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REPORT OF THE WORKING GROUP ON FEE FREE UNIVERSITY EDUCATION FOR THE POOR IN SOUTH AFRICA

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Acronyms

ALBI	All Bond Index
CHE	Council on Higher Education
DHET	Department of Higher Education and Training
DoE	(Former) Department of Education
EU	European Union
FAO	Financial Aid Office
FCS	Full Cost of Study
HEI	Higher Education Institution
HEMIS	Higher Education Management Information System
HESA	Higher Education South Africa
NEET	Not in Education, Employment or Training
NSF	National Skills Fund
NSFAS	National Student Financial Aid Scheme
OECD	Organisation for Economic Co-operation and Development
SARS	South African Revenue Service
SETA	Sector Education and Training Authority
UNISA	University of South Africa

Executive Summary

This report was prepared by the Working Group established by the Minister of Higher Education and Training in March 2012 to investigate, and advise on, the feasibility of making university education fee-free for the poor in South Africa.

Since the transition to democracy in 1994, there have been major shifts in public policy towards a commitment for widening access to South Africa's higher education system, especially for previously marginalized sections of society. The White Paper on Higher Education (1997) made the principle of increased access one of the core transformation goals of a democratic South Africa. During the first decade, there was much policy emphasis on changing the demographic patterns of enrolment, mainly in terms of 'de-racialization' and gender equality targets, in the promotion of access. More recently, however, 'class', or socio-economic status, as a factor of access has come under increasing policy scrutiny.

The White Paper (1997) recognizes that South Africa's stark income disparities were a barrier to higher education enrolment, and argues that the direct cost to students be proportionate to their ability to pay. This basic principle underlines the imperative that access by poor students must be subsidized by the state through a system of financial aid. Arguing against the idea of a general system of fee-free higher education, the White Paper instead proposes a state-funded student financial assistance system that has since became known as the National Student Financial Aid Scheme (NSFAS).

NSFAS was established on the basic principle of a sharing of costs between private beneficiaries (students) and the state, representing the public interest. Between 1999 and 2011, NSFAS funding increased from R441 million to R6,2 billion. Despite this massive increase in state funding, aggregate demand has always exceeded available funds, rendering NSFAS unable to fund all needy students to fully meet their expenses, let alone extend its coverage to those whose income is above the current eligibility threshold. In 2009, Government instituted a major review of NSFAS, which produced wide ranging recommendations for increasing the scope of access of financially needy students.

In recent years, there have been calls for the introduction of fee-free access policies for poor students from a variety of quarters, including student organizations and political parties. At its 52nd National Conference, in 2007, one of the resolutions made by the African National Congress (ANC) was to 'progressively introduce free higher education for the poor until undergraduate level'. Similarly, at its Lekgotla in July, 2011, the ANC further resolved that 'extending the provision of free education to cover students in other years of study must be examined fully', and 'covering the full cost of study for poor student in scarce skills areas, in all the years of study must be effected, but guarding against the downgrading of social sciences programmes provision'.

The terms of reference of the Ministerial Working Group included the following:

- determine the actual cost of introducing fee-free university education for poor people in South Africa; in other words, what would it cost South Africa to offer fee-free university education to cover people classified as poor;
- suggest a working definition of poor people in South Africa, if necessary suggesting different categories and how all can be provided fee-free university education; and consideration should be given to the 'missing middle', where some families do not earn enough to be considered for loans by financial institutions but are not classified as poor, thus cannot access services directed at those classified as poor;
- consider existing policy provision and broadly consult documentation of other task teams/working groups in the Department which deal or dealt with related fields;
- examine various models and options of providing fee-free higher education for poor people used elsewhere in the world and make recommendations to the Minister;
- contemplate all possible implications and consequences of providing fee-free university education for the poor.

In consultation with the Department of Higher Education and Training, this brief was interpreted as follows:

- 'University education' in this specific context is understood to refer to *undergraduate* university education, including degrees (both 3- and 4-year), diplomas and certificates. Postgraduate education is therefore excluded.

- 'Fees' to be considered 'free' are taken to include not only tuition fees but the *full cost of study* necessary for success at university, including: registration and tuition fees; meals and accommodation; books; and travel.

- 'The poor' are defined, minimally, as those *households earning less than the lowest SARS tax bracket* (or R54 200 per annum, in 2010 prices). Other categories of the poor are also discussed and considered in this report.

- In terms of these working definitions, therefore, this report focuses on the feasibility of providing free full-cost-of-study undergraduate university education for children from households not paying any income tax.

University education, because of its intrinsic characteristics, and as compared to the basic and secondary spheres of education, is a costly social service. It directly benefits a fairly small segment of society at any one time, and indirectly benefits society which makes use of their knowledge and skills. In South Africa, students and/or their families have always contributed their share of the costs in the form of paying tuition and other fees, while for its part, the state has always offset the larger infrastructure, facility and human resource costs, in the form of annual budgetary allocations to higher education institutions. For purposes of this report, the former refers to direct costs of study borne by individuals, whereas the latter entails indirect costs carried by society.

In addition, for almost two decades now, and particularly since 1999 with the establishment of the National Student Financial Aid Scheme (NSFAS), the

government has provided financial aid to hundreds of thousands of students who would not otherwise have been able to afford to study at university.

Moreover, the Ministerial Review of NSFAS (2010) found not only that NSFAS and its resources have not been well governed and optimally managed since its inception, but some 72% of NSFAS-funded students drop out, indicating that access is not being translated into (academic) success.

The Ministerial Review argued that in order for the current system of student financial aid to realize its potential fully, it must overcome a number of challenges. The first of these challenges is the use of race as a proxy for socio-economic need, which, in terms of the current formula, results in unequal institutional allocations, with historically advantaged institutions with affluent black students receiving the same allocation as historically disadvantaged institutions with many poor black students.

Second, the NSFAS means test is not always used by universities, and those which do use it often exercise institutional discretion in how they apply it. The way the means test is currently structured also excludes upper working class and lower middle class families: the so-called 'missing middle', or children from families earning more than the current R122 000 per annum threshold.

Third, the university practice of 'topslicing', where the means test results are disregarded and the available NSFAS funds are shared out and spread thinly, between all eligible students, has major negative consequences for students and institutions, in the form of both increased debt and limited academic success.

In addition, NSFAS has no direct contact with the students to whom it lends billions of rands every year; and the system is fragmented, with some students supported through different government departments, and final year students offered conversion of their loans to full bursaries so long as they graduate. NSFAS also has a very poor track record of loan recoveries.

The recommendations of the Ministerial Review (2010) are summed up in the Green Paper for Post-School Education and Training (2012), as follows:

> [Expand] access to the [NSFAS] fund; [change] the institutional allocation formula to one that is class-based and not race-based; [implement] an allocation formula that is student-centred rather than institution-centred; and [change] the composition of the institutional allocation to cover the full cost of study.

In thus calling on government to build on progress already made in expanding and improving financial aid through NSFAS, the Green Paper suggested making use of the discretionary funds of the Sector Education and Training Authorities (SETAs) and the National Skills Fund (NSF).

Recently, too, the National Development Plan (2011) advocated full loan and bursary funding for eligible NSFAS students so as to cover their tuition fees, accommodation, books and other living expenses; service-linked or work-back scholarships such as already exist for teachers and social workers; and loan recovery arrangements through the South African Revenue Service.

International policy and practice with regard to student financial aid provides a useful backdrop against which to understand the recommendations of, *inter alia*, the Ministerial Review of NSFAS, the National Development Plan and the Green Paper.

Although the idea of 'fee-free' higher education for the poor is relatively new in policy debates in South Africa, the basic notion has a long track record in other countries. Policies aimed at bringing higher education within reach of the 'children of the poor' have been experimented with in many parts of the developed and developing world, often under strikingly different political systems and different historical periods. It has been pursued by social democratic, centrist, conservative and labour party governments since the early 1900s.

It found its strongest policy expression in the ascendance of the social democratic policies adopted by many countries in the industrialized north in the aftermath of the Second World War. As this report will show, in some countries, such as Sweden, Norway, Germany and France, governments did not use tuition fees as a basis for funding some of the provision costs of higher education. In other countries, such as the USA, Netherlands, Canada and Japan, fee policies have been introduced with various forms and degrees of financial aid to poor students. More recently, many countries have moved in the direction of relying more on fee charges to finance the costs of higher education provision.

Since the late 1970s, however, a shift towards neo-liberal policies has reduced the role of government in social development and sought to transfer the burden of costs onto individuals, families and communities instead, even while emphasising increased participation in higher education. The current global recession, and competing demands from areas like basic education, health, poverty reduction and infrastructure development, have intensified these pressures.

The main arguments in favour of fully state-subsidised higher education include: a well educated population is socially beneficial; graduates tend to earn more and therefore pay more tax; education is a fundamental right; fees discourage low-income students and thus perpetuate inequalities; and student living costs are already beyond the reach of many families, especially when coupled with the costs of forgone incomes.

The main arguments in favour of only partially state-subsidised higher education include: higher education confers substantial private benefits; more non-graduates than graduates pay tax; tuition fees and state subsidies compel universities to be more accountable and efficient; and unless finite state subsidies are supplemented, access and quality may suffer.

'Cost-sharing' – increasing the costs of higher education for its immediate users or beneficiaries – has been a common response to the increasing costs of higher education, the need for greater participation, and declining government funding.

A country's tuition fee policies are strongly related to its conception of parental financial responsibility for their children's higher education: countries with up-front tuition fees assume that parents are at least partly responsible, while countries which

charge no tuition fees or defer these fees assume that parents are not, or are indirectly, responsible.

Recent international surveys indicate that most countries expect students and/or their families to contribute to the costs of higher education by paying some or all of their tuition fees. Up-front tuition fees are charged in the Netherlands, India and China, but there are no tuition fees in Sweden, Finland and Denmark. Yet other countries (including Australia, Botswana and Lesotho) have adopted deferred tuition fee policies, usually accompanied by income-contingent or service-linked student loans.

Income-contingent loans defer some or all of the costs of study until such time as the graduate earns enough to begin making repayments. A variation on income-contingent loans is a graduate tax, paid on or after graduation (as used, for example, in Ethiopia and Scotland).

Whether or not tuition fees are charged, several countries (for example, Kenya and Australia) also operate dual-track fee policies, in terms of which some students are charged more than others (e.g. for particular programmes or specific institutions, or where there is a limited number of state-funded places available).

Apart from determining what costs are to be covered by student loans (whether income-contingent or not), and how eligibility for a loan is determined (e.g. through a means test), all student financial aid programmes must consider how loans are to be paid back or recovered.

Currently, NSFAS's income-contingent student loans must be repaid once a recipient is earning more than R30 000 per year. Interest rates are set at 80% of the repo rate (effectively, 4,4% in 2011), and interest starts to be charged one year after a student stops studying. Academic success is rewarded by converting up to 40% of a student loan to a bursary.

However, as noted above, NSFAS funding is insufficient to meet demand, and too many NSFAS funded students drop out before completing. Widespread poverty in South Africa, coupled with very high unemployment especially amongst the youth, thus affects both financial and epistemic access to university education. In 2007, some 98 000 youth aged 18 to 24 possessed school-leaving certificates with university exemption, but were nevertheless unable to either get into university or find a job.

There is no single, universally accepted approach for defining poverty or identifying the poor. The most common tendency is to define the degree of poverty: *absolute poverty* (unable to meet basic survival needs); *moderate poverty* (basic needs are met, but only barely); and *relative poverty* (defined as household income below a given proportion of average national income).

South Africa does not have an official singular definition of the poor, with different government departments using different definitions. Statistics South Africa and the National Treasury have proposed a poverty line based on 'the money income needed to purchase a nutritionally adequate food supply and other essential requirements'.

Poor students in South Africa are often also first generation students, from families without stable sources of income, having attended under-resourced, poorly performing schools, and coming from rural and poor urban areas. As a result, a poor student's bursary may end up being used for non-academic purposes (such as supporting the student's family); their underpreparedness for university education (and university unpreparedness for them) contributes to a high failure and drop out rate; and they may lack access to appropriate and good quality on- or near-campus accommodation.

Academic factors limiting poor student success at university include their substandard basic education, inadequate academic support at university, receiving tuition in a second or third language, and being first generation students.

Sociocultural factors include culture shock, isolation and alienation in a new and unfamiliar setting, peer pressure, being unable to afford to participate in student social life, feeling the weight of family expectations, lacking sufficient willpower and motivation to study, and being unaware of where to seek assistance.

There is also a need to provide students (at university but also prior to that, while they are still at school) with more information about university fees and other costs of study, to make them more aware of registration processes, and to improve their ability to manage their personal finances.

Some of these factors limiting poor student success can be addressed simultaneously, by increasing the quantity and quality of contact time between lecturers and students. In addition, and wherever possible, lecturer-student ratios need to be adjusted so as to make it possible for lecturers to provide the necessary support especially to underprepared students and specifically in first-year classes.

This in turn requires increased numbers of sufficiently qualified and appropriately remunerated staff (both academic and administrative), where possible complemented by technological solutions (such as in-class audio and visual feeds, on-line learning or distance education).

Renewed efforts must be made to provide, and properly fund, academic support mechanisms, and consideration should be given to the mainstreaming of four-year undergraduate degrees.

Official university output targets and indicators need to be carefully and cautiously managed, to ensure that too narrow a focus on outcomes does not negatively affect teaching quality and academic professional autonomy.

Not least, the higher education policy making and funding environment, and even the wider social context of poverty and inequality, must also be taken into account. The feasibility of providing free university education for the poor ultimately depends on a marked and generalised improvement in the social-economic situation of South African society as a whole.

The costs of providing free university education for the poor are estimated in this report using a policy dialogue model of the entire student financing system. The

model contains many assumptions, which are nevertheless based on the best available data, and which may also be adjusted, within certain limits, to fit a range of policy preferences. Such adjustments range from maintaining average current NSFAS practice, through the preferred base version of the model (with lower academic rebates and higher interest rates), to variations reflecting the base version but with greater household contributions, current NSFAS interest and repayments, or current NSFAS academic rebates.

Among the most important assumptions are that a national-level decision will be taken to provide free (full cost of study) undergraduate university education for the poor. The average full cost of study at a public university apart from UNISA is calculated as R52 356 per annum in 2012 prices, with the cost at UNISA calculated as R16 743. 'The poor' are defined, minimally, as students from households earning less than R54 200 per annum (in 2010 prices).

Students are assumed to be able to finance their full cost of study through a combination of (a) household contributions, (b) income-contingent repayable NSFAS loans, (c) loan rebates due to good academic performance, and (d) (for poor students only) a grant which bridges the gap, if any, between the full cost of their years of enrolment (with a limit of two years more than the minimum time required for the qualification) and the repayable loan.

All students will be expected to repay their loans on an income-contingent basis for 15 years. Only if and when a graduate (or a dropout) reaches a minimum specified threshold of income, will they be required to start paying back.

Students who are already in the system and being supported through NSFAS are not included in the model. These students must continue to be funded through existing arrangements until such time as they exit the system, after which all eligible university students will be funded in the same way.

In terms of all these assumptions and calculations, the base version of the model demonstrates that:

- most students are and will remain heavily reliant on loan finance, with households able to contribute only about 36% of the gross loan advances required;

- current academic performance rebates are very costly, representing 20% of gross loan advances in terms of current NSFAS practice or 10% under the radically pruned assumptions of the preferred base version of the model;

- a universal system of free university education for the poor (whereby every student enrolled for a first qualification would be assessed for financing according to a common set of rules) implies a net present value of gross loan advances of R14 billion in 2013 prices for the 2013 cohort, which is about double what NSFAS advanced in 2012;

- the cost to the government of ensuring that all students who are financially assisted to enter university in 2013 (estimated to be 163 000 students) continue

to be financially assisted until they either complete, reach the loan financing limit or dropout is estimated at R100 million, but this figure is very sensitive to the interest rate and could easily increase tenfold; and

- the number of students covered by the base version of the model would increase from 163 182 in 2013 to 581 600 in 2027.

By way of illustration, a poor student who enrols in 2013 for a three year degree at a university other than UNISA, and completes it in minimum time, will receive a NSFAS loan covering their full cost of study, contribute zero from their household (since they are poor) and receive maximum academic rebates in all three years of study (due to their good academic performance). Their loan balance at graduation will be about R127 778. A year after graduating (i.e., in 2017), they will begin repaying their loan, at between 5.3% and 12% of their annual salary, making their last repayment at the end of 2027.

To sum up, free university education for the poor has the potential to improve both access to and the quality of outcomes in higher education, but it will require a significant outlay by the state. It is thus important that further and wider discussion takes place around the assumptions, estimates and findings of this report.

Recommendations

Free university education for the poor in South Africa is feasible, but will require significant additional funding of both NSFAS and the university system. Preliminary calculations of the actual cost of introducing free university education for the poor are anywhere between R100 million and R1 billion in 2013 prices for the 2013 cohort of students (estimated at 163 000 students). This cost is variable because such stopgap grant financing is very sensitive to prevailing interest rates.

Accordingly, the Working Group makes the following recommendations:

Recommendation 1:

Free full cost of study undergraduate university education for the poor in South Africa should be introduced using the current NSFAS structure and procedures as a basis, but refining these over time, and simultaneously ensuring that corporate governance, fund management procedures and loan recovery practices at NSFAS are completely overhauled and rendered above reproach.

Recommendation 2:

Funding for free university education for the poor should be derived at least in part from a proportion of the Sector Education and Training Authorities (SETAs) funds set aside by both the private and the public sectors for skills development, and earmarked to provide for sustainable NSFAS-administered income-contingent loans to poor students in identified scarce-skills sectors.

Recommendation 3:

Such SETA funds which are already being used for bursaries, short course skills programmes and internships for poor students, along with portions of corporate social responsibility funds, should be centralised and properly coordinated under a single, NSFAS umbrella.

Recommendation 4:

New sources of funding, not discounting the national budget, large financial institutions and international donors, must be found so as to render free university education for the poor both affordable and effective.

Recommendation 5:

Those initially and primarily eligible for free university education, on the basis of NSFAS income-contingent loans, should be learners holding National Senior Certificates who are admitted into a university and come from households earning less than the lowest SARS tax bracket, meaning that they will be required to make no household contribution.

Recommendation 6:

In addition, learners holding learners holding National Senior Certificates who are admitted into a university and come from households earning between R54 200 and R271 000 (in 2010 prices) should be eligible for free university education in a similar manner, but should be required to make some household contribution.

Recommendation 7:

As and when additional funding can be sourced or provided, additional categories of needy children may be progressively included.

Recommendation 8:

Eligibility should be determined on the basis of duly refined and properly administered NSFAS means tests.

Recommendation 9:

The policy dialogue model as utilised in this report should be considered as the starting point for developing a fully-fledged costing model both for free university education for the poor and, ultimately, for a comprehensive student financial aid and academic support system which takes into account adequate housing, proper nutrition, cultural inclusion, and enhanced awareness through career and vocational guidance at school level.

Recommendation 10:

In order to ensure that increased financial access on the part of the poor is converted into academic success at university, additional funds shall have to be made available to cover costs related to providing:

- improved and better funded academic support, tutorial support and residential or living-learning support mechanisms;

- affordable technological solutions (such as in-class audio and visual feeds, on-line learning or distance education); and

- sufficient additional numbers of academic and administrative staff to ensure adequate class sizes at universities and improved quality of contact time between staff and students.

Recommendation 11:

Funding should be premised on the principle both that fees must be realistic, and that the cost of university study must be proportionate to a student's ability to pay. Students must contribute where they can (even if minimally), and where possible should be afforded the option to do so either financially, on the basis of future income, and/or through community or public service (which should target areas of scarce skills).

Recommendation 12:

Current levels of government funding of public higher education institutions must be maintained or even increased, so as to preserve the basis on which institutions will be required to redouble their efforts to translate financial access into academic success.

1. Introduction

Free university education for the poor, in principle, can be considered to be a materially-significant additional step in government's ongoing efforts to both address some of the legacies of the past and deepen the scope and quality of democratic life in South African society. It carries the potential to lift members of communities out of poverty and unemployment, by simultaneously increasing access to, and improving the quality of outcomes in, higher education. Free university education for the poor can directly assist in tackling the problem of the growing numbers of youth who are not in education, employment or training, and reducing the high levels of dropout from universities, thus strengthening the higher education system as a whole.

Such an expanded and strengthened higher education system will have a positive effect on efforts to reduce poverty and inequality, and will not only quicken economic development but also promote good citizenship, and increase both productivity and innovation. As the National Planning Commission recently made clear, universities drive knowledge, and knowledge is a key to social and economic development in our globalising world. Universities inculcate the high-level skills that are currently so scarce and so urgently needed across the public and private sectors; they produce new and apply existing knowledge to areas of social and economic need and, in so doing, contribute to the cultural and moral development of the nation; and universities are also in the forefront of innovation, which provides opportunities to ordinary citizens and thus promotes social mobility and enhances social justice (NPC 2011: 262).

