

CHAPTER 4

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FUNDING

In the period before 1994, the South African government's funding policies mirrored apartheid's divisions and the different governance models which it imposed on the higher education system. As shown in Chapter 2, before 1994 control of South Africa's 36 universities and technikons was divided amongst four government departments in the 'independent republics' (the TBVC countries: Transkei, Bophuthatswana, Venda and Ciskei) and four government departments in the Republic of South Africa (RSA). Different funding policies and practices applied within these government departments.

This chapter begins by offering a broad outline of the different funding policies and of the relationship between these policies and the apartheid governance structures in the years before 1994. It also describes the effects which apartheid policies had on the funding of higher education institutions before 1994.

The main body of the chapter discusses the changes to government funding policies and mechanisms which were proposed by the National Commission on Higher Education and accepted by the 1997 White Paper on higher education transformation. In particular, it focuses on a crucial issue which influenced the institutions' responses to the new policy framework, viz. that by 2001 the proposed changes to government funding policies and mechanisms had not yet been implemented in the higher education system. This resulted in a discredited apartheid-era funding system remaining in place throughout a key phase in the transformation of higher education in South Africa.

1. FUNDING UNDER THE APARTHEID GOVERNMENT

Two broad types of government funding were in place in South Africa (RSA and the TBVC) during the years up to 1994. The first type was that of negotiated budgets and was associated with the historically black universities and technikons. The second was that of formula funding which was associated initially with the historically white universities. The two funding systems were instruments used in the implementation of the government's so-called 'separate-but-equal' policy.

The historically white universities, within the apartheid constraint of being required to serve the 'white community' only, were given considerable administrative and financial powers. They could decide, for example, how their funding grants from government were to be spent, how many staff members they should employ, what their tuition fees should be, and how any surplus funds should be invested.

The other higher education institutions in the RSA were not given similar administrative and financial powers. Their tuition fees and the details of their expenditure budgets had to be approved by their controlling government department. For example, they had to apply for approval from this government department before employing new members of staff, even down to the level of clerical and service staff. They could not take decisions on what the maintenance programmes should be for the buildings they occupied or on what major items of equipment they should purchase. Aspirations for the same levels of autonomy as the historically white universities played a major role, throughout the early 1980s, in the relationship between these 18 universities and technikons and their controlling RSA government departments. They saw the main vehicle for the achievement of that autonomy to be the adoption by their departments of the funding framework of the historically white universities.

By 1988 the 18 institutions had achieved their ambition to be placed on the same funding basis as the historically white universities. The discussion which follows will show that this was an adaptive strategy which had unintended, but serious, consequences for all historically black higher education institutions in South Africa – not just during the years 1988–1994, but also during the years following 1994.

1.1. Negotiated budgets and formula funding

The system of negotiated budgets involved the university or technikon concerned submitting a budget for expenditure and partial income to its controlling government department. The income side would have been primarily the amount the institution expected to collect from student fees. The final amount which the institution was permitted to spend in that financial year would have been a nett amount of approved expenditure less student fees. This nett amount would have appeared as a line item in the overall budget of the controlling government department.

Two key features of this budgetary mechanism were the following:

- As would be the case with all government expenditure, any unspent balances on a negotiated budget would have to be returned to the national treasury. Institutions were not permitted to transfer these amounts to reserves under their control. This had two consequences: a spending spree at the end of every year to discharge accumulated funds and no build-up of a reserve fund.
- The expenditure budgets finally approved were not determined by the student enrolments of the institutions concerned. They were based on assessments of current needs in the context of historical expenditure patterns. In many cases this amounted to adding a percentage to the allocation for the previous year, and did not overcome disparities with the more advantaged institutions or ensure adequate library, laboratory and computer facilities.

In 1982 the government developed a formula funding framework for the historically white universities (Department of National Education, 1982). The framework was based

on a set of underlying principles (see Bunting, 1994:137–138). The first three rested on the distinction between the private and public benefits of higher education. These principles stated that costs must be shared between government as the recipient of public benefits and students as the recipients of private benefits, and that government must subsidise only those higher education activities which generate substantial public benefits. The final three principles dealt with issues of efficiency, institutional autonomy and government intervention in the higher education market. They stated that institutions operate most efficiently when granted high levels of autonomy by government, and that government should intervene directly in the higher education system only when the need existed for market failures to be corrected.

