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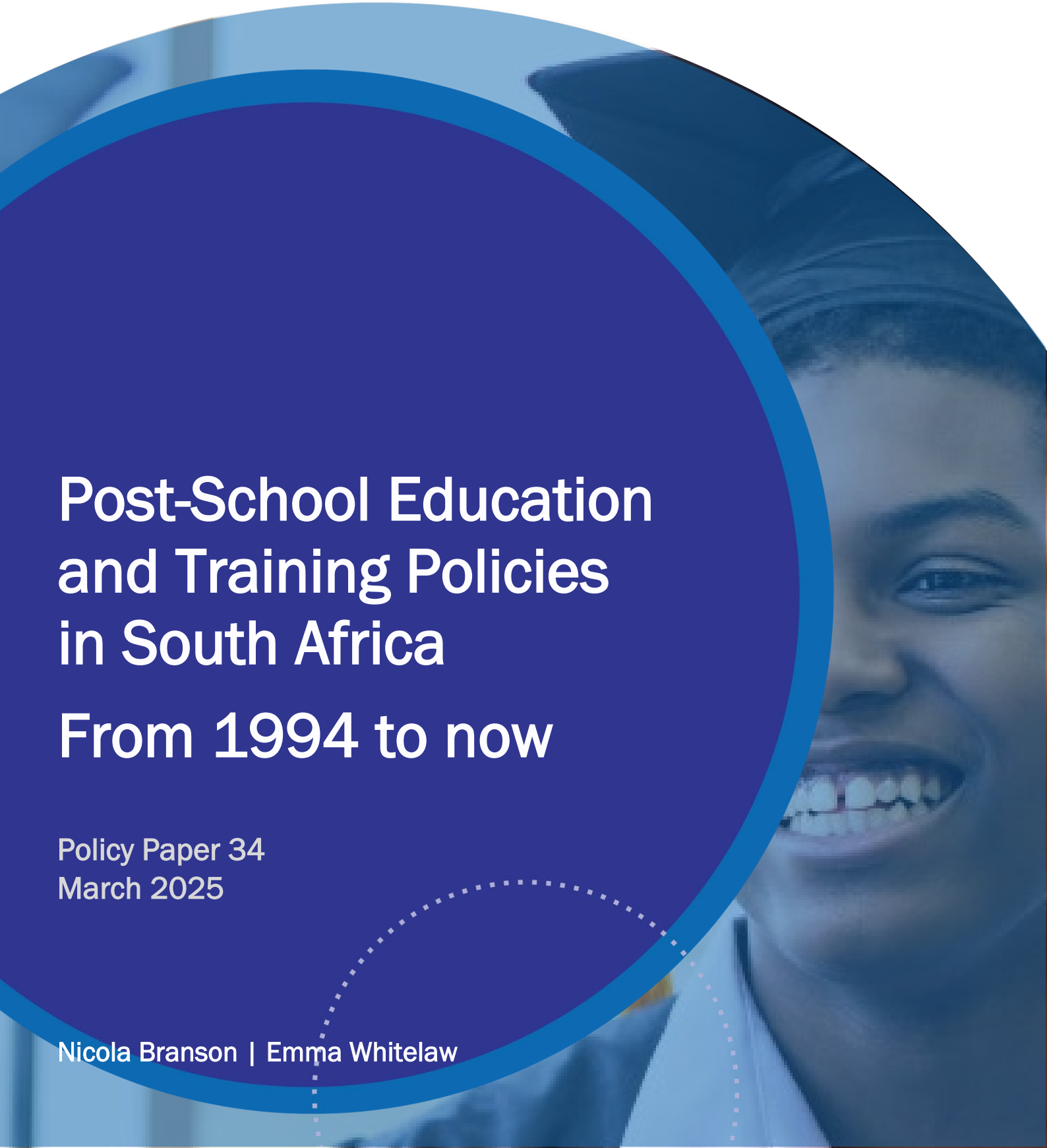

Post-School Education and Training Policies in South Africa

From 1994 to now

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ERSA Policy Papers typically address current issues pertinent to the national economic policy discourse. These papers aim to succinctly summarise a policy challenge and discuss its relevance, significance, and potential pathways forward for South African policymakers and researchers. They are primarily narrative-driven, drawing on existing research and descriptive analysis. We hope that, through this, ERSA can contribute to constructive and informed economic policy debate.

This paper is one of nine papers prepared for the 1994 to Now Policy Paper Series, prepared for the SALDRU, South Africa at 30 Years of Democracy Conference scheduled for 2-4 April 2025. The papers will be (were) presented at the conference with the aim of contributing to discussions and debates and fostering informed and constructive economic dialogue.

Fouché Venter

Executive Director

Post-School Education and Training Policies- From 1994 to Now

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Abstract

During apartheid, the Post-School Education and Training (PSET) system was deeply fragmented, unequal, and racially biased, with vast disparities in access, resources, and quality. Legislation, provision, and institutional structures explicitly enforced a racial demarcation between skilled and non-skilled workers. The transition to democracy presented an opportunity to transform the PSET sector. The new government aimed to create an inclusive, integrated education system that would meet the needs of a rapidly transforming economy, respond to the demands of a modern labour market, and promote social justice. Policy interventions were therefore required to address structural deficiencies, expand access, and improve quality. In this paper, we summarise some of the key post-apartheid PSET policies, evaluate what empirical evidence shows about progress in the sector, taking stock of key trends, and finally, discuss some of the challenges and tensions that remain.

Keywords: South Africa; Post-School Education and Training; Government Policy; Inequality

JEL classification: H52; I22; I23; I24; I28

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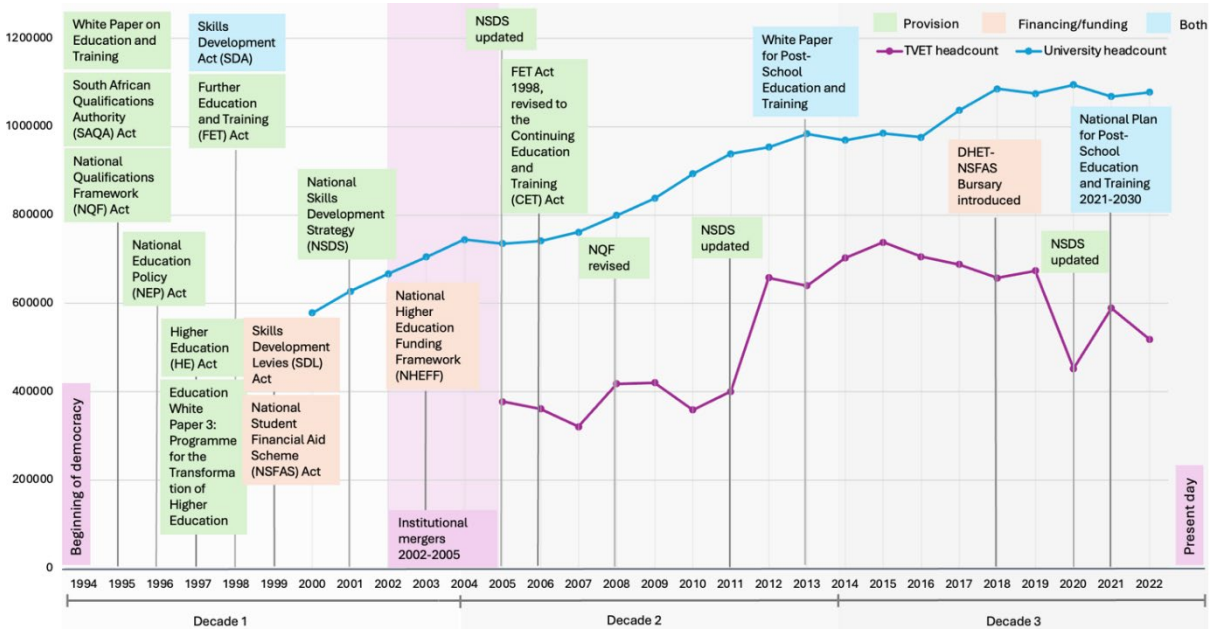
EXECUTIVE SUMMARY

This policy paper examines the evolution of South Africa's Post-School Education and Training (PSET) system since 1994. It documents key policies, trends in access and performance measures, and the challenges and tensions that remain. By juxtaposing empirical evidence alongside policy reforms, we provide a critical review of the sector over the past 30 years and raise questions about its future efficacy. Overall, this paper seeks to contribute to the discourse on how to improve the PSET system and to spark debate that will maximise educational and economic outcomes for South Africa.

Key policies post-1994

South Africa has undertaken substantial reforms to restructure and transform the PSET sector. These efforts aimed to expand access, foster social mobility, improve skills development, and create a more integrated and equitable system.



1. Restructuring provision

Provision reforms included **institutional mergers**, reducing the number of public universities from 36 to 23 and consolidating Technical and Vocational Education and Training (TVET) colleges from 152 to 50. **The National Qualifications Framework (NQF)** was introduced to standardise qualifications and facilitate student mobility across the system. Additionally, **curriculum enhancements** were made in both the university and TVET sectors. For example, Extended Curriculum Programmes (ECPs) in universities were implemented to support students transitioning into higher education. In TVETS, the National Certificate Vocational (NCV) syllabus was introduced from 2007 to replace the National Accredited Technical Education Diploma (NATED) courses. One of the primary purposes of the NCV was to provide an alternative pathway for youth to complete school.

2. Restructuring financing

Funding reforms sought to expand student financial aid and reshape institutional financing. The **National Student Financial Aid Scheme (NSFAS)** became a key instrument for expanding access and transforming the student body of both universities and TVETs.

The **National Higher Education Funding Framework** (NHEFF), introduced in 2003, serves as the primary policy for allocating government funding to universities. The funding framework was designed to support both teaching and research activities, while promoting equity and institutional diversity (via earmarked grants). However, institutional financial constraints are a major concern, and both state subsidies and third-stream income have declined. Alongside a growing reliance on fee income, student debt has risen, even with fees increasingly paid via NSFAS. Thus, university incomes are increasingly unstable.

The Continuing Education and Training Act of 2006 presents the funding framework for TVET and Community Education and Training (CET) colleges. **The Norms and Standards for Funding TVET Colleges**, introduced in 2015, regulate how public funding is allocated to TVET institutions, emphasizing cost per student and programme funding. These norms aim to support the expansion of TVETs, seen as crucial to diversifying educational pathways and fostering skills development. Many programmes are subsidised at 80% of the cost. No standalone document equivalent to the NHEFF or TVET funding norms is available for the CET sector.

Key findings from empirical evidence on changes in PSET outcomes

Evidence highlights both the successes and challenges in the PSET sector over the past three decades.

Expanded access is evident in rising enrolments across universities and TVET colleges, with notable increases in participation from historically disadvantaged groups. However, despite this pro-equity expansion, disparities persist with, for example, Black, Indian, and Coloured university enrolment falling short of population shares.

Funding flows show a significant increase in per student public investment in higher education, particularly through NSFAS. The transition to a full-cost bursary model under NSFAS has contributed to significant financial strain, with funding demands increasing annually. The per learner NSFAS allocation is much lower for TVET students than university students, however, and the gap between them has increased over time. The growth in NSFAS allocation per funded university student outpaced the real per learner subsidy to universities from 2013/14. Funding for students is thus being increased, but arguably to enrol at institutions that (in time) may not receive sufficient funding to provide infrastructure for quality learning.

Student outcomes have improved notably over the last three decades; however, the evidence shows that graduation and completion rates vary widely by institution type and time to graduation is long. Distance education and TVET students face particularly low completion rates, suggesting the need for targeted interventions to improve retention and success. Moreover, funding mechanisms do not align with delayed time to completion.

Graduate labour market outcomes reveal that while the earnings premium for post-school qualifications remains high, graduate unemployment has been rising. The unemployment rate for bachelor degree holders rose from just 5.8% (broad definition) in 2008, to 11.8% in 2023. The unemployment rate for other tertiary qualifications is higher and has increased at a faster rate - from 11.6% in 2008 to 26.5% in 2023. Absorption into employment among TVET graduates is particularly low, but absorption into employment also differs substantially across universities. The increasing share of unemployed graduates raises concerns about the alignment between education and employment demand.

Future policies and priorities

Despite concerted policy efforts, substantial restructuring and consolidation, and notable improvements in educational attainment along equity lines, inequities persist. The reproduction of inequalities in the PSET system – and in other dimensions in South Africa more broadly – is a central tension of the past 30 years. We reflect on four areas that we believe require further scrutiny for future policy making.

1. **Skills and labour market demand**

The large investment into creating a PSET graduate warrants concern around graduate employability. Earnings returns to PSET qualifications continue to rise, signaling high demand or a shortage of skills in the labour market. Yet this is coupled with increasing graduate unemployment rates. Understanding whether the mismatch is compositional, a function of quality, discrimination, or a combination would inform PSET enrolment planning, financing, and curriculum focus.

2. **Resourcing efficient institutions**

The PSET budget cannot continue to grow at rates higher than other social development departments. It is therefore crucial to seek alternative sources of funding or efficiency measures. We ask whether there is space to reduce administrative burdens, expand cost-effective distance learning, and foster collaboration over competition. Within institutions, improving efficiency requires a clear understanding of costing models and the financial viability of programs, while enhancing student outcomes demands targeted support and alignment with labour market success. Graduates who become active participants in the economy (as innovators, employees, entrepreneurs) contribute to the tax base (in addition to other things), creating a virtuous cycle that can grow funds available for education.

3. **Funding incentives**

Institutions and students respond to the financial structures that exist. For institutions, these are the funding frameworks, fees, and third-stream income. For students, it is either NSFAS funding, other financial aid mechanisms, or private fee payment. It is not entirely clear how the current financial structures are interacting to influence institutional and student choices and priorities. Interrogating this is likely to require a willingness to critically examine the return on various PSET investments, while also anticipating that the system will respond to policies in dynamic and interrelated ways.

