, 30.3% of students dropped out after one year of study. Unlike the dropout rates for contact learning, the dropout rates for distance learning have remained relatively high after one year of study.

TABLE 16: Dropout rates by intake year of first-time-entering students in three-year undergraduate degree programmes (distance mode only), 2009–2019 intake years

NATIONAL TOTAL: DISTANCE									
Intake year	Dropouts(%)								
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
2009	29.3	48.1	47.8	48.6	53.5	55.1	57.5	57.1	56.9
2010	31.8	44.1	47.1	53.2	55.5	58.6	58.4	58.6	61.4
2011	34.3	40.8	49.1	53.2	56.8	57.4	58.2	60.7	60.4
2012	28.8	42.6	48.1	52.9	54.5	55.8	60.3	60.2	60.9
2013	31.6	44.0	52.0	52.7	52.4	54.0	53.9	54.9	
2014	26.4	38.3	45.4	45.3	48.3	48.1	49.1		
2015	28.7	39.0	42.4	47.6	47.8	48.7			
2016	29.3	36.5	44.4	44.5	46.2				
2017	28.1	40.5	42.7	44.6					
2018	35.8	40.0	41.6						Data not available
2019	28.0	33.2							
2020	30.3								

Source: 2000 to 2020 first-time-entering undergraduate cohort studies for public Higher Education Institutions (DHET, 2023b).

7.1.2 TVET colleges

The NC(V), which is a three-year qualification, was introduced by the then Department of Education at public TVET colleges in 2007 to respond to the South African economy's priority skills demands. TVET colleges continue to offer the NC(V); however, many stakeholders have expressed concern about the low numbers of students completing the full NC(V) qualification within the expected timeframes.

Table 17 shows the trend in throughput rates over three years. According to the 2021 throughput rate, 10.8% of students who enrolled for the NC(V) Level 2 in 2019 for the first time (as new entrants) completed this qualification within the expected timeframe of three years in 2021. This figure reflects a decrease of 2.4 percentage points from the 2020 throughput rate.

TABLE 17: Overall throughput rates of NC(V) Level 2 students enrolled at TVET colleges, 2019–2021

THROUGHPUT RATE, PER YEAR		
2019	2020	2021
10.9%	13.2%	10.8%

Sources: TVETMIS and National Examinations databases.

Note: The students who enrolled for NC(V) Level 2 in 2017 for the first time (as new entrants) were compared with those who completed NC(V) Level 4 in 2019, while 2018 new entrants were compared with those who completed NC(V) Level 4 in 2020 and 2019 new entrants were compared with those who completed NC(V) Level 4 in 2021.

Table 18 shows that the throughput rate differs significantly across gender. The NC(V) Level 2 throughput rate for females is almost twice that for males in all the years under review. In 2021, the throughput rate for females was 6.8 percentage points higher than the male throughput rate of 6.5% and 2.5 percentage points higher than the overall throughput rate of 10.8%.

TABLE 18: Throughput rates of NC(V) Level 2 students enrolled at TVET colleges by gender, 2019–2021

GENDER	2019	2020	2021
Male	6.9%	8.0%	6.5%
Female	13.4%	16.7%	13.3%
Overall	10.9%	13.2%	10.8%

Sources: TVETMIS and National Examinations databases.

Note: The students who enrolled for NC(V) Level 2 in 2017 for the first time (as new entrants) were compared with those who completed NC(V) Level 4 in 2019, while 2018 new entrants were compared with those who completed NC(V) Level 4 in 2020 and 2019 new entrants were compared with those who completed NC(V) Level 4 in 2021.

7.2 What is the total spending on education?

This section provides a high-level overview and analysis of funding and expenditure trends in the PSET system. It provides an analysis of public budgetary or expenditure trends on PSET for the period 2019/20 to 2021/22. The report further provides Treasury-estimated budgetary projections until 2025/26. The period of review is guided by the latest available data. Consumer Price Index (CPI) inflation is used in

this report to convert nominal or current values to real values, where applicable. The January 2023 CPI numbers from Stats SA and National Treasury's 2023 Budget Review CPI inflation projections were used in this regard. The 2015/16 base year has been used to transform nominal or current values to real values.

7.2.1 Overall public spending on PSET

Table 19 shows public spending on PSET for the period 2019/20 to 2021/22. Public spending on PSET was R116.4 billion in 2021/22, showing an increase of over R10 billion (or 9.7%) from R106.1 billion in 2020/21. Of public spending on PSET in 2021/22, about 35.6% was spent on the university sector, 10.4% on the TVET college sector and 1.9% on the CET college sector. Most importantly, over one-third (33.2%) of total public spending on PSET was for National Student Financial Aid Scheme (NSFAS)⁷ (for both university and TVET college students).

Expenditure by skills levy institutions, namely SETAs and the NSF (which are funded by the skills levy and not public funds), was R19 billion (16.3%) in 2021/22. This figure reflects a significant improvement in skills levy collections after a decline to R12.4 billion in 2020/21 attributed to Covid-19.

TABLE 19: Government spending, including skills levy, on PSET (R million), 2019/20–2021/22

PROGRAMME	AUDITED OUTCOME					
	2019/20	%	2020/21	%	2021/22	%
University, excluding NSFAS	38 486	35.9%	40 515	38.2%	41 455	35.6%
TVET, excluding NSFAS	11 404	10.7%	12 080	11.4%	12 062	10.4%
CET	2 054	1.9%	2 000	1.9%	2 180	1.9%
SETAs and NSF	18 284	17.1%	12 413	11.7%	19 012	16.3%
Other	6 017	5.6%	3 967	3.7%	3 042	2.6%
NSFAS	30 822	28.8%	35 135	33.1%	38 675	33.2%
Total	107 067	100.0%	106 110	100.0%	116 427	100.0%

Source: *Estimates of National Expenditure 2023 (National Treasury, 2023a)*

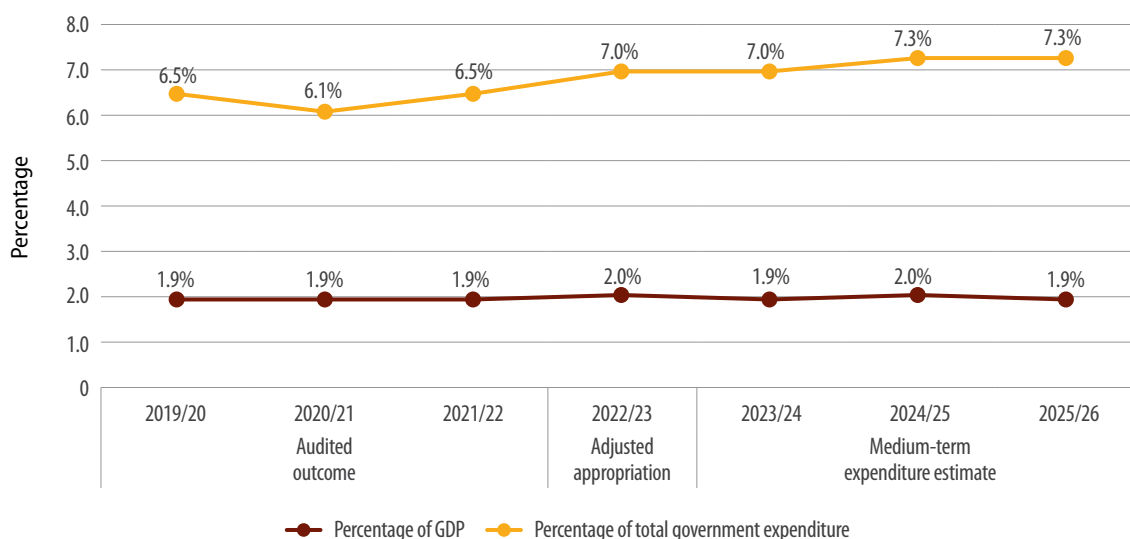
Notes:

1. All values are expressed as nominal values, as reported in the source.
2. University funding is the total amount allocated by National Treasury to the DHET for university education in the *Estimates of National Expenditure*, and it includes transfers to the CHE as well as the NHSS (National Institute for the Humanities and Social Sciences).
3. TVET funding is the total amount allocated by National Treasury to the DHET for TVET in the *Estimates of National Expenditure*.
4. 'Other' includes funds allocated to the following programmes: administration, planning, policy and strategy, and skills development.
5. 'NSFAS' is the total amount allocated by National Treasury for NSFAS and it includes a portion of NSFAS Administration.
6. Even though SETAs and the NSF receive funding from the skills levy, which is from the private sector, they are included as part of government expenditure, since the funds flow through National Treasury.