Known as the South African Post-Secondary Education (SAPSE) formula, the funding framework was a highly complex one (Department of National Education, 1982). A few of its main features are these (taken from Bunting, 1994:129–137):

- *Subsidy students.* The student input variables in the formula were composites consisting of 50% full-time equivalent *enrolled* and 50% full-time equivalent *successful* students.
- *Subject groupings.* Subsidy students were placed in two groupings for the purposes of the formula: a *natural sciences* grouping which included the life, physical and mathematical sciences, health sciences, engineering, computer science, agriculture, architecture and building sciences, and a *humanities* grouping which included all other disciplines.
- *Course levels.* Subsidy students were also placed into one of four course levels which carried weightings ranging from one to four. Subsidy students at a doctoral level were multiplied by four, at a masters level by three, and at fourth year (or honours) level by two. All other subsidy students had a weighting of one.
- *Cost units.* The formula contained a total of ten cost units which were based on calculations made of the actual costs of the historically white universities in 1981. These cost units covered three categories of staff, supplies and services, and building renewals, and four categories of library books and periodicals. The rand value of these cost units increased each year in line with inflation in the higher education sector.
- *Gross formula totals.* The formula contained tables of ratios between the ten cost units on the one hand, and humanities and natural sciences subsidy students on the other. These tables permitted a calculation to be made of the gross formula total of individual higher education institutions.
- *Nett subsidy total.* A key principle of this funding framework was that costs had to be shared by government and by the consumer of higher education. The nett subsidy payment by government to an institution was therefore determined by its gross formula income total less the amount which had to be raised from students and/or their families as well as from other private sources. The amount to be raised from private sources was dependent on the size of the institution, and in the early years ranged from 18% to 22% of the gross formula totals of the historically white universities.

- *a-factors*. Soon after introducing this funding framework, the government found that the total of nett subsidies exceeded its budget for these historically white universities. It therefore introduced a final adjustment factor, called the a-factor, to bring the subsidies paid to the universities in line with the national budget. The a-factor for the historically white universities was initially close to 1, but dropped during the 1980s. It was, for example, 0.83 in 1986, and approximately 0.75 in 1988 and 1989.

1.2. Application of formula funding to all RSA institutions: 1988 to 1994

By the mid-1980s the arguments for the greater autonomy which the SAPSE formula gave to higher education institutions had been accepted by the RSA government. All four of the RSA government departments involved in the controlling of universities and technikons began to apply versions of the formula to their institutions, but did so within the overall constraints of apartheid ideology. The subsidy per student that these institutions received was very similar, and in some cases even higher than that which the historically white institutions were receiving. The problem was that the universities were small, mainly located in rural areas where it was expensive to run an institution. They were relatively new institutions without book collections that had been built up over a period of time, and staff costs were very high. This meant that 'academic infrastructure' such as the library and science and computer laboratories, was chronically under-equipped. But the biggest disadvantage was the limited academic capacity of the expensive staff.

By the end of the 1980s, a funding framework which had been explicitly designed for the historically white universities was applied to the six historically black universities in the RSA. These institutions accepted this funding framework together with its underlying apartheid assumptions and principles because they believed, firstly, that the formula would give them greater administrative and financial autonomy and, secondly, that they would receive substantial financial benefits from the growth in student enrolments which they were experiencing at this time. The growth was due to larger numbers of students coming through the school system, despite the school boycotts. By 1988 an adapted version of the formula was also applied to the twelve historically white and historically black technikons in the RSA. The adaptations made to the formula for technikons did not affect its underlying assumptions and principles. They mainly involved changes which were supposed to reflect the different cost structures of technikons. A lower rand value than that applicable to universities was set for the technikon cost unit for academic staff, and lower ratios between cost units and subsidy students than those for universities were set for technikons. This was because it was assumed that universities with a research mission and postgraduate students would be more expensive to run than vocationally orientated institutions.