This report on free university education for the poor was prepared by the Working Group established for that purpose by the Minister of Higher Education and Training in March 2012. The terms of reference of the Working Group, as specified by the Minister, are summarised below and in full detail at the end of this report (Appendix A). The Working Group was asked to advise on the feasibility of making university education fee-free for the poor in South Africa; and specifically to:

- determine the actual cost of introducing fee-free *university* education for poor people in South Africa;
- suggest a working definition of the classification of poor people in South Africa;
- consider existing policy provisions and related documentation;
- examine various models and options of providing fee-free higher education to poor people used elsewhere in the world;
- contemplate all possible implications and consequences of providing fee-free university education to the poor in South Africa; and
- make recommendations on:
    - how fee-free university education can be introduced, with what instruments;
    - where funding might be obtained in order to finance fee-free university education;
    - who should be eligible for fee-free university education, and in terms of what criteria;

- what possible costing models the Department should consider in introducing fee-free university education, and what their risks and benefits are; and
- what implications fee-free university education would have on government funding of public higher education institutions.

In considering how to address these issues, the Working Group reflected as broadly and deeply as time-frames allowed on the nature and value of higher education in modern societies. It examined how access to higher education is presently enabled or supported both in South Africa through the National Student Financial Aid Scheme (NSFAS) and in a range of developed and developing countries around the world. It also considered who most commonly benefits from higher education, and how the successful participation therein by those who have traditionally been excluded from it, and who can also least afford it, could be enhanced. Finally, it analysed the financial costs currently or likely to be incurred, and how these could be financed (e.g. through student fees, loans and grants, or government subsidies), as well as other implications for higher education and society as a whole.

Whether users pay directly, indirectly or not at all for goods, the simultaneously public and private good that is education has to be deliberately fostered as part of developing a nation; it is a social service that needs to be provided by some to others and, as such, it involves outlays and expenses of various sorts. Those who provide this service, whether individuals or institutions, private or public, need to be remunerated or subsidised. In short, education is never free, and higher education even less so.

It should also be noted that the cost of higher education in South Africa has always been offset by the state. Whether or not an individual student or their family pays only for their tuition fees or, alternatively or in addition, for their living costs while studying, these costs are invariably only a fraction of the true cost of a university education. What is known as the 'full cost of study', with which this report concerns itself, is only the full cost that the beneficiary, the individual student, would ordinarily incur in order to cover tuition fees, the cost of study materials, and board and lodging while studying. It does not include the full cost of a university education – including university infrastructure, facilities and human resources – which is already heavily subsidised by government.

The objective of this study was to investigate ways of providing free university education for those who cannot afford it, in other words, for the poor. The intention is not to provide free university education for those who can afford to pay for it. The education of all university students, both rich and poor, is already supported by the state, through annual budgetary allocations by National Treasury to higher education institutions. This report thus aims to identify what, in part, might be done in order to "realise Government's policy goal of ensuring that a lack of financial means is not a barrier to accessing higher education" (DHET 2010: 137).

Defining fee-free university education for the poor

After considering all the issues, and in consultation with representatives of the DHET, the Working Group arrived at the following working definitions of key terms:

First, 'university education' was understood to mean *undergraduate* university education, including degrees (both 3- and 4-year degrees), diplomas and certificates.

Second, it was agreed that the 'fees' to be considered 'free' should include not only tuition fees but all costs of study and living necessary for success at university. This *full cost of study* is understood to consist of: registration and tuition fees; meals and accommodation; books; and travel.

Third, to provide a minimal starting point, 'the poor' were defined as (university eligible children from) *households earning less than the lowest SARS tax bracket* (R54 200 per annum, in 2010 prices) and who thus pay no income tax. This is not to say that this is the only category of the poor (though they may be amongst the poorest of the poor), and several sections of this report discuss in greater detail how the poor might be defined (see especially the discussion in Section 5 of various definitions of poverty and ways of identifying the poor). The purpose of this initial definition was to permit cost estimates to be made, which in turn will allow other categories of the poor to come into sharper focus.

In terms of these working definitions, the Working Group focused its attention on the feasibility of providing free full-cost-of-study undergraduate university education for children from households which are legally exempt from paying income tax.

Structure of the report

The following section, Section 2, reflects on South African policy imperatives and the broader social considerations within which all efforts to provide free university education for the poor must be located.

Section 3 considers the changing international higher education landscape, with particular regard to tuition fee policies and the trend to provide student financial aid in the form of income-contingent loans.

Section 4 examines the main features of NSFAS, and considers how it can be altered or improved to accommodate the provision of free university education for the poor.

Section 5 maps the social dimensions of student financial need and examines various ways of defining poverty and identifying the poor.

Section 6 considers the numerous impediments to successful study on the part of poor or disadvantaged students, with an eye on ensuring that increased financial access to university education is matched by equivalently increased success.

Section 7 estimates the costs of providing free university education for the poor, on the basis of several key assumptions which may be adjusted, within certain limits, to fit a range of policy preferences.

The final section concludes the report and lists the Working Group's recommendations.

2. Policy Imperatives and Social Considerations

The idea of full and equal access to the opportunities and benefits provided by a good quality education in general, and by higher education in particular, has been a national dream of progressive forces in South Africa for over half a century. In recent years, South Africa's post-apartheid educational policies and practices have reflected various efforts, characterised by varying degrees of success, to progressively realise this dream.

This basic idea was forged in response to the legacies of over a century of colonial and apartheid rule which had profoundly shaped and distorted South Africa's higher education system. These legacies, which are still felt today, included a system of higher education marked by highly skewed racial and gender enrolments, spatial and ethnic segregation, and the allocation of resources disarticulated from the real development needs of the vast majority of citizens. In particular, access to this system functioned for many generations in ways that fostered and perpetuated deep-seated inequalities along racial, gender and class lines.

In 1955, the Freedom Charter promised that 'the doors of learning and of culture shall be opened'. It envisaged a society in which "education shall be free, compulsory, universal and equal for all children", and where "higher education and technical training shall be opened to all by means of state allowances and scholarships awarded on the basis of merit". The Freedom Charter essentially embraced and expressed the idea of education as a 'public good' and promoted the vision of a public education system, including higher education, as a key 'instrument' for contributing towards the development of the nation's human potential and South Africa's national development goals. It should be borne in mind that this thinking behind the Freedom Charter in many ways reflected that which prevailed in the social democracies of Sweden, Norway and Denmark and many other countries of western Europe, including Germany, France and Britain, in the post-war period when the idea of the 'public good' role of universities was much in vogue.

Forty-one years later, Section 29 of the Bill of Rights (Chapter Two of the Constitution of the Republic of South Africa, 1996) added legal force to this ideal by stipulating that "Everyone has the right *(a)* to a basic education, including adult basic education; and *(b)* to further education, which the state, through reasonable measures, must make progressively available and accessible" (RSA 1996). Further education in this context refers to all post-basic education, including higher or university education.

The first major post-apartheid policy statement on higher education, in the form of *Education White Paper 3 – A Programme for Higher Education Transformation* (DoE 1997), introduced the possibility but also the complexities of free university education in South Africa. The White Paper states that "fee-free higher education for students is not an affordable or sustainable option for South Africa", and elaborates this as follows:

> The knowledge and skills acquired in the course of achieving higher education qualifications generate significant lifetime private benefits for successful students as well as long-range social benefits for the public at large. Although higher

> education institutions admit an increasingly large proportion of students from poor families, students from middle-class and wealthy families still tend to be disproportionately well-represented. For all these reasons, the costs of higher education should be shared equitably between public and private beneficiaries (DoE 1997: section 4.7)

The White Paper immediately adds, however, that it is important that "the direct cost to students should be proportionate to their ability to pay" and that "financial need should not be an insuperable barrier to access and success in higher education". Referring to the need for "a realistic fee structure", it explores options for the provision of student financial assistance for poor students.

It rejects "the idea of a single, capitalised public endowment or trust fund, whose proceeds would support annual disbursements and which would be replenished (or even become self-supporting) through loan repayments", on the grounds that it "is not viable and cannot be supported by the government. The initial capitalisation required would be far too great for the state to contemplate. Actuarial estimates indicate that such a fund, if established, could not be self-sustaining but would require massive periodic re-capitalisation if insolvency were to be avoided" (DoE 1997: section 4.42).

Instead, the White Paper recommends a programme of student financial assistance which subsequently became known as the National Student Financial Aid Scheme (NSFAS) (DoE 1997: sections 4.39-4.49). NSFAS thus was – and remains – premised on "a sharing of costs between private beneficiaries (students) and the State, representing the public interest". Whilst the White Paper recognises both the "severe limits to the capacity of many students and their families to pay" (DoE 1997: section 4.39), it asserts that student bursaries and loans are not "a substitute for responsible self-help by students, but a valid form of supplementary support, especially for the majority of young South Africans whose family support-systems can bear only a fraction of the cost of current higher education programmed". Accordingly, financial aid must be sustainable; it must be "based on transparent and defensible criteria for eligibility, built-in incentives to encourage disciplined effort, rewards for academic success, and sanctions against failure or default" (DoE 1997: section 4.40); and it may include "student and community self-reliance programmes, such as work-study and community service" (DoE 1997: section 4.47).

NSFAS was established in terms of the NSFAS Act of 1999 and, until most recently, it has operated largely on the same funding principles as its predecessor, the Tertiary Education Fund of South Africa (TEFSA). Over that time, the funds managed by NSFAS have increased substantially, from R441 million in 1999 to R2,375 billion in 2008, providing funds for 153 795 students (DHET 2010: 2).

Despite massive gains made in bringing large numbers of poor students within reach of higher education since NSFAS was established, policy-makers have been concerned for some time about its scope. In 2001, the *National Plan for Higher Education* (DoE 2001) reiterated the Minister of Education's intention to increase access of poor students to higher education (DoE 2001: 10), adding that "increased access however, is meaningless if students do not succeed in their studies" (DoE 2001: section 3.2.1). It also expressed disquiet about the NSFAS practice of spreading fewer funds to more students, rather than covering the full cost of study of specific students;

and posed the question of whether NSFAS's limited funds should target "priority fields of study and/or institutions that can demonstrate the implementation of successful academic development programmes, especially in programmes in which black students are under-represented" (DoE 2001: section 3.2.1).

The reality, however, is that, since its inception, demands on NSFAS funds have exceeded its available resources. This has rendered it unable to "fund all current awardees at the levels required to fully meet their tuition and living expenses" or to extend its coverage to "students whose family income is above the current NSFAS eligibility threshold but who cannot afford to access higher education without financial aid" (DHET 2010: 137). Accordingly, in order to assess the strengths and shortcomings of NSFAS, and to advise on how "to promote the twin goals of equity of access and providing free undergraduate education to students from working class and poor communities who cannot afford further or higher education" (DHET 2010: xi, 137), in June 2009 the Minister of Education appointed a Committee to review the Scheme.

The *Report of the Ministerial Committee on the Review of the National Student Financial Aid Scheme* (DHET 2010) is discussed in Section 4 of this report, and only its most general findings are stated here. It found that NSFAS' main strength is that its low-interest, income-contingent and partially bursary-convertible loans provide potentially affordable access to higher education for students who could not otherwise afford it. However, among its shortcomings are the high (72%) student drop-out rate, in part due to inadequate academic support but also due to some universities' disregard for means tests results and practice of 'topslicing' (or the dilution of available bursary monies so that more students get some, but few get full, financial support). Furthermore, NSFAS' operations have been severely hampered by poor corporate governance and inefficient fund management and loan recovery practices (DHET 2010: xiv-xx).

Accordingly, the Report recommended, among other things, the full subsidisation of poor and working class students with the financial assistance of the National Skills Fund. Such financial assistance could initially operate via a "Progressive Realisation Model" whereby the proportion of total annual DHET funding available to be allocated to HEIs and to be used for bursaries and loans should be calculated on the basis of an institutional 'Index of Need'. Need or eligibility could be determined on the basis, for example, of household income below the lowest SARS tax threshold and/or school or municipal poverty quintiles. The Report also recommended offering income-contingent NSFAS loans to other categories of student, including students from lower middle-income families who are not currently eligible for such loans but who nevertheless can be found to be unable to afford university study. All institutions would receive the average full cost of study per student; funding would follow the student, not the institution; and all loans would be recovered directly through SARS (DHET 2010: xxi-v).

These recommendations, if implemented, would go a significant way towards the evolution of a more adequate system of financial aid by creating financial access opportunities for students coming from the poorest strata of South African society, including working class students and, through the proposed loan system, those amongst the lower-middle class (the 'missing middle') who also cannot afford a

university education. Whereas due mechanisms for 'payback' should be incorporated into a new NSFAS system, caution must be exercised to ensure that future levels of post-student debt do not prevent beneficiaries from lifting themselves out of poverty.

Moreover, although an adequate system of financial aid is a crucial factor in providing more effective access on the part of poor students, it must be accompanied by a number of other elements, if 'access' is to be accompanied by higher levels of academic 'success'. An adequate financial aid system is a necessary but not sufficient condition for academic achievement. At least four other factors seem to play a crucial role in enhancing successful participation – adequate student academic support, proper student housing, affordable transport, and supportive institutional cultures.

For one, a significant proportion of poor students enter the higher education system from dysfunctional schooling backgrounds and from communities in economic and social distress. Many do not have the same cognitive grounding as their middle class counterparts, particularly regarding numeracy and literacy skills. The roots of this problem are to be found in the failure of our country decisively to transform the legacies of apartheid education that continue to shape schooling in black townships.

These conditions are likely to continue generating their pernicious effects for years to come, even given the major improvements being expected in the country's schooling system in the next few years. As such, universities will be pressed to provide more systematic, wide-ranging and effective academic support systems for students from non-traditional academic backgrounds. Currently, many university-based foundation, enrichment and extended curriculum programmes are funded on a three-year basis, which tends to affect their underlying stability since their staff are often employed on short-term contracts due to the unpredictability of funding. Any future free university education policy in favour of poor students would have to be embedded in a more generalized student academic development support system at all universities.

Beyond academic support, a second factor shown by studies to affect student academic success is access to affordable student housing. The problem today is that a significant proportion of university students live off-campus, mainly because of the lack of sufficient on-campus facilities at many institutions. Apart from incurring significant transport costs, many who live off-campus live either in unsuitable, often squalid conditions, or in ultimately unaffordable over-priced facilities, both of which contribute to the high drop-out rate.

In recognition of this problem, another Ministerial Committee has recently reported on the *Provision of Student Housing* (DHET 2011c), pointing to the need to ensure that NSFAS funding adequately meets students' accommodation needs, including at least two balanced meals per day. It also called for stricter oversight of the administration of NSFAS funding, especially accommodation funding, by the universities (DHET 2011c: xvi), finding that there are "wide variations in financial aid practices among institutions, depending on the numbers and economic profile of their student populations that require such assistance, and that awards are more comprehensive in some institutions than in others" (DHET 2011c: 27). It concluded that "the process through which financial aid funding for board and lodging is provided to students at a number of universities is resulting in significant student suffering, and this process needs to be investigated and clarified" (DHET 2011c: 107).

The link between institutional cultures and student academic success has until recently been given scant analytical and policy attention. The problem of 'institutional culture', as a barrier to access, was cited in the White Paper on Higher Education of 1997 (DoE 1997: 42-3) as a major challenge for post-apartheid South Africa. More recently, this issue was highlighted by the Higher Education Summit of 2010 as a major contributing factor to feelings of social alienation among many black students at universities today. The prevalence of racism, sexism and xenophobia have been widely reported in the media in recent years, and its effective combatting and transcendence remains one of the most formidable and difficult challenges of the sector.

The challenges of institutional cultures also involve elitist and class prejudices, to the extent to which universities traditionally catered for wealthy middle class students, with academics generally coming from similar backgrounds. Students from rural and poor communities studying at many historically white and urban-based universities experience feelings of class prejudice and social alienation, and often lack sufficient role models within these institutions to empathize with, mentor and support them. Language barriers further aggravate their feelings of alienation and exclusion from the dominant sub-cultures of the universities. These conditions affect black students in general, but black working class and poor students face barriers of both race and class, and in the case of women, gender discrimination.

The application of NSFAS funding has also been linked to policy preferences for particular fields of study. There appears to have been different, if somewhat contradictory, policy positions in this respect. Until recently, funding was allocated to any field of study offered by universities, provided students met the relevant NSFAS criteria. From around 2010, government has earmarked significant parts of financial aid via NSFAS for specific fields of study.

For example, the *National Skills Development Strategy III* (DHET 2011b) as outlined in the National Plan for Higher Education has emphasised that resources such as the National Skills Fund "must strategically and programmatically support the production of priority skills in high-level occupationally directed programmes in the entire skills development pipeline, from universities and colleges to the workplace" (DHET 2011b: 13).

> Access is a challenge. On the one hand, access relates to the availability of places in relevant programmes; on the other hand, it relates to the constraints (social, academic, geographical and financial) facing the majority of disadvantaged university applicants (DHET 2011b: 13).

It follows that, among other strategies, the necessary resources must be dedicated to supporting career and vocational guidance, particularly at a school level, so that the youth are better informed about what skills are most needed, and can direct their studies accordingly, rather than simply "opt[ing] for a programme because it is marketed or there is financial aid" (DHET 2011b: 22-3).

By contrast, the recent *Charter for Humanities and Social Sciences* (DHET 2011a) called for "equitable financial aid for all subjects of study", recommending that

NSFAS be "expanded to cover all students studying in the system and that funding does not discriminate against HSS [Humanities and Social Science] students in any field. Funding needs to be made available at the time of registration, and needs to cover the full costs of the study programme" (DHET 2011a: 45). Suggesting that "it is unethical to accept deserving students, especially from disadvantaged communities, into the [higher education] system and not make loans available to them" (DHET 2011a: 49), it also called for HSS graduates to be permitted to work-back their student loans by being "required to render a year's community service" (DHET 2011a: 45).

Most recently, government thinking around free university education has been indicated in two key documents, the *National Development Plan* (NPC 2011) and the *Green Paper for Post-School Education and Training* (DHET 2012). Apart from pointing to the immense advantages that higher education in general confers both on society and on individuals, the *National Development Plan* targets a 25% graduation rate and a 30% participation rate across the higher education system by 2030 (NPC 2011: 278, 290). It notes that any and all improvements in the quantity and quality of graduates will require a greater emphasis on output-based funding on universities, but that this can be achieved without discouraging the enrolment of disadvantaged students. Accordingly, it advocates increased funding for higher education generally, and in particular full funding for eligible NSFAS students through loans and bursaries so as to cover their tuition fees, accommodation, books and other living expenses. The costs of thus supporting needy students can be recovered through arrangements with the South African Revenue Service, and also through service-linked or work-back scholarships such as already exist for teachers and social workers; and the success of these students can be further facilitated by providing more academic support (NPC 2011: 291-3).

Finally, the *Green Paper for Post-School Education and Training* (DHET 2012) outlines government's intention gradually and carefully to expand enrolments and participation rates at universities, so as to cater for 1 500 000 students (at a participation rate of 23%) by 2030 (DHET 2012: x). Government aims at the same time to phase in free undergraduate university provision for the poor, "building on the progress already made in expanding financial aid through NSFAS" (DHET 2012: 5). The reference here to progress already made is to the conversion of NSFAS loans to full bursaries for those students who complete their final undergraduate year successfully. The DHET envisages that "this programme will steadily be introduced to cater for students in the pre-final years" (DHET 2012: 48).

The Green Paper emphasises that resources must be found and funding strategies devised to "strengthen teaching in universities without in any way reducing the importance of research" (DHET 2012: 42). Apart from examining the affordability of university fees, and giving consideration to whether some framework is required to provide parameters for fee increases (DHET 2012: 47), the DHET has taken cognisance of the NSFAS Review Report which recommended, *inter alia*:

> expanding access to the [NSFAS] fund; changing the institutional allocation formula to one that is class-based and not race-based; implementing an allocation formula that is student-centred rather than institution-centred; and changing the composition of the institutional allocation to cover the full cost of study (DHET 2012: 48).

Another important challenge mentioned in relation to the recommendations of the NSFAS Review Report is

> finding the resources to address those students who do not qualify for NSFAS loans because their families' incomes exceed the threshold of R122 000 per annum but who do not earn enough to qualify for commercial loans. This group includes the children of many teachers and civil servants – precisely the groups from whose children future professionals and academics come from in most countries (DHET 2012: 49).

It may be that some of the resources needed to address this challenge, and also assist other disadvantaged groups, particularly the unemployed, could be derived from either or both the discretionary funds of the Sector Education and Training Authorities (SETAs) and the National Skills Fund (DHET 2012: xiii, 64-8).

Critical considerations

There are thus multiple policy imperatives and pressures on the higher education system, seeking to fulfil differing functions in order to address South Africa's many and pressing national development needs. Yet these imperatives occur in a context of a political economy of funding which is unable to adequately support them. There is simply not enough funding in the current system. For the higher education sector to support a higher rate of enrolment growth, as envisaged by the NPC, will imply accepting lower levels of aggregate throughput, at least in the short-term, even with a massive injection of supplementary funding for academic support. If the former has to hold, then the nation may well have to accept its social costs, even whilst the system is pushed to improve its internal inefficiencies. Similarly, if NSFAS funding has to be spread across both the Science, Engineering and Technology and the Humanities and Social Sciences tracks, as two different policy interventions suggest, this will require a significant increase in the capacity of NSFAS over the coming years.