Figure 32 shows government spending on PSET as a percentage of total consolidated non-interest government expenditure and GDP. Spending on PSET as a percentage of GDP was 1.9% in 2021/22 and is expected to increase to 2% in 2022/23. On the other hand, spending on PSET as a percentage of overall consolidated government expenditure was 6.5% in 2021/22 and is projected to increase significantly to 7.3% in 2025/26.

⁷ The amount of NSFAS cannot be split between universities and TVET colleges, due to outstanding audit processes.

FIGURE 32: Government spending on PSET as a percentage of total consolidated government expenditure and GDP, 2019/20–2025/26



Sources: Own calculations based on GDP Time Series Data from Budget Review 2023 (National Treasury, 2023b); Expenditure Priorities from Medium-Term Budget Policy Statement (National Treasury: 2020, 2021 and 2022); and Consolidated Spending Plans from Budget Review 2023 (National Treasury, 2023b).

Notes:

1. All calculations are based on nominal values, as reported in the source.
2. Consolidated non-interest government expenditure includes spending by national departments, sub-national spending (including national transfers and sub-national own resources). It excludes debt-service costs.

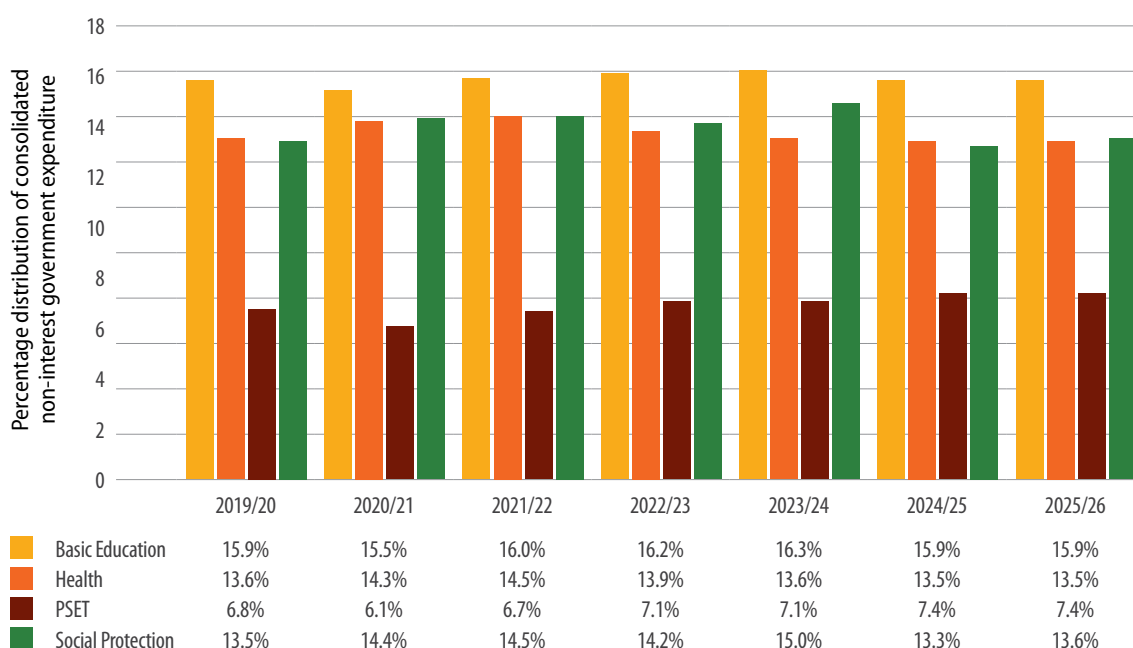
7.2.2 Consolidated government spending of a select number of functions

Figure 33 shows that the PSET system comprised 6.7% of total consolidated non-interest government expenditure in 2021/22. Although the share of PSET as a percentage of consolidated non-interest government expenditure has remained relatively low compared to the other social functions of government from 2019/20 to 2025/26, its share has increased significantly since 2019/20, and it is projected to increase by 0.6 of a percentage point from 6.8% in 2019/20 to 7.4% in 2025/26. Figure 33 also shows that increased government expenditure on PSET has been at the cost of Basic Education and Social Protection.

7.2.3 Overall government spending on schooling system versus post-schooling system

Figure 34 shows the PSET and schooling expenditure as a share of consolidated government expenditure on education from 2019/20 to 2024/25. PSET expenditure as a share of overall government expenditure on education was 29.4% in 2021/22, while the share of Basic Education was 70.6% in the same period. PSET expenditure as a share of overall government expenditure on education has been on an upward trajectory since 2021/22, and is projected to increase even further by 2.3 percentage points to 31.7% in 2025/26.

FIGURE 33: Percentage distribution of consolidated non-interest government expenditure across a select number of functions, 2019/20–2025/26

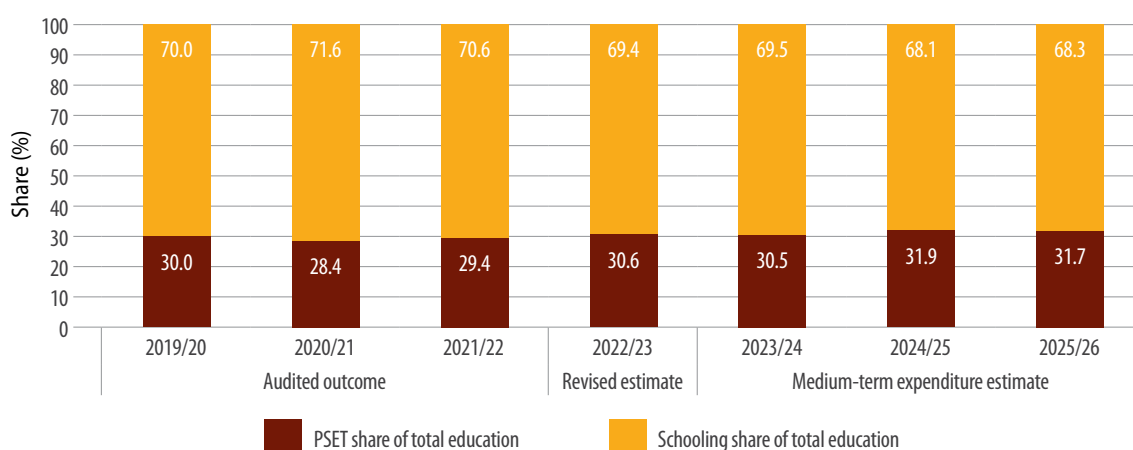


Sources: Own calculations based on Expenditure Priorities from Medium-Term Budget Policy Statement (National Treasury: 2020, 2021 and 2022); and Consolidated Spending Plans from Budget Review 2023 (National Treasury, 2023b).

Notes:

1. All values are based on nominal values, as reported in the source.
2. Expenditure for the years 2019/20 to 21/22 is audited outcome.
3. Expenditure for the year 2022/23 is a revised estimate.
4. Expenditure for the years 2023/24 to 2025/26 are medium-term estimates.
5. Consolidated non-interest government expenditure includes spending by national departments, sub-national spending (including national transfers and sub-national own resources). It excludes debt-service costs but includes contingency reserves and unallocated reserves.

FIGURE 34: Expenditure on PSET and schooling expressed as a share of consolidated non-interest government expenditure on education, 2019/20–2025/26



Sources: Own calculations based on Expenditure Priorities from Medium-Term Budget Policy Statement (National Treasury: 2020, 2021 and 2022); and Consolidated Spending Plans from Budget Review 2023 (National Treasury, 2023b).