One main effect of the extension of the SAPSE formula to all universities and technikons was that the RSA government, by 1988, had adopted a 'hands-off' approach to the funding and steering of the higher education system. It believed that, provided its overall ideological framework of separate institutions for separate race groups remained

intact, all universities and technikons should be given high levels of administrative and financial autonomy. The government held the view that the size of the higher education system and its shape by course enrolment should, within the constraints of the apartheid ideology, be determined solely by the higher education market.

The role which government funding was supposed to play in this market-driven environment by 1988 can be summed up in the following way:

- Students and/or their families were assumed to be rational agents. As rational agents they would be able to read the labour market, and thus choose those courses and directions of study likely to generate the maximum possible benefit for them, and ultimately for the country.
- The actual size of the higher education system and its shape in terms of courses or programmes of study selected was determined by these student choices. Government intervention would be necessary only to correct failures in the student-choice-driven market.
- Since the SAPSE funding formula generated an ideal cost of the higher education system shaped by student choice, and since it determined what share of this ideal cost should be carried by government and what share by individual institutions, a national budget for higher education could be settled relatively easily.
- This national budget for higher education was allocated in a mechanical way to universities and technikons. The allocation method was mechanical in the sense that it eliminated the possibility of political interference in the shaping of the higher education system.
- Competition between institutions for available students was essential. Higher education institutions had to read the labour market and try to predict what student choices were likely to be.

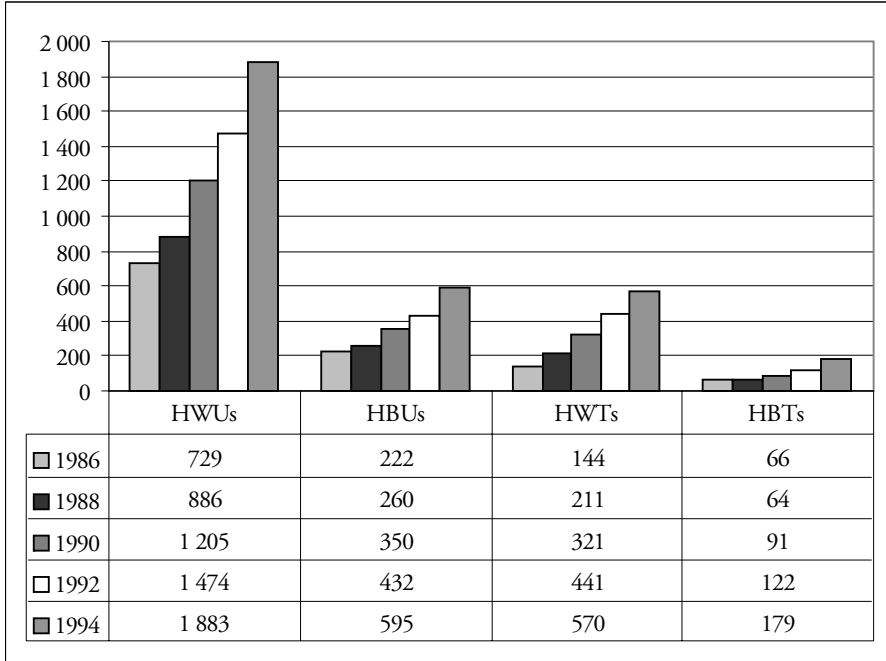
2. GOVERNMENT APPROPRIATIONS AND INSTITUTIONAL INCOME: 1986–1994

As outlined above, by 1988 all 29 universities and technikons in the RSA were operating within the same government funding framework. This switch of funding frameworks, when linked to the rapid growth in student enrolments in the RSA, led both to government funding requirements increasing rapidly and to an increased diversification in the income flows of higher education institutions in the RSA. But it also sowed the seeds of the serious financial problems which South Africa's historically black institutions were to experience in the late 1990s.

Government appropriations for higher education in the RSA increased nearly three-fold between 1986 and 1994: from R1.161-million in 1986 to R3.227-million in 1994, which was the last budget year of the apartheid government. Details of the changes which occurred by higher education sector can be seen in Figure 1.