Moreover, if we are to hold together successfully the twin objectives of increasing aggregate enrolment and throughput rates in the context of the strains on the existing system, it will be necessary to increase support commensurately to cover underlying investment costs – particularly core subsidy rates to build and modernize infrastructure, employment of additional academic and support staff, improvements in overall conditions of service, and library, computer infrastructure, laboratories and related service costs. In other words, if we are to introduce free university education for poor undergraduate students, the costs cannot be within the current funding system. New funding is required, and this is explored in Section 7 of this report.

Finally, further consideration should be given to ensuring:

- Both that fees must be realistic, and that students must contribute where they can, even if minimally (or through work or service instead of financially), since this encourages self-discipline and guards against unreasonable expectations.

- That poor students both have access to a university education and are provided with the opportunity to successfully transit through and complete their university studies;

- That the base that NSFAS already provides is built upon, but not without drastically improving NSFAS' internal functioning and external relations, particularly with students; and hence

- A system of free university education for the poor which does not stand alone, but which is just one element in a comprehensive student financial aid and academic support system which takes into account adequate housing, proper nutrition, cultural inclusion, and enhanced awareness through career and vocational guidance at school level.

3. A Survey of International Policy and Practice

This section considers the changing higher education landscape across the world, and examines how universities, and governments, are coping with these changes, with particular reference to whether or not a country charges tuition and other fees and, if they do, whether these fees are deferred or charged up-front, along with any other variations in how the broad costs of a university education are incurred and covered, and by whom. Attention is also given to various arguments for or against either entirely or only partially free (i.e., either entirely or only partially state-subsidised) university education; and to some of the implications of improving access to and reducing the cost of higher education to students by providing financial aid to students in need, particularly in its most common form, namely, through income-contingent loans.

Historically, although the idea of 'free' access by the poor to higher education, and the role of the state in its provision, is relatively new to South African policymaking, it has a relatively long track record in many other countries. In the last century, especially since the 1920s, this basic idea – of providing access opportunities to the 'children of the working class' to traditionally elitist universities – has preoccupied policy-makers in many parts of the industrialized world.

For a long time, until the birth of modern publicly-funded universities, most efforts to support students from poor communities to enter into universities largely came from private, religious and philanthropic sources. One of the first shifts in this trend came in the period between the First and Second World Wars (1918-1939), with the New Deal reforms in the United States under President Franklin Roosevelt. This saw the establishment of a new generation of publicly-funded 'Land Grant' colleges in the late 1930s which provided, through state grants, subsidized support to several generations of poor students whose families were impoverished during the years of the Great Depression.

But the real explosion in public universities came in the post-Second World War period (1945 onwards), coinciding with the post-war reconstruction of much of Europe. It occasioned real efforts by a new wave of centre and centre-left governments in many countries, especially but not only Scandinavia, to break down class and gender barriers in traditionally elitist institutions, and to provide real opportunities to bring the 'children of the working poor' into universities and colleges.

Ideologically, the period of the 1950s and 1960s was marked by the ascendance of social-democratic governments and the popularization of a 'third way', ostensibly, between classical market-led capitalism and state-directed communism. Social democracy placed great premium on the active role of the state in promoting the public good via provision of education, health and social development, in addition to provision of economic and social infrastructure for citizens. The market still had a key role to play in generating conditions for competitive economic growth and the allocation of resources, goods and services, though it was not seen as the most rational of social mechanisms.

The rise of social democratic thinking was based, in part, on a critique, which

received significant electoral support in these countries, of neo-classical theories of development in which states were assigned limited roles and market forces were seen as the primary ways of allocating resources. It was also partly an attempt to offer a counter-weight to socialist and communist ideologies with their emphasis on radical social equality and the all-encompassing role of the state in the society and the economy.

Whilst countries such as Sweden, Norway, Germany and France introduced policies that effectively entailed full subsidization of higher education, with access largely determined on the basis of merit, other countries such as the US, Netherlands, Canada, Japan and South Africa pursued systems in which fees still played a significant role. Others still, as will be shown below, provided for a range of deferred fee payment regimes.

The onset of a global crisis in market economies beginning in the early 1970s, initially as a result of the oil crisis, precipitated a series of major political and economic changes that sought to curtail many of the policies previously aimed at the public subsidization of higher education, and with this, serious attempts to roll back the social norms associated with the post-war welfare state systems. The crisis saw the ascendance of neo-conservative political and neo-liberal economic doctrines, closely associated with the Reagan government in the US and the Thatcher government in the UK. Their policies led to concerted efforts in the late 1970s and 1980s to reform the World Bank and the International Monetary Fund, and also to the imposition of 'structural adjustment' policies on developing countries. The hegemony of these conservative policies, bolstered first by similar shifts in Germany and Italy in the 1980s and then by the collapse of the Soviet bloc at the end of that decade, also paved the way towards a fundamental revision of the rules of global trade and finance.

In the area of higher education, the effect of this so-called 'Washington Consensus', apart from generally constraining the role of government in social development, was to scale down levels of public funding, to introduce market norms, to increase tendencies towards privatization and corporatization, to emphasize the 'commodification' of research knowledge, and to shift the burden of costs onto communities.

The present global financial crisis has put further pressure on public universities to generate higher enrolment rates, albeit with declining levels of state funding. In most countries, since at least the 1960s, government subsidies constituted a large proportion or even the bulk of public university funding; but real per capita subsidies have been declining for the last twenty years, prompting increases in tuition fees and a search for more third-stream income. In the USA since the 1990s, and in Europe and OECD countries more recently, perhaps driven more by pragmatic considerations than clear evidence, the view that students are the primary beneficiaries of higher education has strengthened; more student financial aid is taking the form of loans rather than grants; and more grants are being awarded on the basis of academic merit rather than need (Heller and Rogers 2006: 92). Students are thus faced with higher financial barriers to access higher education, and there is a "global trend in shifting university costs from national governments to individual students and families" (Li 2011: 466). In all countries, but particularly developing countries, there is increased competition for limited public funds from areas like basic education, health, poverty

reduction and infrastructure development (Oketch 2003: 89). The global recession, financial austerity measures and poor macroeconomic conditions are intensifying these pressures.

The main arguments in favour of fully state-subsidised (i.e. 'free') higher education include:

- The returns to society from an educated population are very high.
- Graduates earn on average more (much more during a lifetime) than non-graduates, and thus pay back their education by paying greater income taxes.
- Education is (or should be) a fundamental right.
- Tuition fees may discourage the participation of students from low-income families, rural areas or ethnic minorities with negative impacts in terms of social equality and social benefits.
- Students bear a major portion of costs through forgone incomes.
- The costs of student maintenance are high and already beyond the reach of many families, especially when coupled with the costs of forgone student earnings (Marcucci and Johnstone 2007: 26-7).

Many of these arguments are of particular relevance to a country like South Africa, where there is an urgent need to address high levels of poverty, historically-generated inequality, and skills shortages, through mechanisms which can facilitate greater social justice and accelerate economic growth and nation-building.

Opposing these arguments, however, which are increasingly prominent as a result of the current global financial climate, are views which question either the feasibility or the desirability of providing free higher education to all students. These views often note that research has established that, ironically when university education is made universally free (i.e., provided to all students, not just to those from low-income families), the wealthy tend to benefit more than do the poor (Biffl and Isaac 2002: 440; Docampo 2007: 370; DoE 1997: para 4.7; European Commission 2010: 23-4; HESA submission to NSFAS Review Committee, in DHET 2010: 60-61; Marcucci and Johnstone 2007: 27; O'Hara and Johnstone 2009: vii; Oketch 2003: 89; Pillay 2008: 135).

On the one hand, "[f]ree university education means that workers on low to average wages substantially subsidize the university education of the children of higher income families, whom as a result of their university education will, on average, receive much higher incomes. Therefore, 'free' university education involves a substantial transfer of money from low income to high income households" (Li 2011: 467). On the other hand, the probability of going to university is higher for children from middle class families. The result, however, is contingent on the taxation and other policies in the country in question, as a graduate tax, for instance, could offset some of these effects.

Other arguments which favour a system of only partially state-subsidised higher education (i.e., where entities other than the state, especially the immediate beneficiaries and/or their families, take on some of the costs) include:

- Private returns to higher education (higher lifetime earnings, enhanced status, etc.) are substantial (and probably extend as well to parents of students).
- Income tax is paid by many more non-graduates than by graduates, so free higher education is horizontally inequitable.
- Students and families who pay tuition fees, and the state which still subsidises them, expect accountability and value for money, compelling universities to become more consumer orientated and efficient.
- The increasing costs of higher education, and increasing competition from other public needs, such as health care and primary education, reduce the likelihood of increased tax revenues to higher education.
- Unless public funding of higher education can be supplemented, the number of students might have to be restricted, or instructional quality might be negatively affected, and/or less financial support will be available for disadvantaged groups (Marcucci and Johnstone 2007: 27; Docampo 2007: 371; OECD 2008: 20).

In line with these latter views, 'cost-sharing' has been one of the most common responses to the increasing pressures of higher education cost and expansion. Cost-sharing effectively increases the costs of higher education for its immediate users or beneficiaries, especially individual students and their families, often at the same time as reducing government spending on higher education as a share of the total education budget in favour of increased spending on other public priorities (Marcucci et al 2008: 102; OECD 2008: 17; Wangenge-Ouma 2008: 219; World Bank 2010: 119). In a country like South Africa where, as the White Paper (DoE 1997: section 4.39) noted, cost-sharing is not a new phenomenon but has always been a feature of the higher education landscape, efforts to address the country's many pressing national development needs must always be balanced against the issue of affordability and the availability of public funds.

It must be borne in mind that the costs of higher education for its immediate users (students) are more than just the actual cost of the degree, diploma or certificate, i.e., the tuition fees. The costs may include a range of other possible fees, such as application, registration and examination fees, but above all there are the very real costs of living while studying: accommodation, food and travel costs, as well as everyday expenses (Eurostudent IV 2011: 145). A major part of higher education costs to students is in the form of forgone income, a fact that partially explains the appeal of distance education to many. Nevertheless, it is useful to pay closer attention to the range of tuition fee policies around the world (even while recognising that all such policies are specific to particular socio-economic and political contexts and cannot be simply applied to, let alone duplicated in, South Africa). This is because, in line with the international trend to redistribute the costs of a university education amongst governments, higher education institutions and individual students, whether or not, and how, tuition fees are charged helps to shed light on how the full costs of studying, and living while studying, might be better managed.

Tuition fee policies

A country's tuition fee policies are strongly related to its conception of parental financial responsibility for their children's higher education (Marcucci and Johnstone 2007: 30). Countries with up-front tuition fees (i.e., paid in advance of tuition), on the

one hand, tend to assume that "parents have a responsibility to cover some portion of their children's higher education costs and that they should pay according to their ability", with those families less able or unable to pay assisted through means-tested grants and government-subsidised loans. Countries which charge no tuition fees, on the other hand, or which defer these fees, often assume that "parents are not financially responsible for their children's higher education" and pay for all such costs on parents' behalf (albeit though higher taxation); these countries may also pass living costs directly onto students in the form of deferred loans to be recovered from graduates' later income, or give parents the option of supporting their children's lifestyles while studying (Marcucci and Johnstone 2007: 30-1; Marcucci and Usher 2011: 5-6).

Drawing on three large recent international surveys (Marcucci and Johnstone 2007; World Bank 2010; Marcucci and Usher 2011), it appears that, on the whole, more countries expect students and/or their families to contribute to the costs of higher education by paying some or all of their tuition fees, than countries in which tuition fees are fully subsidised by the government. Of over 50 countries worldwide surveyed in 2005 by Marcucci and Johnstone (2007: 34), a more or less equal number of countries charged an up-front tuition fee as did countries which charged no tuition fee at all. Of 54 African countries surveyed by the World Bank in 2009, at least 26 countries charged some type of tuition fee, most of them up-front, while another 14 charged no tuition fees (World Bank 2010: 59-63). A third survey, of 40 countries which together account for over 90% of global enrolments and 90% of global research production, found that, in 2010, about 23 charged tuition fees up-front while about ten charged no tuition fees (Marcucci and Usher 2011: 5).

Up-front tuition fees

On the basis of these three surveys, countries with up-front tuition fees include:
Austria, Belgium, Canada, Chile, China, Colombia, Côte d'Ivoire, Gambia, Hong Kong, India, Indonesia, Italy, Japan, Kenya, Liberia, Malaysia, Mexico, Mongolia, Mozambique, Namibia, Netherlands, Nigeria (state), Philippines, Portugal, Sierra Leone, Singapore, *South Africa*, South Korea, Spain, Switzerland, Taiwan, Tanzania, Thailand, Turkey, United States and Vietnam (Marcucci and Johnstone 2007: 34; Marcucci and Usher 2011: 5; World Bank 2010: 60-3).

The Netherlands, for example, is one of the few European countries which charges up-front tuition fees, and its (government-determined) tuition fees are comparatively high in comparison with most other European countries. However, these and other higher education costs are offset by a very well-developed student support system (European Commission 2010: 79). All students under the age of 30 are eligible for a basic grant and, for students from low income families, there is an additional means-tested supplementary grant; on top of these grants, all students can choose to take an income-contingent student loan. "All payments are made per month and the borrowing amount can be changed on a monthly basis through the students' personalized webpage", set up on the basis of their submitting their school leaving certificate, their passport and their and their parents' social security numbers. If a student does not graduate within ten years, the grants become low-interest loans to be repaid annually over 15 years after a grace period of two years. If during any month, however, monthly income falls below a certain threshold the instalment is forgiven,

implying that "students with low future incomes will not repay their entire debt" (Booij et al 2012: 35).

In India, all students pay up-front tuition fees at all universities, but substantially more at state-run universities than at central/federal-run universities. A student loan scheme developed at government request by the Indian Banks' Association in 2001 provides means-tested interest-bearing (at the repo rate) loans to meritorious students from low-income families applying for particular technical and professional programmes. Since 2009, loans of up to Rs7.5 lakh ($46 396) bear no interest until one year after graduation or six months after the student has begun a job; and since 2011 more than one family member may be eligible for a loan (Marcucci and Usher 2011: 29; Marcucci and Usher 2012: 34-5). China, like India, has been charging up-front tuition fees since 1997; but prior to this, from 1949 to 1985, higher education was completely funded by the state, and in the intervening period a dual-track system (see below) was in operation, where students who did not meet requirements for public funding could be charged tuition fees (Marcucci and Johnstone 2007: 36-7).

No tuition fees

Countries with no tuition fees include: Argentina, Brazil, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Congo (Republic), Denmark, Eritrea, Finland, France, Gabon, Germany, Greece, Guinea, Iran, Ireland, Luxembourg, Mali, Malta, Mauritania, Niger, Nigeria (federal), Norway, Saudi Arabia, Sudan, Sweden, Tanzania and Togo (Marcucci and Johnstone 2007: 34; Marcucci and Usher 2011: 5; World Bank 2010: 60-3).

In Sweden, no tuition fees are charged, and study grants and loans covering all higher education costs are available to all students. Loans have a maximum repayment period of 25 years, or the maximum age of 60 of the recipient, and the annual amount repayable generally amounts to 5% of the borrower's annual income, depending on the total amount borrowed, current interest rates and the length of the repayment period. In Denmark, almost all higher education costs are borne by the government, including tuition fees and living expenses. Direct grants to students cover two-thirds of living expenses, while student loans cover the remaining third (European Commission 2010: 73-4). The situation in Finland is similar to that in Denmark and Sweden in that it (and also the Czech Republic) has "no or low tuition fees and generous student support systems" (European Commission 2010: 79).

Deferred tuition fees

Globally, since most individual students cannot afford either to pay up-front tuition fees or to pay for the food, accommodation and other expenses that they incur while studying, the broad trend is towards income-contingent loans (Marcucci and Johnstone 2007: 32). Income-contingent loans permit current expenses to be postponed to the future. In these terms, some or all of the costs of study, but especially tuition fees, are deferred until such time as the graduate earns enough to begin repaying the loan. Countries with deferred tuition fees include: Australia, Botswana, England, Ethiopia, Lesotho, Namibia (in part), New Zealand, Rwanda (in part), Scotland, Swaziland and Wales (Marcucci and Johnstone 2007: 34; World Bank 2010: 60-3).

In Australia, the Higher Education Contribution Scheme (HECS) is an income-contingent loan system which allows students to choose whether to pay their tuition fees up front (at a 20% discount) or defer them until such time as they begin earning an income (in 2001, only 20% of full-time students chose to pay up-front). The government takes responsibility for both paying the students' tuition fees to the universities and recovering the loans from the students. There are three tiers of fees, with medicine, dentistry, veterinary science and law carrying the highest fees and arts, humanities and nursing the lowest (Li 2011: 467). Deferred fees – which do not accumulate interest, although they are inflation adjusted – are automatically repaid through the tax system; repayments will stop temporarily if taxable income falls below a specified threshold, to restart when income rises again. The HECS has recently been complemented with a subsidized income-contingent loan programme (FEE-HELP) which makes it possible for full fee-paying (i.e., non-subsidised) students to also choose to defer payment of their tuition fees in a similar manner (European Commission 2010: 24-5; Li 2011: 467; Marcucci and Johnstone 2007: 31).

The problem of debt aversion (the idea that incurring debt, even if deferred, may deter some students, especially those from poor backgrounds, from attending university in the first place) does not appear to be a factor with the HECS (Biffl and Isaac 2002: 446), and increases in tuition fees have not reduced enrolments by students from lower socio-economic classes (Marcucci and Johnstone 2007: 37). In addition, even though the HECS' 20% discount on up-front payments might be thought to favour wealthier students or families, research has found "no change in the proportion of low SES [socio-economic status] students … enrolled at university" (Li 2011: 468). It may legitimately be asked, however, "whether the threshold for the commencement of payment is too low [AU$35 000 in 2005]; whether the rate of repayment is too high [between 4% and 8% of income in 2005]; whether fee differentiation on the basis of expected incomes is appropriate; and whether the persistence of shortage of HE [higher education] places, estimated at about 7% …, is justified, and whether financial support for needy students is adequate" (Biffl and Isaac 2002: 448). These issues are important, because, for instance, the lower the threshold, the sooner repayment begins (which will be manageable if the graduate's salary continues to increase, but could become onerous if salary remains just above the threshold for an extended period of time); while a high rate of repayment might mean the graduate has little money left for other expenses.

A number of other countries have since followed Australia's lead with their own income-contingent loan schemes, including New Zealand, where students can defer the costs of both tuition and living expenses (Li 2011: 469), and Ghana, which also recovers deferred student loans through the tax system (Oketch 2003: 98). The most recent example is the United Kingdom, where up-front tuition fees (supported by means-tested income-contingent loans) were abolished in 2006 and replaced with an entirely income-contingent repayment obligation through the tax system (Marcucci and Johnstone 2007: 32; Li 2011: 469); as of September 2012, UK students begin repaying their student loans only once their annual income exceeds £21 000 (Directgov 2012).

While until recently most African countries provided grants or deferred loans to cover students' accommodation and food costs otherwise borne by the students' families,

"[t]rue deferred fees – wherein the students, regardless of parental wealth, are considered ultimately responsible for a share of higher education costs – exist in Africa, in only Botswana, Ethiopia, and Lesotho. In these three countries, all students who have been admitted to university may defer their tuition fees and repay them as a student loan following graduation or departure from the university" (World Bank 2010: 65-6).

Since 1995 Botswana has operated a grant-loan scheme administered by the Department of Student Placement and Welfare. Tuition fees and maintenance costs are deferred, interest free, with a three month grace period after obtaining employment. Depending on whether the subjects they studied are scarce and prioritised, in shortage because previously unattractive, or in simple demand, respectively, students either: work-back their entire debt in government employ, work-back and repay 50% of their maintenance costs, or work-back and repay 50% of tuition fees and 100% of maintenance costs. Up to 2009, over P4 billion has been loaned, but only P20 million recovered (Pillay 2008: 146-7; World Bank 2010: 83, 90; SASCO 2008: 9). The majority (54% in 2007) of supported students studied 'category 2' subjects such as economics, statistics, town planning, chemistry and agricultural science, rather than priority 'category 1' subjects like medicine, dentistry, engineering, professional accounting, actuarial studies and certain science and technology areas (studied by only 12% of supported students) (Pillay 2008: 147-8).

In Lesotho, student financial assistance takes the form of loans to be repaid through successful completion and subsequent employment in the Lesotho civil service; but no loans have been recovered thus far, essentially making them work-back grants (World Bank 2010: 79, 90; SASCO 2008: 10; Pillay 2008: 129, 154).