4. **Assessing current goals and priorities**

We recommend that some of the commitments on DHET's agenda (motivated by the NDP goals) be critically assessed considering the sector's current struggles. Specifically, are the priorities of expansion and articulation appropriate given the challenges the system faces? Does expanding PSET enrolments in an already financially strained sector make sense given that funds are potentially diverted from basic education, where deep-rooted inequalities contribute to the articulation gap and the overall cost of higher education? By strengthening individual components of the system first, then working together, could we increase the likelihood and frequency with which we produce graduates with the skills employers seek?

Conclusion

This paper considers South Africa's PSET system since 1994 through to now, highlighting both achievements and ongoing challenges. While significant progress has been made in expanding access and restructuring institutions, persistent issues such as high dropout rates, misalignment with labour market needs, and funding sustainability continue to hinder the system's effectiveness. We reflect that it may be necessary to pause before continued expansion take place, ensuring that each component operates as efficiently as

possible. This includes institutions critically assessing their internal efficiency, exploring opportunities for collaboration, and identifying their unique challenges and opportunities, as well as DHET reviewing the incentives its (financial) structures provide institutions and students. Thirty years into the post-apartheid transformation of the sector, a period of reflection and strategic adjustment may be necessary to ensure sustainable and meaningful future progress.

1 Introduction

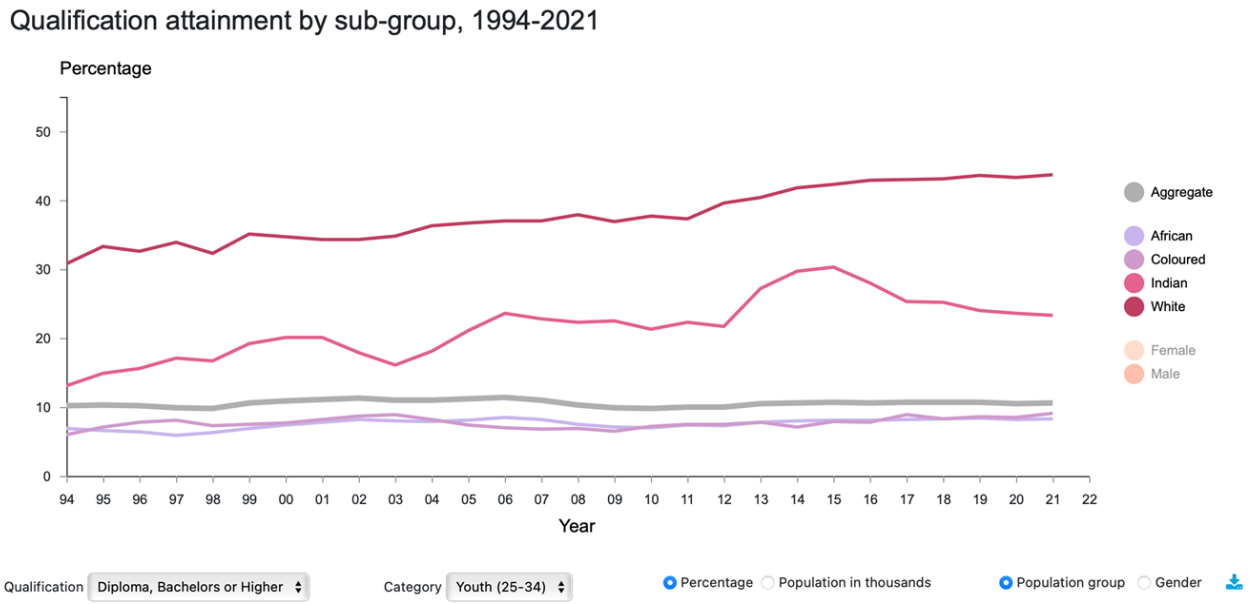
The education system under apartheid was designed to serve the state's vision of a superior White race. The majority of Black Africans had limited access to education, training or workplace-based learning. Post-School Education and Training (PSET)[3] was deeply fragmented, unequal, and racially biased, with vast disparities in access, resources, and quality. Legislation, provision, and institutional structures explicitly enforced a racial demarcation between skilled and non-skilled workers. Racial laws and restrictions took precedence over individual and institutional incentive structures in the PSET system. For example, resources were allocated disproportionately, heavily favouring institutions serving White students, while systematically underfunding those established for Black, Coloured, and Indian populations. Institutions catering to White students received extensive support for infrastructure, academic resources, and staff development, which allowed them to enhance their teaching and research capacity, established themselves as centers of excellence, and attracted third-stream incomes. In contrast, institutions for other race groups operated with minimal resources, often in overcrowded and under-resourced environments, which limited the academic offerings available and the subsequent career prospects of their graduates.

The transition to democracy presented an opportunity to transform the PSET sector. The new government aimed to create an inclusive, integrated education system that would meet the needs of a rapidly transforming economy, respond to the demands of a modern labour market, and promote social justice. Policy interventions were therefore required to address structural deficiencies, expand access, and improve quality.

Despite policy efforts and increases in educational attainment more generally, inequities have, however, persisted. This is highlighted by the data in Figure 1, which shows trends in the share of the population (25-64) with any post-school qualification between 1994 and 2021 – overall and by race. The aggregate trend shows a gradual increase from 10% in 1994 to 17% in 2021, an overall positive picture. However, the figure shows that racial gaps in attainment have widened: White and Indian attainment levels (47% and 26% in 2021) grew by 10 and 14 percentage points while growth for African and Coloured groups was only 5 and 7 percentage points. This represents a growth in the gap between African and White attainment of 9 percentage points. Furthermore, if restricted to youth and those with diploma, bachelor or higher qualifications only – the qualifications most likely to be highly rewarded in the labour market – the overall increase is only 4 percentage points and the racial attainment gap between White and Black youth increases from 24 percentage points in 1994 to 35 percentage points in 2021 (see Siyaphambili website). This motivates a critical consideration of the progress that the sector has made, alongside a review of challenges that remain.

[3] *List of abbreviations can be found in the appendix.*

Figure 1: Qualification attainment in South Africa over time



Source: Siyaphambili website.

We begin by providing an overview of the current PSET system, before taking a step back and providing background on the most significant PSET policy changes introduced since 1994. We group these changes under two broad categories: provision and funding. We then briefly touch on the data that is available to monitor the PSET system. This is followed by a section evaluating what empirical evidence shows about progress in PSET. We consider how PSET policies have played out across four dimensions, namely 1) expanded access and compositional change, 2) funding flows, 3) student outcomes, and 4) graduate labour market outcomes. Finally, with the future of PSET in mind, we touch on challenges and tensions that remain.

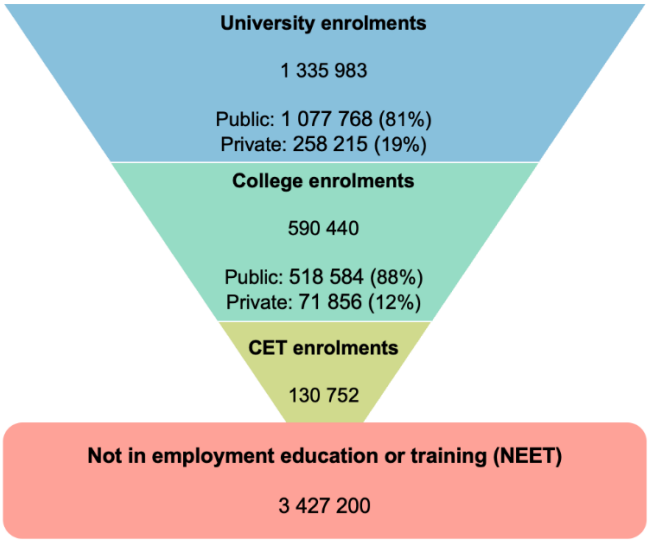
2 Overview: PSET today

Today, PSET institutions are comprised of 26 public universities, 131 private universities (or higher education institutions, HEIs), 50 Technical and Vocational Education and Training (TVET) colleges, 287 private colleges, nine Community Education and Training (CET) colleges and 21 Sector Education and Training Authorities (SETAs) (DHET, 2023d). Thus, these institutions are intentionally differentiated based on their offerings in order to provide for a variety of skills that are needed in the economy (DHET, 2013b). The composition recognises that a variety of post-school pathways exist, and that all should be supported. TVETs offer vocational, occupational and artisan training to anyone who has completed at least grade 9, including those wishing to upskill or reskill based on labour market demand, while CETs provide learning opportunities for out-of-school youth and adults, to enable them to progress to further learning opportunities and/or employment. University offerings include both teaching and research, depending on their classification. Some universities are more 'selective' in their enrolment (have more demanding entrance requirements and typically charge higher fees), but all public universities set minimum admission criteria. SETAs were instituted to play a key role in facilitating skills training in specific economic sectors by developing qualifications, accrediting training providers, and providing workplace experience through learnerships and apprenticeships.[4] The PSET system also takes into account youth who are not in employment, education and training (NEET) to support decision-making and provision in the sector (DHET, 2023a).

Figure 2 illustrates the composition of the PSET sector in 2022. The largest share of enrolments is in the public university sector (52.4% in 2022), followed by the public TVET sector (25.2%) (DHET, 2024c). The National Development Plan (NDP) goal to increase enrolment in TVET colleges to 2.5 million students by 2030 illustrates that government recognizes the TVET colleges as providers of an alternative education pathway for students. However, although enrolment in TVET colleges more than doubled between 2010 and 2015, it peaked at 737 880 students in 2015 and has since declined (DHET, 2024c). Public PSET institutions account for 84% of enrolments while the private sector makes up 16.0% (DHET, 2024c). Not shown in Figure 2 is SETA registrations. There were 127 412 learners registered for SETA-supported learning programmes during the 2022/23 financial year (DHET, 2024c).

[4] The SETAs are designed to receive signals of labour demand from employers and use them to design and prioritise particular skills interventions (Oosthuizen & de Villiers, 2022).

Figure 2: The South African post-school system, 2022



Source: Authors' adaptation from DHET (2024c).
Note: The NEET group is restricted to those aged 15-24. Enrolment numbers are not restricted by age. The private college enrolments figure represents enrolment in 90 of 161 private colleges registered with the DHET in 2022.

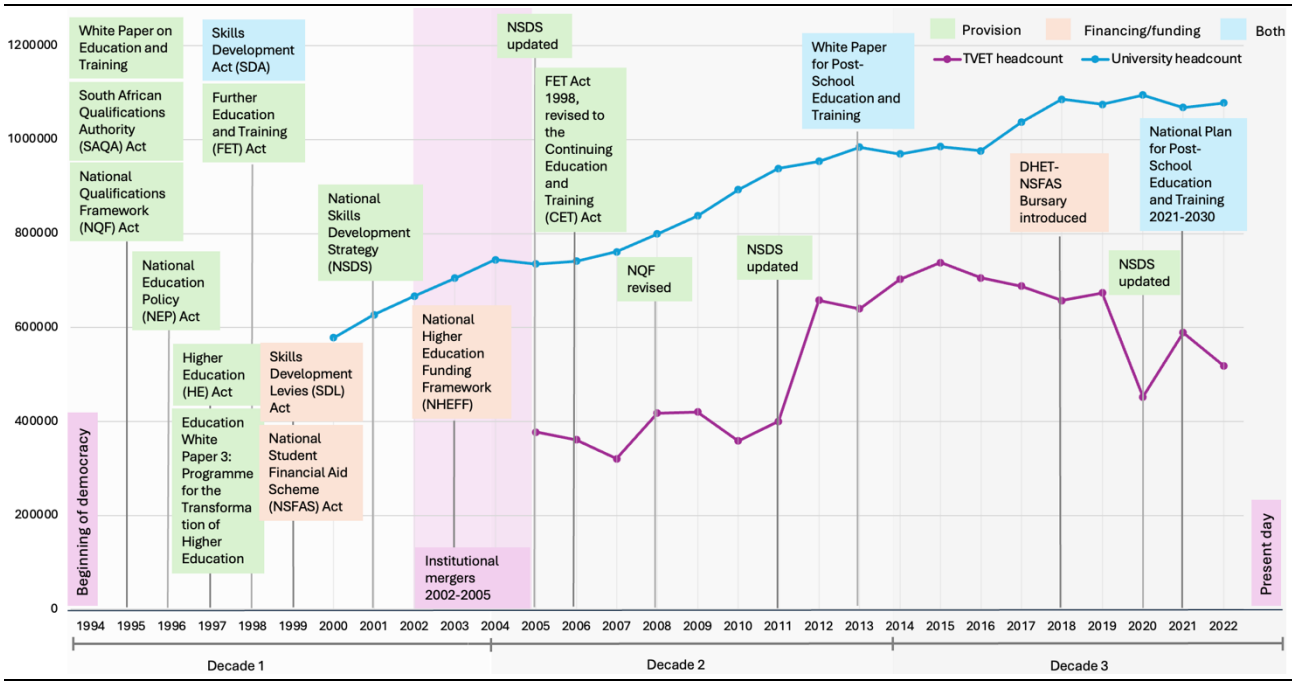
Startling, however, is that over one third (33.6%) of youth are NEET. South Africa is an outlier in this regard compared to its economic comparators in BRICS (see appendix Figure A1), thus it is not the case that the country's low Gross Enrolment Ratio in tertiary education is driven by alternative, employment opportunities (see appendix Figure A2).

3 Background: key policies post-1994

The first democratic government introduced a number of policy documents and acts that broadly intended to restructure post-school education and training into a cohesive system. The aim was to expand access, foster social mobility and articulation within the system for students from different backgrounds, address the need for skills development, reformulate financing and funding mechanisms, and ultimately advance social change.

Some of the key documents and policy decisions that have shaped the PSET landscape over the previous three decades are presented in Figure 3. These documents focused the restructuring of the PSET system on overcoming the deep inequalities left by apartheid and creating a more unified and inclusive system. We broadly group them as the Restructuring of Provision (3.1) and the Restructuring of PSET Financing (3.2) below. Acknowledging that we cannot include all policies, our aim is to give the broadest possible overview of how the PSET system has been shaped and formed, but in sufficient detail to frame the evaluation and discussion that follow.