This graph hides a serious problem which the RSA government had begun to experience by the early 1990s: it could not meet the level of formula funding which

Figure 1. Government appropriations for universities and technikons in RSA (rands millions): 1986–1994



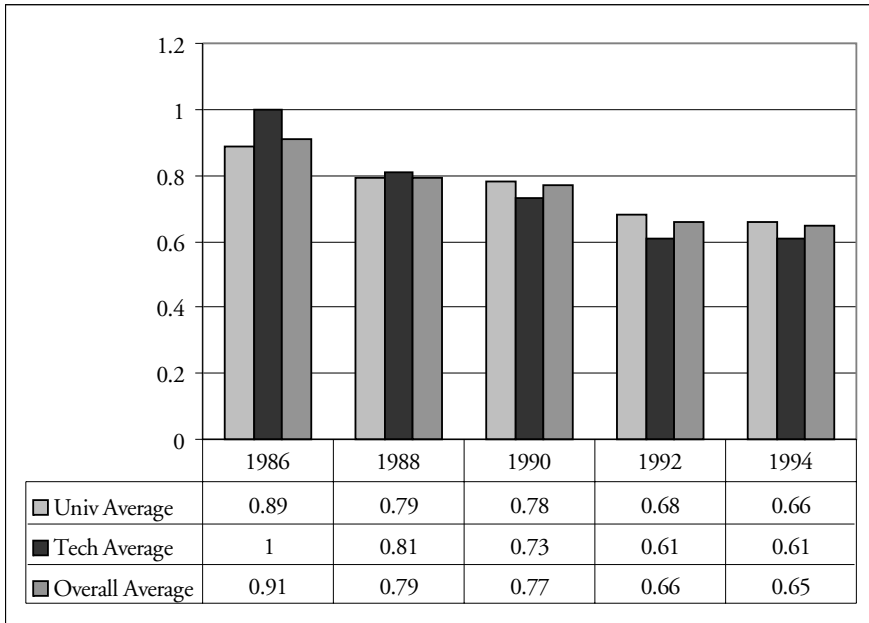
Source: Department of Education, 2001

student growth in the system had generated. Between 1986 and 1994, government appropriations for the 29 universities and technikons grew in nominal rands by 178%. Because of South Africa's high inflation rate at the time, however, the growth in real rands (i.e. in rands deflated by the consumer price index) was only 3% in 1994 compared with 1986.

This increase in the real total of government appropriations was considerably lower than the growth which occurred in student enrolments in the RSA's universities and technikons. In 1986, about 300.000 students were enrolled in universities and technikons in the RSA, and in 1994 more than 520.000. This represented a total growth of 220.000 (or 73%) over this period. So the unit value of government funding per student fell sharply in real terms between 1986 and 1994. Further details of these growth rates in student enrolments between 1986 and 1994 can be seen in the chapter on students which follows.

The South African government used the mechanism of the a-factor to reduce the share it was supposed to meet, in terms of the provisions of the SAPSE formula, of the 'ideal costs' of the higher education system. The functioning of these a-factors was described earlier in this chapter. Figure 2 sets out the a-factors which were applied in the RSA between 1986 and 1994. The falling value of the a-factors over this time period is an