A variation on the trend towards income-contingent loans is the 'graduate tax', in terms of which subsidized students become liable, usually after graduation, to "an income surtax, generally for the rest of his or her earning lifetime" (Johnstone, cited in Marcucci and Johnstone 2007: 32). No country is said to have introduced a formal graduate tax, but the student financial aid schemes in Scotland and Ethiopia come close. Scotland's Graduate Endowment Scheme requires that both Scottish and EU students pay a fixed amount (£2 154 per year of study) on completion of their degree, either as a lump sum or income contingently once they earn £10 000 or more (Marcucci and Johnstone 2007: 31). Ethiopia in 2003 introduced cost-sharing into its previously fully government subsidised higher education, in the form of "a graduate tax designed to recoup the government's full costs for student meals, accommodation and health services, plus 15% of estimated tuition costs", to be paid at "a flat rate of 10% regardless of income category until the students' agreed upon share is fully recovered" (Marcucci and Johnstone 2007: 32-3). According to a more recent World Bank publication, however, this graduate tax is better understood as a deferred "income-contingent repayment of at least 10% of monthly income" (World Bank 2010: 84). Simple interest is calculated on the total amount owed; there is a grace period of one year after graduation; and it can be paid up-front as a lump sum for a 5% discount, or in the first year after graduation for a 3% discount (World Bank 2010: 84; Marcucci and Johnstone 2007: 32-3).

Dual-track fee policies

Whether or not tuition fees are charged, some countries also operate dual-track fee policies, in terms of which the cost of higher education for some students is more than for others, or where some students are charged more than others in general or to enrol in particular programmes, attend specific (usually elite) universities, or take evening classes. Countries with such dual-track tuition policies include Angola, Australia, Benin, Burkina Faso, Denmark, Ethiopia, Egypt, Ghana, Hungary, Kenya, Madagascar, Malawi, Mauritius, Netherlands, Poland, Romania, Russia, Rwanda, Senegal, Sweden, Tanzania (until recently), Uganda, Vietnam, Zambia and Zimbabwe (Marcucci and Johnstone 2007: 34; Marcucci and Usher 2011: 6; World Bank 2010: 60-3). In countries where there is only a fixed or limited number of places available for state-funded students, non-state-funded or private students may be charged higher fees (which may accrue directly to universities or be used by the government to subsidise state-funded students). Alternatively, students with higher school leaving results, or with high school passes in scarce subjects, may pay less than students without such results. Recently in the EU, several countries have begun to charge higher fees from students from other EU countries or from outside the EU than they do for their own citizens. Aside from these dual-track fee policies, some countries or universities may impose fees on students who take too long to complete their studies; this is the case now in Austria, the Netherlands and some German states, and was introduced at the University of Heidelberg in 1998 (Heller and Rogers 2006: 98; Marcucci and Johnstone 2007; Marcucci and Usher 2012).

The case of Kenya demonstrates some of the pros and cons of dual-track tuition policies. Following independence, Kenya (like Uganda and Tanzania) covered all of its students' higher education costs, including tuition fees, accommodation, food and spending money (Marcucci et al 2008: 104; Wangenge-Ouma 2008: 220-1), in exchange for their working in the public sector for three years following graduation (Marcucci and Johnstone 2007: 34). By the early 1990s, however, rapidly increasing enrolments coupled with a slowing economy and the imposition of structural adjustment programmes brought the era of free university education in Kenya to an end (Wangenge-Ouma 2008: 222). Declining government subsidies encouraged universities to generate additional income, particularly through what are known as Module II programmes, or programmes for privately sponsored full tuition-paying students which run parallel to Module I programmes in which the quota of government-subsidised students pay only 20% of tuition fees (Marcucci and Johnstone 2007: 34-5; Wangenge-Ouma 2008: 224-5). Government-subsidised students may also be eligible for "a means-tested … loan that at best (and only for the poorest students) covers up to three fourths of educational and living costs for the year" (Marcucci et al 2008: 107).

While these dual-track tuition policies undoubtedly increased enrolments in these East African countries and made it possible for their universities not only to remain viable but to expand their capacity, they "did little to offer opportunities for the poor" (Marcucci et al 2008: 101). The overall socioeconomic background of students hardly changed, mainly because student eligibility for the limited government subsidy is determined by highly competitive examination which tends to favour the social capital-endowed children of the middle classes (Marcucci et al 2008: 103, 114). This was exacerbated by difficulties in verifying deserving students, in part due to the absence (until recently) of means-tested loans available to privately sponsored students (Oketch 2003: 99; Marcucci et al 2008: 114-5; Pillay 2008: 129). Moreover,

the increased university income from the dual-track programmes has tended to be used for staff salaries and institutional development rather than student financial aid (Marcucci et al 2008: 107, 110, 113). One consequence of the dual-track policy in Kenya has been tensions between the (mostly well-off) Module I and (even better off) Module II students, with the former (government-sponsored) students viewing the latter (self-sponsored students) as "unqualified and allowed to study only because they can afford to pay" (Marcucci et al 2008: 110).

Income-contingent loans

Given the global trend towards expecting individual students or their families to pay at least some if not all of their tuition and other fees, and that an increasingly common feature within this trend is the use of income-contingent student loans, it is worth reflecting a little more deeply on the nature and implications of such loan systems. In these systems, "[t]he State bears most of the uncertainty of the investment in the sense that reimbursement of the loan is deferred until the beneficiary completes his or her studies and is employed and … reimbursement is a function of earnings so there is an insurance against the inability to repay the loan. There are, however, issues of implementation of income-contingent loans, in particular related to tax evasion in countries with a large informal sector and a limited capacity to collect income tax, and also linked to increasing labour mobility" (European Commission 2010: 24).

Parameters of student loans

When considering the option of providing financial aid to students in the form of loans (whether income-contingent or not), a number of issues need to be addressed:

- Who is eligible for a student loan?
- How are eligible students informed of their eligibility, and of the costs?
- Does the loan cover all costs?
- Is eligibility means-tested?
- Is means-testing sufficient to ensure only the deserving benefit?
- What is the loan repayment period?
- Is there a grace period?
- Are there loan deferment options?
- Are there loan forbearance/forgiveness options?
- Are loans income-contingent or service-linked?
- Is interest charged, from when, and at what rate?
- Is there loan administration capacity?
- What are the loan administration costs?
- Is the loan recoverable, and how? (Oketch 2003: 98-100; World Bank 2010: 82, 90-94).

Financial sustainability

Finally, it is also important to consider ways in which the financial sustainability of any student loan scheme can be enhanced. The World Bank argues that "[s]tudent loans will always be expensive, and a loan scheme should not be launched in the mistaken notion that it will become self-funded (that is, with repayments sufficient to

finance all new lending)" (World Bank 2010: 142-3). Nevertheless, if the overall costs of a loan scheme can be even slightly reduced, that in turn can increase the availability of funds to assist more poor students. Common issues with regard to financial sustainability, here referring directly to the African context but in principle applicable to most developing countries, include:

1. Inadequate means testing allows students to borrow who have no real financial need.
2. Interest rates are set far too low (generally by politicians fearful of student resistance to cost sharing, which is often associated with student loans).
3. Grace periods and repayment periods are unnecessarily long and exacerbate the losses from the excessive subsidization of interest.
4. Loans are disbursed in such a way that students are frequently unaware that they are incurring a real repayment obligation.
5. Many of the student loan programs in Africa forgive all or part of the loan under certain conditions.
6. Legal systems make debt collection expensive and frequently unsuccessful.
7. The timing and size of a loan can have negative implications for its repayment.
8. The adequacy of student loans to cover all costs is an important factor in their recovery.
9. Underdeveloped administrative systems and inadequate staffing do not allow the system to recover significant repayment.
10. Record keeping cannot adequately track borrowers.
11. Economies provide too few jobs for the number of college and university graduates (World Bank 2010: 90-94; see also Oketch 2003: 98-100).

As noted above, means testing is a common way of determining who deserves financial aid, but it can also be complex, difficult and costly. It follows that, while retaining and improving a system of means testing, it is also helpful to take into account other indicators of financial need. Hence, some student financial aid systems (including South Africa's NSFAS) "incorporate, in addition to statements of current earnings and documentation of income tax, various categorical indicators that are difficult to disguise and relatively easy and inexpensive to monitor, such as occupation, neighborhood, or type of secondary school in which the children are enrolled, in addition to assets such as a home, livestock, or a car" (World Bank 2010: 139-140).

Critical considerations

Bearing in mind the international trends indicated above, particularly those mechanisms aimed at increasing access to university on the part of poor students, further consideration of and research in the following areas will be useful:

- The feasibility of extending service-linked or work-back features of student loans, such as those currently available to students studying to become teachers and social workers, to a wider range of qualifications or economic sectors.

- The utility, cost and implications of immediately registering and assigning a tax number to all incoming students, to facilitate potential future income-contingent loan recovery.

- The extent to which the South African public believes that parents have a responsibility to contribute financially to their children's university education.

- The extent to which the South African public is willing to contemplate higher taxation, and/or more sharply progressive taxation, whether in general or for a specified time or purpose, in order to move closer to the ideal of free university education for the poor, and possibly even free university education for all.

- The implications of varying the current parameters on NSFAS student loans, including eligibility, means testing, repayment and grace periods, deferment and forbearance options, and whether, how and when interest is charged.

4. Assessing the Current System of Financial Aid

In 1999 the National Student Financial Aid Scheme (NSFAS) was established in terms of the NSFAS Act, no.56 of 1999. The Act is one of the most progressive and enabling pieces of student financial aid legislation in the world. If adequately resourced and properly administered, NSFAS has the potential not only to be a model scheme, but also to be the channel through which the commitment to provide free education up to undergraduate level to poor South African students can be fairly and effectively realised in pursuit of both the public and the private good. This section examines the main features of NSFAS, and considers how it can be altered or improved to accommodate the provision of free university education for the poor.

Background

NSFAS provides student financial aid in the form of bursaries and loans to students at all 23 public universities and the 50 public Further Education and Training (FET) colleges. It's budget has grown from R441 million in 1999 to R6,2 billion in 2011. In 2011, NSFAS funded 370 173 university and FET college students, and expects to be able to assist 445 000 such students in 2012.

The NSFAS Act has a number of features which place South African students in an advantageous position compared to students in many other countries:

- All loans are income-contingent, meaning that students are required to repay only when they have stopped studying, either by graduating or dropping out, and are earning an annual income above a threshold set in regulations to the Act. At present the threshold is R30 000 per year. In comparison, repayments on student loans from banks and specialist student finance credit providers like Eduloan begin the month following the granting of the credit.

- Interest rates are set at 80% of the Repurchase (Repo) Rate, the rate at which the SA Reserve Bank lends to commercial banks. In 2011, this translated into an effective rate of 4,4%, which was much lower than the commercial bank rate on students loans and very much lower than the rate charged by specialist student loan credit providers, which can charge any amount up to prime plus 8%.

- Interest starts to be charged only 12 months after a student stops studying.

- Academic success is rewarded by a significant incentive in the form of a conversion of up to 40% of a student loan to a bursary on an annual basis.

Sources of income

The main source of NSFAS income is the national state budget. NSFAS is one of four public entities in the higher education sector funded through the budget that the Department of Higher Education and Training (DHET) is allocated by Parliament. Additional funds are provided by other national government departments, which fund bursaries in areas of scarce skills in the economy. These include the Department of

Basic Education for teacher education and the Department of Social Development for the education of social workers. Such bursaries usually contain a work-back condition, requiring students to work for the government department or one of its agencies on graduation. Other, smaller amounts of funding are derived from provincial governments, professional associations and a bank bursary scheme.

The Allocations Formula

NSFAS uses a formula to allocate funds to universities, which in turn invite applications for financial aid from eligible, registered students. The allocations formula takes into account the number of poor students and the full cost of study as determined by the university.

Race is used as a proxy for poor students, particularly blacks, when institutional allocations are made. Black is defined broadly to include all students classified as 'African', 'Coloured' and 'Indian', with 'Africans' weighted the heaviest as 3, 'Coloureds' weighted as 2 and 'Indians' as 1. The use of race as a proxy for poverty leads to unequal institutional allocations in that the socio-economic class of students who attend the historically advantaged institutions is different from those who attend the historically disadvantaged institutions. Because the NSFAS allocations formula is based on the number of poor (using black as a proxy) students, the historically advantaged institutions end up getting institutional allocations that are far higher than the actual number of poor students in their enrolment justifies. As the Ministerial Report put it, the use of race as a proxy for socio-economic need results in "a historically advantaged institution (HAI) with affluent black students who do not need financial aid [getting] the same NSFAS allocation as a historically disadvantaged institution (HDI) with poor black students who all qualify for financial aid" (DHET 2010: xiv). This enables already advantaged universities to allocate higher amounts of financial aid to individual 'poor' students as defined by the respective institutions. The allocation to historically advantaged institutions is further favoured by their generally higher fees, since the second element on which NSFAS bases its allocation is the full cost of study (FCS) as determined by the university. In 2012, the highest fees are at the University of Cape Town, where the average FCS is R82 427; in comparison, the average FCS at the University of Zululand is R40 133.

The Ministerial Report recommended that the Allocations Formula should be scrapped as it was outdated, inappropriate and unfairly advantaged the already historically advantaged institutions (DHET 2010: xiv). This recommendation has been built into the new NSFAS model which will be implemented from 2013.

Eligibility criteria

The NSFAS Act sets two eligibility criteria for access to student financial aid: academic potential and financial need. A serious weakness in the way the scheme is run is that NSFAS has no direct contact with the students to whom it lends billions of rands every year. It plays no role in assessing academic potential and accepts registration as proof of this. It outsources its application process to the financial aid offices (FAOs) which act as agents of NSFAS on university and college campuses, but it has no control over these offices or their employees.

This system is fragmented even though it is ultimately coordinated through NSFAS. Different government departments or sectors, e.g. Social Development, Health or Basic Education, recruit students for a scarce skill and offer them financial aid for their own sector, leading to fragmentation in terms of not only who is selected for the bursary/loan but what amount is offered. The amount may cover certain needs not fully covered by the general category of NSFAS loans, which comes from the funds provided by DHET.

Further fragmentation has occurred since the completion of the Ministerial review (DHET 2010), with final year students offered conversion of their loans to full bursaries so long as they graduate. The amount offered is the full cost of study, which is so high that the other NSFAS general students are protesting because some of them cannot even get food.

The means test and topslicing

NSFAS prepares a means test each year which it distributes to the FAOs. Some universities and colleges apply the means test, but others do not, and even those which do, exercise institutional discretion in how they apply it. For example, institutions set their own income eligibility thresholds: what is considered 'poor' by one university may be considered well-off by another. The annual family income threshold for NSFAS students at the University of Cape Town is R250 000, at Rhodes University it is R180 000, while at the University of Limpopo and other historically disadvantaged institutions it is R122 000. There is thus no uniformity in the application of the means test across the sector.

Apart from arguing that the current structure of the means test and the way it is applied by institutions is inappropriate and inequitable, the Ministerial Committee expressed concern about how the means test excludes the 'missing middle', or "children from families who earn above the R122 000 per annum qualification threshold, but who still cannot afford to attend university" (DHET 2010: xv).

In addition, historically disadvantaged institutions typically have large numbers of students from poor families and all have many more students who qualify for NSFAS loans than the funds allocated to them by NSFAS can support. This funding shortfall leads institutions to practice what has become known as 'topslicing', where the means test results are disregarded and the available NSFAS funds are shared out between all eligible students (DHET 2010: xiv).

Though topslicing is seen by stakeholders as a more equitable way of distributing inadequate funds, it leads to severe, if unintended, consequences: "topslicing increases the number of entrants into HEIs than would otherwise be the case [but] has major negative consequences for both students and institutions [in the form of debt]" (DHET 2010: xv). Students receive enough funding to get into university, but not enough to succeed at their studies. Two students may each need R30 000 to cover their FCS, but each will receive only R15 000, providing only enough to pay for tuition fees, but not enough for residence fees, food, books and travel. Many either drop out or fail, further burdened by student debt which they have little hope of paying off. Historically disadvantaged institutions have large amounts of student debt on their books: for

example, at the beginning of 2012, Walter Sisulu University had student debt of R270 million.

The Ministerial Review of NSFAS estimated that NSFAS would need at least double its budget to meet even current demand (DHET 2010: 16). If participation rates were to increase, significantly more funds would be required. Unfortunately, government funding of public universities has been on the decline over the past decade: according to the Financial and Fiscal Commission, drawing on HEMIS and DHET data, the share of government grants in the total income of the public university system fell from 49% in 2000 to 40% in 2010, with both tuition fees and private or third-stream university income increasing to compensate for this decline. Expressed in terms of the number of enrolled students, government funding per full-time equivalent student fell by 1.1% per year in real terms between 2000 and 2010, while over the same time period, tuition fees per full-time equivalent student increased by 2.5% per year in real terms (FFC 2012: 53-4). It follows that, unless government commits to increase spending on higher education in general, bringing it into line with funding norms in other middle income countries, and also to increase funding for student financial aid in particular, enrolment targets may not be met and participation rates will be unlikely to increase.

As well as calling for increased government funding, NSFAS is exploring other ways to raise finance for higher and further education. For example, research has been commissioned on the possibility of pension funds investing in the financing of university education.

Recovery of loans

The NSFAS Act requires NSFAS to recover loans and to replenish the pool of funds with these recovered funds. NSFAS has a very poor track record of loan recoveries, exacerbated by the fact that the only communication NSFAS initiates with students while they are studying is through account statements sent by post. NSFAS only starts to communicate directly with students after they have stopped studying and have to repay their loans. This system is inefficient and contributes to NSFAS recovering only a small percentage of the money it is owed. In turn, the low recovery rate disadvantages the next generation of students, some of whose studies could be funded from recovered loans. In 2011, the value of the NSFAS loan book was R5,2 billion.

Critical considerations

NSFAS faces several major challenges. First, it receives insufficient funds from government to meet the growing demand for financial aid by poor students. Second, it has been badly governed and managed since its inception. Third, the very high drop-out rate attests to the fact that NSFAS has not addressed the key issue of ensuring that access is accompanied by success.

It follows that any effort to provide free university education for the poor must:

- clearly identify which elements of a complete university education will be 'free' for the poor. Ideally, such a university education should be free with

regard to the full cost of study, including tuition and registration fees, accommodation, food, books and travel;

- clearly define the poor, utilizing socio-economic rather than racial criteria;
- seek to avoid payment at the point of service, so that poor students are freed from worry and can concentrate on their studies;
- recognize and address the fact that student success at university is not just related to funds but is influenced by a range of factors, including their socio-cultural background, the quality of their basic education, and their ability to cope culturally, linguistically and academically in a higher education environment;
- address the fragmented financial aid system and consolidate all funds into one pot, so as to avoid inequalities in funding arising from allocations by different government departments;
- streamline the administration of financial aid, so that funds follow the student rather than being allocated to an institution; and
- consider how students will pay back what has been invested in them. This may be financially, on the basis of future income, and/or through community or public service. Even those who drop out may have to be considered for this if they are to get out of the cycle of poverty.

5. Social Dimensions of Student Financial Need

It is widely acknowledged that student financial aid plays a critical role in expanding access, increasing the enrolment of economically disadvantaged students and narrowing the access and achievement gaps between social groups. Generally, student aid is targeted at those who, for various reasons, are considered unable to afford the costs of a university education.

Thanks in large part to funding-related interventions, and especially the National Student Financial Aid Scheme (NSFAS), increasing numbers of students from previously marginalised communities in South Africa have been gaining access to higher education. However, access patterns still reflect significant inter-group disparities. Moreover, few job opportunities combined with poor schooling are every year swelling the numbers of youth who are not in education, employment or training (NEET): in 2007 about 600 000 people in the 18-24 age range and with a school-leaving certificate fell into the NEET category, and a further 98 335 had university exemptions (Cloete 2009: 40). It is the latter in particular who should be, but are not, studying at a university.

Other than historical factors and the inefficiencies of the school system, the present higher education funding architecture is a key reason often identified as an obstacle to an expedited expansion of higher education access. The higher education funding regime is currently characterised by declining real per student funding, for which universities have sought to compensate by, *inter alia*, regularly increasing tuition fees. This in turn has put pressure on NSFAS which, unfortunately, has not been able to adequately support all qualified and deserving students (Wangenge-Ouma 2012).

Escalating college costs may also not be the main reason why NSFAS is presently unable to meet the demand for student financial aid. It is a known fact that whenever a higher educational system is expanding from an elite to a more representative student population, as is the case in South Africa, the new students (that is, those who would not in the recent past have been able to gain admission, but who are now deemed qualified and wish to continue their education) will be, at least on average, more financially needy than students in the past who tended to come disproportionately from the more socio-economically elite families (Aduol et al 2010). Consequently, the need for financial assistance will increase at an even faster rate than the rate of increase in student numbers (Aduol et al 2010). This is exactly what has happened in South Africa. Unfortunately, because NSFAS is currently unable to provide sufficient student loan funds to meet fully the needs of all qualified and deserving students, equitable access to university education cannot be assured.

Overall, the present higher education funding architecture does not adequately mitigate the financial constraints experienced mainly by low income families. The challenge for higher education institutions, therefore, is to deliver on access in a context of great disparities in family and personal income, and where large numbers of students from poor families have yet to participate in higher education as first generation students (HESA 2008).