Figure 3: Documents and policies that shaped PSET over time; enrolments overlaid



Source: Power Higher Education Data Analyser (PowerHEDA), Department of Education (2002-2010) and DHET (2013-2022) .
Note: TVET students are counted once in every enrolment cycle i.e., annual, semester and trimester, and this may result in students being counted more than once per year if they enrol in every cycle.

3.1 Restructuring PSET provision

Institutional mergers

A significant step in restructuring post-school education was the merging of universities and technikons between 2002 and 2005. This process, which was envisioned in the 1997 'Education White Paper 3:

Programme for the Transformation of Higher Education',[5] reduced the number of public universities from 36 to 23 through mergers and incorporations, giving rise to the three institutional classifications that exist today (traditional, comprehensive, and universities of technology or UoTs). Traditional universities are intended to be research-intensive, comprehensive universities to provide a mix of research and teaching focus, and UoTs to be predominantly teaching institutions. The reorganisation aimed to increase access for historically marginalised groups, improve equity, and align educational offerings more closely with labour market needs, ensuring the post-school education system could better respond to the evolving economy. Since then, three additional universities have been built, bringing the total to 26. These new HEIs were established to address regional gaps in access to higher education, particularly in provinces where there were no universities, and to meet growing demand for specialised skills in fields such as health sciences.

The number of public TVET colleges (previously Further Education and Training (FET)[6] colleges) was also consolidated from 152 institutions into 50, to streamline the sector and improve efficiency. Fifty public Adult Education and Training (AET) centres were later restructured into nine Community Education and Training (CET) colleges (one per province), each operating various learning sites or centres to increase accessibility and provide opportunities for adult learners.

A qualifications framework

In addition to the mergers and departmental reconfiguration, a central component to the restructuring of PSET provision has been the development of the National Qualifications Framework (NQF), most recently revised in 2008. The NQF set out to standardise qualifications and promote access, mobility, and progression across different PSET sectors, including higher education, TVET, and CET. The NQF has ten levels, with qualifications in three sub-frameworks: (1) General and Further Education and Training Qualifications, (2) Higher Education Qualifications, and (3) Occupational Qualifications.[7] Post-schooling qualifications fall under three separate frameworks namely: the Occupational Qualifications Sub-Framework under the Quality Council for Trades and Occupations; the General and Further Education Qualifications Sub-Framework under Umalusi; and the Higher Education Qualifications Sub-Framework, each with different entrance and access requirements.

The General and Further Education and Training Qualifications Sub-framework comprises NQF levels 1–4. All compulsory education is NQF level 1. Upon completing compulsory education in grade 9,[8] learners may continue to the further education and training phase in the schooling system and work through grades 10, 11, and 12, which align with NQF levels 2, 3, and 4, respectively. The first national standardized examination taken within the public-school stream is in grade 12. Learners passing the examinations are awarded a National Senior Certificate (NSC) at NQF level 4. A learner can pass with a bachelor pass (previously called matric exemption), diploma pass, or higher certificate pass. The type of NSC pass determines the type of post-secondary institution the learner is eligible to apply to.

Alternatively, learners may opt to leave the schooling system after their compulsory education is complete and pursue further education and training via the college system. Learners receive qualifications based on

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[5] *Specifically, the White Paper speaks of the idea that higher education should be planned, governed and funded as a single national coordinated system.*
[6] *The term 'TVET' was introduced in 2016.*
[7] *Figure A3 in Appendix A provides an infographic of the NQF.*
[8] *Compulsory education consists of schooling for learners aged 7–15, or the completion of grade 9, whichever occurs first (South African Schools Act 1996).*

their courses of study. Learners who take the NC(V) route obtain a National Certificate (Vocational) at NQF level 4, the vocational equivalent of the NSC.

The Higher Education Qualifications Sub-Framework comprises NQF levels 5–10. NQF levels 5 to 7 are undergraduate qualifications and NQF levels 8 to 10 are postgraduate qualifications. These qualifications are predominantly provided by public and private universities, but students can also obtain qualifications at NQF level 5 and 6 from public and private colleges.

Lastly, the Occupational Qualifications Sub-Framework spans NQF levels 1 to 8, facilitating the provision of occupational education. The qualification certifies that the individual has the theoretical knowledge, practical skills, and workplace experience associated with a trade, occupation, or profession. Occupational education is provided by skills development providers, which include, but are not limited to, TVETs, private colleges, companies, UoTs, and NGOs (Branson & Lam, 2022).

One of the aims of the NQF is to promote articulation between different qualifications, yet this has rarely materialised as envisioned (CHE, 2024). It remains difficult for students to navigate between different educational levels, programmes and qualification types. For example, articulation between TVETs – specifically the NC(V) – and higher education institutions has been minimal (Needham, 2021). The CHE policy for articulation (CHE, 2023, 2024) and the National Plan for Post-School Education and Training (NPPSET) (2021–2030) (DHET, 2023b) highlight the importance of articulation to create accessible pathways within the PSET system, aiming to facilitate smoother transitions from basic education to higher education and between TVET colleges and universities. The CHE's articulation policy strives to integrate qualification levels, allowing for more flexible learning paths through standardized entry requirements, institutional collaboration, and transferable credits.

Curriculum enhancements

Finally, curriculum provision shifted at both universities and colleges in two key, albeit different ways. The fact that educational disadvantages and inequalities in basic education are amplified and compounded at the post-secondary level has led to what is termed an 'articulation gap' between secondary and higher education. The growing number of NSC bachelor passes, resulted in many more higher education applicants, and concerns over potential grade inflation in the NSC (Nel & Kistner, 2009; Whitelaw & Branson, 2024). Some institutions introduced supplementary screening measures, such as the National Benchmark Tests (NBT) to screen applicants and channel additional academic support to students whose NBT results suggest may benefit from it.

The most notable national policy response at the university level is the Extended Curriculum Programmes (ECPs; also called Academic Development Programmes or ADPs)[9] – a curriculum response designed to address this gap (CHE, 2020). The fulcrum of ECPs is to provide additional time for foundational learning, enabling students to develop sound academic and social foundations to succeed in higher education. Institutions have autonomy to decide how students are provided with structured support, which can include for example smaller class sizes, enhanced tutoring, and skills development.

[9] *An ECP is a formal undergraduate qualification whose minimum duration is lengthened by half a year to a full year to incorporate developmental academic provision in addition to the coursework prescribed for the regular curriculum. International counterparts to ECPs are often termed remedial or bridging programmes.*

The reach of ECP support has, however, been limited in scope by funding and stigmatization, with many students who could benefit from ECPs not accessing the required support.[10] Securing long-term funding for ECPs and retaining qualified academic staff has also been a persistent challenge, as these programs often require additional resources and personnel to be effective. Moreover, there is heterogeneity across institutions and faculties in how ECPs are implemented and the success of ECP has been mixed, with concerns about its stigma as a remedial program and the varying quality of implementation across institutions.[11]

In the college sector, the National Certificate Vocational (NCV) syllabus was introduced from 2007 to replace the National Accredited Technical Education Diploma (NATED) courses. However, the NCV proved to be more academically challenging than NATED courses and resulted in high subject failure rates and low certification rates (Houston et al., 2010). Students were found to lack academic reading and writing skills, mathematical skills and have difficulties with the language of instruction. Many colleges therefore established stricter entrance requirements, for instance selecting grade 11 or 12 applicants. Yet this undermines one of the primary purposes of the NCV: to provide an alternative pathway for youth to complete school. Due to industry criticism of the under-preparedness of NCV graduates for the world of work, NATED courses were reinstated, and Ronnie (2023) notes that this dual certification system has confused industry employers and contributed to low employability among TVET graduates (see e.g. Rogan et al., 2024). The NATED programmes' outdated course material and requirement to complete work placements, which are in short supply, however, have also been major barriers to this programmes' success (DHET, 2014a).

3.2 Restructuring PSET funding

Before 1994, South Africa's funding policies for higher education and technical training institutions were structured to reinforce the apartheid system's racially segregated vision (Bunting, 2006). Since 1994, funding reforms were implemented to redress structural inequities while supporting the expansion and transformation of provision. Below, we first discuss student financial aid policy, followed by institutional subsidies and the funding frameworks, before touching on sources of PSET revenue more generally.

Student financial aid

The National Student Financial Aid Scheme (NSFAS) is a public entity under DHET that provides bursaries to academically eligible students from households with incomes below R350,000 and further subsidizes the NCV or NATED/Report 191 (N1 to N6) courses at 80 per cent of the total programme cost at TVET colleges (DHET, 2020a). Prior to 2018, funding for students was provided as a loan, part of which could be converted

[10]DHET's current aim is to enrol 30% of students in ECPs but only around 12% of the incoming undergraduate cohort between 2013 and 2021 enrolled in ECP (missing table sourced directly from DHET) (DHET, 2024a). Following a review of ECPs (CHE, 2013) a proposal for the reform of the undergraduate curriculum structure argued that the entire curriculum be restructured as a 4-year degree. It was proposed that there should be a single flexible 4-year degree for all undergraduates. DHET rejected the proposal, countering that more students should be placed on ECPs (Luckett & Shay, 2020).

[11]ECPs can include fully foundational courses, extended courses, or augmented courses (CHE, 2013, 2020) and students can be enrolled in ECPs either upon enrolment (access model) or after a period of time since first enrolment (transfer model). Moreover, in spite of ECPs existing to improve the success probabilities of students who would normally be admitted to regular programmes, many institutions have used ECPs to extend access to students who do not meet regular programme admission requirements (CHE, 2020).

to a bursary upon good academic performance.[12] The number of students funded via NSFAS grew from 25,574 in 1994 to 586,763 in 2018, with reports that this growth was not sufficient to cover all eligible students in need of funding (Cornerstone Economic Research, 2016). In addition, the programme was criticized for burdening already socio-economically disadvantaged students with debt, poor administration that resulted in late payment, and for providing insufficient loan amounts to cover the full cost of studying (FCS). The 2018 policy change aimed to address these issues by providing bursaries covering the FCS to all first-time entering students from families with household income below R350,000 (an increase in the threshold from approximately R122 000)[13].

The overall success of NSFAS has been hampered by administrative inefficiencies, particularly delays in the disbursement of funds, which has led to repeated protests and student unrest. The sustainability of the NSFAS system also remains a major concern, as the growing demand for funding outpaces the resources available.[14] Moreover, Branson and Whitelaw (2024) show that NSFAS funding can act as an important safety net in times of crisis. It may also, therefore, have the potential to warp incentives in a context where unemployment rates are high and social safety nets absent for the working age population. Debates about whether this commitment is financially sustainable continue in public and policy circles.

Institutional subsidies

In 2021/2022, the share of the consolidated government expenditure on PSET was 2.3%[15][13], representing 0.7% of GDP (DHET, 2024b). Universities and TVET colleges receive the largest portion of this government expenditure on PSET, via subsidies. In 2021/22, public universities and colleges received R41.3 billion and R11.2 billion in subsidies respectively, compared to R2.2 billion received by CET colleges (DHET, 2024b). SETAs, on the other hand, are not funded via government subsidy. The Skills Development Levies Act (1999) mandates employers to contribute 1% of payroll toward skills development, with funds collected by SARS and distributed by the DHET in an 80:20 ratio to the SETAs and the National Skills Fund (NSF), respectively. A maximum of 20% of the levy can be recouped by employers for provision of learnerships, internships, apprenticeships and skills development programmes. Levies can also contribute student bursaries and operational costs for targeted programmes at universities and TVET colleges (e.g. via the NSF).

For universities, the National Higher Education Funding Framework (NHEFF), introduced in 2003, serves as the primary policy for allocating government funding to universities. The funding framework (illustrated in Figure A4 in the appendix) was designed to support both teaching and research activities (via block grants, controlled by the university councils) while promoting equity and institutional diversity (via earmarked grants). For example, in the 2023/2024 financial year, the university block grant of R40.1 billion comprised 89% of the budget, leaving 11% or R5.1 billion to steer transformation via earmarked grants. The increasing pressure to fund students via NSFAS has reduced government funding available for subsidies, likely

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[12] Moreover, NSFAS funding was only available for the prescribed length of the course plus two additional years (N+2 rule) and those who failed to complete their degree within this time frame were ineligible for continued funding. This time frame included any time spent previously registered at any post-school institution. Students also became ineligible for continued NSFAS funding if they did not pass 50% of their courses in a given year (50% rule). This rule aimed to improve targeting of funds to students with academic potential, due to escalating budgetary pressures.

[13] An estimated additional 24% of households were covered (Garrod & Wildschut, 2021).

[14] To contextualise the significance of this bursary to university students, the living and accommodation allowances combined equate to approximately the annual earnings of someone working full time at the minimum wage. This is in a context where the youth unemployment rate is 64% (StatsSA, 2024).

[15] Excluding expenditure on student financial aid.

contributing to the disproportionate reduction in allocations to earmarked grants[16]. Notably, the funding model is not differentiated to account for the different university types and their primary functions/objectives. Institutions that have the capacity to produce more research output, for example, may capture more of the grant.

The block grant is divided into teaching input and output grants, as well as a research output grant and institutional factor. The teaching input grant, allocated based on student enrolment numbers in different fields and qualification levels, comprised 61.3% (R24.6 billion) of the block grant budget, with 19% (R7.6 billion) allocated to the teaching output grant and 13.7% (R5.5 billion) to research output grants based on the number of graduates and research outputs, respectively. The remaining 6% (R2.4 billion) of the block grant is set aside for institutional factor grants, allocated to address additional needs of institutions with particular challenges, such as rural locations or higher proportions of disadvantaged students.