Figure 2. a-factors applied to universities and technikons: 1986–1994¹



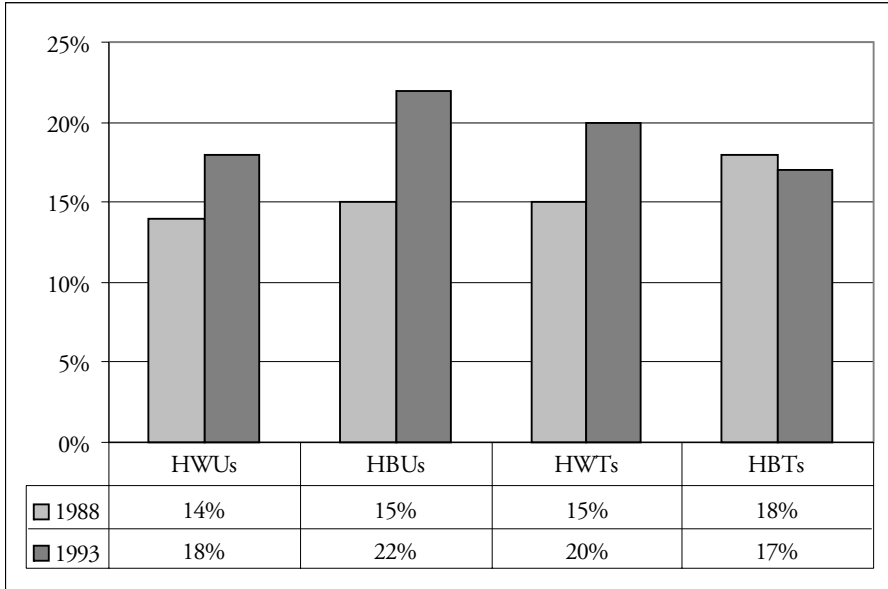
Source: Department of Education, 2001

indication that the national RSA budget was not able to cope with the financial demands generated by rapid increases in student enrolments. It shows that in 1986 the RSA government was able to meet 90% and in 1994 only 65% of the commitment generated by the SAPSE formula.

The shortfalls in government subsidy funding reflected in Figure 2 had to be found by universities and technikons from private funding sources. Over this period, government subsidy appropriations had a steadily declining share of the total income of all universities in the RSA and of the historically white technikons. The proportion which government appropriations constituted of the income of the historically white universities fell from 54% in 1986 to 47% in 1994, and the proportion for the historically black universities in the RSA fell from 73% in 1986 to 49% in 1994. In the case of the historically white technikons, the share which government appropriations had of their total income fell from 64% in 1988 (1986 information is not available) to 54% in 1994. The share government appropriations had of the income of historically black technikons in the RSA remained constant at 63%–64% throughout this period.

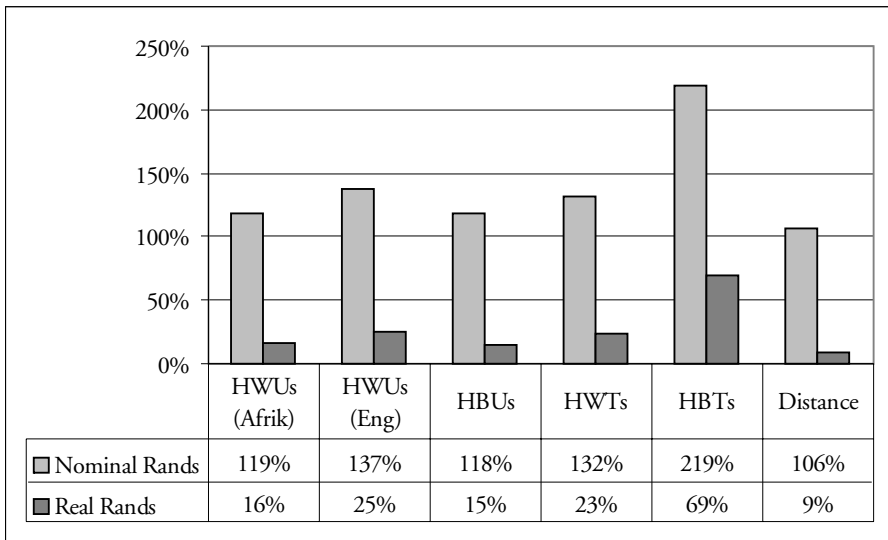
A major effect of this need for institutions to diversify their funds away from government to private sources between 1988 and 1994, was that student tuition fees increased rapidly. Student tuition fee increases were seen by most institutions to be the easiest way to overcome the problems caused by the a-factor cuts imposed by government. This can be seen in Figure 3.