Characterising the poor

Since the collapse of apartheid, South Africa has made huge progress in transforming several areas of national life, from macro-economic reform to pro-poor policies in housing, healthcare, social security and education. However, notwithstanding these advances, the country remains one of the most unequal in the world, with rich and poor separated by a two-tiered educational system, a dual health system and, indeed, a first and second economy. In a nutshell, inequality in South Africa is characterised by a small minority with access to all the privileges and opportunities of modern life and a considerable majority that remains mired in desperate poverty. Poverty and inequality are therefore among the biggest challenges facing post-apartheid South Africa.

There is no single, universally accepted approach to defining poverty or identifying the poor. The most common tendency is to define poverty in terms of degrees of poverty, viz. absolute (extreme) poverty, moderate poverty and relative poverty. *Absolute poverty* implies that households are unable to meet the basic needs for survival. They are chronically hungry, unable to access health care, safe drinking water and sanitation, cannot afford education for some or all children, and perhaps lack rudimentary shelter, among other basic needs (World Summit for Social Development 1995). *Moderate poverty* refers to conditions of life in which basic needs are met, but just barely. *Relative poverty* is generally perceived to be a household income level below a given proportion of average national income (Triegaardt 2006: 2). All the various dimensions of poverty suggest a degree of incapacity to function as a fully participating member of society and the denial of opportunities and choices most basic to human development such as food, housing, education, safety and health provision (Noble et al 2004). This essentially means that poverty excludes one from the community in which one lives.

South Africa does not yet have an official singular definition of the poor (Gumede 2008). Government departments use different definitions of the poor. For instance, the formula used to determine intergovernmental fiscal allocations classifies households earning less than a certain amount per month as poor, whereas service delivery departments use various other thresholds for targeting the poor or the indigent (Gumede 2008: 7). Even though the country does not have a singular definition of the poor, there is a general acknowledgement of the life conditions that characterise the poor. For instance, Statistics South Africa defines poverty as the denial of opportunities and choices most basic to human development to lead a long, healthy, creative life, and enjoy a decent standard of living, freedom, dignity, self-esteem, and respect from others. Together with National Treasury, it has proposed "that the official poverty line should be constructed as *a measure of the money income required to attain a basic minimal standard of living* – enough to purchase a nutritionally adequate food supply and to provide for other essential requirements" (StatsSA/National Treasury 2007: 3, emphasis in the original).

A meta-analysis reported by Frye (2005: 5) identified the following key manifestations of poverty in South Africa:

- Poor quality food and malnourished children.
- Overcrowded and poorly maintained homes.
- Use of the most basic forms of energy.

- Nobody in the family is employed.
- Families are split, with fathers not present, and children living elsewhere.

Given the country's long history of institutionalised inequality, poverty in South Africa has racial, gender, spatial and age dimensions, being concentrated amongst black Africans, especially women and youth, and in rural areas (Triegaardt 2006). Thus, while poverty has often been measured exclusively in monetary terms, as reflected in various poverty datum lines, its conceptualisation and measurement must also encompass the ability of individuals and households to meet their basic needs effectively and, further, to engage on an equal footing in their own societies (Oosthuizen 2007).

Characterising low-income students

As with the poor, there are various ways in which low-income or poor students can be characterised, viz. by using aggregated statistical indicators, mainly money-metric measures, or qualitatively, by mapping the various constitutive aspects of their socio-economic needs.

Poor students, just like other poor people in South Africa, generally exhibit the following key characteristics:

- Many of them tend to be first generation university students in their families (HESA 2008). Their families are often without stable sources of income and their parents are unemployed.
- They attended mainly under-resourced, poorly performing schools (quintile 1-3 schools).
- They come mainly from rural areas and from poor urban enclaves with limited access to basic facilities such as decent housing.

These characteristics not only have implications for the various needs these students have, but also for the levels of funding support required. Being a first generation university student from a poor family has various implications. For instance, the student's bursary may not be limited to providing for the student's scholastic needs, but is in fact an 'earning' that is also used to address the immediate existential needs of the student's family. The end result is that the student often has little left to address her own needs, which partly explains the phenomenon of bursary holders going hungry, and being unable to meet other needs for which the bursary was intended.

Attending poor performing schools effectively means that most low income students are underprepared for university education. Although important initiatives have been established by universities to attempt to mitigate student under-preparedness, the failure rate is still unacceptably high. For low income students, failure has several implications, among them, loss of NSFAS funding support. Continued NSFAS funding is contingent upon maintaining sound academic performance – passing 60% of the number of registered subjects. Considering that NSFAS support is, in the first instance, often inadequate and yet the only available form of financial support for many students, its total withdrawal kicks in a vicious cycle, which often leads to high drop-out.

Coming from rural areas or from urban fringes often lacking basic transport and communication amenities is another challenge with obvious funding implications, considering that most universities are located in urban areas and have limited on-campus accommodation facilities (only 20% of all full time contact students can currently be accommodated in university residences – DHET 2011c: xiii). Without family networks in urban areas, the only other option available to these students is off campus accommodation, which is often more expensive than on campus accommodation and in some cases, of poor quality. The expenses of commuting to and from the university make off campus accommodation even more costly.

Strictly speaking, students' living or maintenance costs may not be regarded as a true cost of higher education since, unlike tuition fees, for example, most such expenses must be borne anyway. But "to students and parents having to meet the costs of food and lodging [among other costs], during university attendance, such expenses are virtually indistinguishable from the costs associated with tuition and other fees" (Johnstone and Marcucci 2010: 2). Therefore, in the South African case, achieving equity in access to and success in higher education requires not only affordable tuition fees, but also that attention is paid to the existential challenges facing poor students.

Critical considerations

- Considering South Africa's historical, social and economic context vis-à-vis the desired realisation of equity of access and success, social justice, and the need to expedite human capital formation, support for low income students should reflect the actual or 'true cost' of higher education access and participation. It should sufficiently cover all costs related to tuition, registration, travel, meals, books and accommodation.

- Criteria for means testing should be revised to reflect an expanded understanding of financial need.

- The current practice of excluding poor performing students from subsequent NSFAS support, even if well-intentioned, should be re-thought. The current practice does not acknowledge the convergence of disadvantage that confronts low income students in particular. Having attended poor performing schools, they are already underprepared for university education; by denying them renewed NSFAS support because of poor academic performance – without providing them with the academic support to overcome such obstacles – is to recycle them back into poverty from which their student debt will never let them escape.

6. Improving Student Success

Supporting poor students to access higher education is a very important intervention in the system, and increased levels and improved targeting of student financial aid (which must go beyond fees to cover the full cost of study) will, in themselves, go some way to improving students' chances of success. On its own, however, more and better directed funding is inadequate to ensure student success at university. In addition, a too-narrow focus on student funding will not sufficiently build public higher education provision. This section considers various complementary conditions to the provision of free university education for the poor which will need to be put in place. Some of these are within the remit of individual institutions, and/or the Department of Higher Education and Training, and some are about social and economic policy more broadly. Some may be achievable in the short term, while others may be long term aspirations for the country as a whole.

Individual and institutional issues

It is well-established and documented that one of the biggest problems in our higher education system is the high dropout rate and the correspondingly poor graduation rate: many students who enrol do not complete, and many others take much longer to complete than expected.

> In 2005 the Department of Education reported that of the 120 000 students who enrolled in higher education in 2000, 36 000 (30%) dropped out in their first year of study. A further 24 000 (20%) dropped out during their second and third years. Of the remaining 60 000, 22% graduated within the specified three years duration for a generic Bachelors degree (Letseka and Maile 2008: 5).

Among NSFAS-funded students who were no longer studying, the Ministerial Committee Report found that 72% had dropped out or otherwise not completed their studies (DHET 2010: xiv). A recent investigation emphasised that "a complex combination of factors – financial, academic and sociocultural", affect disadvantaged undergraduate students' access to and successful completion of higher education studies, noting too that student unpreparedness for university education goes hand in hand with university unpreparedness for the kinds of students they enrol (Jones et al 2008: 5-6).

Leaving aside for the moment the financial and sociocultural factors, the academic factors limiting student success at university include poor academic and social preparation for tertiary education while at school (from simple reading, writing and numerical skills through career guidance to time management skills and capacity for independent study), inadequate academic support at university (from inadequate orientation programmes through poor course choices to underfunded, stigmatised, poorly attended and ineffective academic support, mentoring and peer-support programmes), receiving tuition in a second or third language, and being first generation students from families which themselves lack the social and educational capital (books and information technology, as well as parents' low levels of education) which promotes success at university (Jones et al 2008: 8-11).

While all of these factors need to be taken into account (and all have financial implications), a number of them can be addressed simultaneously by focusing on problems of contact time and class size. To start with, student success rates can be improved by supporting institutions and their staff to increase the quantity and quality of contact time between lecturers and students, for purposes of both teaching and learning. Many students, particularly at first-year level, require substantial additional help, beyond what universities are able to offer with their current resources. Students need time to absorb complex subject matter, and develop the identity of a scholar. In particular, students need considerable help with written work, in order to master academic writing in what is frequently a second or third language. Staff, too, need more time and assistance to prepare and deliver quality instruction to increasing numbers of students, and also to provide timeous and meaningful feedback on assessments. Unfortunately, contact and other forms of time needed for quality teaching and learning have been substantially eroded in our universities. This erosion relates partly to pressure on institutions to increase graduation rates, partly to funding mechanisms, partly to modularization (which has this effect in some instances), and partly to a deliberate reduction in scheduled contact times in some institutions.

The erosion of contact time relates, moreover, to the increasing prevalence of large classes at all universities. Student success and meaningful interaction between students and lecturers is strongly influenced by class size, and class numbers have grown considerably in the past few years, especially but not only at first year level. Not only are students packed into lecture theatres and other venues, where they may not all be able to see, hear or participate properly, but the sheer number of students makes meaningful teaching and effective levels of feedback and support extremely difficult and very time consuming. Further, it is impossible for lecturers to engage meaningfully with huge groups of students, or pitch their lectures in ways that will enable epistemic access to all students. If universities are to provide the necessary support for all students, and particularly disadvantaged students, the issue of class size (and the wider and more encompassing issue of lecturer-student ratios) needs to be addressed.

Large classes are to some extent the result of years of underfunding of the university system, although it could also be said to be a necessary policy choice of institutions that have to cross-subsidise 'expensive' disciplines. Be that as it may, if one seriously wishes to support students from disadvantaged backgrounds to succeed in higher education, increased numbers of sufficiently qualified staff will be required to reduce class sizes. This kind of intervention may be complemented by solutions which rely on technology (whether in the form of in-class audio and visual feeds, or through on-line learning, or by distance education) in order to increase access, but in all cases an increase in actual personnel will be needed. It may also be necessary to encourage institutions to ring-fence funds specifically for certain fields, and especially for first-year classes, for it is here where student vulnerability (due to underpreparedness) is highest.

It follows from this, too, that lecturers need to be appropriately remunerated, supported and given professional autonomy in their work, and enabled to engage with colleagues across institutions and in other countries in a regular and coherent manner (through, for example, conference funding). In many institutions, underfunding has led to lecturer salaries being uncompetitive. On top of reduced class sizes, lecturers

also need to be encouraged and assisted to balance their teaching, research, administrative and developmental roles. This may require additional funds, over and above those that will be injected into the system through financial aid for poor students, but it could dovetail with efforts to build research capacity and train new junior academics and tutors as well as administrative staff who can also oversee functions such as student registration and invigilation. It may also require changes to the ways in which universities are funded.

The current funding framework needs more reflection. Output targets and indicators, as set by the DHET in consultation with each university, need to be very carefully and cautiously managed. Too narrow a focus on rewarding outcomes which lead, for example, to improved graduation rates, may be bad for quality in the long term; it may even contribute to high dropout rates, in those instances where institutions are either unable to provide underprepared students with the requisite attention and support and/or are unable to get them through the system fast enough. It can also erode professional autonomy, where lecturers are pressurized to pass students. It must be recognized that financial incentives can have very perverse consequences.

Furthermore, when considering solutions which have a technological component, such as distance education, it is very important not to neglect student support needs in this area as well. Students who are enrolled in distance education courses are in many instances both from very disadvantaged communities, and have weak educational backgrounds, and the fact that they only occasionally engage in contact sessions does not obviate their equally real need for more quality contact time and support so as to improve their graduation rates.

It is well-known that insufficient funds to meet the various expenses of university study, and the stress and distractions which this causes, is a major source of student failure at university. It follows that success can be rendered more likely if poor students' full cost of study can be covered, including registration and tuition fees, food, accommodation, books, and travel. There is also a need to provide students (not only at university but also while still at school) with more information about university fees and other costs, to make them aware of registration processes, and to improve their ability to manage their personal finances. Of course, ensuring that all student financial aid is sufficient, and is supplied and disbursed timeously, is crucial (Jones et al 2008: 6-7).

Yet another area which influences student success has already been alluded to: this is the extent of their (school-level) academic preparation for university study, in conjunction with the extent to which any lack of preparation can be remedied. It is clear that many of our students need more time in order to master the knowledge and concepts that study towards a university degree requires. While student underpreparedness is to a large extent a product of a weak school system, coupled with widespread poverty and broader social problems, it remains something that the higher education system has to address. Underpreparedness is not only academic, but includes sociocultural factors such as culture shock, feeling alone and alienated in a new and unfamiliar setting, peer pressure, being unable to afford to participate in student social life, feeling the weight of family expectations, lacking sufficient willpower and motivation to study, and being unaware of where to seek assistance (Jones et al 2008: 11-13).

Various attempts have been made in the past, and continue to be made, to support underprepared students, through various orientation, bridging and access programmes and academic support mechanisms, but it is not certain how effective these have been; some have also suffered from being seen to pathologize disadvantaged students. Recently, the Ministerial Report on Student Housing cited research suggesting that students do better both socio-culturally and academically when provided with an all-round academic experience, such as integrated 'living-learning' student housing environments through which students' social and academic experiences reinforce each other and thereby impact positively on their overall cognitive and intellectual growth (DHET 2011c: 23-4). Accordingly, renewed efforts must be made to support underprepared students, by conducting and applying evidence-based research which makes a real difference; this should be accompanied by rendering funding policy sufficiently flexible to support the mainstreaming, where necessary, of four-year undergraduate degrees, as suggested in the Green Paper (DHET 2012: 40, 46).

Research has indicated that there are four key characteristics of all 'disadvantaged students': their geographical origins, especially rurality; their financial resources; their prior schooling; and their language, where it differs from the language of instruction at university (Jones et al 2008: 5-6). It follows from this that providing free university education to the poor can directly address, at best, only one of these four elements. While providing free university education might indirectly address the other elements – through, for example, subsidised transport and accommodation; school feeding schemes, guidance and counselling services, mother-tongue instruction and above all better quality teaching and improved schooling outcomes overall; and greater clarity on and support for university language policies and practices – ultimately all of these elements, and even financial support, depend on a marked and generalised improvement in the social-economic situation of South African society as a whole.

Long-term reflections

The past 20 years have seen the considerable impact of 'neoliberal' policies and thinking on how our university system is conceptualized and managed. This includes corporatization – seeing educational institutions as business firms, with accompanying policies such as performance management, top-down devolution, competition at all levels, goal-driven production, output measurement, cost unbundling, shadow pricing, competitive bidding, simulated 'bottom lines' in non-revenue areas, 'customer' focus and continuous self-evaluation. It is this kind of thinking that has led, in some institutions, to the deliberate reduction in contact time as a means of reducing costs. It has also led to the demoralization of lecturing staff, an increase in their administrative burdens, a reduction in their professional autonomy, and pressure to push students through at all costs. However, universities cannot be blamed for being responsive to corporatist policies of this kind when such thinking is prevalent at the highest levels of policymaking; consequently, it is also at these levels that serious introspection and analysis are needed if the additional financial expenditure unavoidably associated with improving student success rates are to have real and lasting effects.

It is generally agreed that education (at all levels) is both a public and a private good: it develops science and critical thinking, and promotes good citizenship and socio-economic development, and all of these features have benefits both for the educated

individuals in question and for the society in which they live and work. Nevertheless, in the long term, South Africa needs to reflect more deeply on the role of user fees in higher education. One problem with user-fee based systems is the need for a cut-off point in terms of a poverty index – something which is extremely difficult to establish. In addition, cut-off points create 'poverty traps' whereby a small increase in income can make people worse off in terms of net household income, when such an increase disqualifies them from financial assistance.

Another problem is the difficulty of establishing a rational basis for the amounts individuals versus society should pay for the benefits that respectively accrue to them. For example, rates of return to education are difficult to establish because rewards are largely a function of social position, and it is hard to separate this out from the effects of higher education when looking at individual success in the labour market. It may be easier to tax individuals who are well remunerated in the labour market, thereby ensuring that those who can pay do. This may also make it easier to build a fully public system of higher education.

Furthermore, it would be wrong to assume that education functions best as a 'free market'. While universities do compete for the best students, they do so not on the basis of price but rather on political, social and educational criteria; this can never be a meaningful buyer-seller relationship. University places are limited and students are selected on merit, not buying power. Policies whereby funding follows individuals, and to this extent are focused on individual advancement, may need to be balanced against policies which build state provision for the long-term benefit of society. For example, increasing funding for individuals to purchase books may be necessary to support students, but may divert funding from libraries to purchase books which will be a long-term asset for the public.

Notwithstanding these problems with user-fee based systems, it must be accepted that higher education has both public and private benefits. At this stage of its development, South Africa needs simultaneously to uplift the larger proportion of its population out of poverty, overcome persisting socio-economic inequalities, take into account competing demands on the national budget, and ensure that current and proposed mechanisms to support poor students to access, and succeed in, higher education, remain affordable. Accordingly, it is important to ensure that those users who can pay, do, both for their individual benefit and the benefit of society as a whole.

Finally, it is necessary to bear in mind, first, that education cannot, on the whole, compensate for society, and that, second, students from more prosperous households perform better in education than do poor students. While the idea of the knowledge economy suggests that individuals who invest in education can become knowledge workers and will be rewarded with money and power as well as work involving autonomy and creativity, education on its own is an insufficient measure for individuals to escape poverty, and much broader social, economic, and political interventions which address poverty and inequality are essential to improve both access to and success in higher education.

Critical considerations

Given the need to ensure that, wherever possible, financial support to enable poor students to access university education is converted into academic success, additional costs will be incurred. These costs will relate to:

- improved and better funded academic support, tutorial support and residential or living-learning support mechanisms;
- affordable technological solutions (such as in-class audio and visual feeds, on-line learning or distance education);
- sufficient additional numbers of academic and administrative staff to ensure adequate class sizes at universities and improved quality of contact time between staff and students; and
- wider considerations around official university output targets and indicators, and the national higher education policy making and funding environment.

7. Estimating the Costs

It was clear to the Working Group from the beginning that a stand-alone effort to estimate the cost of free university education for poor students would not work. The cost of the measures depends on the entire framework of student financing and will change as the framework changes. Accordingly, the Working Group constructed a policy dialogue model of the entire student financing system. The model allows a range of policy variables to be changed, and the results from five different policy settings are reported below. The model also has a use beyond the life of the Working Group as NSFAS develops.

In order to construct the model, a number of issues needed to be addressed. These issues include:

- The components and costing of the full cost of study at all universities, taking account of both residential and distance institutions (specifically, UNISA).
- The definition of 'poor' in household income terms.
- Expected household contributions as a function of household income for non-poor students.
- The parameters of the loan scheme. For instance, at what incomes do former students start to repay their loans and at what proportion of their income? What grace period is there? Should loans attract interest before students have reached the end of the grace period? What interest rate should be used? And should repayments end at a certain time after the student leaves the university?
- The lending cap, i.e., the point beyond which no further advances to non-poor students should be made, because such additional lending would be reckless. Since, in the case of poor students, further advances are made in the form of grants, how should this cap be set?

The model outputs take the form of estimating, first, the net present value of all financing for students entering the system in each year. The advances and recoveries could stretch over a period of more than twenty years. Net present value takes a stream of payments and discounts them back to a starting date. The discount rate can be specified by the user and is currently 2.5% real per annum. Second, the cash flow of the system is modelled year by year, and a number of overlapping cohorts will contribute each year. Finally, the number of undergraduates is set out.

All table references are to Appendix B.

Policy assumptions

A first assumption is that a national-level decision will be taken to provide free (full cost of study) undergraduate university education for the poor. For the purposes of the model, the full cost of study is taken to include registration and tuition fees, meals and accommodation, books, and travel. The full cost of non-UNISA study is calculated at R52 356, and the full cost of UNISA study (which excludes meals and

accommodation costs) at R16 743, per annum in 2012 prices (see Appendix B, Table 1). The average cost at non-UNISA universities will be lower than the estimate cited, since some students will live at home and not need a loan for accommodation and meals.

The full cost of study is considered to escalate in real terms as follows: registration and tuition fees by 1.7% per annum; meals and accommodation by 0.85% pa; books by 0.0% pa; and travel by 0.85% pa. An inflation rate of 5% per annum from 2013 to 2030 is assumed and is built into the model.

A second assumption is that students can have the full cost of their university studies financed in five ways:

- A contribution from their household of origin (i.e., by the student and/or their family) (see Table 2).