Importantly, the block grant represents a fixed allocation each year, ultimately leaving institutions to compete for a share of the available funding in a zero-sum game.[17] In this scenario, increased enrolments, graduations, and research outputs lead to a decrease in per-unit funding levels. Moreover, the value of the block grant has not kept pace with rapidly expanding enrolments, further decreasing per-unit amounts. Appendix Figure A5 illustrates sharply declining subsidy growth in real terms over the past five years.

For TVET colleges, the funding framework was established through the Continuing Education and Training Act of 2006. The Norms and Standards for Funding TVET Colleges, introduced in 2015, regulate how public funding is allocated to TVET institutions, emphasizing cost per student and programme funding. These norms aim to support the expansion of TVETs, seen as crucial to diversifying educational pathways and fostering skills development (DHET, 2015). In the CET sector, funding is governed under the same Act, but there is no standalone document equivalent to the NHEFF or TVET funding norms. Since the 2015/16 financial year, DHET has provided funding to TVET and CET colleges in the form of operational costs and subsidies (DHET, 2024c).

System revenue

Just over half (52%) of the total PSET revenue of R140.5 billion was sourced from skills development levies (R19 billion) and government subsidies (R54.7 billion) In the 2021/22 financial year. The remaining R66.8 billion came from tuition fees[15][18], third-stream income and other contributions (e.g. skills levy funding). The distribution of this revenue is heavily weighted towards universities, with university total revenue at R104.5 billion (about 83.5%), compared to R14.8 billion (11.8%) for TVET colleges and R2.2 billion (1.7%) for CET colleges. This compares to institutional enrolment shares of 65%, 31% and 4% respectively (see Figure 2).

Student fees accounted for about a third of university income in 2021, up from around a quarter in 2000 (DHET, 2014b, 2024b). The increased reliance on fees at universities was largely in response to decreasing state funding, which fell from 49% of total university income in 2000 to 39% in 2015 and was a catalyst for

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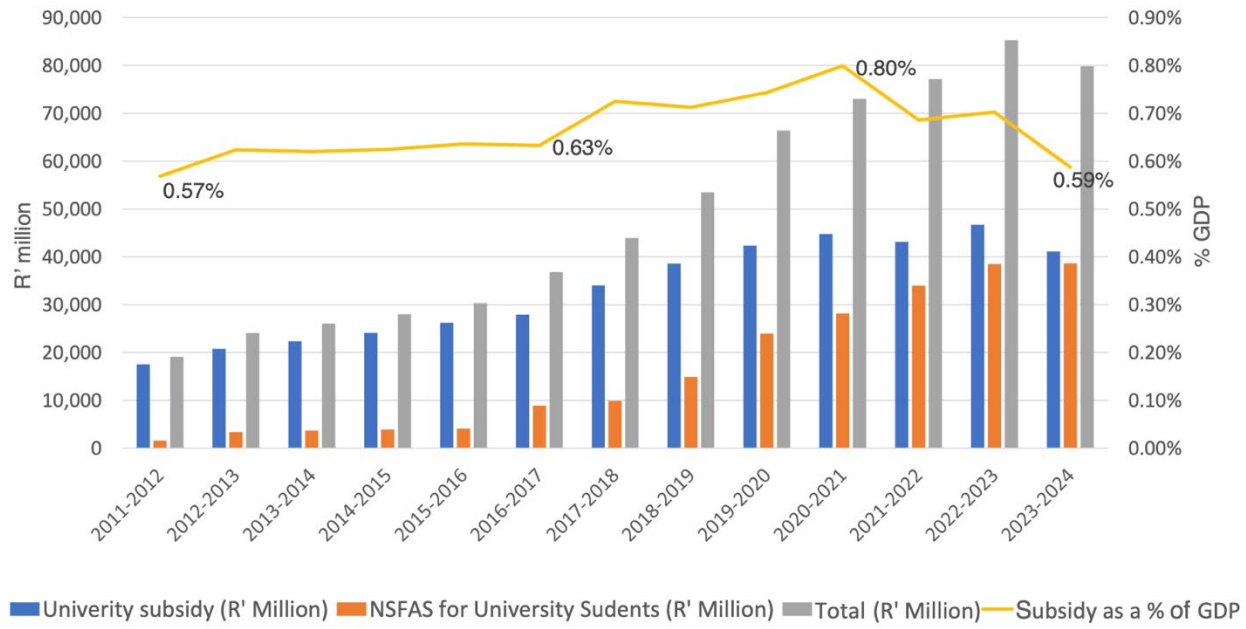
[16] The earmark grant share has decreased from 24% in 2009/10 to 11% in 2023/24 (DHET, 2010, 2021a).

[17] Muller (2017) argues how the "structure of the modern academy increasingly encourages and rewards rent seeking behavior of various forms" (Muller, 2017 p 58). For example, the structure of the funding framework could be incentivising a focus on number of publications over their quality (Kerr & de Jager, 2021). Branson et al (n.d., chapter 3) present a conceptual framework to illustrate how institutions may respond to incentive mechanisms in ways that deviate from policy intentions and the broader public interest (Muller, 2022), presenting the increases in graduate outputs as a possible response to teaching output subsidies.

[18] Fees covered by NSFAS are included in this (DHET, 2024b).

student protests between 2014 and 2017. The tuition fee component of university income has always been partly state funded via NSFAS, but the ratio of public to privately funded tuition fees has grown substantially over the past three decades.[16][19] Figure 4 presents an illustration of this: funding from NSFAS (in this case tuition and university-provided accommodation costs) and government subsidies have almost reached parity in 2023/24. This has important implications for university budgets and incentives (see Branson & Whitelaw, 2023). On the other hand, tuition fees represent a much more limited contribution to TVET incomes as many programmes are subsidised at 80% of the cost.

Figure 4: Nominal growth in funding for universities and students (2011-2023)



Data source: University State Budgets – Public Report; DHET March 2023
Source: Figure presented by Diane Parker and Thandi Lewin, SAAIR 2023

4 Data to monitor the PSET system

South Africa has a range of high-quality data sources that allow for monitoring and evaluation of the PSET system. Table 1 summarises some of these main data sources.

Table 1: Data sources for monitoring PSET

Name	Year(s)	Type	Scope	Availability
National Income Dynamics Study	5 Waves: 2008 to 2017	Longitudinal survey data	Nationally representative	Public
Household surveys	1994+	Cross sectional survey data	Nationally representative	Public
HEMIS	2008+	Longitudinal administrative	All public university	On request [individual-level]

[19] *Reliance on state-funded fees varies across institutions (Cornerstone Economic Research, 2016).*

Name	Year(s)	Type	Scope	Availability
		data	enrollees	or PowerHEDA [aggregated]
TVETMIS	2016+	Administrative data	All public TVET enrollees	On request
Private universities	Unclear	Administrative data	Private university enrollees	On request
Private colleges	Unclear	Administrative data	Private college enrollees	On request
NSFAS applications	2017+	Administrative data	All NSFAS applicants	On request
University tracers	2012, 2015	Cross sectional survey data	Intended to be representative of graduates from included institutions	Public
TVET tracers	2015, 2016(x2), 2022	Cross sectional survey data	Intended to be representative of graduates from included institutions	Reports only

Note: HEMIS abbreviates the Higher Education Management Information System, similarly for TVETs.

South Africa has produced many high-quality household surveys over the past 30 years. These surveys provide useful frequent information that can be used to track qualification attainment (Branson, Culligan, & Ingle, 2020) and enrolment in the population. However, the relatively small share of the population with post-school qualifications results in small sample sizes and limits their applicability for more granular analyses. The censuses (1996, 2001, 2011, 2016[20], 2022) are an important additional source, but are infrequently administered and have few PSET-specific questions. Finally, household surveys and censuses typically do not enumerate students living in university residences (an increasing share of enrollees), limiting their use for enrolment analyses.

South African PSET administrative data is, in many ways, world-class and has seen substantial improvements (led by the public universities) over the past 20 years. This was spurred by the implementation of the funding framework and the need to allocate funds based on enrolment, graduation and research output. As a result, public university data is centralised and audited, and relatively consistent across institutions and over time. TVET administrative data has also expanded in the last decade, but access to private institutions' data remains more limited.

The final source of data consists of graduate tracer and exit studies. Many institutions implement exit studies (Branson, Culligan, & Favish, 2020) and there have been a couple of regional graduate tracer studies (e.g. the Western Cape Graduate Destination Survey (WCGDS) and the Eastern Cape Graduate Destination Survey (ECGDS)). Data from these surveys is less accessible, with the exception of the WCGDS, which is available on

[20] *A community survey rather than a full census.*

the DataFirst website. There has not yet been a representative national study that traces graduates' outcomes across the entire higher education system.

A case for administrative data linking

PSET administrative data sources—HEMIS, TVETMIS, NSFAS, and private institution records—could be linked to the NSC results, Education Management Information System (EMIS), and South African Revenue Service National Treasury (SARS-NT) databases, or some subset thereof, via the South African identification number. This integrated approach would allow for longitudinal cohort tracking of individual trajectories from secondary education through to the labour force. This would be a major data advancement, offering high-frequency, detailed insights to enhance policy monitoring and inform the design of sustainable interventions in the PSET and labour market (and other) sectors. Illustrative examples of the benefits of this approach to policy are growing (Branson et al., **n.d.**; Kerr et al., **2017**; Wildschut et al., **2020**).

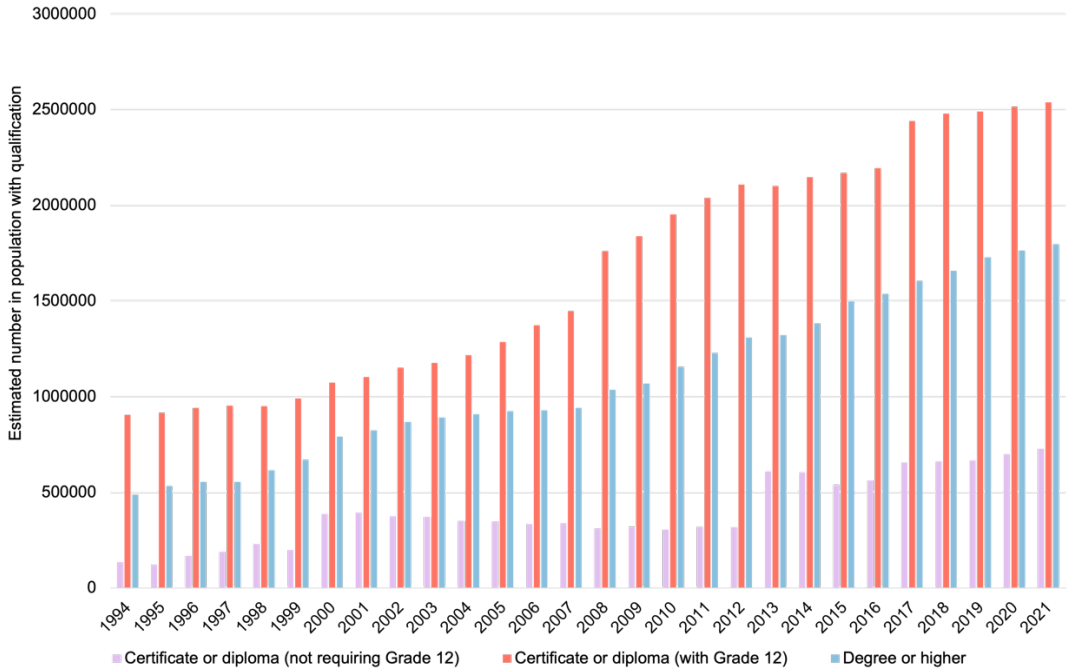
5 Empirical evidence on changes in PSET outcomes

We have touched on key policies that restructured PSET provision and financing over the last 30 years. In this section, we take stock of key trends from the sector primarily utilising the remarkably detailed information on PSET public enrolments, throughput and graduation, available from the institutional records and reports. The data base for the public university institutions have been in place longest and are most developed. The evidence presented below reflects this reality. We supplement the institutional data with evidence from household survey data where relevant.

5.1 Expanded access and compositional change

The PSET sector has expanded rapidly since 1994, with growth evident across most dimensions (e.g. Figure 3 (enrolment) and Figure 5 (attainment)). Figure 5 shows that diploma and certificate qualifications requiring an NSC for admission remain the most common PSET qualifications in the adult population (50.2% in 2021), followed by degrees (35.5%), with lower-level certificates and diplomas representing the smallest share (14.4%). However, this last category of qualifications has grown at the fastest rate, increasing 5.4 fold since 1994. This compares to a 2.8 fold increase for diplomas/certificates requiring an NSC and the 3.7 fold increase seen for degree and higher qualifications. The extent of this change is even clearer when examining the PSET distribution among birth cohorts. Branson and Lam (2022) show that the share of NQF level 5 qualifications has increased from 10% of PSET qualifications among the 1950s cohort to 30% in the 1990s cohort. This was offset by a decline in NQF level 7-10 qualifications (bachelor degrees, advanced diplomas and higher), with the largest decline evident for NQF level 9 and 10 (master's and doctoral degrees) from 20% to 10%.