Figure 3. Student tuition fees as a percentage of total income: 1988–1993



Sources: Hendry & Bunting, 1993(a) and 1993(b); Bunting & Bunting, 1998; Bunting & Smith, 1998

Figure 4. Increases in tuition fees per student: 1993 compared with 1988



Sources: Hendry & Bunting, 1993(a) and 1993(b); Bunting & Bunting, 1998; Bunting & Smith, 1998

Figure 3 shows that student tuition fees as a share of total institutional income increased in all parts of the higher education system in 1993 compared with 1988. This reliance by institutions on student tuition fees as a way of balancing their budgets placed severe financial burdens on individual students because in nominal as well as in real terms fees per student increased rapidly in the period up to 1994. Examples of these increases can be seen in Figure 4. The increases in nominal rands are indications of the high levels of consumer price inflation which South Africa experienced during the late 1980s and early 1990s.

The discussion in later sections of this chapter will show that tuition fee increases of this scale did not occur in the period after 1994.

3. CHANGES TO FUNDING POLICIES: 1994–1997

3.1. The SAPSE formula and the historically black institutions

By 1994 it was clear that a strategy adopted during the 1980s by the RSA's historically black universities had had serious implications for their financial well-being. This was the strategy of using the extension of the funding formula for white universities to all sectors as a way of increasing their levels of institutional autonomy. Three aspects of their financial performance in the years between 1986 and 1994 had generated severe financial strains on the RSA's historically black university sector:

- Because government appropriation totals in real terms remained flat over this period even though student enrolments had grown rapidly, the real government income per student at the historically black universities had fallen sharply by 1994 compared with 1988.
- The RSA's historically black universities had been forced to rely to an increasing extent on student tuition fee collections to build up their required income. This had placed a heavy burden both on students and on these institutions. Many of their students came from economically disadvantaged sectors of South African society, and were not able to meet large increases in their tuition fees and cost of living expenses. The historically black institutions were forced to project their expenditure budgets on the assumption that they would be able to collect 100% of their student fee billings, even when there was evidence that they knew that at least 33% of all fees charged would remain uncollected.
- The problems which this funding framework generated for historically black institutions emerged even more clearly when the universities and technikons of the TBVC countries were incorporated into the South African higher education system after the 1994 elections. These seven universities and technikons had not been placed on the SAPSE formula in 1988. Unlike black universities and technikons in the RSA, they remained, until 1994, on a negotiated budget system within regimes of tight state control. When they became the responsibility of a new unified national Department of Education after June 1994, they were informed

that from 1995 they would be subject to the same funding framework as all other universities and technikons in South Africa. However, because their funding under the TBVC regimes had been generous in comparison with that of black as well as white institutions in the old RSA, they were given a limited time frame of about five years to adapt to lower levels of government funding.

3.2. First objections to the SAPSE formula

In the early 1990s various non-governmental investigations were launched into future higher education policies for a post-apartheid South Africa. During these debates the SAPSE funding formula was taken to be a flawed document, and strong objections were expressed to its underlying assumptions and principles (see Bunting, 1994:141–149).

These pre-1994 objections to the SAPSE funding formula were taken up by the National Commission on Higher Education (NCHE). For example, its finance task team drew this conclusion about the SAPSE formula in its March 1996 report to the NCHE:

... most of the mechanisms used by the South African government for distributing its higher education funding should not be employed in a new, transformed system. The fundamental problems are that current mechanisms are based on assumptions which clash with certain of the values and principles which flow from the 1995 Education White Paper, and that the present formulae have contained incentives which have distorted the higher education system. (NCHE finance task team, 1996:38)

The key problems which the NCHE finance task team highlighted in this 1996 report were these:

- *Access equity*

Because the SAPSE formula was originally formulated for the historically white universities only, it assumed that access to higher education in South Africa was fair, and hence that no provision should be made by government for the improvement of equity through, for example, the provision of funds for financial aid and for preparatory or remedial instruction. The task team stressed that in a transformed higher education system in South Africa, government should make financial provision for the improvement of equity of access in the higher education system (NCHE finance task team, 1996:35).