- An academic performance rebate depending on good results.

- A repayable loan, administered by NSFAS, with a loan ceiling chosen such that the student can repay it in a user-specified number of years (currently specified as 15 years). The repayable loan is the loan advanced less the household contribution and the academic rebate. The model calculates the maximum repayable loan balance. This ceiling varies with the length of time a student is enrolled and the year in which he or she first enrols. For a student starting in 2013 and completing a degree in three years, the ceiling is 3.54 times the full cost of non-UNISA study at current (October 2012) interest rates. Repayable loans will be income-contingent, as at present; only if and when a graduate reaches a minimum specified threshold of income, will they be required to start paying it back (see Table 2).

- A grant (for poor students only) which bridges the gap, if any, between the full cost of their years of enrolment (with a limit of two years more than the minimum time required for the qualification) and the repayable loan. ***This grant constitutes the cost entailed by free university education for the poor.*** It is a last resort grant, and it implies that poor graduates and drop outs will face repayments like all other students. Like all other students they will repay an affordable loan on an income-contingent basis for 15 years. Model runs make it very clear that relying as fully as possible on the earning power of former students, particularly of graduates, remains essential.

- Finance from other sources might have to be obtained, for some students, if they are to graduate. The aggregate amount of other finance is not estimated within the model.

Third, it is assumed that the take-up rate will be 100%, that is to say, that all students who are eligible for a loan will take up the entire loan for which they are entitled under the rules. (However, the model can be adjusted, if needed, to allow for students who choose not to participate.) It is also assumed that household incomes are accurately measured.

A fourth set of assumptions must be made around student numbers. Student numbers are projected by calculating how many school learners pass the National Senior Certificate, and how many continue on to enter and progress through higher education (see Table 3). These estimates are based on both

- *demographics*, utilising the 2008 projections of the Actuarial Society of South Africa, which are widely used and the best available; and

- *progress through the educational system*, utilising Education Statistics in South Africa 2006-2010 data, Community Survey 2007 data, National Senior Certificate data and Higher Education Management Information System data.

Together this data is used to: calculate the number of learners completing Grade 9; take into account promotion, repetition and dropout rates for Grades 10-12 from 2006 to 2010; determine expected National Senior Certificate enrolments and passes through to 2030; and on this basis estimate university first time entrants.

It needs to be pointed out that the average annual rate of increase of first time entrants is projected at 1.6% for certificate courses, 1.9% for diploma courses and 1.1% for degree courses. The Working Group is aware that much higher projections are in circulation, but would point out that:

- South African fertility has dropped to near-replacement levels and is projected to go on falling. As a result, the 15-29 age group will start to shrink in absolute size after 2025.

- The Working Group's projections assume that survival in senior secondary school, NSC pass rates and continuation rates to university will all increase over the next twenty years. Efficiency improvements have already been incorporated in the Working Group's projections.

It must also be noted that students who are already in the system and being supported through NSFAS are not included in the model. These students must continue to be funded through existing arrangements until such time as they exit the system, whereafter all eligible university students will then be being funded in terms of the model outlined here.

Results

The model has been run with five different sets of assumptions, as follows:

- *Run #1:* A hypothetical run given current NSFAS conditions, but with the assumption of a uniform policy across universities, loan allocations according to household income and sufficient funds to meet demand without topslicing.

- *Run #2:* The base run, with preferred policy settings for NSFAS which are not the current settings. Academic rebates are lower and interest rates are higher.

- *Run #3:* Run #2, but with greater household contributions.

- *Run #4:* Run #2, but with current NSFAS interest and repayments.

- *Run #5:* Run #2, but with current NSFAS academic rebates.

Base run (Run #2) results demonstrate the following:

- On the assumptions made, most students will be heavily reliant on loan finance. The net present value of household contributions is only just over 36% of the gross loan advances (see Table 4).

- The current academic performance rebates are very costly: they represent 20% of gross loan advances under the current system (Run #1 – see Table 12) and 10% even under the radically pruned assumptions of the preferred system (Run #2 – see Table 4).

- A universal system (whereby every student enrolled for a first qualification would be assessed for financing according to a common set of rules) based on the model assumptions implies a net present value of gross loan advances of R14 billion in 2013 prices for the 2013 cohort (see Table 4). This is a massive sum, about double what NSFAS advanced in 2012. This compares with a demand for funds of about R10.5 billion in 2013 if the current NSFAS system were to remain in place without any changes (Run #1 – see Table 12).

- The net present value of the government grants needed to provide free university education to the poor amount, on the assumptions made, to about R100 million for each of the three cohorts from 2013 to 2015. In other words, the cost to the government of ensuring that all students who are financially assisted to enter university in 2013 (estimated to be around 163 000 students) continue to be financially assisted until they either complete, reach the loan financing limit or dropout will ultimately amount to a total of R100 million (or 0.7% of the gross loan advances totalling R14 billion in that year – see Table 4). This result is very sensitive to the interest rate and could easily increase by a factor of five or even ten.

- The number of students covered by the new system would rise from 163 182 in 2013 to 581 600 in 2027. Most of the increase would be in the early years (see Table 7).

Implications for individual students

The implications of the base run (Run #2) for selected individual students can be illustrated as follows:

First, consider *individual student #1* (Table 8). Individual student #1 is a poor student who in 2013 enrols for a three year degree at a university other than UNISA and completes it in minimum time. Since they are poor, their household contribution is zero, and they will be issued a NSFAS loan which covers their full cost of study, which will be R52 340 in 2013, R55 335 in 2014 and R58 554 in 2015. Due to their

good academic performance, they will be given maximum academic rebates of 20% at the end of each of their first two years of study and 40% on completing their third and final year, leaving them with a loan balance of R127 778 by the time they graduate.

Individual student #1 will pay nothing back until the start of 2017, one year after they have graduated. From 2017 they will begin to repay their loan, and will continue to do so at a varying percentage of their salary each year – in 2017, for example, they will pay back 5.3% of their salary, or R3 833, over the course of the year, increasing to a maximum of 12% of their annual salary by 2026. Their last repayment will be at the end of 2027.

Second, consider *individual student #2* (Table 9). Individual student #2 is a poor student who in 2013 enrols for a four year degree at a university other than UNISA. It takes them six years to complete the degree. Since they are poor, their household contribution is zero, and they will be issued a NSFAS loan which covers their full cost of study, which will be R52 340 in 2013, rising to R69 354 by 2018, their sixth year of study. Revised NSFAS academic performance rules give them partial rebates in each of their first five years of study and a full (40%) rebate on completing their sixth and final year, leaving them with a loan balance of R202 828 by the time they graduate. In addition, in order to meet the difference between the full cost of their years of enrolment (which is at the limit of two years more than the minimum time required for the qualification) and the repayable loan, and thus permit them to continue to study, they will have been issued with poverty grants in 2017 (R23 515) and 2018 (R41 612), their fifth and sixth years of study.

Individual student #2 will pay nothing back until the start of 2020, one year after they have graduated. From 2020 they will begin to repay their loan, and will continue to do so at a varying percentage of their salary each year – in 2020, they will pay back 5.3% of their salary, or R3 833, over the course of the year, by 2026 they will be paying back 9.8% of their annual salary, and by 2034, the year in which they make their last repayment, they will pay 12% of their annual salary.

Lastly, consider *individual student #3* (Table 10). Individual student #3 is a middle income student from a household which earned R135 000 in 2013. In that year the student enrols at UNISA. However, after four years they drop out. Their household contribution each year from 2013 to 2016 is R10 800, and for each of these four years of study the remaining part of their full cost of study is covered by NSFAS loans. They also receive partial NSFAS academic performance rebates each year. By the time they drop out, in 2016, they have accumulated a student debt of R27 486.

Individual student #3 will be required to pay nothing back until the start of 2018, which is one year after they have dropped out, but because they only begin to earn sufficient income in 2030, they only begin to repay their loan from that point. They continue to pay back over the next three years, at about 4.5% of their salary each year, with their last repayment at the end of 2032. After the fifteenth payment, the balance of the loan – R26 851 – is written off.

For purposes of comparison and contrast, and also to give an indication of how changes in certain key assumptions within the policy dialogue model presented here may have important and far-reaching cost implications with regard to providing free

university education for the poor, Appendix B includes tables which outline all five model runs. Appendix B first lists all tables pertaining to the base run (Run #2), namely, Tables 1-10. Note that Tables 1, 3 and 7 are the same for all five runs. Appendix B then lists, in order: all tables pertaining to average current NSFAS practice (Run #1), namely, Tables 11-14; all tables pertaining to a first variation of the base run (Run #3), namely, Tables 15-18; all tables pertaining to a second variation of the base run (Run #4), namely, Tables 19-22; and finally all tables pertaining to a third variation of the base run (Run #5), namely, Tables 23-26.

In more detail:

- Tables 1-10 refer to the base run (Run #2), with Tables 1, 3 and 7 referring also to all five runs.

- Tables 11-14 refer to average current NSFAS practice (Run #1), with regard to loan parameters, cohort net present values, bursary adjustment and cash flow. Average current NSFAS loan parameters can be usefully contrasted against those of the base run (or Run #2), and also compared in terms of their particular cost implications. Two caveats must be noted in this regard, however: (a) these tables represent only an approximation of the current student financial aid situation, since NSFAS is administered under different rules in different universities; and (b) these tables calculate the demand for loan advances (estimated to be R14.8 billion) on the assumption that sufficient money is available to meet the demand, but because at present at most R8 billion or R9 billion will be available, in practice this means that not everyone who qualifies for a NSFAS loan will be given one of the appropriate size.

- Tables 15-18 refer to a first variation of the base run (Run #3) which is premised on tighter income bands for household contributions, and with a lower limit on maximum eligible household income (R225 000 instead of R270 000) beyond which no loans are made, along with the cost implications thereof in terms of cohort net present values, bursary adjustment and cash flow;

- Tables 19-22 refer to a second variation of the base run (Run #4) which illustrates the cost implications of adopting the proposed model but retaining current NSFAS practice with regard to interest and repayment rates; and

- Tables 23-26 refer to a third variation of the base run (Run #5) which illustrates the cost implications of adopting the proposed model but retaining current NSFAS practice with regard to academic rebates (i.e., up to 40% rebates for good academic performance each year and a 100% rebate for good academic performance in the final year of the degree).

Each of the four alternative cases (i.e., Runs #1, #3, #4 and #5) listed above is based on the same assumptions as in the base run (Run #2) around full cost of study and expected student intake, and each will provide financial aid to the same numbers of poor undergraduate students; their primary differences lie in their cost implications.

For all model runs, over the next 15 years the cost in current prices of gross loan advances and of recoverable loans is expected to more or less triple (the main outlier

being current NSFAS practice – Run #1 – where recoverable loans will increase two-and-a-half-fold rather than three-fold), in order to keep pace with the full cost of study. Helping to offset this, however, it is expected that the proportion of loans which are recovered will have increased (in the case of the base run, from around 54% in 2013 to 64% in 2027).

Modelling and projecting average current NSFAS practice in terms of net present value (Table 12) shows that, at present, households bear about 45% of the burden of student financial aid, whereas students bear 19% and government 36%. Academic rebates – which arguably benefit those who already enjoy a certain degree of social and economic capital more than they do the poor, with their multiple disadvantages – constitute the largest proportion of the government burden. Projections up to 2027 suggest that the government total will decline to 29% and the student contribution will increase marginally to about 21%; households will continue to bear the greatest burden, rising to almost 50%.

A much more equitable, socially just and, indeed, economically feasible, approach to student financial aid, under the auspices of a refined and reformed NSFAS, is inherent in the base run of the model developed for this report. Table 4, which projects net present values for this base run, can be usefully contrasted against current NSFAS practice in Table 12. According to Table 4, a system of funding free university education for the poor can be envisaged in which, at the start, i.e., in 2013, households will bear around 36% of the burden; students, in the form of loan repayments after graduation or dropout, will effectively shoulder 29% of the burden; while government will cover the remaining 35%, distributed across academic rebates, grants and loan subsidies (of which by far the greatest proportion will be in loan subsidies which cannot be recovered because many of the students which they supported will unfortunately end up dropping out).

Although over time the burden on both households and students will gradually increase, the household burden will peak within 10 years (around 2022) and then rapidly decline back to its initial 2013 levels, while by 2027 students will be contributing almost 35% of the cost of the system. On the other hand, by 2027 the overall burden on government will have declined by approximately 5%, to 30% of the total burden. Above all, by reducing NSFAS' costly academic rebates and repayment concessions, the base run makes much better use of graduates' future earnings in order to maintain and expand the system of financial aid (see Table 4).

The three variations on the base run mentioned above, namely, Runs #3, #4 and #5, consider how the base run might be modified to shift the burden slightly more in favour of either households, students or government. The variation with tighter income bands and a lower income cap (Variation A) reduces the household burden at start to 33% (rising to 39% by 2027), whereas students bear 30% (rising to 33%) and government 37% (declining to 28% by 2027) of the overall burden (see Table 16). A separate variation on the base run, retaining current NSFAS interest and repayment rates (Variation B), keeps the household burden more or less unchanged as in the base run (rising from 36% to 40% over ten years and then returning to 36% by 2027), but the burden on students is slightly less (increasing over 15 years from 29% to 33%) and the burden on government also declines less (from 35% in 2013 to 31% by 2027) (see Table 20). Finally, in yet another variation on the base run, this time retaining

current NSFAS academic rebates (Variation C), the household burden remains the same as in the base run but students shoulder significantly less of the burden (only 20% in 2013, rising to 25% by 2027). As a result, the burden on government is much greater, both at start and over time (from 44% in 2013 declining to 39% in 2027) (see Table 24).

To sum up, to permit the current system of NSFAS student financial aid to continue is to place the pecuniary responsibility for both quantitatively and qualitatively expanding access to university education for the poor on households many of which are already struggling financially, and to a lesser extent on a government sector which, while it can be legitimately expected to contribute to social upliftment, is faced with many competing demands all of which cannot be satisfied simultaneously. At the same time, to continue with current NSFAS practice is to allow those individuals who are the direct economic beneficiaries of higher education qualifications and skills to continue to contribute comparatively little to the social upliftment of their fellow citizens.

The alternative direction which a revamped NSFAS is urged to take by the results of the base run of the model is one in which the burden on households, albeit remaining the greatest single contributor to the costs of higher education, will be substantially reduced; and in which the burden on government, by not being increased despite the greater cost of the proposed new direction, will allow for greater flexibility in addressing the needs of the poor. At the same time, it will make it possible for a much greater proportion of the future earnings of individual student beneficiaries, especially graduates, to help to finance even more assistance for the poor.

8. Conclusion and Recommendations

The massification of higher education worldwide has put increasing strain on systems and resources. The current depressed global financial climate further reduces the options of policymakers and funders with regard to increasing the number of people, particularly from disadvantaged groups, with access to higher education. Many other areas of need, from basic education to health, compete with higher education for a share of public funds. Yet most of these issues have been with us for a long time, and will remain with us for the foreseeable future; there is also no guarantee that any windfall from a sudden global economic upswing would significantly impact on higher education.

Given that this state of affairs is unlikely to change very much in the short- to medium-term, the issue of the public good comes increasingly to the fore. The question that South Africans need to be asking is: what kind of a society are we trying to create? And the answer to that question is unequivocal: a society that is socially just. For it is only on the basis of social justice for all that the other primary challenges facing the country – from the need for more employment, productivity, infrastructure and services to better health care, basic education and higher education itself – can be addressed, and democracy, equality, peace and prosperity assured. And free university education for the poor goes to the heart of social justice.

Thus, it is not a question of health *or* infrastructure *or* basic education *or* higher education – it is all of these, because what society needs is greater social justice, and greater social justice requires a holistic conception of social development:

> Our societies are … delicately balanced: educated societies are healthy societies; equitable societies are safer societies. There is no one panacea – these elements work together. And they need to work *well* together—which requires accountability, sufficient financing, transparency, and effective administration. So the question is not 'health care *or* education, what's it going to be?'; the question is, what do we need in order to create an equitable, healthy, educated and engaged society, and what's the best, fairest, most efficient way to get it? (Shaker 2012).

Hence, in deliberating over whether and how to improve funding for higher education in general, and how to provide free university education for the poor in particular, South Africa will in effect be locating – or, better, relocating – itself along a continuum of social and political development. All countries are located at one or other point along this continuum. For instance, in what is known as the Scandinavian model, very high taxes are the basis for substantial public spending in higher education, along with no tuition fees and substantial loans to cover student living costs. In another model, the Anglo-American model, much lower taxes result in substantial private spending in higher education, including (most recently) significantly rising tuition fees (Docampo 2007: 372). Wherever South Africa chooses to locate itself along this continuum – perhaps at the point of what will come to be known as the South African model – it requires the will to make such a choice, and to embrace the consequences.

Many countries, especially in Europe, have wanted to be like Scandinavia, but have been unwilling to bear the costs of such a choice, let alone put in place a coherent plan to achieve this goal: their "public proclamation of support for a more highly educated citizenry has not been accompanied by an adequate level of funding" (Heller and Rogers 2006: 94). In such countries,

> contributions from students and graduates are small or negligible, partly reflecting funding agreements designed for a different era, but student intake has increased rapidly over the last two decades and competing demands on government expenditure have squeezed spending on education, since countries wishfully embraced expansion but few of them took the appropriate policy measures (Docampo 2007: 385).

Other countries have embraced the Anglo-American model, yet often bemoan the effects of greater privatisation on society at large. "Climbing the ladder of higher education investment is costly and lengthy, unless firm resolutions are taken in setting up public spending in education as a true national priority or provisions are made to share the costs between students, graduates and taxpayers" (Docampo 2007: 385).

Internationally, South Africa is going somewhat against the trend with regard to how the costs of university education, and particularly tuition fees, are being managed; though tuition fees are rising in South Africa, as in other countries, NSFAS funding and other government interventions (such as converting loans into bursaries for final year students who complete) are at the same time increasing access by disadvantaged groups to higher education. Free university education for the poor also follows this counter-trend. But no matter where South Africa might decide to locate itself along the continuum between the Scandinavian model and the Anglo-American model, there will be a need to revisit current structural and institutional arrangements in higher education funding generally and student financial aid more particularly.

It is simply too expensive – not just economically but also socially and politically – to maintain a higher education status quo characterised by low participation, high dropout, and a system of financial aid which, notwithstanding its many positive features, has tended to favour advantaged institutions rather than disadvantaged individuals. In South African society overall, high unemployment, a widening gulf between the haves and the have nots, and rising levels of service delivery and other protests, make structural and institutional change imperative. Moreover, the consequences of thus revisiting current structural and institutional arrangements, and of making a political choice, come with costs attached. It may be that a social compact around higher education is needed.

Creating a higher education system characterised not only by increased participation and reduced dropout but, above all, free undergraduate study for the poor, will not be cheap. By definition, the households of poor students will not be able to share in any of the costs associated with university study, and even the households of slightly less poor students will be able to contribute only a small portion. Simply to make it possible for the 2013 cohort of students, for example, to begin receiving free university education, will require that NSFAS be given the financial muscle to advance loans of about R14 billion in 2013 prices.

Nevertheless, it must be emphasised that the estimates made here with regard to the costs of free university education for the poor are premised on a set of assumptions which are not fixed. It is the complex interplay between these assumptions, within the framework of the policy dialogue model, which gives rise to the calculations and results presented above; and should any of these assumptions change, so will the costs.

It is thus important that further and wider discussion takes place around the overall findings of this report, and above all about the assumptions that had to be made in order to respond adequately to the Minister's brief. These assumptions include the working definitions of 'fee-free university education for the poor' on the basis of which the Working Group began its deliberations, such as defining 'university education' as undergraduate university education, including all undergraduate degrees, diplomas and certificates, and defining 'the poor' as, minimally, students from households earning less than R54 200 per annum (in 2010 prices).

Other assumptions which will benefit from closer consideration are what exactly the 'full cost of study' should entail, how much households (whether poor, middle income or wealthy) can be expected to contribute to their children's university education (and the broader principle of user fees in higher education), the exact parameters of NSFAS student loans (including repayment schemes, income and interest) and academic performance rebates, not to mention the estimates of the number of school-leavers who in the foreseeable future might wish, and be eligible, to study at a university.

It may be trite to suggest that if we change our assumptions we can change the world, but, at this point in time in South Africa's development, a well-considered system of free university education for the poor could go a long way towards increasing both access to and the quality of higher education, and in so doing help to tackle unemployment and poverty, reduce inequality and deepen democracy.

Recommendations

Free university education for the poor in South Africa is feasible, but will require significant additional funding of both NSFAS and the university system. Preliminary calculations of the actual cost of introducing free university education for the poor are anywhere between R100 million and R1 billion in 2013 prices for the 2013 cohort of students (estimated at 163 000 students). This cost is variable because such stopgap grant financing is very sensitive to prevailing interest rates.

Accordingly, the Working Group makes the following recommendations with regard to introducing, funding, determining eligibility for, costing and other implications involving free university education for the poor in South Africa.

How, using what instruments, can free university education for the poor be introduced and implemented in South Africa?