Figure 5: Growth in PSET attainment by qualification type



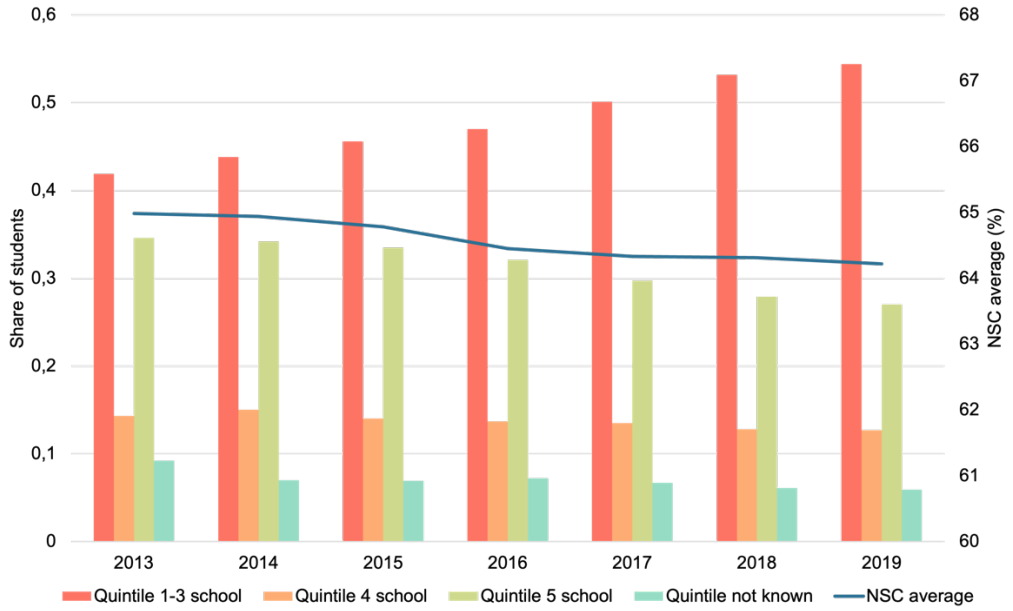
Source: Authors' adaptation from Siyaphambili website.
Note: Population includes those between 25 and 64 years with post-school education qualifications.

While the overall qualification landscape has shifted, the distribution across fields of study has remained largely stable, with a slight increase in the share of commerce and business qualifications offset by a decline in the share of humanities and education qualifications (own calculations using PowerHEDA and the Post-Apartheid Labour Market Series (Kerr et al., 2019)).

Furthermore, while aggregate staff numbers have increased, the growth in student numbers has outpaced the increase in academic and research staff, leading to a rise in the student-to-staff ratios. In universities, for example, the student-to-staff ratio increased from 32:1 in 2000 to 52:1 in 2022 (Department of Education, 2002; DHET, 2024c). On the other hand, the average student-to-support-staff ratio has remained relatively stable, declining slightly from 25:1 to 24:1 over the same period.

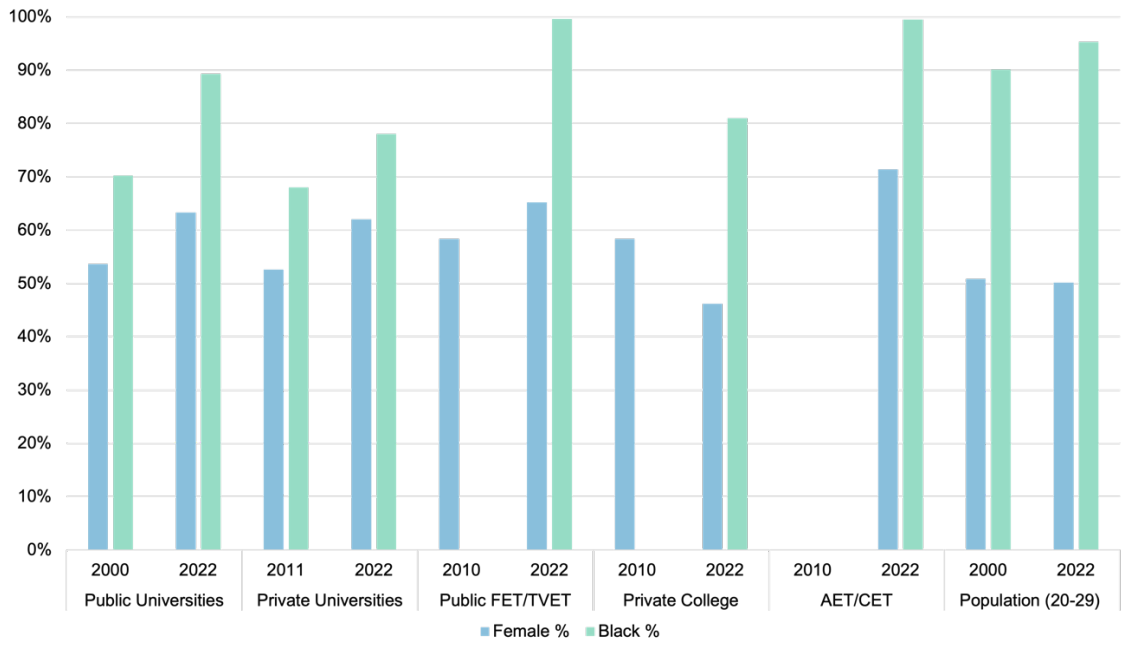
Equity in PSET participation has also improved considerably (Figures 6 and 7). Figure 6 shows an increasing share of incoming university students from lower quintile schools, reflecting broadening socioeconomic access. The average NSC scores among incoming university students has decreased by 0.7 of a percent between the 2013 and 2019 cohorts. The representation of Black, Coloured, and Indian, as well as female, students, has increased across all PSET institutions. Figure 7 shows, however, that in 2022 university and private college enrolments of Black, Coloured, and Indian students remain below the population shares. Black enrolments in TVET and CET colleges, and female enrolment at all institutions, exceed population shares.

Figure 6: Change in school quintile distribution and average NSC mark by university entrance cohort



Source: Authors' adaptation from Branson et al. (n.d.).
Note: Sample is students entering undergraduate qualifications in public universities between 2013 and 2019.

Figure 7: Increasing equity in enrolments across the sector



Source: Authors' adaptation from (DHET, 2013a, 2024c).
Note: There are gaps in college data across years. AET abbreviates adult education and training. Black broadly defined to include Black, Coloured, and Indian population groups.

The composition of academic staff has also transformed over the period. In 2012, for example, 45% of public university staff were Black, Coloured, or Indian. In 2022, this had increased to 62% (HEMIS, own calculations). Similarly, the share of female staff increased from 47% to 50% over the period. Transformation has taken place at all academic ranks, with the higher percentage increase at the professor level (66% compared to 46%, 48% and 32% at the Associate Professor, Senior Lecturer and Lecturer/Junior Lecturer level). That being

said, 64% of professors were White and 66% were male in 2022, signalling that transformation within the public university sector is far from complete.

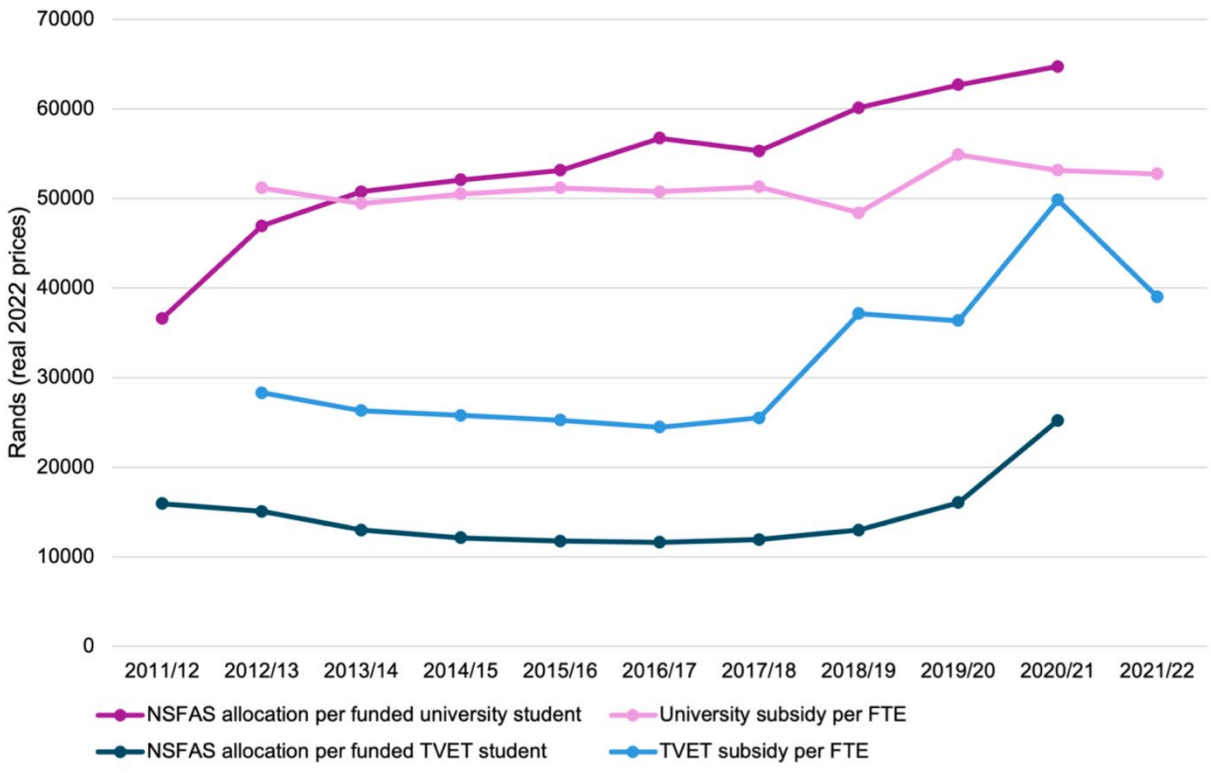
Remuneration of academic staff, particularly young skilled Black professionals, present a challenge in this regard. University entry positions typically cannot compete with the private sector (DHET, 2021b), making academic careers less financially attractive. This disparity in earnings potential is especially pronounced for Black academics, who often have more favourable non-academic opportunities (DHET, 2021b; Salisbury, 2016). As a result, underfunding in the PSET system risks slowing the racial transformation of staff and may inadvertently discriminate against Black academics.

The degree of racial and gender representation varies across institutions within type, with historically disadvantaged institutions (HDIs) and TVET colleges being more representative than historically white institutions (HWIs). Additionally, equity gains have been more pronounced among lower-ranking academic staff and support staff than among professorial academic and senior administrative staff (Branson & Whitelaw, 2024).

5.2 Funding flows

The expansion and composition changes of enrolment have been accompanied by changes in the composition of funding in the sector. Funding directed to students via NSFAS has increased, as has funding for programs such as ECPs. Figure 4 illustrated, however, that universities have experienced a shift from predominantly subsidy income in 2011-12 to proportionate funding via NSFAS and subsidy in 2023-24. Figure 8 illustrates how these changes play out in terms of per learner funding amount from NSFAS versus subsidy.

Figure 8: NSFAS allocation per funded student and subsidy expenditure per FTE (2011/12-2021/22)



Source: Authors' adaptation from DHET (2024b) and DHET (2022b).
Note: Public universities per FTE expenditure is calculated by dividing the total amount allocated by National Treasury to the DHET for university subsidies in the Estimates of National Expenditure (ENE) by universities FTE students. Per FTE expenditure for TVETs is

calculated by dividing the total amount allocated by National Treasury to the DHET for TVET system planning and institutional support in the ENE by the number of TVET FTEs.

The NSFAS allocation per funded university student increased from R36.6 thousand in 2011-12 to R65 thousand in 2021-22, most of the increase occurring after the introduction of the new NSFAS funding model. On the other hand, real per learner subsidy amount to universities has remained largely stable, changing from R51.2 to R52.8 thousand over the same period. Furthermore, the figure shows that the subsidy and NSFAS amounts equalised in 2013/14 with the gap steadily increasing thereafter. Funding for students to attend institutions is thus being increased, but to enroll at institutions that (in time) may not receive sufficient funds to provide the necessary infrastructure for quality learning. This is in a context where more NSFAS-funded students attend HDIs (Branson & Whitelaw, 2024).

Two additional points play into this context. First, third stream income to universities has decreased as a proportion of income from 29% in 2012/13 to 25% in 2021/2 (DHET, 2024b). Second, student debt has increased from 29.7% of fees in 2015 to 52.3% in 2021[21], even with fees increasingly paid via NSFAS. Thus, university incomes are increasingly unstable.

Figure 8 also presents similar trends for TVETS, illustrating two further points. Per learner subsidy per TVET FTE was initially just short of half the university amount (R28.3 versus R51.2 thousand) and decreased marginally to R25.5 thousand by 2016/17. Thereafter it increased[22], such that in 2021/22 the difference between the university and TVET per FTE subsidy was only R 3.8 thousand (R52.8 versus R39.0). Second, the per learner NSFAS allocation is much lower for TVET students than university students and the gap between them has increased over time (R15.9 versus R36.6 thousand in 2011/12 compared to R25.2 versus R64.7 thousand in 2021/22).

5.3 Student outcomes

Graduation rates have increased across university entrance cohorts across all qualification types and for students at both contact and distance learning institutions (Figure 9). Improvements typically started from a low base. For example, on-time graduation for cohorts in 3-year contact diplomas increased from 18% among the 2000 entering cohort to 30% in the 2020 cohort, converging to the on-time graduation rate of 3-year degree qualification students. Four-year degree graduation rates were higher across comparable cohorts, and have also improved (33% in the 2000 cohort to 48% in the 2019 cohort).

While on-time graduation rates remain low, the share of students graduating increases year-on-year, such that close to 80% of students in degree qualifications graduate overall and around 70% of diploma students graduate in the more recent cohorts. Graduation rates are very low for distance learning students, and even with the improvements seen over time, and the extended time allowed to completion, are at most 45% graduate.

Importantly, the increase in graduation rates has been accompanied by decreasing dropout rates. Again, there is variability across institutions, with the most recent distance student cohort (2021) still experiencing a first-year dropout rate of 20.8% (down from 56% for the 2000 cohort) (DHET, 2024a).