Notes:

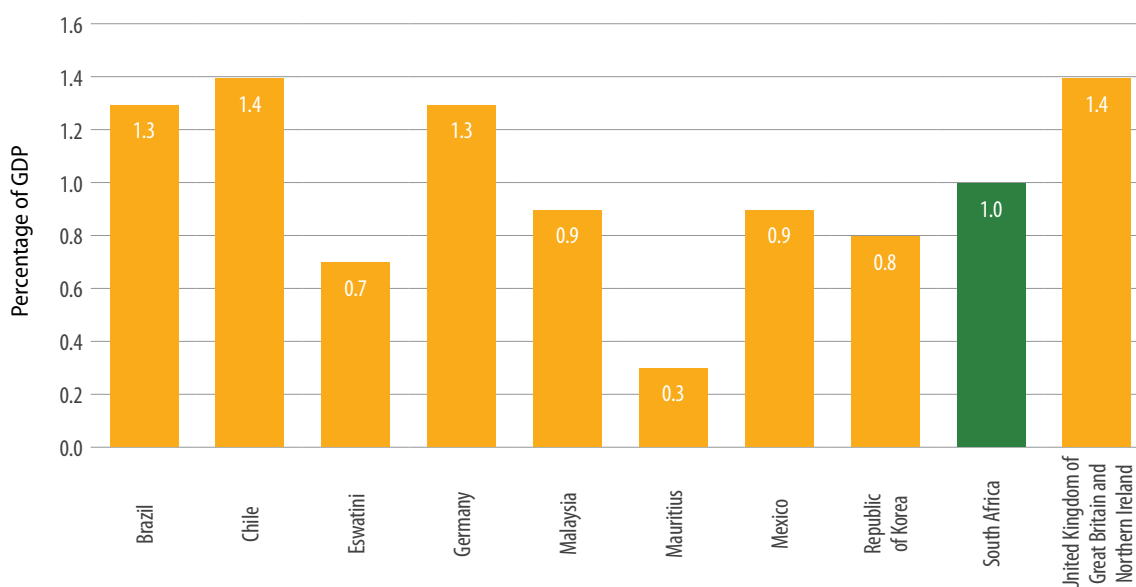
1. All values are expressed as nominal values, as reported in the source.
2. Consolidated non-interest government expenditure includes spending by national departments, sub-national spending (including national transfers and sub-national own resources). It excludes debt-service costs but includes contingency reserves and unallocated reserves.

7.2.4 Government spending on tertiary education⁸: international comparisons

This section provides comparator information about education spending in South Africa. It focuses only on the tertiary sector, since comparator data is only available for this sector (in PSET) in the international literature.

Figure 35 shows that South Africa spent 1.0% of its GDP on tertiary education in 2019 – a figure far below similar-income countries such as Brazil (1.3%) and Chile (1.4%) but more than the Republic of Korea (0.8%), Mexico (0.9%) and Malaysia (0.9%). It is important to note that although South Africa’s spend on tertiary education as a percentage of its GDP was lower than other countries, its spend per student relative to GDP per capita surpasses that of other countries, including high-income countries (see Figure 37 below). Unfortunately, due to the unavailability of recent data (2020 onwards) from comparative countries, it is not possible to conclude whether South Africa compares better with comparative countries in more recent years.

FIGURE 35: Expenditure on tertiary education as a percentage of GDP by country, 2019



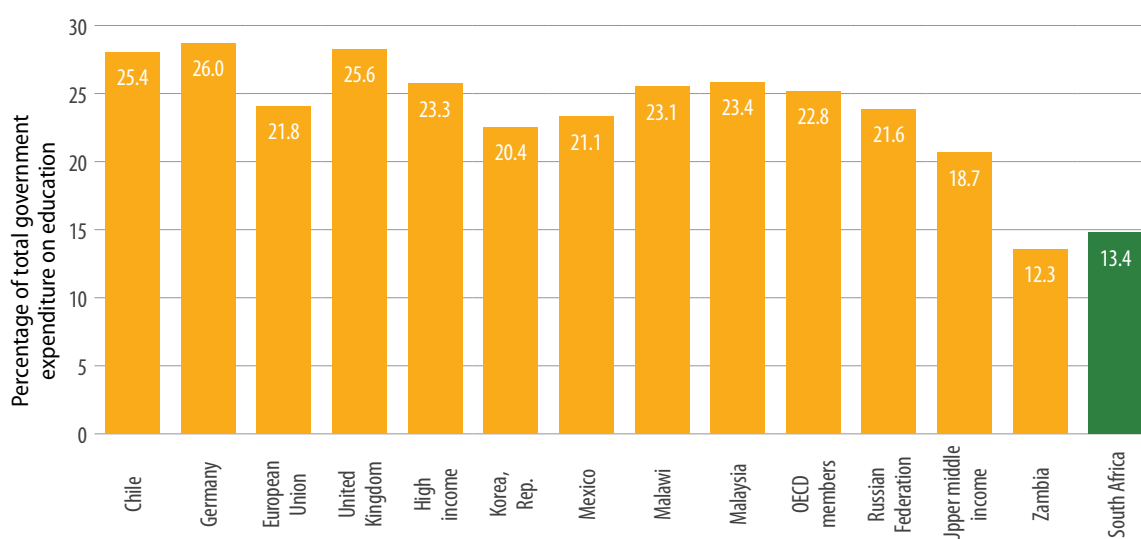
Source: UIS, extracted 26 April 2023.

Note: The countries included in this figure were selected based on availability of latest data.

Figure 36 shows that, in 2016, South Africa’s public spending on tertiary education as a percentage of total government expenditure on education was also relatively low compared with similar-income countries. In 2016, South Africa spent 13.4% of its total education budget on tertiary education, while most of the comparative countries spent over 20% of their total education budget on tertiary education.

⁸ Tertiary education refers to ISCED level 5–8 (see Appendix A for ISCED).

FIGURE 36: Expenditure on tertiary education as a percentage of total government expenditure on education, 2016



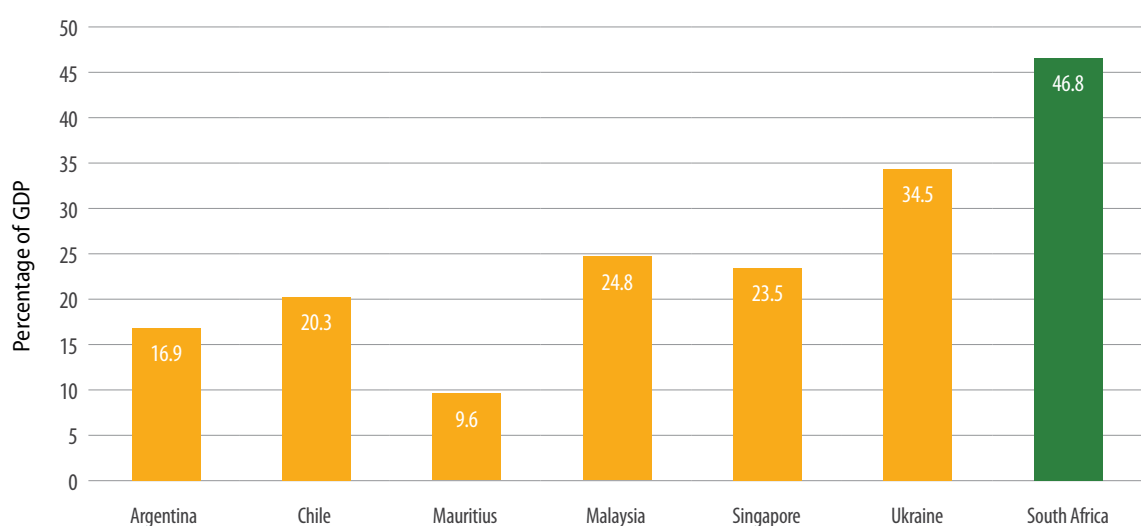
Source: World Bank, extracted 28 April 2023.

Notes:

1. The countries included in this figure were selected based on availability of latest data.
2. The value for South Africa is based on own calculations, as there was no value for 2016 in the World Bank database.

Figure 37 shows South Africa's expenditure on tertiary education per student as a percentage of GDP per capita in comparison to other countries. South Africa spends more on average per student for tertiary education in relation to GDP per capita than many similar-income countries. In 2017, South Africa's public expenditure on tertiary education as a percentage of GDP per capita was 46.8%, followed by Ukraine at 34.5% and Malaysia at 24.8%.