- Free full cost of study undergraduate university education for the poor in South Africa should be introduced using the current NSFAS structure and procedures as a basis, but refining these over time, and simultaneously ensuring that corporate governance, fund management procedures and loan

recovery practices at NSFAS are completely overhauled and rendered above reproach. In effect, NSFAS will be required to implement a number of key recommendations emanating from the Ministerial Review Report (2010).

From where might funding be obtained in order to finance free university education for the poor?

- Funding for free university education for the poor should be obtained, at least in part, from the funds of the Sector Education and Training Authorities (SETAs) and the National Skills Fund (NSF). A proportion of the SETA funds which are available for skills development (i.e., a proportion of what remains of the 1% of employers' wage bills after SARS' collection fee and SETA administrative fees have been removed) should be earmarked to provide for sustainable NSFAS-administered income-contingent loans to poor students in identified scarce-skills sectors.

- Such SETA funds should include those levied from both private sector companies and government and public service departments at both national and provincial levels. Although in some instances these SETA funds are already being used for bursaries, short course skills programmes and internships, and notwithstanding the fact that various private sector companies and public service departments already support poor students in these ways, it is important to ensure that these funds and support, along with portions of corporate social responsibility funds, are organised and managed under a single, NSFAS umbrella, rather than being disbursed, as is often the case at present, in piecemeal and uncoordinated ways. Moreover, since all sectors of the economy, both public and private, benefit from the knowledge and skills instilled in graduates either now or in the future, such a collective and coordinated effort will enhance the impact and likelihood of success of providing free higher education for the poor.

- More generally, the funding of free university education for the poor will be premised on decisions taken by government with regard to the national budget and based on the calculations and projections of this report. Given the urgent need to widen and improve access to higher education in South Africa, the country must find new sources of funding to make free university education for the poor both affordable and effective. For example, the private sector, and perhaps especially the large financial institutions, as well as international donors, may be willing to offer reasonable loans, if state guaranteed, to poor students who are in their final year and who have demonstrated their current dedication and future earning potential.

Who, on the basis of what criteria, should be eligible for free university education for the poor?

- Those initially and primarily eligible for free university education, on the basis of NSFAS income-contingent loans, should be learners holding National Senior Certificates who are admitted into a university and come from households earning less than the lowest SARS tax bracket, meaning that they will be required to make no household contribution.

- In addition, learners holding National Senior Certificates who are admitted into a university and come from households earning between R54 200 and R271 000 (in 2010 prices) should be eligible for free university education in a similar manner, but should be required to make some household contribution.

- As and when additional funding can be sourced or provided, additional categories of needy children may be progressively included.

- Eligibility should be determined on the basis of duly refined and properly administered NSFAS means tests.

What possible costing models, involving what risks and benefits, should be considered in introducing free university education for the poor?

- The policy dialogue model as utilised in this report should be considered as the starting point for developing a fully-fledged costing model both for free university education for the poor and, ultimately, for a comprehensive student financial aid and academic support system which takes into account adequate housing, proper nutrition, cultural inclusion, and enhanced awareness through career and vocational guidance at school level. Such a comprehensive system must also take cognisance of the cost of ensuring fully operational and effective academic development programmes at the individual institutions.

- The risks and benefits of this policy dialogue model are essentially related to the assumptions on which the model is based, which in turn are related to:

    - how 'free' is defined (full cost of study);

    - how 'university education' is defined (undergraduate education);

    - how 'the poor' are defined (households earning less than R54 200 per annum in 2010 prices);

    - how much any or all households can be expected to contribute to their children's university education;

    - the exact parameters of NSFAS student loans (including repayment schemes, income and interest, academic performance rebates, and community service or work-back arrangements); and

    - estimated numbers of school-leavers eligible for university studies.

What are the implications of free university education for the poor for government funding of public higher education institutions?

- Free university education for the poor will have implications for government funding of public higher education institutions to the extent to which increased financial access on the part of the poor must be converted into academic

success at university. The additional costs associated with converting access into success will relate to:

- improved academic support, tutorial support and residential support mechanisms;
- affordable technological solutions (such as in-class audio and visual feeds, on-line learning or distance education);
- sufficient additional numbers of academic and administrative staff to ensure adequate class sizes at universities and improved quality of contact time between staff and students; and
- wider considerations around official university output targets and indicators, and the national higher education policy making and funding environment.

- In general, funding should be premised on the principle both that fees must be realistic, and that the cost of university study must be proportionate to a student's ability to pay. Students must contribute where they can (even if minimally), and where possible should be afforded the option to do so either financially, on the basis of future income, and/or through community or public service (which should target areas of scarce skills). It follows that poor graduates and drop outs will face loan repayments like all other students.

- It follows from the above, too, that to contemplate free university education for the poor is also to accept that the country cannot afford any further decline in government subsidies to universities. Current levels of government funding of public higher education institutions must be maintained or even increased, so as to preserve the basis on which institutions will be required to redouble their efforts to translate financial access into academic success. Should government subsidies to universities continue to decline, as they have in real terms in recent years, not only will free university education for the poor simply constitute a drain on the country's resources, without positive spinoffs, but the quality of university infrastructure, teaching, learning, research, development and international competitiveness will deteriorate and decay, with unthinkable consequences for both the economy and the polity.

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Appendix A

higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Working Group on Fee-Free University Education for the Poor in South Africa

Background

1. Access to quality education has been at the core of the South African struggle for decades and remains a key factor in the transformation of our society. Education presents opportunities for a way out of deprivation and poverty and provides for a participatory democracy and social inclusion for all citizens.

2. The cost of higher education in South Africa has escalated significantly over the years, both from government expenditure perspective as well as for individual family expenditure per student. Thus, the cost of higher education contributes to progressive inaccessibility of education to many South Africans who are unable to raise funds for their studies.

3. Young people from poor families find it increasingly difficult to pursue their studies at tertiary level, which in turn leads to high levels of unemployment,

drop-out rates and the youth who cannot be accounted for in either education, employment or training. As such, the South African government is considering various ways of making higher education accessible to deserving students who cannot afford the cost of studying.

4. To date, the South African government has assisted academically capable and financially needy students through the National Student Financial Aid Scheme (NSFAS). During the current financial year (2011/12), the NSFAS distributed **R4 billion** (plus **R2billion** from the National Skills Fund - NSF) to qualifying students at Higher Education Institutions and Further Education and Training colleges countrywide. Although this is a significant amount, it is far from being sufficient in order to fulfil the existing high demand.

5. Government has taken a step further in broadening access to post-school education by introducing, in 2011, the conversion of the NSFAS loan to a full bursary for university students who complete their final year of junior degree successfully.

6. In a further attempt to make higher education accessible, commencing with students registered on 1 April 2011 and beyond, NSFAS will not charge interest on student loans until 12 months after a student has graduated or left university. Earlier this year, the Department provided **R200 million** to enable NSFAS to grant loans to students who have completed their studies but have not received their certificates or graduated, due to outstanding debt. Moreover, a further **R50 million** has been provided for postgraduate students who require financial assistance to complete their honours, masters and doctoral degrees. The money paid back from these loans will serve as seeding to fund future postgraduate students.

Calls to Make Education Freely Available and Accessible

7. Section 29.1(b), of the **Constitution of the Republic of South Africa** (1996) states that "*everyone has the right to further education, which the state, through reasonable measures, must make progressively available and accessible*".

8. In taking further the constitutional provisions, Section 4.7 of the **Education White Paper 3** – A Programme for the Transformation of Higher Education (1997), states that

> "*Fee-free higher education for students is not an affordable or sustainable option for South Africa. The knowledge and skills acquired in the course of achieving higher education qualifications generate significant lifetime private benefits for successful students as well as long-range social benefits for the public at large. Although higher education institutions admit an increasingly large proportion of students from poor families, students from middle-class and wealthy families still tend to be disproportionately well-represented. For all these reasons, the costs of higher education should be shared equitably between public and private beneficiaries*".

9. Section 4.8 of the White Paper further states that "*it is important, however, that the direct cost to students be proportionate to their ability to pay*".

10. At its 52nd National Conference of December 2007, one of the resolutions made by the African National Congress (ANC) was to "*progressively introduce free education for the poor until undergraduate level*".

11. Similarly, at its Lekgotla in July 2011, the ANC resolved, among other things, that:

    11.1. Extending the provision of free education to cover students in other years of study must be examined fully.

    11.2. Covering the full cost of study for (poor) students in scarce skills areas, in all the years of study must be effected, but guarding against the downgrading of Social Sciences programmes provision.

12. It will be noted, though, that the Department is already providing fee-free education to the eligible National Certificate Vocational (NCV) students and

Report 191 programme (NATED N1 - N6) students in the Further Education and Training (FET) sector.

13. Despite the above-stated policies and resolutions, free post-school education is still a distant reality for many South Africans, many of whom cannot access education or drop out mainly because they cannot afford high fees.

Establishment of a Working Group

14. It is in consideration of the above that the Minister of Higher Education and Training hereby establishes a Working Group to advise on the feasibility of making university education fee-free for the poor in South Africa.

15. The Minister shall determine members of the Working Group.

16. The convenor of the Working Group shall be decided upon by the Minister and will work closely with the University Education Branch and, in particular, the Chief Directorate: University Policy and Development, which shall provide secretariat support.

Terms of Reference

17. The Working Group must conduct a study to determine the actual cost of introducing fee-free university education for poor people in South Africa. In other words, what would it cost South Africa to offer fee-free university education to cover people classified as poor?

18. The Working Group, therefore, must suggest a working definition of the classification of poor people in South Africa. If necessary and deemed practical, the Working Group may suggest different categories and how all can be provided fee-free university education. In this regard, consideration should be given to the "missing middle", where some families do not earn high enough to be considered for loans by financial institutions but are not classified poor, thus cannot access services directed at those classified as poor.

19. The Working Group must consider existing policy provisions and broadly consult documentation of other task teams/working groups of the Department which deal or dealt with related fields.

20. The study must examine various models and options of providing fee-free higher education to poor people used elsewhere in the world and make recommendations to the Minister.

21. The working Group must contemplate all possible implications and consequences of providing fee-free university education to the poor in South Africa.

22. At the conclusion of its investigations, the Working Group must compile a report and make recommendations on the following:

    22.1. How can fee-free university education be introduced in South Africa? What instruments could be used to implement fee-free university education?

    22.2. Where, possibly, should funding be solicited or taken in order to finance fee-free university education?

    22.3. Who should be eligible for fee-free university education? What criteria should be used to determine individual student eligibility for fee-free university education?

    22.4. What are possible costing models the Department should consider in introducing fee-free university education and what are the risks and benefits attached to the various models?

    22.5. What implications would fee-free university education have on government funding of public higher education institutions?

23. The Working Group may add any information it considers relevant and useful to the study and motivate for such addition.

24. The Working Group must submit a report to the Department within three months of commencing its work.

Appendix B

Table 1: Key cost assumptions (all Runs)

Inflation rate per annum	
2013-2030	5.0%
Full cost of study	
Real escalation (per cent per year)	
Registration and tuition	1.70%
Meals and accommodation	0.85%
Books	0.00%
Travel	0.85%

Average full cost of study

	Non-UNISA	UNISA
2013	52356	16743
2014	55336	17841
2015	58554	19011
2016	61977	20258
2017	65573	21587
2018	69354	23005
2019	73359	24516
2020	77609	26127
2021	82151	27844
2022	86950	29676
2023	91991	31628
2024	97328	33710
2025	102980	35930
2026	108982	38297
2027	115351	40821
2028	122103	43512
2029	129253	46382
2030	136829	49442

Note: Table 1 sets out the key cost assumptions of all model runs, and includes the estimated inflation rate from 2013-30 and the escalating average full cost of study. The full cost of non-UNISA study is taken from NSFAS (for average registration and tuition fees) and from the Ministerial Report on Student Housing (for meals and accommodation in 2011), while the amounts for books and travel are estimates. The UNISA costs are half the non-UNISA costs for fees, nothing for meals and accommodation, half the non-UNISA costs for books and the non-UNISA costs for travel.

Table 2: Loan parameters (Run #2)

Household contribution

Household income range (Rand per year) Lower	Upper	Contribution at lower end	Marginal contribution rate
0	54000	0	0%
54000	108000	0	10%
108000	162000	5400	20%
162000	216000	16200	30%
216000	270000	32400	23%
		44801	

Loan parameters

Repayment scheme	
Minimum repayment level 2010 prices	54000
Top rate repayment level 2010 prices	162000
Bottom repyament rate	4.0%
Top repayment rate	12.0%
Incomes and interest	
Real interest rate	1.68%
Real wage growth rate	1.70%
Inflation rate	5.00%
Nominal interest rate	6.76%
Nominal wage growth rate	6.79%
ALBI 7-12	6.76%
Per cent of ALBI	100%
Early nominal interest rate	5.00%
Real discount rate	2.50%
Interest and redemption grace period	1 year
Length of loan	15 years

Academic performance rebate for graduates as a per cent of total loan

	Minimum pass rate	Maximum rebate	Rebate	Marginal rebate
During degree	0%	20%		20%
On qualification			40%	

Assumed drop out subject pass rate 40%

Note: Table 2 sets out the loan parameters of the base run, including household contribution by income, repayment rates, interest rates and academic performance rebates. Household contribution is calculated by dividing the household income range into six categories. The first category constitutes those which this report takes as its starting point in determining 'the poor', i.e., those who earn less than R54 200 per annum in 2010 prices. The next four categories are eligible for loans, with increasing household co-payments. The top category is excluded from NSFAS altogether, i.e., they are not eligible for loans. At the moment, the upper limit on household income for the poor is the exempt income tax limit for 2010 and the intervals are at multiples of this. Repayments start at 4% at the lower limit and reach 12% at the upper limit, and the limit itself is adjusted in line with inflation. The long term (7-12 year) All Bond Index (ALBI) interest rate has been used, in place of the repo rate used by NSFAS, since the repo rate as a short term interest rate is not appropriate for a long term loan. Academic performance rebates are calculated at 20% each year during the degree and 40% in the final year. (The loan parameters as set out in this table may be usefully contrasted against average current NSFAS practice, shown in Table 11.)

Table 3: Student intake (all Runs)

	First time entrants					Degree split	
	Certificate	Diploma	Degree	All	Non-UNISA	Per cent 3 year	Per cent 4 year
2013	27863	52164	83253	163280	127752	59.2%	40.8%
2014	27928	52623	83315	163867	128213	59.2%	40.8%
2015	29117	55213	86737	171067	133850	59.2%	40.8%
2016	30689	58559	91298	180546	141269	59.2%	40.8%
2017	31488	60457	93567	185512	145157	59.2%	40.8%
2018	31626	61097	93881	186603	146013	59.2%	40.8%
2019	31792	61792	94290	187874	147009	59.2%	40.8%
2020	32175	62916	95356	190448	149025	59.2%	40.8%
2021	33381	65665	98866	197913	154869	59.2%	40.8%
2022	34320	67912	101592	203824	159496	59.2%	40.8%
2023	34475	68621	102011	205108	160503	59.2%	40.8%
2024	34605	69281	102364	206250	161399	59.2%	40.8%
2025	34757	69987	102792	207537	162407	59.2%	40.8%
2026	35122	71127	103860	210108	164421	59.2%	40.8%
2027	35651	72610	105425	213686	167222	59.2%	40.8%
2028	36213	74169	107095	217477	170190	59.2%	40.8%
2029	36742	75674	108678	221094	173022	59.2%	40.8%
2030	37257	77159	110227	224643	175800	59.2%	40.8%

Note: Table 3 lists projected numbers of first time university entrants from 2013 to 2030, by certificate, diploma and degree, for all universities apart from UNISA, with the percentage split for 3- vs 4-year degrees. Projections are based on Actuarial Society of South Africa 2008, Education Statistics in South Africa 2006-2010, Community Survey 2007, National Senior Certificate and Higher Education Management Information System data.

Table 4: Cohort net present values (Run #2)

Current prices *R million*

Year	FULL COST OF STUDY	Gross loan advances	Recoverable loans	Loan recoveries	BURDEN ANALYSIS Households	Students	Government Academic rebates	Government Grants	Government Loan subsidies graduates	Government Loan subsidies drop outs	Government Total
2013	22216	14189	11886	6362	36.1%	28.6%	9.6%	0.7%	3.9%	21.0%	35.2%
2014	23622	14983	12566	6773	36.6%	28.7%	9.6%	0.6%	3.8%	20.7%	34.8%
2015	26132	16498	13852	7521	36.9%	28.8%	9.6%	0.6%	3.8%	20.4%	34.4%
2016	29225	18353	15440	8469	37.2%	29.0%	9.5%	0.4%	3.8%	20.1%	33.8%
2017	31816	19775	16664	9337	37.8%	29.3%	9.4%	0.3%	3.7%	19.3%	32.8%
2018	33909	20944	17670	9999	38.2%	29.5%	9.4%	0.2%	3.7%	18.9%	32.3%
2019	36178	22207	18750	10819	38.6%	29.9%	9.4%	0.2%	3.7%	18.3%	31.5%
2020	38869	23703	20028	11653	39.0%	30.0%	9.3%	0.1%	3.6%	17.9%	31.0%
2021	42813	25771	21789	12824	39.8%	30.0%	9.2%	0.1%	3.6%	17.4%	30.2%
2022	46729	27987	23673	14221	40.1%	30.4%	9.2%	0.1%	3.5%	16.7%	29.5%
2023	49835	32771	27721	16603	34.2%	33.3%	10.1%	0.0%	3.9%	18.4%	32.4%
2024	53114	34704	29354	17976	34.7%	33.8%	10.0%	0.0%	3.8%	17.6%	31.5%
2025	56642	36765	31095	19440	35.1%	34.3%	10.0%	0.0%	3.8%	16.8%	30.6%
2026	60706	39190	33143	20911	35.4%	34.4%	9.9%	0.0%	3.7%	16.4%	30.1%
2027	65196	41739	35302	22488	36.0%	34.5%	9.9%	0.0%	3.7%	16.0%	29.5%

Note: Table 4 indicates the net present values for each student cohort from 2013 to 2027, including the costs of the full cost of study, gross loan advances, recoverable loans issued and loan amounts recovered, as well as the expected division of the cost burden between households (in the form of contributions), students (in the form of loan repayments after graduation or dropout) and government (in the form of academic rebates, grants and loan subsidies).

Table 5: Bursary adjustment (Run #2)

	BURSARY ADJUSTMENT	
		Revised Gross loan
2013	1219	12970
2014	1243	13739
2015	1268	15230
2016	1294	17060
2017	1319	18455
2018	1346	19598
2019	1373	20834
2020	1400	22303
2021	1428	24342
2022	1457	26530
2023	1486	31285
2024	1516	33189
2025	1546	35219
2026	1577	37613
2027	1608	40130

Note: The primary model assumes that all students eligible for loans will want them. In practice, however, a considerable number of students will receive bursaries which will relieve them partially or wholly from having to apply for loans. Table 5 takes these bursaries into account and shows the extent to which they will reduce the required gross loan advances.

Table 6: Cash flow (Run #2)

Current prices *R million*

	Current prices Loan advances	Loan repayment	Government subsidy	Financing requirement	Net governmer contribution
2013	5298	0	1483	3815	5298
2014	9716	0	2904	6811	9716
2015	13977	0	4313	9664	13977
2016	17591	0	5450	12141	17591
2017	20303	16	6254	14034	20287
2018	22363	93	7086	15184	22270
2019	24122	287	7613	16222	23835
2020	25818	634	8280	16904	25184
2021	27738	1154	9094	17490	26583
2022	29906	1877	10060	17969	28029
2023	33044	2862	11470	18711	30182
2024	36299	4187	13387	18725	32112
2025	39465	5783	15024	18657	33681
2026	42521	7742	17943	16835	34779
2027	45522	10026	17930	17566	35496

Note: Table 6 shows base run projections of NSFAS cash flow from 2013 to 2027. The first column represents the gross loan advances to students. The second column represents student loan repayments. The third column is the government subsidy required to compensate NSFAS for academic rebates, concessional loan terms for students and top-up grants for poor students. The fourth column is a financing requirement from government for an expanding system. The fifth column is the sum of the third and fourth columns and represents what the government needs to put into NSFAS each year.

Table 7: Number of undergraduates covered by student loans (all Runs)

2013	163182
2014	273247
2015	363944
2016	429784
2017	470488
2018	495989
2019	510456
2020	518280
2021	527296
2022	541315
2023	552206
2024	560735
2025	567281
2026	573856
2027	581600

Note: Table 6 shows the expected increase over time in the number of poor undergraduate students benefitting from NSFAS loans.