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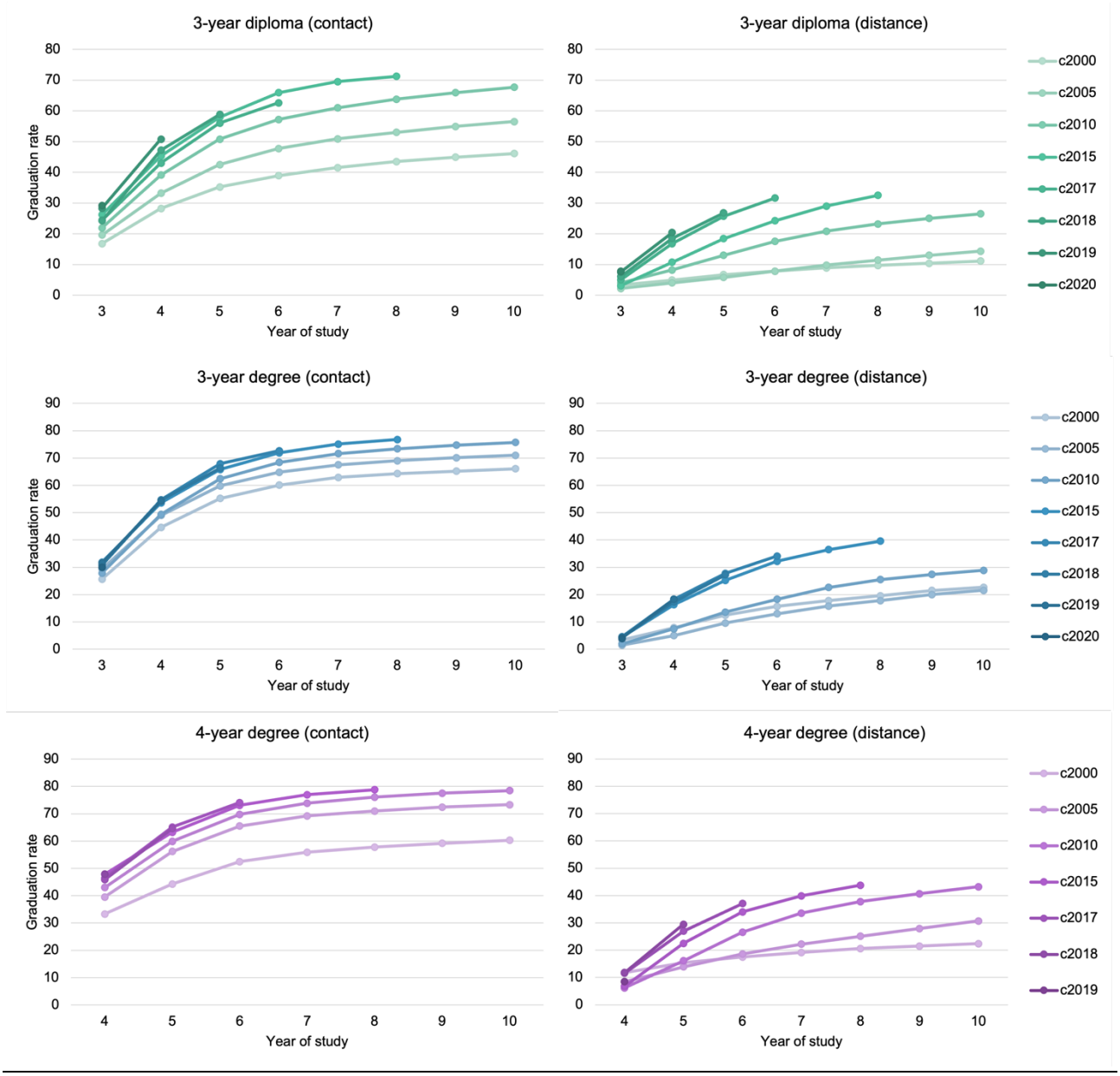
[21] *Figures presented by Diane Parker and Thandi Lewin, SAAIR 2023.*
[22] *Likely reflecting the decline in TVET enrolments, especially in 2020.*

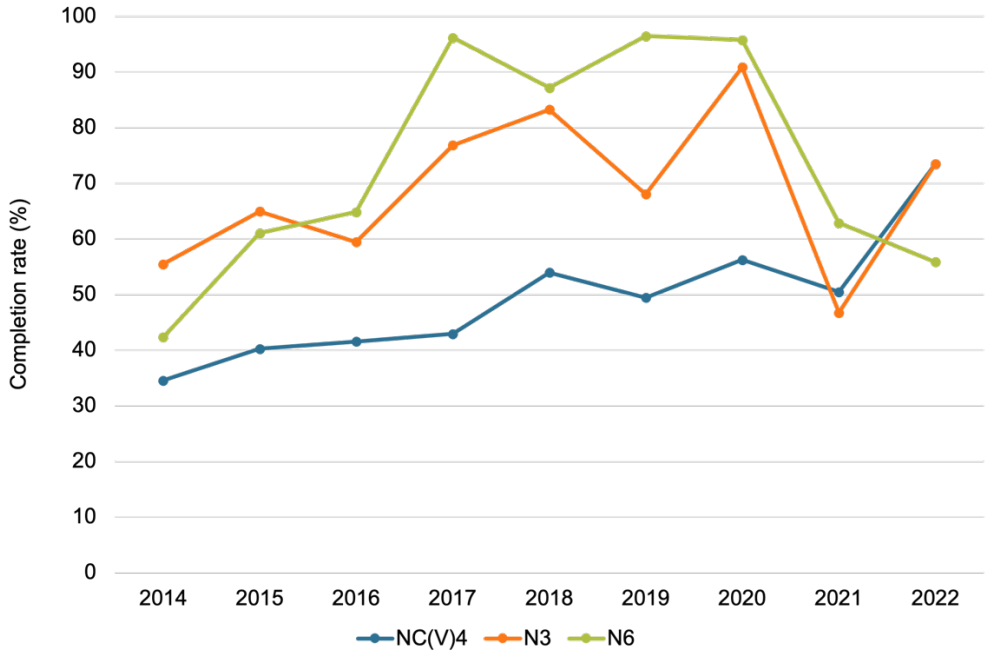
Figure 9: Graduation rates by cohort, qualification type, and learning mode



Source: Authors' adaptation from DHET (2024a).

Measurement of TVET student outcomes is more challenging given the absence of established individual-level cohort data. However, using a completion rate defined as the number of students who passed out of the number who wrote the final exam, completion rates among NC(V)4 learners have increased, from 34.5% in 2014 to an all time high of 73% in 2022 (Figure 10). In the four years prior, completion rates oscillated closer to 50%. Completion rates among N4 and N6 students have been higher but more variable over time. For example, Figure 10 shows N6 completion rates increasing from 42% in 2014 to 96% in 2017, and then decreasing again in 2022 to 63% in 2021 and 56% in 2022. There is thus room for considerable improvement in completion of TVET qualifications.

Figure 10: Completion rates of TVET qualifications (2014-2022)



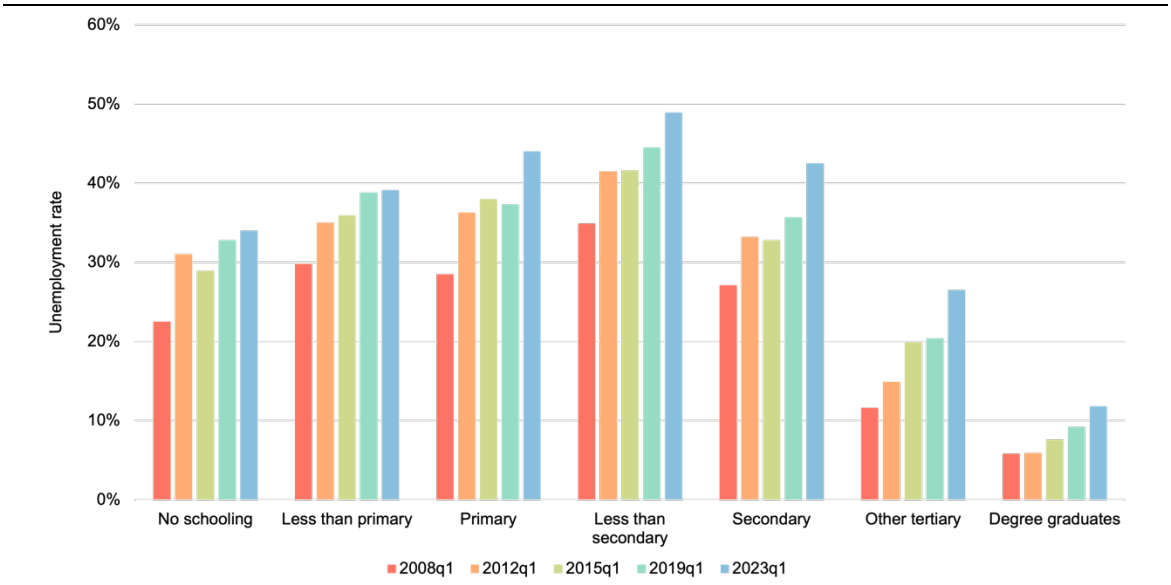
Source: DHET (2016, 2017, 2018, 2019, 2020b, 2021c, 2022c, 2023c, 2024c).
Note: 'Completed' refers to students who were eligible to complete and successfully completed the relevant qualifications in the academic year. It excludes students who may have passed individual subjects but were not eligible to complete the relevant qualification.

Articulation between basic education and the PSET sector presents a well-known challenge to completion. High levels of university dropout (DHET, 2022a) suggest insufficient support for university students who lack adequate secondary education preparation, while similar challenges persist for TVET students (Papier & Needham, 2022). These high dropout rates, despite financial support, highlight that NSFAS funding alone is not sufficient to address the deeper challenges of student retention and success, especially for students from under-resourced educational backgrounds. This foregrounds the tension between expanding access to PSET when quality of basic education is poor and unequal. Under these circumstances, to avoid rising dropout rates, or declining quality, more resources would need to be diverted towards remedial education at the PSET level. However, public finance decisions have trade-offs, including a diversion of resources from basic education itself.

5.4 Graduate labour market outcomes

Policy documents have largely focused on access and qualification attainment over post-PSET success. Although employment rates for university graduates are higher than non-graduates, unemployment among graduates has been rising, particularly among youth (MacGinty, 2024). Figure 11 shows that the unemployment rate for bachelor degree holders rose from just 5.8% (broad definition) in 2008, to 11.8% in 2023. The unemployment rate for other tertiary qualifications is higher and has increased at a faster rate - from 11.6% in 2008 to 26.5% in 2023. These unemployment rates are dwarfed, however, by rates of 42.5% and 49% for those with completed secondary (only) or incomplete secondary education, respectively.

Figure 11: Unemployment rates by education level over time



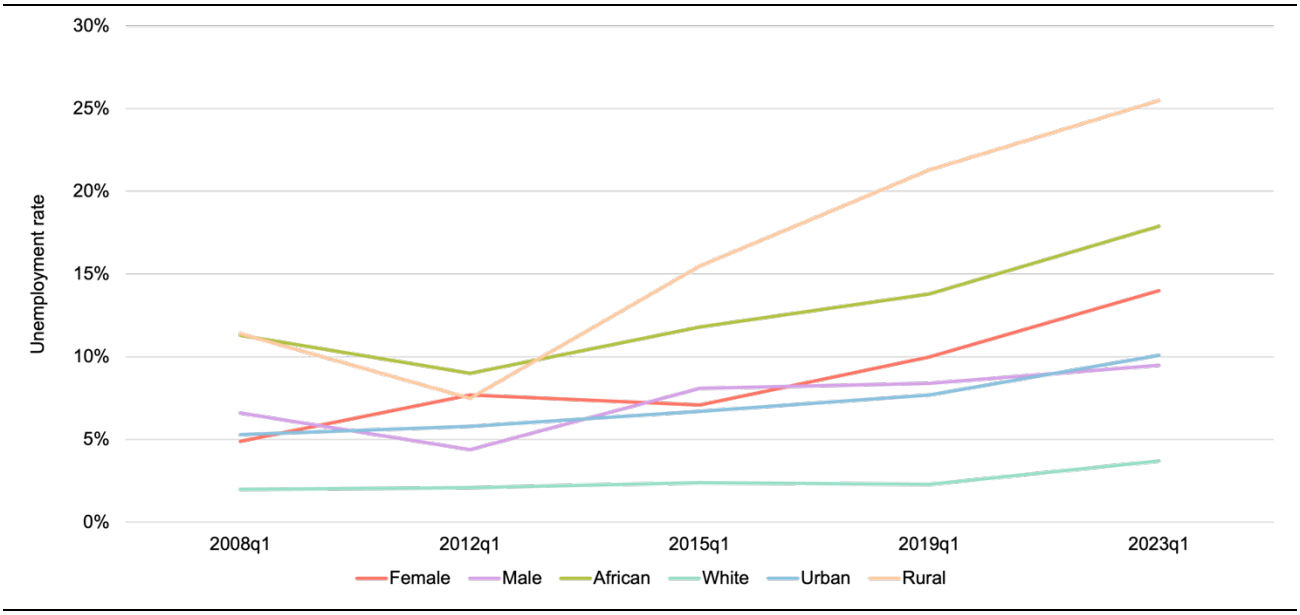
Source: Authors' adaptation from MacGinty (2024).

General unemployment trends further mask differences across race, gender, and location. Figure 12 shows unemployment to be higher among African and female bachelor degree holders than White individuals s and males throughout the period shown. Indeed, White degree holders have unemployment rates below 4% in each year. The unemployment rate of degree holders in rural areas increases rapidly from a low of 7.5% in 2012 to a high of 25.5% in 2023.

It is also unclear how much of these differences are associated with the type or historic (dis)advantage of the institution the graduate attended (Rogan & Reynolds, 2016; van Broekhuizen, 2016; Wildschut et al., 2020). Figure A6 in the appendix shows the probability of a NSFAS-funded graduate being employed two years after graduating. Employment rates range from 57% for graduates from the University of Limpopo to 91% for the Cape Peninsula University of Technology (CPUT), with rates typically higher for graduates from Traditional Universities than Comprehensive Universities. University of Technology rates are somewhere the middle (with the exception of CPUT).

Absorption into employment among TVET graduates is particularly low. A recent study of TVET graduates showed that for the majority of qualifications they considered, unemployment rates are over 50% (Rogan et al., 2024). This can perpetuates perceptions about the differing value of graduates across various educational sectors. As with degree holders, Friderichs et al. (2024) show female TVET graduates face higher unemployment than men, unrelated to their over-representation in certain fields.