FIGURE 37: Public expenditure on tertiary education per student as a percentage of GDP per capita by country, 2017



Source: World Bank, extracted 28 April 2023.

Note: The countries included in this figure were selected based on availability of latest data.

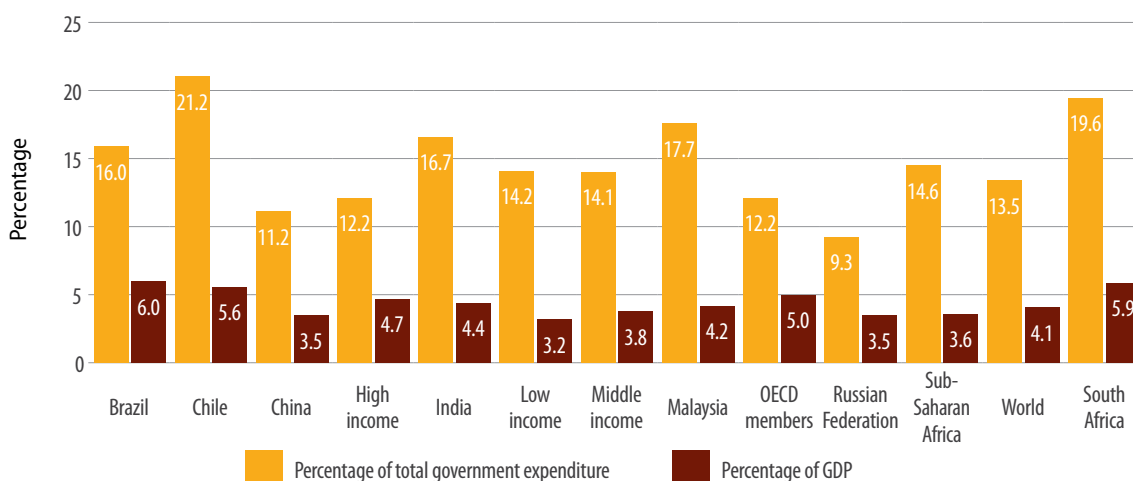
7.2.5 Government spending on total education (both schooling and post-schooling)

The UNESCO *Education 2030: Incheon Declaration and Framework for Action* (UNESCO, 2015) for the implementation of the global Sustainable Development Goal 4 endorses the following two key benchmarks for public spending on education:

- Allocating at least 4–6% of GDP to education.
- Allocating at least 15–20% of public spending to education.

Figure 38 shows education as a percentage of total government expenditure for several countries in 2019. Government expenditure on education as a percentage of total government expenditure was relatively high in South Africa compared with other BRICS countries like Brazil and China, and even exceeded the OECD countries' average and average for high-income countries; it was, however, slightly lower than Chile (21.2%). When looking at expenditure on education as a percentage of GDP, South African expenditure (5.9%) exceeded all the comparative countries except Brazil (6.0%). Chile followed closely with 5.6%.

FIGURE 38: Expenditure on education (both schooling and post-schooling) as a percentage of total government expenditure and GDP by country, 2019



Source: World Bank indicators, downloaded 03 May 2023.

Note: The countries included in this figure were selected based on availability of latest data.

7.2.6 Distribution of the skills development levy

Table 20 shows the distribution of the skills development levy from 2014/15 to 2021/22. The total amount disbursed by the skills levy fund was R19.0 billion in 2021/22, of which 80.0% was transferred to SETAs and 20.0% to the NSF. The skills levy collected in 2021/22 increased by R6.6 billion from the R12.4 billion collected in 2020/21. The skills levy collected by government from employers was significantly lower in 2020 compared with previous years, owing to the negative impact of the Covid-19 lockdown. The government provided relief to employers for four months, during which there was a 'payment holiday' for skills development levies from May to August 2020.

TABLE 20: Distribution of the skills development levy, 2014/15–2021/22

YEAR	TOTAL AMOUNT DISBURSED BY THE SKILLS LEVY FUND	DISTRIBUTION OF LEVY FUNDS						PORTION OF SETA ADMIN FEE TRANSFERRED TO QCTO: R'000
	R'000	NSF R'000	AMOUNT DISBURSED TO SETAs R'000	SETAs			R'000	
				ADMINISTRATION COSTS R'000	MANDATORY GRANT R'000	DISCRETIONARY GRANT R'000		
2014/15	14 036 309	2 818 082	11 218 227	1 472 392	2 804 557	6 941 278	28 500	
2015/16	15 225 043	3 044 212	12 180 831	1 598 734	3 045 208	7 536 889	40 000	
2016/17	15 298 454	3 046 235	12 252 219	1 608 103	3 063 055	7 581 061	60 670	
2017/18	16 234 599	3 246 920	12 987 679	1 704 633	3 246 920	8 036 126	68 431	
2018/19	17 479 895	3 495 979	13 983 916	1 835 389	3 495 979	8 652 548	86 691	
2019/20	18 283 843	3 656 768	14 627 075	1 919 803	3 656 769	9 050 503	90 347	
2020/21	12 363 798	2 473 409	9 890 389	1 298 114	2 472 597	6 119 678	96 147	
2021/22	19 011 609	3 802 322	15 209 287	1 996 219	3 802 322	9 410 746	67 743	
Average annual growth 2014/15–2021/22	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	13.2%	

Source: Statistics on Post-School Education and Training in South Africa (DHET, 2022a).



8

**A responsive
PSET system**

8.1 How responsive is the PSET system to the labour market?

The responsiveness of a PSET system to the labour market can vary significantly depending on the specific policies, structures and practices in place in each country or region. Several factors contribute to how well a PSET system aligns with the needs of the labour market. The responsiveness of a PSET system to the labour market depends on a combination of these factors, including curriculum relevance, industry partnerships, access to labour market information, flexibility of the PSET system, career services, employer engagement, government policies and ongoing evaluation. A well-functioning PSET system should continuously adapt to changes in the labour market to provide students with the skills and knowledge needed for successful careers.

This section assesses the responsiveness of the PSET system to economic and labour market needs, and to individuals in terms of their employability. An understanding of the skills needed by the labour market is therefore critical to ensure that appropriate interventions are adopted to provide the requisite human resources (Reddy et al., 2016). Without a clear sense of the required mix of skills, it is difficult to formulate appropriate policies that will improve the alignment between the demand and supply of skills in the country. Although there are many indicators that could provide insights into the responsiveness of the PSET system (including graduate and employer perceptions), this report adopts two key indicators to provide information about the PSET system's level of responsiveness to the needs of the labour market.

The first indicator, which is used by many countries, relates to the measurement of skills mismatches, which examines the extent to which the levels and types of skills required for a job and the person doing the job do not match. This measure focuses on two elements: namely, the extent of under- or over-qualification for a job and the relative 'match' between field of study and occupation. High levels of such mismatches suggest that the PSET system might not be responsive to the needs of the labour market.

The second indicator of responsiveness measures the extent to which universities and TVET colleges are preparing students for occupations in high demand (OIHD) in the labour market. The DHET produces this list every two years (to date, five lists have been developed). A measure of enrolment trends against key occupations in the List of OIHD could provide some indication of the PSET system's responsiveness to the needs of the labour market.

8.1.1 Skills supply and demand mismatches in South Africa

Skills mismatches between the supply and demand in the labour market persist, despite many improvements made by the South African government and other stakeholders. South Africa, like many other countries, faces challenges related to skills supply and demand mismatches in its labour market. These mismatches occur when the skills and qualifications of the workforce do not align with the needs of employers and the broader economy. Below are some key factors contributing to skills supply and demand mismatches in South Africa.

- **E&T system:** South Africa's E&T system has been criticised for not adequately preparing students and workers for the demands of the labour market. There may be a gap between the skills taught in educational institutions and the skills required by employers.
- **Skills shortages and surpluses:** in some cases, there may be shortages of workers with specific skills, while in other cases, there may be a surplus of workers with skills that are less in demand. This imbalance can lead to unemployment for some and skills shortages in critical areas.

