FUNDING GRADUATES, NOT GAPS

A fiscally sustainable student-financing model for South African higher education

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1. INTRODUCTION

In September 2026, South Africa's Minister of Higher Education and Training conceded publicly that the student-funding model is "unsustainable" (Havergal, 2026). The admission matters as proof that the National Student Financial Aid Scheme (NSFAS), which was created to widen access to education, is now threatened by its own costs, and needs change. In this essay, I show how South Africa can build a fiscally sustainable student-financing model that enhances access to higher education.

This essay proceeds in four further sections. In Section 2, I examine why the present model strains the budget and where funds are lost. Section 3 provides a review of supporting economic theory and the experiences of the United States, Australia, England and Chile. Section 4 concludes my research, and Section 5 presents my recommendations, tested against a model.

2. THE SOUTH AFRICAN PROBLEM

2.1 The budget constraint

The first source of budget strain is that demand for aid grows faster than the budget. The NSFAS shortfall of R15 billion may reach R33 billion by 2029 (Havergal, 2026). If government wishes not to cut spending elsewhere, a larger aid bill can therefore only be met by raising taxes or borrowing more. However, in the 2026 Budget, Treasury withdrew a planned R20 billion tax increase (National Treasury, 2026:1), which leaves borrowing.

If government borrows more, then government debt, D, grows by spending, G, plus interest on past debt, iD (i is the interest rate), minus tax collection, T:

$$\Delta D = G + iD - T \tag{1}$$

Source: Calitz, Steenekamp and Siebrits (2019: ch. 17).

Equation (1) shows that if government borrows more, its debt will grow because interest is paid on past borrowing, so each rand borrowed at present will enlarge future iD. This is not feasible,

given that about 21 cents of every rand of revenue already pays for debt interest (National Treasury, 2026:23–24).

2.2 Eligibility standards create a cliff

In South Africa, grant eligibility explains why the scheme is so costly. Since 2018, grants have been offered to students from households with an annual income of up to R350 000 (SAnews, 2017). While this upper income limit is set by government, the state cannot control how many households fall beneath it or how many children actually qualify. Further, grants lower the price of a service in limited supply to zero. This causes a cliff: a household earning just below the line pays nothing, while one just above faces fees with almost no aid. Kahn (2026) shows that amongst the "missing middle" households who earn R350 000 to R600 000, only 1 561 students were approved for a loan in 2026, which is about 0.2% of the roughly 900 000 bursaries awarded. Hence, the line, not one's need or ability to repay, decides funding.

2.3 A rand of aid funds too few graduates

Finally, even the money spent on grants funds too few graduates, which links the fiscal problem to the access one. Studies show the completion rate – the share of entrants who graduate – is low; only 56% of students in the 2010 university cohort had completed a three-year degree within six years (Marwala and Mpedi, 2022). Practically, an entrant is still funded by grants for a period regardless of whether they eventually graduate or not. This means that each drop-out represents government expenditure with no graduate – that is, money wasted.

And leakages add to this, as investigators in early 2026 returned R1.7 billion to NSFAS in unallocated funds recovered from institutions and from students who did not qualify (SAnews, 2026). This reflects the principal-agent problem in funding, as NSFAS (the principal) pays intermediaries like institutions and landlords (the agents) whose conduct it cannot fully monitor. The problem is therefore less the size of the budget than the low yield of each rand.