Figure 12: Unemployment rates by gender, race, and location over time



Source: Authors' adaptation from MacGinty (2024).

A strong relationship between education and earnings in South Africa has persisted over time, with consistently high returns especially for those with Grade 12 and above (see Figure A7 in the appendix). Over time, the returns to Grade 12 and higher have increased substantially, while the returns to grades 6 through 11 have decreased. Notably, the earnings premium for university-educated African individuals (Grade 15) relative to those with only Grade 12 rose from an already significant 2.1 times higher earnings in 1994–95 to 3.4 times higher earnings in 2017–18 (Branson & Lam, 2022). A comparison of the African and White earnings trajectories shows that the racial earnings gap is smaller at higher education levels and has narrowed. Among university graduates, White individuals earned 47% more than African individuals in 1994–95, but this difference had declined to 16% by 2017–18, after accounting for age, gender, and province.

Together, these studies illustrate that PSET qualifications remain highly valued in the labour market, and, at the mean, the market is increasingly valuing qualifications equally across race, at least once graduates are employed. The growing shares of unemployed graduates, although from a relatively low base compared to other education groups, the increasing African-White employment gap and the distinct increases for graduates in rural areas, is a concern however. Given the growing earnings returns, this growth in graduate unemployment signals a potential mismatch between the skills of unemployed graduates and the labour markets needs. A better labour market information system that incentivises students to study the skills required in the labour market could go some way towards alleviating this.

5.5 Summary and discussion

This section has presented empirical evidence on the progress achieved in the PSET sector since 1994. In particular, data shows that the sector has expanded, that there has been increased equity in access and success, that resource flows and support to vulnerable students has increased, and that generally, high earnings returns to PSET attainment prevail. However, challenges facing the sector are also evident in the data available: declining financial resources available to institutions, rising student debt coinciding with expanding student funding, low graduation and completion among distance university and TVET students, and increasing graduate unemployment. There is less evidence available on other challenges that continue to plague the sector. Below, we highlight some of these under four topics that we believe require further scrutiny to ensure South Africa's future PSET system is effective in achieving its objectives and addressing social and economic challenges.

Skills and labour market demand

The large investment into creating a PSET graduate warrants concern around graduate employability. Ensuring graduates find employment is key to maximising private and and social returns on investment in post-school education. Earnings returns to PSET qualifications continue to rise, signalling high demand or a shortage of skills in the labour market. Yet this is coupled with increasing graduate unemployment rates. This calls for a more granular understanding of the determinants of graduate employment in South Africa. For example, is it that graduates lack the qualifications being required, inappropriate skills of graduates with the required qualifications, or too many graduates with qualifications that are not required? Alternatively, are there misconceptions on the employers' side, for example an inertia to embrace graduates of a new PSET system that differs from the past? Randomised Control Trials and other representative studies could inform why employers are not employing certain types of graduates.

Understanding whether the mismatch is compositional, a function of quality, discrimination, or a combination would inform PSET enrolment planning and curriculum focus. Take for example TVET qualifications. If the 'quality' of TVET graduates is poor, should we not first improve the TVET curriculum before focusing on increasing TVET-industry linkages?

Resourcing efficient institutions

The PSET budget cannot continue to grow at rates higher than other social development departments. It is therefore crucial to seek alternative sources of funding or sustainability measures. For example, are there ways to reduce the administrative burden in institutions to free up resources for teaching staff? Additionally, can distance learning institutions become a lower cost highly sought after option? Are there ways for institutions to work together to maximise the quality of the education they provide learners rather than to compete with each other for restricted resources?

On the other hand, the autonomy of institutions means each institution also has a responsibility to reflect on ways to improve its own efficiency (e.g. do institutions have a clear picture of their costing model and which programmes are not financially viable?) and student outcomes (e.g. institutions differ in the students that they admit – and therefore what is required in terms of support – and in the success of their graduates in securing jobs/productive positions in society. Do they have a clear picture of how these articulate?) Graduates that become active participants in the economy (as innovators, employees, entrepreneurs) contribute to the tax base (in addition to other things), creating a virtuous cycle that can grow funds available for education.

Funding incentives

Are the current funding model configurations (both the funding frameworks and financial aid) optimal to achieve graduate outcomes? Institutions and students respond to the financial structures that exist. For institutions, this is the funding framework, fees, and third-stream income. For students, it is either NSFAS funding, other financial aid mechanisms, or private fee payment. It is not entirely clear how the current financial structures are interacting to influence institutional and student choices and priorities. Interrogating this is likely to require a willingness to critically examine the return on various PSET investments, while also anticipating that the system will respond to policies in dynamic and interrelated ways.

For example, we do not know how NSFAS funding is influencing student choices across the system, about where and what to study. It is also not clear whether different institutional types (traditional, comprehensive

and UoT) use different strategies[23] to maximise their share of the funding pie, or if there is one common, dominant strategy. The composition of fee income has been influenced by increased NSFAS funding, but rising student threatens stability. Relatedly, we ask whether enough is understood about the drivers and sources of rising student debt (in a period of expanded NSFAS funding) to be deciding on the mechanisms of funding the missing middle?

Assessing priorities in light of current constraints

Having taken stock of trends over time, considering both what has been made possible by the policies implemented since 1994, but also where the sector has fallen short, we suggest that the following commitments on DHET's agenda[24] – motivated by the NDP goals – could be critically assessed in light of the sector's current struggles. For example, the PSET sector aims to expand, when it is hardly coping with the current levels of enrolment and financing (especially given the fiscal constraints of the broader economy (Sachs et al., 2023)). Should funding be directed to expanding enrolments, potentially diverting resources from basic education, when inequalities in basic education are contributing to an articulation gap in PSET? Is there a way to better focus resources to existing institutions to create graduates that employers want to employ? Moreover, is configuring articulation across the system with weak components efficient, or should we get individual components to work well independently first?[25]

To additionally enhance efficiency, an integrated, high-frequency representative Labour Market Information System (linking EMIS, NSC, TVETMIS, NSFAS, HEMIS and SARS-NT) should ideally inform enrolment planning.

6 Conclusion

Broadly, post-apartheid policies aimed to expand access and transform the PSET sector. Despite concerted policy efforts, substantial restructuring and consolidation, and notable improvements in educational attainment along equity lines, inequities persist. The reproduction of inequalities in the PSET system – and in other dimensions in South Africa more broadly – is a central tension of the past 30 years. This motivated the call for a critical consideration of the progress that the sector has made, alongside a review of challenges that remain.

South Africa has undertaken substantial reforms to restructure and transform the PSET sector. These efforts aimed to expand access, foster social mobility, improve skills development, and create a more integrated and equitable system. In this chapter, we provide background on the most significant PSET policy changes introduced since 1994, categorising changes into restructuring of provision and restructuring of funding.

Provision reforms included institutional mergers, reducing the number of public universities from 36 to 23 and consolidating TVET colleges from 152 to 50. The NQF was introduced to standardise qualifications and facilitate student mobility across the system. Additionally, curriculum enhancements, such as Extended Curriculum Programmes, were implemented to support students transitioning into higher education.

Funding reforms sought to expand student financial aid and reshape institutional financing. NSFAS became a key instrument for expanding access and transforming the student body. However, institutional financial constraints are a major concern, with declining state subsidies and third-stream income. Moreover,

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[23] *In terms of enrolments (both in numbers, levels, and qualifications), graduates and research.*
[24] *The 2021-2030 National Plan for Post-School Education and Training (NPPSET) (DHET, 2023b).*
[25] *Excluding articulation between school and PSET.*

universities have experienced a shift from predominantly subsidy income in 2011-12 to proportionate funding via NSFAS and subsidy in 2023-24. Alongside a growing reliance on fee income, student debt has risen, even with fees increasingly paid via NSFAS. Thus, university incomes are increasingly unstable.

Against this backdrop, we present empirical evidence on progress and trends in PSET along four dimensions - expanded access and composition, funding flows, student outcomes and graduate labour market outcomes. Evidence highlights both the successes and challenges in the PSET sector over the past three decades. Expanded access is evident in rising enrolments across universities and TVET colleges, with notable increases in participation from historically disadvantaged groups. However, despite this pro-equity expansion, disparities persist with, for example, Black, Indian, and Coloured university enrolment falling short of population shares.

The section on funding flows shows a significant increase in per student public investment in higher education, particularly through NSFAS. The per learner NSFAS allocation is much lower for TVET students than university students, however, and the gap between them has increased over time. The growth in NSFAS allocation per funded university student outpaced the real per learner subsidy to universities from 2013/14. Funding for students to attend institutions is thus being increased, but to enrol at institutions that (in time) may not receive sufficient funds to provide the necessary infrastructure for quality learning.

Student outcomes have improved notably over the last three decades; however, the evidence shows that graduation and completion rates vary widely by institution type. Distance education and TVET students face particularly low completion rates, suggesting the need for targeted interventions to improve retention and success.

Graduate labour market outcomes reveal that while the earnings premium for post-school qualifications remains high, graduate unemployment has been rising. The increasing share of unemployed graduates, particularly from TVET colleges, raises concerns about the alignment between education and employment demand.

Finally, we reflect on four areas that we believe require further scrutiny for future policy making. These include: skills and labour market demand (concerns around graduate employability), resourcing efficient institutions (and the role of institutions' autonomy), funding incentives (potential for policy distortions), and, lastly, assessing whether current goals and priorities still make sense in light of the current constraints and challenges the system is faced with.

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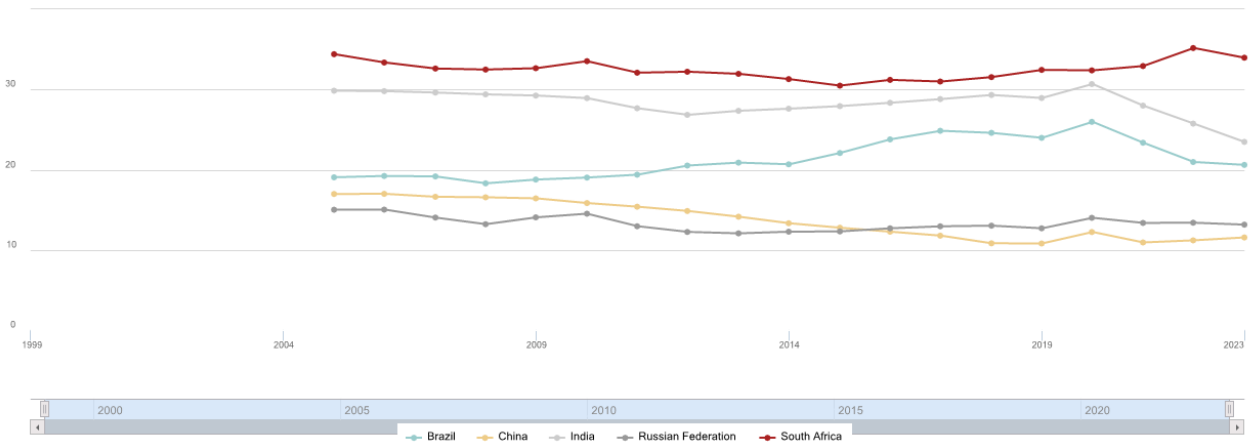
Appendix A

Abbreviations

AET	Adult Education and Training
BRICS	Brazil, Russia, India, China, South Africa
CET	Community Education and Training
CHE	Council on Higher Education
DHET	Department of Higher Education and Training
ECP	Extended Curriculum Programme
FCS	Full Cost of Study
FET	Further Education and Training
FTE	Full Time Equivalent
HDI	Historically Disadvantaged Institution
HEI	Higher Education Institution
HEMIS	Higher Education Management Information System
NATED	National Accredited Technical Education Diploma
NCV	National Certificate (Vocational)
NDP	National Development Plan
NEET	Not in employment, education or training
NGO	Non-Governmental Organisation
NHEFF	National Higher Education Funding Framework
NPPSET	National Plan for Post-School Education and Training
NSC	National Senior Certificate
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
NQF	National Qualifications Framework
PSET	Post-School Education and Training
SARS	South African Revenue Service
SETA	Sector Education and Training Authority
TVET	Technical and Vocational Education and Training
TVETMIS	TVET Management Information System
UoT	University of Technology

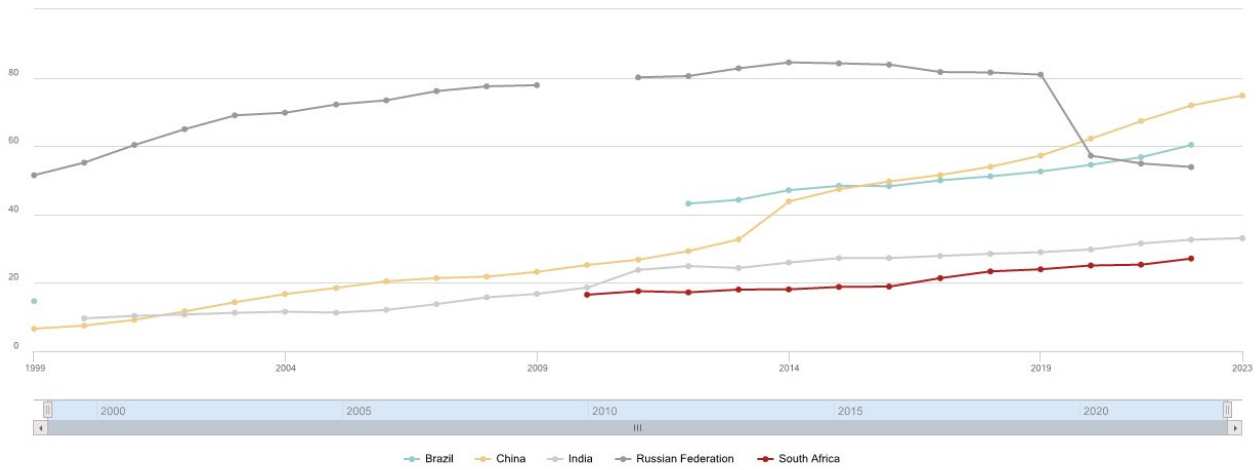
Note: A full time equivalent (FTE) student is a student who is enrolled for an academic qualification for a full academic year and is registered for all courses/subjects prescribed for that programme. If a student is registered for only half of the courses/subjects required for a full-year programme, then he/she would be counted as 0.5 FTE students. If a student is taking 20% more than the courses/subjects required in a standard full-year curriculum, then he/she would be counted as 1.2 FTE students (DHET, 2024c).

