Financing Access Without Mortgaging the Future: An Evidence-Gated Risk-Sharing Model for South African Higher Education

Competition Category: Undergraduate **Word Count:** 1,944 words

Submission Date: October 2026 **Unique Identifier:** Entry No. #242

1. Introduction & Policy Context

South Africa's higher education sector faces a fundamental public economics challenge: expanding equitable tertiary access and improving qualification completion while maintaining macro-fiscal sustainability under severe budget constraints (Mbhalati, 2024). The post-2017 policy framework established fully subsidised, need-based direct grants for undergraduates from households earning up to R350,000 per annum (Presidency of the Republic of South Africa, 2017; NSFAS, 2023). However, this dispensation leaves "missing-middle" households earning between R350,000 and R600,000 reliant on capped, partially funded loan schemes (Manamela, 2026b). Meanwhile, state allocations face nominal contractions - evidenced by the Parliamentary Budget Office's recorded decline in direct National Student Financial Aid Scheme (NSFAS) allocations from R58.2 billion in 2025/26 to R54.3 billion in 2026/27 (PBO, 2026) - against an aggregate national unemployment rate of 33.6% in Q2 2026 (Stats SA, 2026).

South Africa should preserve need-based direct grants for students least able to bear repayment risk and consider income-contingent loans (ICLs) for missing-middle students only through an evidence-gated pilot where transparent, cohort-based estimates demonstrate that expected net fiscal costs and repayment risks are defensible. The system must be evaluated on equitable access, debt aversion, and qualification completion as well as loan recovery, with reliable tax-linked administration enabling delivery rather than being assumed as a self-funding mechanism.

2. South Africa's Fiscal Realities

South Africa's student-financing debate occurs against a backdrop of tight macro-fiscal consolidation. The 2026 Medium-Term Budget Policy Statement (MTBPS) reaffirmed fiscal discipline, targeting debt-to-GDP stabilisation at 78.4% in 2025/26 and expanding primary budget surpluses to manage rising debt-service burdens (Godongwana, 2026). Consequently, real per capita non-interest public expenditure is projected to contract over the medium term (PBO, 2026).

Higher education spending reflects these fiscal pressures directly. Consolidated government higher education spending declines nominally from R157.5 billion in 2025/26 to R155.8 billion in 2026/27, while direct NSFAS allocations drop by R3.9 billion to R54.3 billion despite over one million prospective applications (PBO, 2026; Manamela, 2026b). As shown in Figure 1, the reported nominal decline in NSFAS allocations is larger than the decline in consolidated higher education and training spending, reinforcing the need to assess funding options within a constrained fiscal envelope. Furthermore, physical

university places (235,000) lag behind 2025 bachelor-degree passes (345,875), demonstrating that financial aid expansion alone cannot expand physical intake capacity (PBO, 2026).