- *Efficiency and autonomy*

The ‘hands-off’ aspects of the formula flowed from an assumption that institutions would function most efficiently in the long-term national interest when given as much control as possible of their own planning and finances. The task team reached these conclusions on the basis of detailed analyses of the financial state in 1993 of universities and technikons in the old RSA (ie. not including TBVC institutions):

- Major financial inequalities existed between the historically white and historically black institutions which were on the SAPSE formula. Black institutions in the years up to 1993 had had to raise student fees rapidly and were consequently faced with serious problems in collecting fees from impoverished students.

- The physical infrastructure of the higher education system was running down rapidly, primarily due to declining proportions of institutional expenditure being devoted to building and equipment maintenance, to building renewals and to the purchase of new fixed assets.
- Some institutions had excess facilities, in the sense that the facilities were seriously under-utilised by students, while others were carrying student loads far above capacity. The physical facilities of the higher education system were not being put to optimal use (NCHE finance task team, 1996:30).

- *Unintended consequences*

The NCHE finance task team argued that the formula and its application to institutions other than the historically white universities had resulted in a number of unintended consequences. Some of these were created by incentives which had by 1995 severely distorted the South African higher education system. These were clearly not the intended consequences of these incentives. The task team highlighted these specific problems in the formula for universities as well as that for technikons:

- The higher education system has grown rapidly at rates which have not been sustainable in financial terms (hence the introduction of a-factors which in effect place upper limits on the numbers of students which the government will subsidise). This growth has been encouraged by elements in the formulae which generate substantial benefits for institutions which grow and substantial penalties for institutions with declining student numbers.
- The formulae further encourage institutions to increase enrolments in the cheaper humanities fields and not in the more expensive science and technology fields.
- The formulae contain powerful incentives for all higher education institutions to engage in distance learning activities, and to use the funds generated from this source as a way of cross-subsidising their contact education activities.
- The formulae encourage institutions to grow at cheaper undergraduate levels rather than at more expensive postgraduate levels despite the apparently higher weightings given to postgraduate students. (NCHE finance task team, 1996:37)

In its final report of March 1996 the task team recommended to the NCHE that the SAPSE higher education funding framework should be dropped and replaced by a fundamentally different one.

3.3. A planning/steering model of higher education funding

The proposals formulated by the finance task team of the NCHE (1996) were consistent with at least some international accounts of the role which government funding should play in the implementation of national higher education policies (see for example Albrecht & Ziderman, 1992; Williams, 1992). The literature and the consultants appointed to advise the task team had at that time placed particular stress on the steering role of government funding mechanisms.

These emphases were adopted by the NCHE when it accepted the arguments of its finance task team that the SAPSE funding framework should be replaced by a fundamentally different one. The NCHE formulated this proposal in its final report:

A new funding framework for higher education in South Africa should be developed which is consistent with the principles of equity (including redress), development, democratisation, efficiency, effectiveness, financial sustainability and shared costs. (1996:216)

On the NCHE's proposal, the key principles which government funding of a transformed higher education system would have to satisfy are these:

- *Principles of equity and redress.* Government funding of higher education must be employed to ensure that the South African higher education system becomes an equitable one.
- *Principle of development.* The higher education system must be responsive to the needs of a developing economy which is aspiring to become internationally competitive. Government funding of the system has to encourage responsive programmes in institutions which will help satisfy the vocational and employment needs of the economy.
- *Principles of effectiveness, efficiency, and sustainability.* Government funding of the higher education system must be directed at ensuring that the system achieves its pre-determined goals at the lowest possible cost. The system must be an affordable one.
- *Principle of shared costs.* The costs of higher education must be shared by both the government and students or their families, because of the public and private benefits generated.

The government funding framework of the 1980s and early 1990s (the SAPSE funding framework) satisfied in an explicit way only the last of the principles set out above. This framework explicitly rejected the principles of equity and redress, holding that it was not the business of the higher education system to deal with social inequalities which affected either individuals or institutions. Its built-in assumptions about institutional autonomy and the efficacy of the free market implied, as has been noted above, that the SAPSE funding framework could not satisfy the principles of development or those concerned with efficiency and effectiveness. It satisfied the principle of financial sustainability only through its use of the a-factors which were in effect *post hoc* cuts imposed on the subsidisable student enrolments of institutions.