Figure A 1: Share of youth not in education, employment or training



Series : Share of youth not in education, employment or training, total (% of youth population) (modeled ILO estimate)
Source: World Development Indicators
Created on: 10/30/2024

Figure A 2: Gross enrolment ratio, tertiary education



Series : School enrollment, tertiary (% gross)
Source: World Development Indicators
Created on: 10/30/2024

Figure A 3: Infographic of the NQF across the system

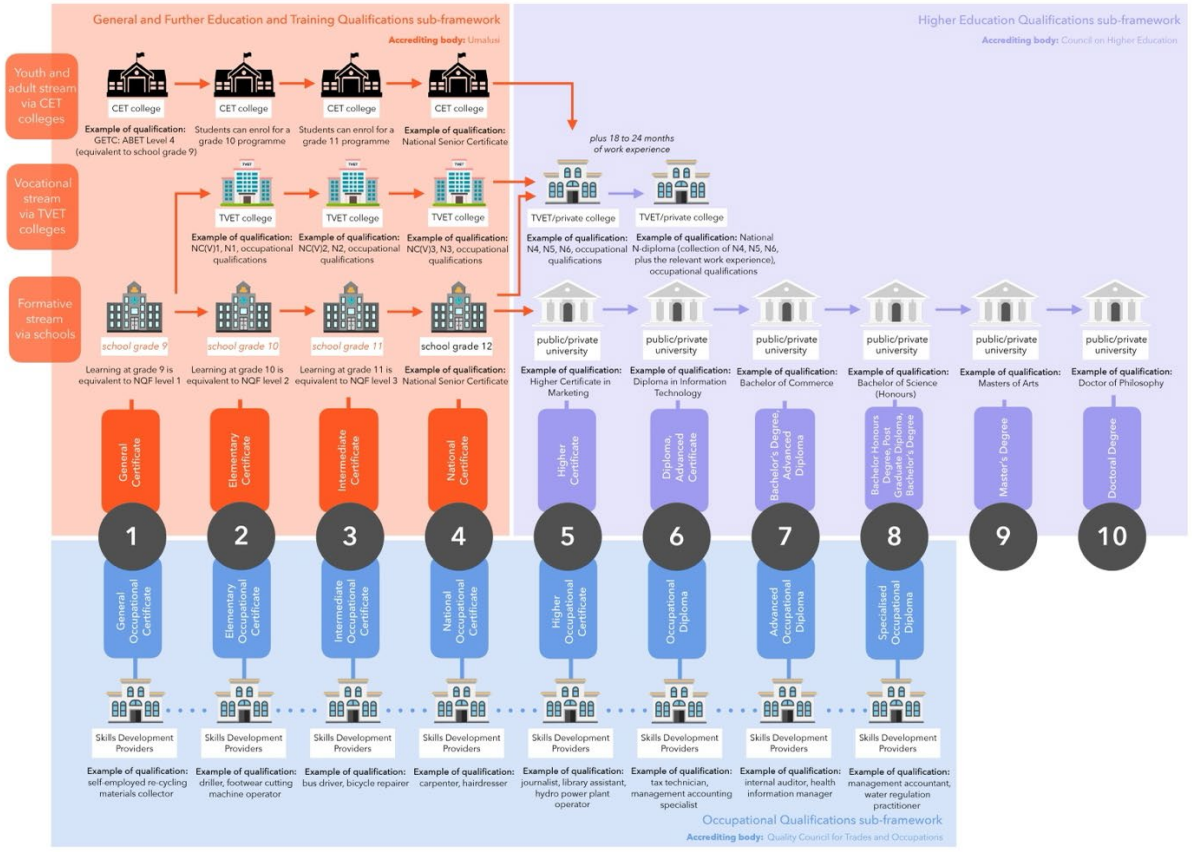
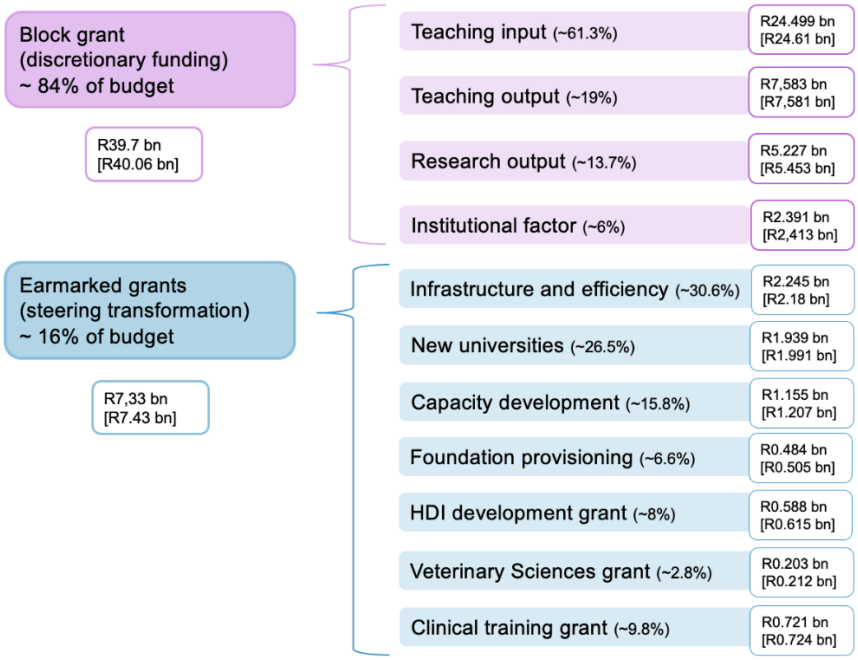
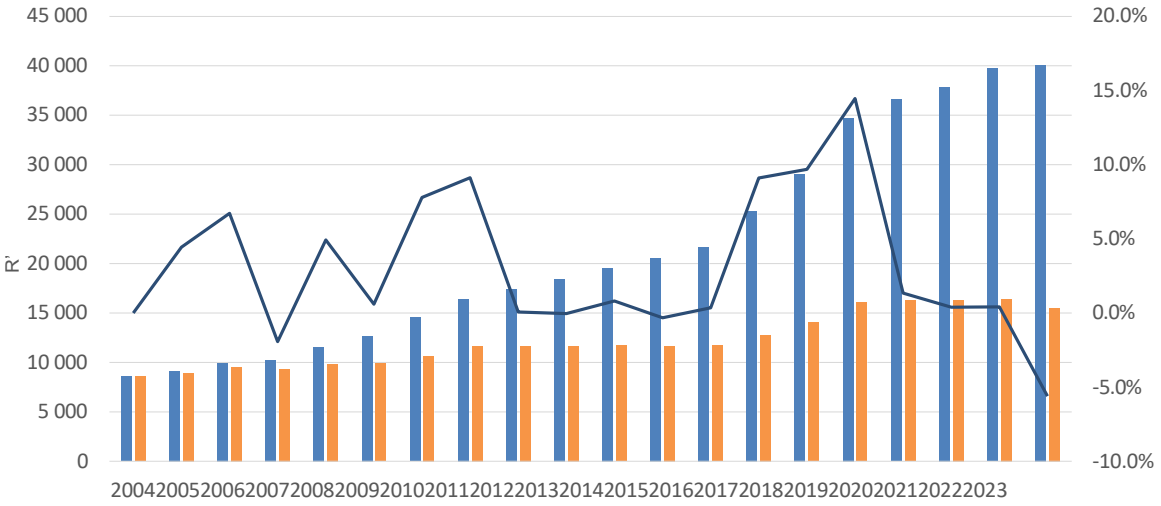


Figure A 4: Public University Funding Framework 2022/23 [2023/24]



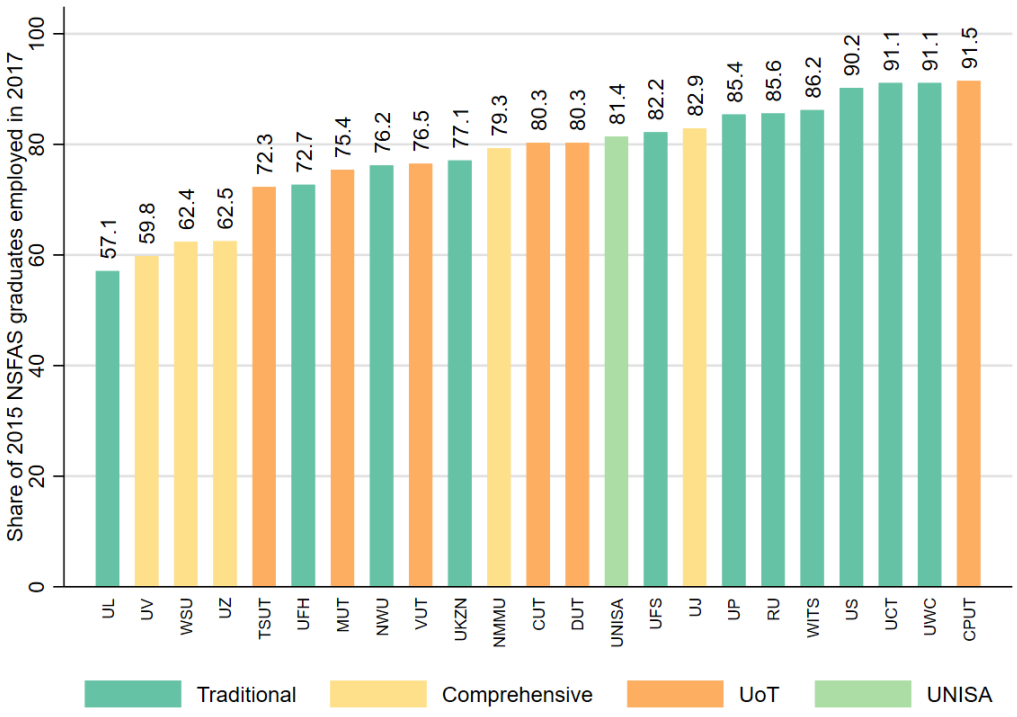
Source: Authors' adaptation from The Ministerial Statement on Student Funding; December 2021. Note: The HDI development grant is also known as the Sibusiso Bengu Development Programme.

Figure A 5: Trends in the block grant in nominal and real terms, with growth (2004-2023)



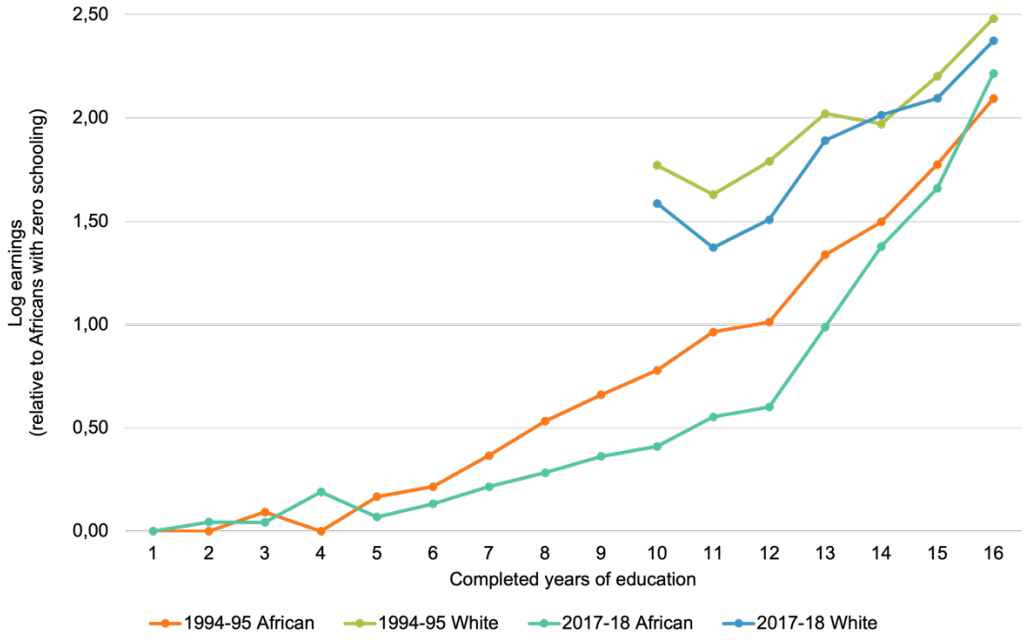
Source: Figure presented by Diane Parker and Thandi Lewin, SAAIR 2023.

Figure A 6: Share of NSFAS-funded graduates employed, by institution



Source: Replicated from Wildschut et al. (2020).
Note: Graduates defined as those who completed a bachelor degree in 2015.

Figure A 7: Predicted log earnings relative to Africans with no schooling



Source: Replicated from Branson and Lam (2022).
Note: The natural logarithm of earnings has been regressed on dummy variables for each year of completed schooling, age, age², a female indicator, and province dummies, with separate regressions for African and White individuals in each period. A 0.1 point difference in log earnings translates into approximately a 10% difference in earnings. Estimates for White respondents below 9 years of schooling are not shown due to small cell sizes. The figure shows predicted log earnings at each schooling level relative to predicted log earnings for African individuals with zero schooling in that year (only individuals with positive earnings are included). For example, in 1994-95, African respondents who had completed grade 10 had 0.96 higher mean log earnings than African individuals with zero schooling. Exponentiating this log difference, this translates into 2.6 times higher earnings for African individuals with Grade 10.