Addressing skills supply and demand mismatches is an ongoing challenge in South Africa, and continued collaboration between the government, employers and educational institutions is essential to bridge the gap and reduce unemployment.

The levels of education-job mismatches in South Africa are very high. Table 21 shows that, in 2022, 51.7% of South African workers were employed in an occupation for which they did not have the correct level of education. In 2022, about 23.0% of South African workers were over-qualified for their jobs (that is, their highest level of educational attainment was higher than the one usually required in the occupation they were employed in), and a further 28.7% were under-qualified (their highest level of educational attainment was lower than the one usually required in the occupation they were employed in). Furthermore, 30.3% of South African workers were employed in an occupation that did not match the field of study of their highest level of educational attainment. These figures refer to workers aged 16–64 years.

When comparing 2022 with 2021, Table 21 shows that there was an increase of 1.7 percentage points in the share of South African workers who were over-qualified (from 21.3% in 2021), while the share of those who were under-qualified decreased by 0.9 of a percentage point (from 29.6% in 2021). The share of those that were mismatched by their field of study decreased by 0.4 of a percentage point (from 30.7% in 2021). These mismatches are likely to have occurred for various reasons, such as the pace of technological innovation. Workers may not have had the opportunity to acquire the latest digital, technical or IT skills needed for modern jobs.

TABLE 21: Share of employed persons aged 16–64 years by qualification and field-of-study mismatch, 2021 and 2022

YEAR	UNDER-QUALIFICATION	OVER-QUALIFICATION	FIELD-OF-STUDY MISMATCH
2021	29.6%	21.3%	30.7%
2022	28.7%	23.0%	30.3%

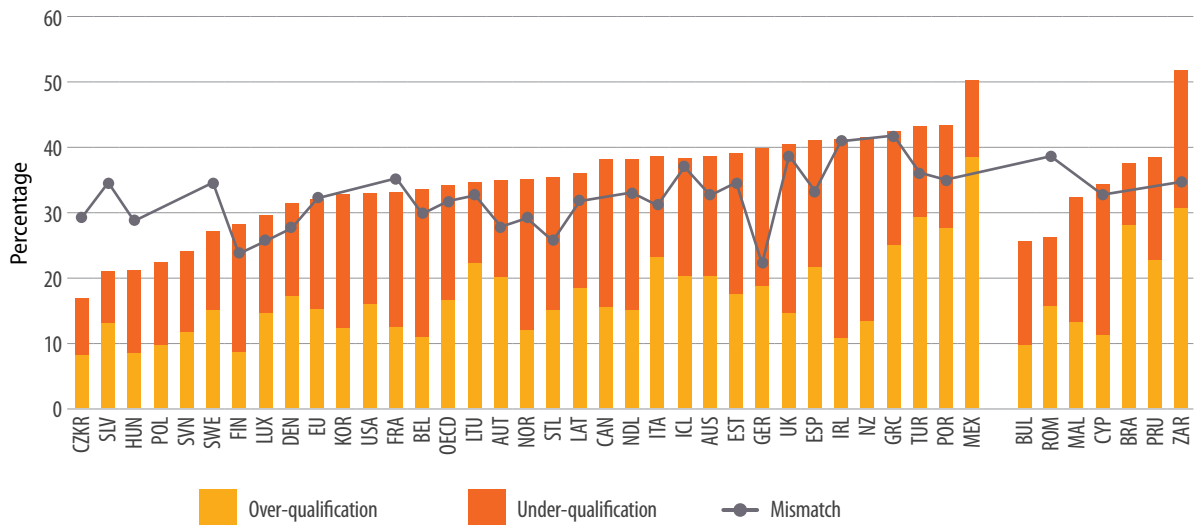
Source: OECD Skills for Jobs Database (2022c).

South Africa has very high levels of education-job mismatches compared with many other countries. The incidence of qualification mismatch in South Africa (52.0%) is higher than all the countries shown in Figure 39, especially where under-qualification is concerned. The average of qualification mismatch for OECD countries was only 32.3%, compared with South Africa's 52.0%.

Qualification mismatch is a global issue, but the factors contributing to it can differ between OECD countries and South Africa. OECD countries often have more diversified economies and job opportunities, but rapid changes in job requirements can lead to skills gaps. South Africa, on the other hand, faces challenges related to education access, inequality and high unemployment, which can contribute to qualification mismatch.

It is interesting to note that South Africa's mismatch in terms of field of study (34.7%) is not far off from the average of OECD countries (31.7%), suggesting that this problem is not confined to South Africa.

FIGURE 39: Qualification and field-of-study mismatch by country (2020 for South Africa, 2018 for most other countries)



Source: OECD Skills for Jobs Database (2022c).

8.1.2 Occupations in High Demand

The DHET has gazetted five national lists of OIHD to date, with the 2024 list being the latest iteration produced. The gazette provides a list of occupations that have been identified as being high in demand at the national level. The list contains occupations that show relatively strong employment growth or experience shortages in the labour market, thereby providing information that could guide the E&T sector and the public at large by signalling the need to develop new qualifications, and informing enrolment planning, career guidance and skills strategies (DHET, 2024).

There is a total of 350 occupations in the 2024 List of OIHD. This report selected 109 occupations from the List of OIHD based on their cross-cutting nature and their linkages to the sectors that have been identified as a priority towards the recovery of the South African economy for analysis, as shown in Table 22. These sectors point to a significant demand for science- and technology-based occupations at both the professional and technician levels.

TABLE 22: Occupations in High Demand

ENGINEERING	ICT	ARTISANS
Electrical Engineer*	Software Developer	Chef*
Mechanical Engineer	Data Scientist	Electrician*
Energy Engineering Technologist	Developer Programmer	Truck Driver (General)*
Energy Engineer	ICT Systems Analyst	Boiler Maker*
Electrical Engineering Technician*	Information Technology Manager	Diesel Mechanic*
Electronic Engineering Technician	Data Entry Operator*	Mechanical Fitter*
Civil Engineer	ICT Project Manager	Hairdresser
Mining Engineer	Programmer Analyst	Millwright
Aeronautical Engineer	Database Designer and Administrator*	Forklift Driver*
Personal Care Assistant	ICT Security Specialist	Bricklayer*

ENGINEERING	ICT	ARTISANS
Chemical Engineer	Computer Network and Systems Engineer	Fitter and Turner*
Marine Engineering Technologist	ICT Trainer	Automotive Motor Mechanic
Biomedical Engineer	Technical ICT Support Services Manager	Plumber*
Civil Engineering Technologist		Transportation Electrician
Industrial Engineer		Tailor
Mechanical Engineering Technician		Mining Technician
Metallurgical Engineer		Energy Efficiency Technician
Electronics Engineer		Rigger*
Production Engineering Technologist		Confectionary Baker*
Environmental Engineer		Metal Machinist
Explosive Ordnance Engineer		Instrument Mechanician
Metallurgical or Materials Technician		Electronic Equipment Mechanician
Special Class Electrician		Deck Hand
Engineering Supervisor		Landscape Contractor*
Agricultural Engineer		Butcher*
Industrial Engineering Technologist		Carpenter*
		Remotely Operated Vehicle (ROV) Pilot
		Telecommunications Technician
		Solar Installer
	Sewing Machine Operator*	
	Welder*	
	Rock Drill Operator	
	Mineral Processing Plant Operator	
	Pipe Fitter*	
	Crane or Hoist Operator*	
	Clothing, Textile and Leather Goods Production Operator*	
	Tanker Driver	
	Toolmaker	
	Bus Driver*	
	Seed Processing Machine Operator	
	Automotive Engine Mechanic	
	Loader Operator*	
	Driller	
	Electrical Installation Inspector	
	Heavy Equipment Mechanic	

ENGINEERING	ICT	ARTISANS
		Road Construction Plant Operator*
		Patternmaker
		Mining Operator*
		Diamond Sorter and Evaluator
		Web Developer
		Carpenter and Joiner
		Aircraft Maintenance Mechanic
		Upholsterer
		Mechatronics Technician
		Metal Processing Plant Operator
		Electrical Line Mechanic
		Dairyman
		Vehicle Body Builder
		Scraper Operator
		Taxi Driver
		Agricultural Mobile Plant (Equipment) Operator*
		Vehicle Painter

Source: DHET list of Occupations in High Demand (2024)

Note: * Some occupations are given an asterisk to indicate a comparatively large number of unemployed individuals registered on the Department of Labour's Employment Services South Africa (ESSA) database. A comparatively large number of unemployed individuals registered on the database could imply an over-supply of labour for an occupation, which may mean that the occupation should not be on the list. However, there are several reasons that there appear to be so many unemployed work seekers in occupations on the OIHD list (See DHET list of occupations in High Demand 2024 for some of the reasons).