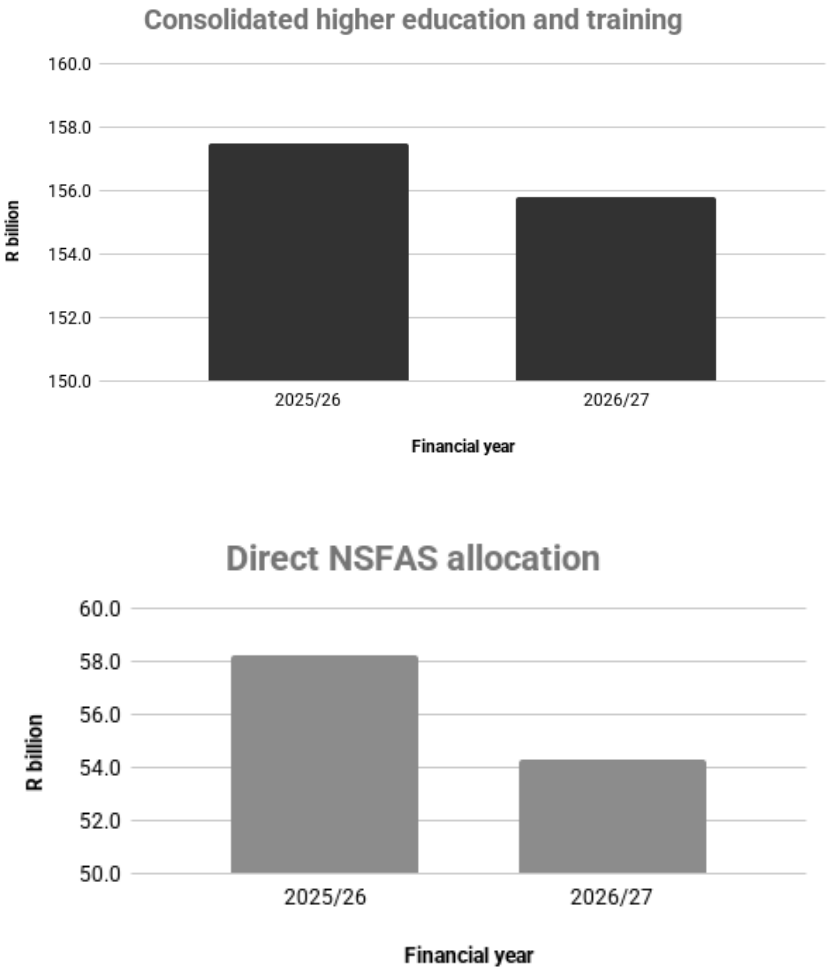


Figure 1. Reported nominal changes in consolidated higher education and training spending and NSFAS allocations, 2025/26–2026/27. Source: Parliamentary Budget Office (2026), as cited in the essay. Budget figures are not actual expenditure. (a) Consolidated higher education and training spending. (b) Direct NSFAS budget allocations.

Macroeconomic labour market conditions further complicate student financing. While an aggregate unemployment rate of 33.6% (Stats SA, 2026) highlights general economic slack, loan recovery sustainability depends specifically on the post-graduation employment probabilities and life-cycle earnings distributions of funded cohorts. Furthermore, persistent operational and audit challenges - highlighted by ministerial directives regarding NSFAS accounting outcomes and data-reconciliation backlogs (Manamela, 2026a) - demonstrate that administrative fragility imperils public resource delivery, reinforcing the necessity of robust operational design prior to scheme expansion.

3. Economics of Student Financing & Fiscal Valuation

The economic rationale for state intervention in higher education financing rests on capital market failures (Barr, 2004; Lochner and Monge-Naranjo, 2012). In an unconstrained market, individuals invest in

human capital until marginal private returns equal the borrowing rate; however, human capital cannot be pledged as physical collateral, creating asymmetric information and credit rationing (Friedman and Kuznets, 1945; Barr et al., 2019). These borrowing constraints bind most severely on low-income households, where credit rationing and debt aversion depress tertiary participation below socially optimal levels (Carneiro and Heckman, 2002; Field, 2009).

To address these market failures efficiently, student-financing systems require a differentiated risk-allocation strategy. Need-based direct grants eliminate short-term liquidity constraints for low-income students without imposing disincentives or debt aversion (Field, 2009; Mbhalati, 2024). Conversely, income-contingent loans (ICLs) provide lifecycle consumption smoothing and downside risk protection for higher-income threshold students by indexing repayment obligations directly to actual post-graduation earnings (Barr et al., 2019).

Evaluating the fiscal sustainability of an ICL scheme requires moving beyond loan face values to calculate the expected Net Fiscal Cost (NFC):

$$NFC = Disbursements - \sum_{t=1}^{T} \frac{E[R_t]}{(1+r)^t} + Administrative\ Costs \quad (1)$$

where $\mathbb{E}[R_t]$ represents expected cohort repayments in period t discounted at social discount rate r (Barr et al., 2019). Expected recoveries depend endogenously on graduate employment probabilities, real earnings trajectories, statutory repayment thresholds, interest rate indexation rules, and write-off provisions (Barr et al., 2019).

Importantly, an upfront budget allocation differs from long-run net fiscal subsidy: deferred repayments during early low-earning years do not constitute permanent losses, as recoveries accumulate over borrowers' working lives. However, if graduate earnings remain persistently below repayment thresholds or non-completion rates are elevated, present-value recoveries decline, causing an ICL fiscally to approach a direct grant (Barr et al., 2019). Thus, ICLs are not an automatic fiscal cure; their net savings over direct grants remain a testable empirical hypothesis requiring transparent actuarial modeling.

4. International Evidence & Administrative Prerequisites

International policy experience illustrates both the design opportunities and administrative prerequisites of income-contingent financing. Australia's Higher Education Loan Program (HELP) demonstrates the operational capability of collecting repayments through the national tax authority via Pay-As-You-Earn (PAYE) withholding, paired with annual tax-return reconciliation by the Australian Taxation Office (Australian Department of Education, 2025; Barr et al., 2019). For the 2026 – 27 tax year, Australia established a minimum repayment income threshold of A\$69,528 (Australian Department of Education, 2025). However, Australia's 2025 Universities Accord legislation - which implemented a one-off 20% debt reduction totaling A\$16 billion - shows that ICL systems remain subject to policy adjustments and macroeconomic shifts (Australian Department of Education, 2025).