3. LITERATURE REVIEW: THEORY AND GLOBAL EXPERIENCE

3.1 Why the state should fund higher education

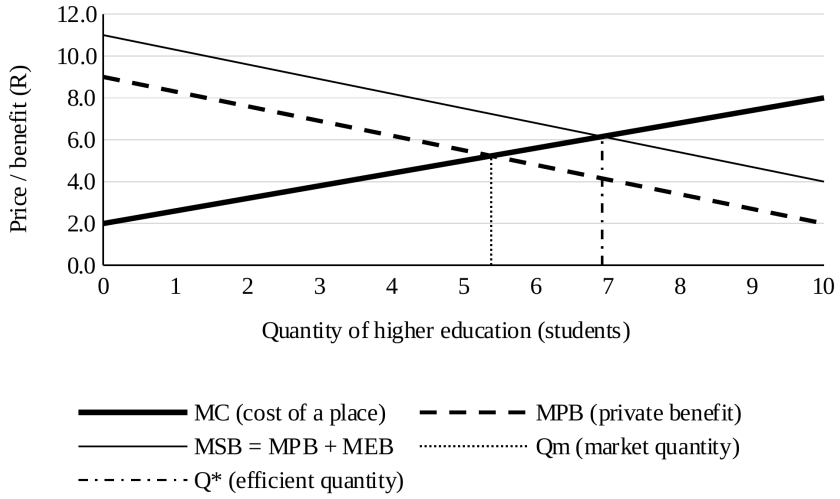
Economic theory offers two reasons why the state should fund students at all. First, education creates a positive externality: graduates raise productivity and pay more tax, so the social benefit exceeds the private benefit:

$$MSB = MPB + MEB \tag{2}$$

Source: Calitz, Steenekamp and Siebrits (2019: ch. 3).

where *MSB*, *MPB* and *MEB* are the marginal social, private and external benefits. Secondly, poor students face a credit constraint, as they cannot borrow against future earnings without collateral (Lochner and Monge-Naranjo, 2012:225–226). Figure 1 shows the welfare loss.

Figure 1: The positive externality of higher education



Source: Author's construction in Microsoft Excel, based on Calitz, Steenekamp and Siebrits (2019: ch. 3).

The figure demonstrates that when left alone, students choose Q_m, which is where *MPB* equals the cost of one additional place (*MC*), whilst society prefers the higher Q^*, where *MSB* equals *MC*. This gap justifies public funding in the interest of the socially efficient quantity. However, theory does not necessitate *grants*; loans that remove the credit constraint may just close the gap at a cheaper cost. International cases test this idea.

3.2 United States and Australia: who carries the risk?

In the United States, mortgage-style loan requirements for fixed instalments mean that low earners owe as much as high earners, which has contributed to widespread default on student debt (Barr *et al.*, 2019:32). In contrast to this, countries like Australia avoid defaults by collecting a share of graduates' income above a threshold through the tax system (Australian Taxation Office, 2026). This is known as an income-contingent loan (ICL). ICLs also become insurance: such a loan ensures that repayment is a percentage of income above a threshold, so graduates who earn little only pay little. For South Africa, the insight is that when graduate unemployment is as high as 12.4% (Statistics South Africa, 2026), a loan that asks nothing of the unemployed is far less risky than a fixed instalment.

3.3 England: hidden subsidies

England has adopted a similar strategy, but its experience shows the associated fiscal risk. Crawford, Crawford and Jin (2014) estimate that about 43p of every £1 lent under England's 2012 system would never be recovered, because debts are written off after 30 years and interest is charged below the government's borrowing cost. As such, the unrecovered share is in fact a subsidy – a grant hidden within a loan which protects low earners. The risk, however, is that the subsidies surface decades later as write-offs, outside the annual budget, so loans look cheaper than they are. A subsidy in South Africa should be larger, given our higher unemployment, and must be budgeted when each loan is issued to avoid postponing overruns.

3.4 Chile: free places without capacity

Chile's experience shows the limits of making education free. In 2016, when Chile made tuition free for the poorest 50% of households, most continuing beneficiaries already received aid, while enrolment growth was capped (Delisle and Bernasconi, 2018:5–9). In this case, the spending that replaces earlier funding lacks additionality, meaning that it creates no new access. The concern is that when a good is free but limited in supply, price cannot allocate it, which requires the enforcement of admission standards, which can raise competition and unfairly disadvantage poorer students. Thus, funding students without increasing capacity does not really widen access to education.

4. CONCLUSION

This essay has so far investigated how South Africa can finance higher education sustainably whilst widening access. I first analysed the South African-specific problems: a budget that cannot stretch, an eligibility cliff that raises costs and excludes the missing middle, and low completion rates. I then reviewed theory and four international cases to show that public support need not take the form of grants. Further, loans must be income-contingent and budgeted to avoid default risk, and funding without places fails. My research therefore concludes that access and sustainability are not opposing goals: both improve when each rand produces more graduates.