8.1.3 Are universities and TVET colleges preparing students for OIHD in the labour market?

The extent to which universities and TVET colleges prepare students for occupations that are in high demand in the labour market can vary widely depending on several factors, including the region, specific institutions and the alignment of educational programmes with the needs of the labour market. TVET colleges are often more regionally oriented, which allows them to respond more directly to local labour market demands and opportunities.

Table 23 shows that, from 2014–2021, the science, engineering and technology (SET) field of study had the largest number of enrolments, which increased by an average growth rate of 1.3% per annum in total for both females and males. It is also observed that the SET field of study had a larger number of male than female enrolments. This trend demonstrates that university enrolment plans are, in a broad sense, responding positively to occupations that are in high demand.

Notably, female students are in the majority in all major fields of study throughout the period, except for SET. However, it appears that the gender gap in SET enrolments is narrowing, as female students made up 49.6% of total SET enrolments as compared to 50.3% for male students in 2021.

TABLE 23: Public HEIs: enrolment in major field of study, 2014–2021

YEAR	SCIENCE, ENGINEERING AND TECHNOLOGY	BUSINESS AND MANAGEMENT	EDUCATION	HUMANITIES	TOTAL
2014	287 219	272 407	166 098	243 426	969 150
2015	294 932	273 828	170 547	245 895	985 202
2016	295 374	264 932	176 984	238 526	975 816
2017	310 113	278 929	195 110	252 812	1 036 964
2018	320 664	283 188	214 146	267 535	1 085 533
2019	323 275	265 961	211 270	274 339	1 074 845
2020	319 877	280 480	199 427	294 934	1 094 718
2021	313 788	265 797	192 714	295 747	1 067 855
Average growth	1.3%	-0.4%	2.1%	2.8%	1.4%

Source: DHET HEMIS database 2022.

SET fields contributed the highest number of graduates over the period 2014–2022, as shown in Table 24. In 2021, the highest number of graduates was in SET fields at 28.9%, followed by the Business and Management field of study at 27.9%, Humanities at 25.6%, and Education at 17.6%. This trend demonstrates that South Africa has the potential to produce graduates with the necessary skills required in the labour market.

TABLE 24: Public HEIs: graduates by major field of study, 2014–2021

YEAR	SCIENCE, ENGINEERING AND TECHNOLOGY	BUSINESS AND MANAGEMENT	EDUCATION	HUMANITIES	TOTAL
2014	55 575	50 380	37 075	42 343	185 373
2015	58 090	53 863	36 654	42 915	191 522
2016	59 121	56 362	42 107	45 476	203 066
2017	61 581	57 770	44 433	47 139	210 923
2018	65 208	60 458	50 647	50 859	227 172
2019	64 677	58 666	47 488	51 084	221 915
2020	64 715	65 334	47 269	60 529	237 847
2021	67 422	64 971	41 063	59 801	233 208
Average growth	2.8%	3.7%	1.5%	5.1%	3.3%

Sources: DHET HEMIS database 2022.

It's important to note that the effectiveness of both universities and TVET colleges in preparing students for high-demand occupations can vary based on the quality of the institutions, the specific programmes offered, the level of industry engagement and the responsiveness to changing labour market needs. Both types of institutions can play a vital role in workforce development, but their success in preparing students for high-demand jobs depends on their adaptability and collaboration with employers and industries.

8.1.3.1 TVET colleges – Distribution of students' completion by qualification and programmes

Table 25 shows the distribution of students who completed an NC(V) Level 4 qualification by programme and gender in 2021. About 30.2% of NC(V) students who graduated in 2021 did so in Office Administration, followed by Tourism (8.0%), and Hospitality (7.5%). Table 25 also shows traditional gender bias in enrolment patterns, wherein more female students enrolled in 'soft' occupations compared to male students. It is concerning that programmes such as Office Administration, Tourism and Hospitality reflected higher proportions of female graduates, while graduates of the Engineering and Related Design and Electrical Infrastructure Construction programmes' were predominantly male.

TABLE 25: Percentage distribution of students who completed NC(V) Level 4 qualification by programme and gender, 2021

NC(V) LEVEL PROGRAMME	FEMALE		MALE		TOTAL	
	NUMBER COMPLETED	% SHARE	NUMBER COMPLETED	% SHARE	NUMBER COMPLETED	% SHARE
1. L4: Civil Engineering and Building Construction	323	3.7%	179	6.7%	502	4.4%
2. L4: Drawing Office Practice	2	0.0%	3	0.1%	5	0.0%
3. L4: Education and Development	490	5.6%	25	0.9%	515	4.5%
4. L4: Electrical Infrastructure Construction	495	5.7%	326	12.3%	821	7.2%
5. L4: Engineering and Related Design	353	4.0%	432	16.3%	785	6.9%
6. L4: Finance Economics and Accounting	489	5.6%	114	4.3%	603	5.3%
7. L4: Hospitality	717	8.2%	137	5.2%	854	7.5%
8. L4: Information Technology and Computer Science	184	2.1%	167	6.3%	351	3.1%
9. L4: Management	497	5.7%	137	5.2%	634	5.6%
10. L4: Marketing	305	3.5%	104	3.9%	409	3.6%
11. L4: Mechatronics	32	0.4%	22	0.8%	54	0.5%
12. L4: Office Administration	3 022	34.7%	412	15.5%	3 434	30.2%
13. L4: Primary Agriculture	366	4.2%	157	5.9%	523	4.6%
14. L4: Primary Health	115	1.3%	5	0.2%	120	1.1%
15. L4: Process Plant Operations	25	0.3%	8	0.3%	33	0.3%
16. L4: Safety in Society	314	3.6%	113	4.3%	427	3.8%
17. L4: Tourism	712	8.2%	202	7.6%	914	8.0%
18. L4: Transport and Logistics	278	3.2%	112	4.2%	390	3.4%
Total	8 719	100.0%	2 655	100.0%	11 374	100.0%

Source: Statistics on Post-School Education and Training in South Africa (DHET, 2023a).

Table 26 shows the percentage distribution of students who completed the N6 qualification by programme and gender in 2021. Of these students, 15.9% did so in Public Management, followed by Financial Management at 14.0% and Management Assistant at 12.4%. In addition, a gender bias is also reflected in enrolment patterns. A higher proportion of graduates of N6 in Engineering Studies (15.0%) was male compared to females (4.5%). This is concerning, as fewer females graduated in fields for occupations that are deemed to be in high demand where there are higher chances of them being absorbed in the labour market.

TABLE 26: Percentage distribution of students who completed N6 qualification by programme and gender, 2021

N6 PROGRAMMES	FEMALE		MALE		TOTAL	
	NUMBER COMPLETED	% SHARE	NUMBER COMPLETED	% SHARE	NUMBER COMPLETED	% SHARE
1. N6: Art and Design	85	0.4%	88	1.2%	173	0.6%
2. N6: Business Management	2 212	10.3%	873	12.2%	3 085	10.8%
3. N6: Clothing Production	164	0.8%	37	0.5%	201	0.7%
4. N6: Educare	2 611	12.1%	105	1.5%	2 716	9.5%
5. N6: Engineering Studies	969	4.5%	1 072	15.0%	2 041	7.1%
6. N6: Farming Management	450	2.1%	270	3.8%	720	2.5%
7. N6: Financial Management	2 949	13.7%	1 069	15.0%	4 018	14.0%
8. N6: Hospitality and Catering Services	1 078	5.0%	290	4.1%	1 368	4.8%
9. N6: Human Resources Management	2 450	11.4%	776	10.9%	3 226	11.2%
10. N6: Legal Secretary	141	0.7%	31	0.4%	172	0.6%
11. N6: Management Assistant	2 999	13.9%	561	7.9%	3 560	12.4%
12. N6: Marketing Management	789	3.7%	371	5.2%	1 160	4.0%
13. N6: Medical Secretary	86	0.4%	6	0.1%	92	0.3%
14. N6: Popular Music: Composition	1	0.0%	2	0.0%	3	0.0%
15. N6: Popular Music: Performance	38	0.2%	38	0.5%	76	0.3%
16. N6: Popular Music: Studio Work	9	0.0%	36	0.5%	45	0.2%
17. N6: Public Management	3 425	15.9%	1 129	15.8%	4 554	15.9%
18. N6: Public Relations	97	0.5%	18	0.3%	115	0.4%
19. N6: Tourism	995	4.6%	365	5.1%	1 360	4.7%
Total	21 548	100.0%	7 137	100.0%	28 685	100.0%

Source: Statistics on Post School Education and Training in South Africa (DHET, 2022a).