Table 8: Individual student illustration #1 (Run #2)

Description	Year	Full cost of study	Household contribution	Academic rebate	Requirement	Net loan	Poverty grant	Loan balance	Salary 2010 prices	Repayment 2010 prices	Per cent of salary
A poor student who completes a three year degree in minimum time at non-UNISA	2013	52340	0	10468	41872	41872	0	41872			
	2014	55335	0	11067	44268	44268	0	88234			
	2015	58554	0	23422	35132	35132	0	127778			
	2016								56391	0	0
	2017								71930	3833	5.3%
	2018								81809	4958	6.1%
	2019								89205	5895	6.6%
	2020								94922	6674	7.0%
	2021								110069	8974	8.2%
	2022								124050	11399	9.2%
	2023								132746	13053	9.8%
	2024								144863	15545	10.7%
	2025								158552	18621	11.7%
	2026								170519	20462	12.0%
	2027								166184	16311	9.8%
	2028								173181		
	2029								182600		
	2030								189582		
	2031								189543		

Write off 0

Table 9: Individual student illustration #2 (Run #2)

Description	Year	Full cost of study	Household contribution	Academic rebate	Requirement	Net loan	Poverty grant	Loan balance	Salary 2010 prices	Repayment 2010 prices	Per cent of salary
A poor student who completes a four year degree in six year at non-UNISA	2013	52340	0	6979	45362	45362	0	45362			
	2014	55335	0	7378	47957	47957	0	95587			
	2015	58554	0	7807	50747	50747	0	151113			
	2016	61977	0	8264	53713	53713	0	212381			
	2017	65572	0	8743	56829	33314	23515	232800			
	2018	69354	0	27741	41612	0	41612	202828			
	2019								56391	0	0
	2020								71930	3833	5.3%
	2021								81809	4958	6.1%
	2022								89205	5895	6.6%
	2023								94922	6674	7.0%
	2024								110069	8974	8.2%
	2025								124050	11399	9.2%
	2026								132746	13053	9.8%
	2027								144863	15545	10.7%
	2028								158552	18621	11.7%
	2029								170519	20462	12.0%
	2030								166184	19942	12.0%
	2031								173181	20782	12.0%
	2032								182600	21912	12.0%
	2033								189582	22750	12.0%
	2034								189543	22745	12.0%
									197966		

Write off	0

Table 10: Individual student illustration #3 (Run #2)

Description	Year	Full cost of study	Household contribution	Academic rebate	Requirement	Net loan	Poverty grant	Loan balance	Salary 2010 prices	Repayment 2010 prices	Per cent of salary
A middle income student who drops out after four years at UNISA	2013	16743	10800	951	4992	4992	0	4992			
	2014	17841	10800	1127	5914	5914	0	11156			
Household of origin income 135000 in 2013	2015	19011	10800	1314	6897	6897	0	18611			
	2016	20258	10800	1513	7944	7944	0	27486			
	2017								20174	0	0
	2018								24657	0	0.0%
	2019								27742	0	0.0%
	2020								30282	0	0.0%
	2021								31478	0	0.0%
	2022								34049	0	0.0%
	2023								36453	0	0.0%
	2024								37146	0	0.0%
	2025								38069	0	0.0%
	2026								38628	0	0.0%
	2027								41520	0	0.0%
	2028								43519	0	0.0%
	2029								49678	0	0.0%
	2030								56870	2396	4.2%
	2031								62669	2909	4.6%
	2032								63476	2985	4.7%

Write off 26 851

Table 11: Average current NSFAS loan parameters (Run #1)

Household contribution

Household income range (Rand per year) Lower	Upper	Contribution at lower end	Marginal contribution rate
0	36223	0	27%
36223	72446	9780	27%
72446	108669	19560	27%
108669	144892	29341	27%
144892	181115	39121	27%
		48901	

Loan parameters

Repayment scheme	
Minimum repayment level 2010 prices	36000
Top rate repayment level 2010 prices	108000
Bottom repyament rate	3.0%
Top repayment rate	8.0%
Incomes and interest	
Real interest rate	-0.95%
Real wage growth rate	1.70%
Inflation rate	5.00%
Nominal interest rate	4.00%
Nominal wage growth rate	6.79%
ALBI 7-12	5.00%
Per cent of ALBI	80%
Early nominal interest rate	0.00%
Real discount rate	2.50%
Interest and redemption grace period	1 year
Length of loan	15 years

Academic performance rebate for graduates as a per cent of total loan

	Minimum pass rate	Maximum rebate	Rebate	Marginal rebate
During degree	0%	40%		40%
On qualification			100%	0%

Assumed drop out subject pass rate 40%

Table 12: Cohort net present values based on average current NSFAS practice (Run #1)

Current prices *R million*

Year	FULL COST OF STUDY	Gross loan advances	Recoverable loans	Loan recoveries	BURDEN ANALYSIS Households	Students	Government Academic rebates	Government Grants	Government Loan subsidies graduates	Government Loan subsidies drop outs	Government Total
2013	19243	10533	6617	3616	45.3%	18.8%	20.3%	0.0%	3.3%	12.3%	35.9%
2014	20460	11131	6987	3919	45.6%	19.2%	20.2%	0.0%	3.2%	11.8%	35.2%
2015	22634	12216	7662	4361	46.0%	19.3%	20.1%	0.0%	3.2%	11.4%	34.7%
2016	25313	13587	8514	4908	46.3%	19.4%	20.0%	0.0%	3.1%	11.1%	34.3%
2017	27557	14695	9200	5378	46.7%	19.5%	19.9%	0.0%	3.1%	10.8%	33.8%
2018	29369	15574	9742	5782	47.0%	19.7%	19.9%	0.0%	3.1%	10.4%	33.3%
2019	31335	16523	10327	6235	47.3%	19.9%	19.8%	0.0%	3.0%	10.0%	32.8%
2020	33665	17663	11028	6825	47.5%	20.3%	19.7%	0.0%	3.0%	9.5%	32.2%
2021	37081	19348	12068	7567	47.8%	20.4%	19.6%	0.0%	3.0%	9.2%	31.8%
2022	40472	20925	13039	8300	48.3%	20.5%	19.5%	0.0%	2.9%	8.8%	31.2%
2023	43162	22174	13803	8919	48.6%	20.7%	19.4%	0.0%	2.9%	8.4%	30.7%
2024	46001	23400	14551	9552	49.1%	20.8%	19.2%	0.0%	2.8%	8.0%	30.1%
2025	49056	24817	15417	10273	49.4%	20.9%	19.2%	0.0%	2.8%	7.7%	29.6%
2026	52573	26443	16412	11132	49.7%	21.2%	19.1%	0.0%	2.7%	7.3%	29.1%

Table 13: Bursary adjustment based on average current NSFAS practice (Run #1)

BURSARY ADJUSTMENT		
		Revised Gross loan
2013	1219	9314
2014	1243	9888
2015	1268	10948
2016	1294	12294
2017	1319	13375
2018	1346	14228
2019	1373	15151
2020	1400	16262
2021	1428	17919
2022	1457	19469
2023	1486	20688
2024	1516	21885
2025	1546	23271
2026	1577	24866
2027	1608	26643

Table 14: Cash flow based on average current NSFAS practice (Run #1)

Current prices *R million*

	Current prices				
	Loan advances	Loan repayment	Government subsidy	Financing requirement	Net governmer contribution
2013	4194	0	2770	1424	4194
2014	7512	0	5403	2109	7512
2015	10615	0	7950	2665	10615
2016	13201	0	9972	3228	13201
2017	15145	17	11407	3720	15128
2018	16612	98	12813	3701	16514
2019	17916	285	13763	3867	17630
2020	19192	595	14898	3699	18597
2021	20698	1021	16462	3216	19678
2022	22347	1547	18212	2587	20799
2023	23843	2444	20062	1337	21398
2024	25507	3461	22081	-35	22046
2025	27174	4504	23978	-1308	22670
2026	28915	5656	25959	-2699	23260
2027	30816	6931	24303	-418	23885

Table 15: Variation A: Loan parameters (Run #3)

Household contribution

Household income range (Rand per year)		Contribution at lower end	Marginal contribution rate
Lower	Upper		
0	45000	0	0%
45000	90000	0	10%
90000	135000	4500	20%
135000	180000	13500	30%
180000	225000	27000	40%
		44801	

Loan parameters

Repayment scheme		
Minimum repayment level 2010 price	54000	
Top rate repayment level 2010 prices	162000	
Bottom repyament rate	4.0%	
Top repayment rate	12.0%	
Incomes and interest		
Real interest rate	1.68%	
Real wage growth rate	1.70%	
Inflation rate	5.00%	
Nominal interest rate	6.76%	
Nominal wage growth rate	6.79%	
ALBI 7-12	6.76%	
Per cent of ALBI	100%	
Early nominal interest rate	5.00%	
Real discount rate	2.50%	
Interest and redemption grace period	1	year
Length of loan	15	years

Academic performance rebate for graduates as a per cent of total loan

	Minimum pass rate	Maximum rebate	Rebate	Marginal rebate
During degree	0%	20%		20%
On qualification			40%	

Assumed drop out subject pass rate 40%

Table 16: Variation A: Cohort net present values (Run #3)

Current prices *R million*

Year	FULL COST OF STUDY	Gross loan advances	Recoverable loans	Loan recoveries	BURDEN ANALYSIS Households	Students	Government Academic rebates	Government Grants	Government Loan subsidies graduates	Government Loan subsidies drop outs	Government Total
2013	22216	14836	12439	6637	33.2%	29.9%	10.1%	0.7%	4.0%	22.1%	36.9%
2014	23622	15690	13170	7074	33.6%	29.9%	10.1%	0.6%	4.0%	21.8%	36.5%
2015	26132	17243	14488	7840	34.0%	30.0%	10.0%	0.5%	4.0%	21.5%	36.0%
2016	29225	19129	16102	8800	34.5%	30.1%	9.9%	0.4%	4.0%	21.0%	35.3%
2017	31816	20631	17393	9702	35.2%	30.5%	9.9%	0.3%	3.9%	20.3%	34.4%
2018	33909	21829	18424	10377	35.6%	30.6%	9.8%	0.2%	3.9%	19.9%	33.8%
2019	36178	23116	19523	11209	36.1%	31.0%	9.7%	0.2%	3.8%	19.1%	32.9%
2020	38869	24721	20892	12091	36.4%	31.1%	9.7%	0.1%	3.8%	18.8%	32.5%
2021	42813	27078	22898	13392	36.8%	31.3%	9.7%	0.1%	3.8%	18.4%	32.0%
2022	46729	29414	24882	14843	37.1%	31.8%	9.6%	0.1%	3.7%	17.8%	31.2%
2023	49835	31195	26388	15908	37.4%	31.9%	9.6%	0.0%	3.7%	17.3%	30.7%
2024	53114	32986	27901	17216	37.9%	32.4%	9.5%	0.0%	3.6%	16.5%	29.7%
2025	56642	34984	29589	18650	38.2%	32.9%	9.5%	0.0%	3.6%	15.7%	28.8%
2026	60706	37285	31533	20062	38.6%	33.0%	9.5%	0.0%	3.5%	15.3%	28.4%
2027	65196	39776	33642	21610	39.0%	33.1%	9.4%	0.0%	3.5%	15.0%	27.9%

Table 17: Variation A: Bursary adjustment (Run #3)

	BURSARY ADJUSTMENT	
		Revised Gross loan
2013	1219	13617
2014	1243	14447
2015	1268	15975
2016	1294	17835
2017	1319	19312
2018	1346	20483
2019	1373	21743
2020	1400	23321
2021	1428	25650
2022	1457	27957
2023	1486	29709
2024	1516	31470
2025	1546	33438
2026	1577	35708
2027	1608	38168

Table 18: Variation A: Cash flow (Run #3)

Current prices *R million*

	Current prices				
	Loan advances	Loan repayment	Government subsidy	Financing requirement	Net governmer contribution
2013	5540	0	1550	3990	5540
2014	10168	0	3039	7129	10168
2015	14619	0	4511	10108	14619
2016	18374	0	5692	12682	18374
2017	21196	17	6526	14653	21179
2018	23327	103	7359	15865	23224
2019	25141	311	7910	16920	24829
2020	26911	668	8591	17653	26244
2021	28990	1191	9439	18359	27799
2022	31324	1913	10444	18967	29411
2023	33466	2908	11563	18994	30558
2024	35881	4248	13173	18460	31633
2025	38288	5899	14526	17863	32389
2026	40781	7947	17216	15617	32834
2027	43454	10334	17189	15932	33121

Table 19: Variation B: Loan parameters (Run #4)

Household contribution

Household income range (Rand per year)		Contribution at lower end	Marginal contribution rate
Lower	Upper		
0	54000	0	0%
54000	108000	0	10%
108000	162000	5400	20%
162000	216000	16200	30%
216000	270000	32400	23%
		44801	

Loan parameters

Repayment scheme		
Minimum repayment level 2010 price	36000	
Top rate repayment level 2010 prices	108000	
Bottom repyament rate	3.0%	
Top repayment rate	8.0%	
Incomes and interest		
Real interest rate	-0.95%	
Real wage growth rate	1.70%	
Inflation rate	5.00%	
Nominal interest rate	4.00%	
Nominal wage growth rate	6.79%	
ALBI 7-12	5.00%	
Per cent of ALBI	80%	
Early nominal interest rate	0.00%	
Real discount rate	2.50%	
Interest and redemption grace period	1	year
Length of loan	15	years

Academic performance rebate for graduates as a per cent of total loan

	Minimum pass rate	Maximum rebate	Rebate	Marginal rebate
During degree	0%	20%		20%
On qualification			40%	

Assumed drop out subject pass rate 40%

Table 20: Variation B: Cohort net present values (Run #4)

Current prices *R million*

Year	FULL COST OF STUDY	Gross loan advances	Recoverable loans	Loan recoveries	BURDEN ANALYSIS Households	Students	Government Academic rebates	Government Grants	Government Loan subsidies graduates	Government Loan subsidies drop outs	Government Total
2013	19243	12290	10185	5514	36.1%	28.7%	10.8%	0.2%	7.1%	17.2%	35.2%
2014	20460	12977	10757	5932	36.6%	29.0%	10.7%	0.2%	7.0%	16.6%	34.4%
2015	22634	14290	11848	6600	36.9%	29.2%	10.7%	0.1%	6.9%	16.3%	34.0%
2016	25313	15897	13189	7414	37.2%	29.3%	10.6%	0.1%	6.8%	16.0%	33.5%
2017	27557	17128	14216	8084	37.8%	29.3%	10.5%	0.0%	6.7%	15.5%	32.8%
2018	29369	18140	15054	8661	38.2%	29.5%	10.5%	0.0%	6.6%	15.1%	32.3%
2019	31335	19234	15958	9300	38.6%	29.7%	10.4%	0.0%	6.6%	14.7%	31.7%
2020	33665	20530	17030	10107	39.0%	30.0%	10.4%	0.0%	6.5%	14.1%	31.0%
2021	37081	22320	18511	11115	39.8%	30.0%	10.3%	0.0%	6.4%	13.6%	30.2%
2022	40472	24240	20098	12196	40.1%	30.1%	10.2%	0.0%	6.3%	13.2%	29.8%
2023	43162	28383	23528	14064	34.2%	32.6%	11.2%	0.0%	6.9%	15.1%	33.2%
2024	46001	30057	24908	15057	34.7%	32.7%	11.2%	0.0%	6.8%	14.6%	32.6%
2025	49056	31841	26378	16133	35.1%	32.9%	11.1%	0.0%	6.7%	14.2%	32.0%
2026	52573	33939	28108	17420	35.4%	33.1%	11.1%	0.0%	6.6%	13.8%	31.4%
2027	56457	36144	29929	18848	36.0%	33.4%	11.0%	0.0%	6.4%	13.2%	30.6%

Table 21: Variation B: Bursary adjustment (Run #4)

	BURSARY ADJUSTMENT	
		Revised Gross loan
2013	1219	11071
2014	1243	11734
2015	1268	13022
2016	1294	14603
2017	1319	15808
2018	1346	16795
2019	1373	17861
2020	1400	19130
2021	1428	20892
2022	1457	22783
2023	1486	26897
2024	1516	28541
2025	1546	30295
2026	1577	32363
2027	1608	34536

Table 22: Variation B: Cash flow (Run #4)

Current prices *R million*

	Current prices				
	Loan advances	Loan repayment	Government subsidy	Financing requirement	Net governmer contribution
2013	4893	0	1479	3414	4893
2014	8761	0	2864	5897	8761
2015	12397	0	4209	8188	12397
2016	15428	0	5282	10146	15428
2017	17683	17	6054	11612	17666
2018	19386	100	6886	12401	19287
2019	20885	302	7509	13074	20583
2020	22345	657	8309	13379	21688
2021	24013	1181	9556	13276	22833
2022	25902	1888	10981	13033	24014
2023	28674	3050	12896	12728	25624
2024	31495	4424	15197	11875	27072
2025	34210	5978	17352	10879	28231
2026	36824	7777	19452	9595	29047
2027	39401	9771	19297	10333	29630

Table 23: Variation C: Loan parameters (Run #5)

Household contribution

Household income range (Rand per year)		Contribution at lower end	Marginal contribution rate
Lower	Upper		
0	54000	0	0%
54000	108000	0	10%
108000	162000	5400	20%
162000	216000	16200	30%
216000	270000	32400	23%
		44801	

Loan parameters

Repayment scheme		
Minimum repayment level 2010 price	54000	
Top rate repayment level 2010 prices	162000	
Bottom repyament rate	4.0%	
Top repayment rate	12.0%	
Incomes and interest		
Real interest rate	1.68%	
Real wage growth rate	1.70%	
Inflation rate	5.00%	
Nominal interest rate	6.76%	
Nominal wage growth rate	6.79%	
ALBI 7-12	6.76%	
Per cent of ALBI	100%	
Early nominal interest rate	5.00%	
Real discount rate	2.50%	
Interest and redemption grace period	1	year
Length of loan	15	years

Academic performance rebate for graduates as a per cent of total loan

	Minimum pass rate	Maximum rebate	Rebate	Marginal rebate
During degree	0%	40%		40%
On qualification			100%	

Assumed drop out subject pass rate 40%

Table 24: Variation C: Cohort net present values (Run #5)

Current prices *R million*

Year	FULL COST OF STUDY	Gross loan advances	Recoverable loans	Loan recoveries	BURDEN ANALYSIS Households	Students	Government Academic rebates	Government Grants	Government Loan subsidies graduates	Government Loan subsidies drop outs	Government Total
2013	22216	14189	9399	4479	36.1%	20.2%	21.3%	0.3%	2.7%	19.5%	43.7%
2014	23622	14983	9925	4771	36.6%	20.2%	21.2%	0.2%	2.6%	19.2%	43.2%
2015	26132	16498	10929	5302	36.9%	20.3%	21.1%	0.2%	2.6%	18.9%	42.8%
2016	29225	18353	12162	5978	37.2%	20.5%	21.0%	0.2%	2.6%	18.6%	42.3%
2017	31816	19775	13108	6632	37.8%	20.8%	20.8%	0.1%	2.6%	17.8%	41.3%
2018	33909	20944	13886	7116	38.2%	21.0%	20.7%	0.1%	2.5%	17.4%	40.8%
2019	36178	22207	14720	7749	38.6%	21.4%	20.7%	0.0%	2.5%	16.8%	40.0%
2020	38869	23703	15701	8362	39.0%	21.5%	20.6%	0.0%	2.5%	16.4%	39.5%
2021	42813	25771	17059	9232	39.8%	21.6%	20.3%	0.0%	2.4%	15.8%	38.6%
2022	46729	27987	18514	10302	40.1%	22.0%	20.3%	0.0%	2.4%	15.2%	37.8%
2023	49835	32771	21664	11994	34.2%	24.1%	22.3%	0.0%	2.6%	16.8%	41.7%
2024	53114	34704	22925	13074	34.7%	24.6%	22.2%	0.0%	2.6%	15.9%	40.7%
2025	56642	36765	24270	14223	35.1%	25.1%	22.1%	0.0%	2.6%	15.2%	39.8%
2026	60706	39190	25855	15330	35.4%	25.3%	22.0%	0.0%	2.5%	14.8%	39.3%
2027	65196	41739	27535	16531	36.0%	25.4%	21.8%	0.0%	2.5%	14.4%	38.7%

Table 25: Variation C: Bursary adjustment (Run #5)

	BURSARY ADJUSTMENT	
		Revised Gross loan
2013	1219	12970
2014	1243	13739
2015	1268	15230
2016	1294	17060
2017	1319	18455
2018	1346	19598
2019	1373	20834
2020	1400	22303
2021	1428	24342
2022	1457	26530
2023	1486	31285
2024	1516	33189
2025	1546	35219
2026	1577	37613
2027	1608	40130

Table 26: Variation C: Cash flow (Run #5)

Current prices *R million*

	Current prices				
	Loan advances	Loan repayment	Government subsidy	Financing requirement	Net governmer contribution
2013	5298	0	3233	2065	5298
2014	9716	0	6380	3335	9716
2015	13977	0	9500	4477	13977
2016	17591	0	12007	5584	17591
2017	20303	17	13762	6525	20286
2018	22363	97	15509	6756	22265
2019	24122	293	16521	7307	23828
2020	25818	632	17780	7406	25186
2021	27738	1134	19281	7323	26604
2022	29906	1799	20996	7111	28107
2023	33044	2631	23568	6845	30413
2024	36299	3732	26573	5994	32567
2025	39465	5064	29178	5223	34401
2026	42521	6340	33015	3166	36181
2027	45522	7849	31285	6388	37673