5. RECOMMENDATIONS

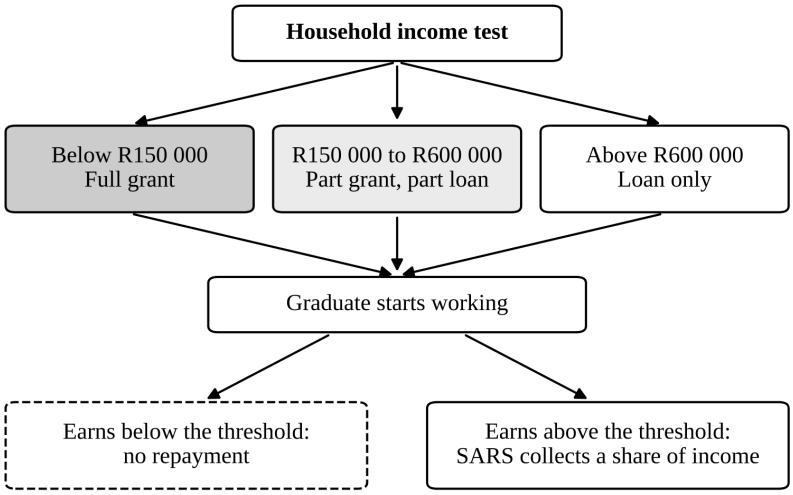
5.1 The recommended design

In my opinion, South Africa cannot continue to offer free education through grants. Instead, I recommend that government adopts some of the systems used internationally through a tapered

hybrid model, in a step-by-step format. First, NSFAS must ensure completion rates are higher, because a lower cost per graduate makes every later reform more effective. It should therefore publish completion rates and the cost per graduate for each institution, pay institutions and accredited landlords directly against verified enrolment, which reduces the principal-agent leakage identified earlier. It must also fund academic support for students at risk of dropping out, because institutions are presently paid for enrolment and not for graduation, so they have little reason to prevent drop-outs.

Once completion begins to rise, the R350 000 cliff should be replaced by a taper, in which the grant shrinks gradually as household income rises and an ICL covers the rest. This means that a household which earns slightly more loses only a small part of its grant. Because repayment depends on income, the loan lowers the cost to the state without placing the risk of low earnings on the student, which the United States case shows is essential for protecting access. SARS should collect repayments through PAYE, as in Australia, and the expected loss on each loan should be budgeted when it is issued, as England's experience warns. Finally, any extension of aid should be tied to new places, especially at TVET colleges, since Chile shows that money spent without extended capacity raises costs without raising access. Figure 2 illustrates this.

Figure 2: How the proposed tapered hybrid model works



Source: Author's construction; R600 000 limit adopted from Kahn (2026).

5.2 Why this recommended hybrid model can work

A simple model can demonstrate whether the hybrid saves money and widens access. The following assumptions in Table 1 are made:

Table 1: Model assumptions

Variable	Value	Basis
Budget (B); cost per year (c)	R54.3 billion; R54 300	±1 million students (National Treasury, 2026; Ho Hip, 2026)
Completion rate (p)	56% today; 70% target	Marwala and Mpedi (2022); target illustrative
Years funded (Tg; Td)	4 per graduate; 1.5 per drop-out	Illustrative
Loans	30% of aid lent; half repaid	Illustrative; England loses 43% (Crawford, Crawford and Jin, 2014)