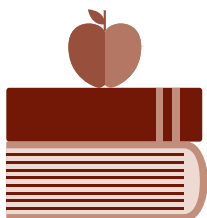
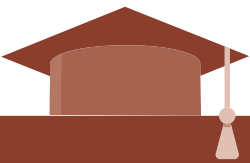
8.1.4 Learners completing artisanal learning programmes

The percentage of learners who completed artisanal learning programmes by trade and gender for the period 2019/20 to 2021/22 is shown in Table 27 below. In a slight improvement compared with the previous year (2021/22), 35.0% of learners qualified as Electricians, while 11.1% qualified as Diesel Mechanics and 10.6% as Mechanical Fitters. The low numbers of Joiners, Carpenters or Pipe Fitters is concerning, as graduates who possess these types of skills are needed, given the government's economic focus on infrastructure development and its strategy to grow the furniture industry. These three occupations are also reflected in the List of OIHD, suggesting the need to improve responsiveness of artisanal programmes to the needs of the labour market. Given that trade-related occupations have historically been dominated by males, it is inspiring to note that in 2021/22, a higher proportion of female students qualified as Electricians (45.5%) and Plumbers (14.3%) than male students.

TABLE 27: Percentage of learners who completed artisanal learning programmes by trade and gender, 2019/20–2021/22

TRADE	2019/20			2020/21			2021/22		
	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL
Electrician	51.9%	32.1%	35.9%	51.5%	30.2%	34.7%	45.5%	32.0%	35.0%
Mechanical Fitter	8.1%	11.3%	10.7%	10.2%	12.3%	11.8%	8.3%	11.3%	10.6%
Welder	6.9%	7.4%	7.3%	6.1%	6.8%	6.7%	4.9%	6.0%	5.8%
Diesel Mechanic	5.0%	11.4%	10.2%	4.9%	11.5%	10.2%	5.7%	12.7%	11.1%
Plumber	9.2%	8.9%	8.9%	7.9%	8.7%	8.5%	14.3%	9.2%	10.4%
Boilermaker	4.1%	7.5%	6.9%	3.4%	7.2%	6.4%	3.6%	6.9%	6.2%
Automotive Motor Mechanic	1.9%	5.1%	4.5%	2.5%	5.9%	5.2%	2.3%	6.5%	5.6%
Millwright	4.7%	5.4%	5.3%	5.1%	7.4%	6.9%	5.0%	6.0%	5.7%
Rigger	1.8%	4.5%	4.0%	1.3%	3.7%	3.2%	1.4%	3.4%	3.0%
Fitter and Turner	2.5%	3.8%	3.6%	3.5%	4.0%	3.9%	2.8%	3.3%	3.2%
Carpenter	1.1%	1.1%	1.1%	1.1%	0.9%	0.9%	2.8%	1.3%	1.6%
Bricklayer	2.8%	1.4%	1.7%	2.4%	1.4%	1.6%	3.4%	1.4%	1.8%
Joiner	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Carpenter/Joiner	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pipe Fitter	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Statistics on Post-School Education and Training in South Africa (DHET, 2023a).



9

Conclusion

The report shows that, in terms of access to PSET institutions, the number of students enrolled at universities has increased consistently from 2014–2021, while the number of students enrolled at TVET colleges has been on a downward trajectory since 2016. This means that while the NDP target for the PSET system to increase enrolments at universities to 1.6 million by 2030 will likely be realised, the same does not apply to TVET colleges. If enrolments at TVET colleges increase at the same pace as that of the past eight years, the White Paper target of 2.5 million enrolments at TVET colleges by 2030 might not be realised. Similarly, the CET enrolment numbers have also remained very low, with enrolments standing at just over 143 000 in 2021. As such, it is highly unlikely that the NDP target of 1 million students enrolled at CET colleges by 2030 will be realised.

The overall GER for public universities reflects a significant improvement in the period under review. Based on enrolment growth trends over the past eight years, it is likely that the target of 25% set in the WPPSET (DHET, 2013) for university participation rates will be met by 2030. The GER for TVET colleges, on the other hand, has remained very low.

The report further demonstrates that access to PSET favours female students over male students. The GPI for tertiary enrolment has remained among the highest in the world. The high levels of female participation in the PSET system are commendable and reflect substantial progress towards gender equality, but it is important to note that gender issues like gender-based violence persist in these institutions.

The findings of the report suggest a possible decline in the quality of PSET provisioning. Although the FTE student:staff ratio improved from 2014–2021, the increase in FTE students outpaced the expansion of public universities' academic staff complements. Moreover, the share of academic staff in universities who have a PhD is far below the NDP target of 75% by 2030.

Both the female and male graduation rates in public universities generally improved in the period under review. There have been some improvements in the certification rates in the college sector (both TVET and private) and CET colleges in some programmes, while others showed a decline in 2021 compared with the previous years.

The report demonstrates that the university sector is becoming more efficient in terms of its improved throughput rates and declining dropout rates. Despite the noticeable improvement in throughput rates, there are still far too many students who take too long to complete their university degrees, thereby burdening the system in terms of funding and available space for potential students. The throughput rates for NC(V) at TVET colleges were low and differ significantly across genders. The NC(V) level throughput rate for females is almost twice that of males in all the years under review. Low throughput rates often result in smaller classes at succeeding levels of NC(V) programmes; this increases the costs per student, as generally the same amount of lecturing is required even when classes become very small.

The report indicates that the extent of mismatches between education and the labour market is high in South Africa. This problem can be attributed in part to the PSET system not adequately preparing students for the demands of the labour market. It is, however, encouraging to note that a large number of students at public universities are enrolled in SET programmes that are aligned to OIHD. More needs to be done in terms of learners completing artisanal programmes, to ensure that they complete programmes that are required for OIHD.



10

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Appendices

APPENDIX A: DEFINITIONS FOR INTERNATIONAL COMPARABILITY

The International Standard Classification of Education (ISCED) is a standard framework used to categorise and report cross-nationally comparable education statistics (UNESCO, 2012). This approach allows for international comparability for country comparison data in this report.

ISCED 3: Upper secondary education

Upper secondary education is designed to complete secondary education in preparation for tertiary education, or to provide skills relevant to employment, or both. Programmes at this level offer students more varied and in-depth instruction than programmes at ISCED Level 2. They are more differentiated, with an increased range of options and streams available.

Source definition: ISCED, 2011

ISCED 4: Post-secondary, non-tertiary education

Post-secondary, non-tertiary education provides learning and educational activities that build on secondary education to prepare for both entry into the labour market and tertiary education. This kind of education is typically targeted at students who have completed upper secondary (ISCED Level 3) schooling but want to increase their opportunities, either to enter the labour market or to progress to tertiary education. Programmes are often not significantly more advanced than those at upper secondary level, as they typically serve to broaden rather than deepen knowledge, skills and competencies. Post-secondary, non-tertiary education therefore aims at learning below the high level of complexity that is characteristic of tertiary education.

Source definition: ISCED, 2011

ISCED 5: Short-cycle tertiary education

Programmes at ISCED Level 5, or short-cycle tertiary education, are often designed to provide participants with professional knowledge, skills and competencies. Typically, they are practically based and occupationally specific, and prepare students to enter the labour market. However, these programmes may also provide a pathway to other tertiary education programmes. Academic tertiary education programmes below the level of a Bachelor's programme or equivalent are also classified at ISCED Level 5.