In South America, Chilean evidence highlights the causal impact of credit access: Solis (2017) uses a regression-discontinuity design around test score thresholds to prove that loan access doubled immediate college enrolment and virtually eliminated the family-income participation gap. However, separate policy

evaluations of Chile's earlier commercial bank-guaranteed loan program (CAE) reveal high default rates and substantial state guarantee liabilities, illustrating the hazards of private bank origination and weak collection infrastructure (Solis, 2017).

For South Africa, adapting international mechanisms requires distinguishing between two distinct administrative functions: income verification for grant/loan targeting at entry and tax-linked repayment collection post-graduation (Manamela, 2026a). Reforming administrative data systems requires secure, legally authorised data linkage between the Higher Education Management Information System (HEMIS), NSFAS, and the South African Revenue Service (SARS), governed by strict data protection (POPIA), auditability, and appeal procedures (NSFAS, 2023; Manamela, 2026a). However, tax-linked collection is an administrative enabler rather than an independent source of revenue. Its efficacy depends on formal labour market absorption, accurate record matching, and explicit statutory mechanisms to handle self-employed, non-payroll, or informally employed graduates.

5. Evaluating Pathways: Grants, Loans, & Systemic Throughput

Evaluating student-financing models requires distinguishing between physical access (enrolment), persistence, and qualification completion (van Broekhuizen et al., 2016; Mbhalati, 2024). Linked administrative data from the Southern Africa Labour and Development Research Unit (SALDRU) document that while NSFAS expansion successfully widened university access for students from under-resourced Quintile 1 – 3 schools, expanded enrolment occurred alongside substantial variations in progression and completion across fields and institutions (Branson and Whitelaw, 2025; Whitelaw and Branson, 2026). For instance, Whitelaw and Branson (2026) report that only 4% of the 2016 National Senior Certificate (NSC) matric cohort completed a public university Science, Engineering, and Technology (SET) qualification six years post-matric, demonstrating pipeline bottlenecks that originate well before tertiary enrolment.

Accurately evaluating financial aid requires isolating baseline secondary schooling disadvantages from post-secondary funding effects. At a descriptive level, funded students frequently display lower average module pass rates than unfunded peers because financial aid recipient cohorts disproportionately enter from under-resourced secondary schools with severe academic articulation gaps (Naidoo and McKay, 2018; Wildschut, Megbowon and Miselo, 2020). However, multivariate tracking studies controlling for pre-tertiary academic achievement, demographic background, and field of study indicate a weakly positive association between financial aid receipt and academic persistence, although institution-level outcomes vary significantly across universities (Wildschut, Megbowon and Miselo, 2020). Furthermore, longitudinal cohort analyses confirm that financial aid acts as a critical buffer, reducing dropout rates among financially vulnerable students (De Villiers, Van Wyk and Van der Berg, 2013; van Broekhuizen et al., 2016).

Consequently, policy frameworks must evaluate academic development interventions - such as Extended Curriculum Programmes (ECPs) and institutional tutoring - on their empirical cost-effectiveness rather than treating them as automatic fiscal cost savers (Branson and Whitelaw, 2026; Mbhalati, 2024). SALDRU evidence reveals that while ECP participation supports initial student retention, it does not automatically translate into higher overall graduation rates across all qualification streams (Branson and Whitelaw, 2026). Sustainable financing must therefore pair financial support with targeted academic

development, avoiding punitive financial exclusions that disproportionately harm academically underprepared, low-income undergraduates (van Broekhuizen et al., 2016; Mbhalati, 2024).

6. Comparative Assessment of Policy Options

To determine whether a conditional grant – loan hybrid is fiscally and socially defensible, it must be evaluated against a straightforward alternative policy model: maintaining targeted direct grants for low-income households alongside the continuation and incremental refinement of existing missing-middle funding arrangements (Mbhalati, 2024; PBO, 2026). Comparing these approaches across six core public finance criteria highlights key structural trade-offs:

Comparative Evaluation Across Core Public Finance Dimensions

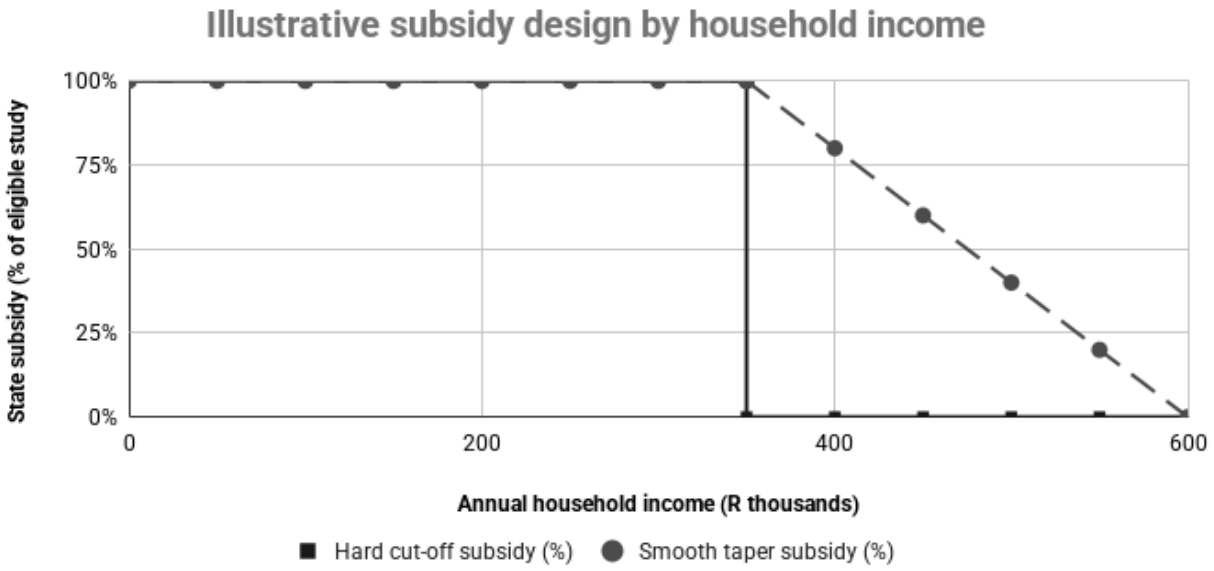
Criterion	Conditional Grant–Loan Hybrid	Targeted Grants + Refined Baseline
1. Equity	Protects Q1–3 via direct grants; missing middle co-finances based on ability to pay.	Protects low-income students; missing middle relies on non-repayable bursaries or caps.
2. Access & Risk	Eliminates liquidity constraints; requires clear terms to avoid missing-middle debt aversion.	Maximises low-income participation; retains unfunded gaps for missing-middle entrants.
3. Completion	Pairs funding with institutional support; loan repayment alone does not raise throughput.	Relieves financial stress; throughput remains constrained by academic articulation.
4. Fiscal Cost	Net cost equals Disbursements - PV(Recoveries) + Admin; lowers long-run cost if recovery holds.	100% unrecoverable state expenditure; highly vulnerable to macro-fiscal contractions.
5. Administration	Requires dual capability: entry income verification and post-graduation PAYE recovery.	Requires robust entry income verification; avoids long-term debt tracking.
6. Risk Allocation	Shares risk: state covers low-earning periods; graduates repay upon crossing threshold.	State absorbs 100% of fiscal and labour-market absorption risk.

7. Policy Recommendations

Rather than committing to an immediate broad expansion, South Africa should implement an evidence-gated pilot framework for missing-middle student financing governed by five explicit principles:

1. **Preserve Need-Based Floor:** Maintain fully subsidised direct grants for Quintile 1 – 3 students from households earning up to R350,000 per annum, protecting vulnerable undergraduates from debt burden and repayment risk (Presidency of the Republic of South Africa, 2017; NSFAS, 2023).
2. **Independent Actuarial Valuation:** Mandate cohort-based actuarial modeling using linked HEMIS-SARS administrative data to project graduate earnings distributions, threshold cross-rates, and true Net Present Value subsidy costs prior to loan deployment (van Broekhuizen et al., 2016; Barr et al., 2019).
3. **Bounded Missing-Middle Pilot:** Pilot an income-contingent loan scheme specifically for missing-middle households (R350,000 – R600,000) with smooth income-taper rules to eliminate threshold cliff effects, clear income repayment thresholds, and real interest indexation protections (Manamela, 2026b).

Figure 2. Stylised comparison of a hard income cut-off and a smooth taper in the state's subsidy contribution. The curves are hypothetical and do not represent the existing funding rules. Source: Author's illustration.



4. **Secure Tax-Linked Administration:** Establish legally authorised SARS data-sharing protocols for automated income verification at application and employer PAYE withholding with annual tax reconciliation for loan recovery, including clear administrative provisions for non-payroll workers (NSFAS, 2023; Manamela, 2026a).
5. **Pre-Specified Decision Rules:** Evaluate the pilot against pre-determined empirical benchmarks - specifically equitable access, loan take-up, repayment performance, qualification completion, and net public cost - expanding, modifying, or terminating the scheme based on demonstrated results.

8. Conclusion

Fiscally sustainable higher education financing requires moving beyond binary debates between universal fee-free education and unconstrained loan expansion. By establishing a differentiated framework that protects low-income grants, subjects missing-middle ICLs to an evidence-gated pilot, and embeds tax-linked administration, South Africa can test how to expand educational opportunity while maintaining long-term fiscal discipline.

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