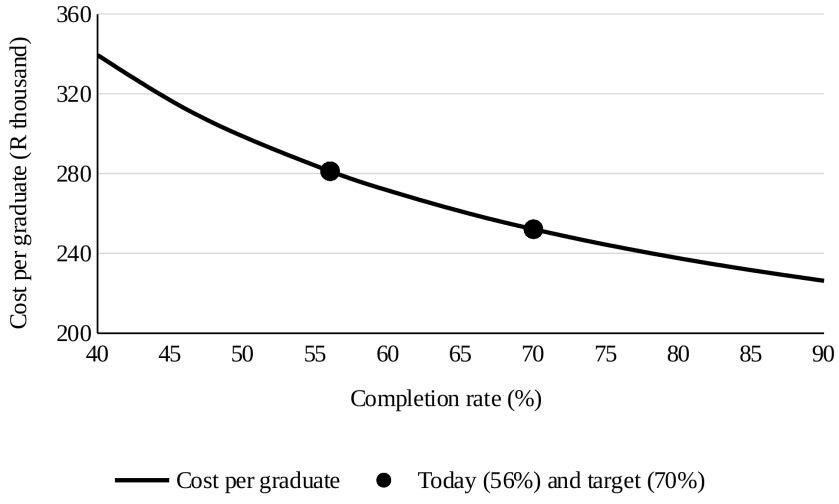
Public money for education seems to depend on the completion rate, p, which is the share of students who finish a degree. At $p = 56\%$, for example, we get that 56 of 100 entrants graduate and 44 drop out. Because drop-outs also use funding, the true cost per graduate must include their years of study too. Thus, if a student-year costs c, then we assume a graduate is funded for T_g years and a drop-out for T_d, so cost per graduate equals:

$$C_g = c \times \left(T_g + T_d \times \frac{1-p}{p} \right) \tag{3}$$

Source: Author's own formula.

Figure 3 plots this. Using the assumptions above, we see that when the completion rate increases from 56% to the hypothetical 70% target, the cost per graduate falls from about R281 000 to about R252 000. The curve decreases because a higher p spreads the cost of drop-outs over more graduates.

Figure 3: Cost per graduate at different completion rates



Source: Author's calculations in Microsoft Excel.

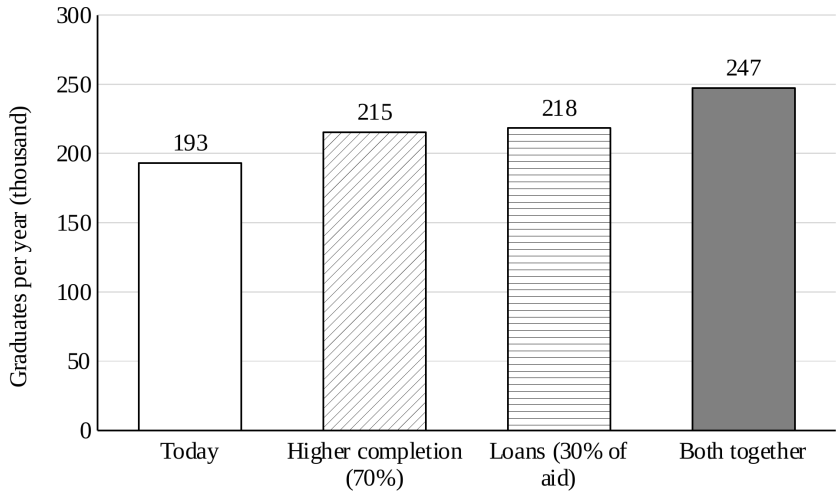
The model then adds loans. We let R be the average amount that each graduate repays ($R = 0$ for a full grant). If a budget B can pay for everyone's study years, then graduates per year, N, equals B divided by the net cost of a graduate:

$$N = \frac{B}{C_g - R} \tag{4}$$

Source: Author's own formula.

Equation (4) shows that a fixed budget funds more graduates in two ways: when each graduate costs less because fewer students drop out, or when the state recovers more of what it spends because some aid is repaid. Figure 4 below shows both effects for a budget of R54.3 billion, where 30% of aid is lent and half is repaid, so that R is about R33 000.

Figure 4: Graduates per year funded by R54.3 billion



Source: Author's calculations in Microsoft Excel.

Both changes raise the number of graduates. More importantly, the two together add 54 000 graduates, which is more than the 22 000 and 25 000 that each adds alone, because only students who graduate can earn enough to pay. Completion and loans therefore reinforce each other. This is explained by equation (4): given the denominator has two levers (the cost per graduate and the amount repaid), a grant-only system can work only on C_g, since R is fixed at zero. Furthermore, a loan system that ignores completion would raise R, but drop-outs repay nothing, so much of the gain is lost. The denominator thus shrinks fully only when both levers move together in the correct order. Importantly, these figures are illustrative and not forecasts, and repayments would only arrive years after the loans are issued. Even so, South Africa needs a system that produces more graduates, and budget which can fund those graduates.

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