Source definition: ISCED, 2011

ISCED 6: Bachelor's or equivalent level

Programmes at ISCED Level 6 are designed to provide participants with intermediate academic and/or professional knowledge, skills and competencies, leading to a first degree or equivalent qualification. Programmes at this level are typically theoretically based, but may include practical components, and are informed by state-of-the-art research and/or best professional practice. They are traditionally offered by universities and equivalent tertiary educational institutions.

Source definition: ISCED, 2011

ISCED 7: Master's or equivalent level

Master's or equivalent level programmes are designed to provide participants with advanced academic and/or professional knowledge, skills and competencies, leading to a second degree or equivalent qualification. Programmes at this level may have a substantial research component but do not yet lead to the award of a doctoral qualification. The programmes are theoretically based, but may include practical components, and are informed by state-of-the-art research and/or best professional practice. They are traditionally offered by universities and other tertiary educational institutions.

Source definition: ISCED, 2011

ISCED 8: Doctoral or equivalent level

Programmes at ISCED Level 8, or doctoral or equivalent level, are designed primarily to lead to an advanced research qualification. Programmes at this ISCED level are devoted to advanced study and original research, and are typically offered only by research-oriented tertiary educational institutions, such as universities. Doctoral programmes exist in both academic and professional fields.

Source definition: ISCED, 2011

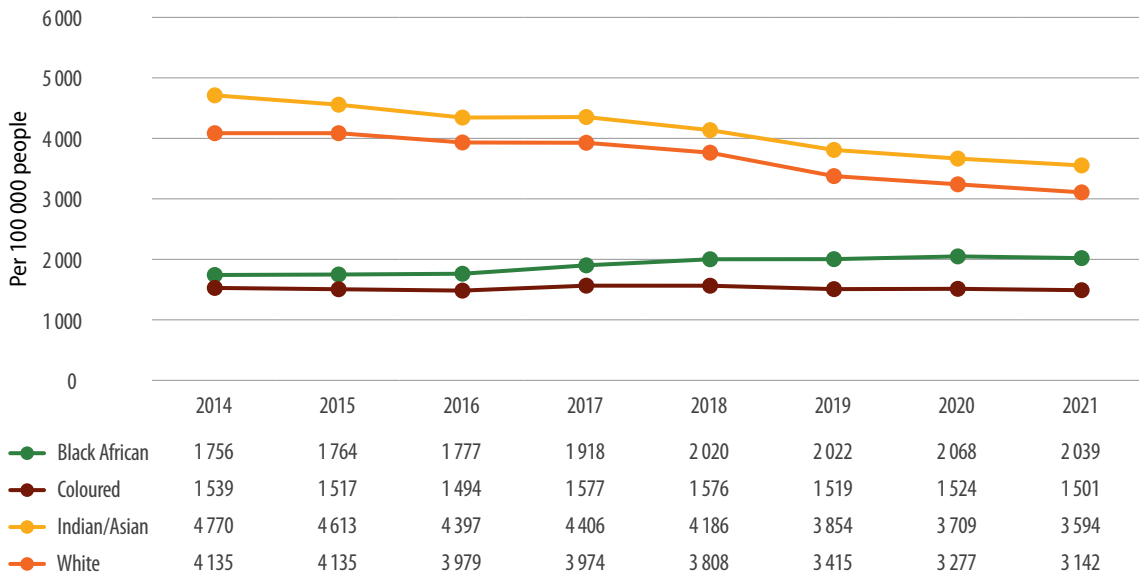
Tertiary education (ISCED 5 to 8)

Tertiary education builds on secondary education, providing learning activities in specialised fields of education. It aims at learning at a high level of complexity and specialisation. Tertiary education includes what is commonly understood as academic education but also includes advanced vocational or professional education.

Source definition: ISCED, 2011

APPENDIX B: ADDITIONAL TABLES

FIGURE 40: Enrolment in tertiary education per 100 000 of the population by population group, 2014–2021



Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2016, 2017a, 2018a, 2019a, 2020a, 2021a, 2022a and 2023a).

Note: Enrolments at tertiary education level include both public and private HEIs.

TABLE 28: Number of students enrolled at PSET institutions compared to youth aged 15–24 years who were NEET, 2014–2021

YEAR	UNIVERSITIES (PUBLIC AND PRIVATE)	TVET	CET	PRIVATE COLLEGES	SETA	TOTAL	NEET
2014	1 111 712	702 383	262 680	78 995	227 817	2 383 587	3 199 840
2015	1 132 422	737 880	283 602	88 203	231 097	2 473 204	3 043 693
2016	1 143 245	705 397	273 431	168 911	249 680	2 540 664	3 153 025
2017	1 222 030	688 028	258 199	187 354	269 147	2 624 758	3 126 064
2018	1 283 466	657 133	100 286	219 837	271 704	2 532 426	3 205 939
2019	1 283 890	673 490	171 409	151 136	222 210	2 502 135	3 324 295
2020	1 313 839	452 277	142 538	96 754	118 541	2 123 949	3 272 024
2021	1 300 961	589 083	143 031	85 787	130 264	2 249 126	3 431 659

Sources: QLFS 2014–2022 (Stats SA, 2022); Statistics on Post-School Education and Training in South Africa (DHET: 2019a, 2020a, 2021a, 2022a and 2023a).

TABLE 29: Private universities: GPI by race, 2015–2021

YEAR	BLACK AFRICAN	COLOURED	INDIAN/ASIAN	WHITE	TOTAL
2015	1.3	1.2	1.2	2.2	1.4
2016	1.3	1.3	1.2	1.1	1.3
2017	1.5	1.4	1.3	1.1	1.4
2018	1.6	1.4	1.3	1.2	1.4
2019	1.6	1.4	1.3	1.2	1.4
2020	1.7	1.6	1.4	1.3	1.5
2021	1.8	1.7	1.5	1.3	1.6

Sources: Own calculations based on Stats SA Mid-Year Population Estimates 2020 and 2021, DHET Annual report submitted by PHEIs for the 2016, 2017, 2018, 2019, 2020 and 2021 year of reporting.

TABLE 30: TVET colleges: GER by race and gender, 2014–2021 (%)

	AFRICAN			COLOURED			INDIAN/ASIAN			WHITE			GRAND TOTAL		
	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL	FEMALE	MALE	TOTAL
2014	16.1%	12.9%	14.5%	9.9%	10.5%	10.2%	1.4%	4.8%	3.2%	1.9%	6.2%	4.1%	15.2%	13.2%	14.4%
2015	18.3%	14.3%	16.3%	8.8%	9.7%	9.3%	1.1%	4.2%	2.7%	1.4%	5.8%	3.6%	16.9%	13.9%	15.4%
2016	19.2%	13.9%	16.5%	10.8%	10.9%	10.8%	0.8%	3.2%	2.0%	1.2%	4.4%	2.8%	17.1%	12.8%	14.9%
2017	19.0%	13.7%	16.4%	10.8%	10.0%	10.4%	0.7%	2.9%	1.8%	0.9%	4.2%	2.6%	16.9%	12.6%	14.8%
2018	18.3%	12.9%	15.6%	12.1%	10.4%	11.2%	0.8%	2.4%	1.6%	0.9%	3.7%	2.3%	16.5%	12.0%	14.2%
2019	19.2%	12.8%	16.0%	11.8%	10.4%	11.1%	0.8%	2.6%	1.7%	0.8%	3.4%	2.1%	17.2%	11.9%	14.6%
2020	13.2%	8.2%	10.7%	7.9%	6.3%	7.1%	0.4%	1.3%	0.9%	0.5%	1.7%	1.1%	11.8%	7.5%	9.7%
2021	17.3%	9.6%	13.4%	11.8%	9.0%	10.4%	0.6%	1.7%	1.1%	0.6%	2.1%	1.4%	15.6%	9.1%	12.3%

Sources: Mid-year population estimates (Stats SA, 2021); Statistics on Post-School Education and Training in South Africa (DHET: 2019a, 2020a, 2021a, 2022a and 2023a).



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