The new South African government accepted the proposals of the NCHE regarding funding of the higher education system. In its August 1997 White Paper on higher education transformation it states that a goal-oriented, performance-related framework of public funding would be introduced in South Africa. The new framework would be implemented as follows:

- *Step 1.* The Ministry of Education would interact regularly with individual higher education institutions. These high level interactions would involve discussion concerning institutional missions, institutional programme offerings, and institutional planning proposals.
- *Step 2.* The Ministry of Education would, at the end of the consultative process, publish a national plan for the size and shape of the South African higher education system.

- *Step 3.* Within the framework of this national plan for higher education, and after examining key aspects of institutional performance, the Ministry would, approve rolling three- to five-year plans for programmes and student enrolment for each individual higher education institution.
- *Step 4.* At the same time as it is considering and approving institutional plans, the Ministry would negotiate a budgetary allocation for higher education with the national Department of Finance.
- *Step 5.* The amounts allocated in the national higher education budget would, together with the national plan and with the approved plans of individual institutions, determine how the government allocation would be divided between institutions in a given funding year.

3.3.1. *Anticipated consequences*

Most universities and technikons accepted that the implementation of the new funding-planning system would have a number of crucial effects on the South African higher education system. Three of these can be summed up in these ways:

- *End of the apartheid higher education market.* During the years of apartheid, higher education in South Africa operated in a set of ‘compartmentalised’ markets. The limits of each market were set by the various racial categories and policies described in Chapter 2. The size and shape of each racially defined higher education sub-system was determined by student and institutional readings of the labour market relevant to that sub-system (labour markets in South Africa were also racially defined in the years before 1994), and by competition between institutions within these racial categories. In a sense, within each racial category, a ‘free’ higher education market had been functioning, characterised by government exercising no control over student enrolments within institutions and within overall academic programmes.
- *Future reliance on student markets in higher education.* The apartheid government’s version of higher education markets ended after 1994. The funding-planning model set out in the 1997 White Paper stressed that the size and shape of the higher education system in South Africa would not in future be determined by student and institutional readings of the labour market, nor by students exercising programme choice in a context of strong inter-institutional competitiveness. The size and shape of the system would be determined by government in the context of national policies related to equity and to development, and in accordance with its readings of labour market requirements.
- *Institutional autonomy and institutional competitiveness.* An important consequence of the implementation of the funding-planning model laid out in the 1997 White Paper would be a dampening down of institutional competitiveness. Competition between institutions would still be possible, but only within the constraints of nationally approved plans for higher education. This implied further that a key premise of the state supervision model of the 1980s, viz. that institutions function

most efficiently and effectively when given close to total administrative and financial autonomy, would be abandoned. Under the 1997 model, institutions would have to function within the framework of a national plan for higher education and an individual institutional plan approved by the Minister of Education.

A major problem for the higher education system has been the delay in the implementation of this 1997 planning/steering model. It had not been implemented by the 2001/2002 financial year, and is unlikely to be fully in place before the 2003/2004 financial year. As we shall see in the section which follows, this implementation delay has had positive effects on some higher education institutions and negative effects on others.

4. CHANGES IN INSTITUTIONAL FUNDING PATTERNS: 1994–2001

By the beginning of 1998, public universities and technikons in South Africa were clearly faced with strong indications that radical changes would be made to the funding framework under which they had operated for some years. At the same time it was clear that some years would pass before the radical new framework and its accompanying mechanisms would be put in place.

This section offers a brief account of changes that occurred in the funding patterns of institutions in the period while the SAPSE formula was under detailed scrutiny, but was still functioning as the sole government funding mechanism. The conclusion to Part 1 (p113) offers an analysis of the strategies adopted by institutions in the face of these impending changes.

4.1. Government appropriations: 1995–2001

In the 1995 financial year all 36 universities and technikons in South Africa were brought on to the SAPSE funding formula. This total included the 29 institutions in the former RSA and the seven incorporated from the TBVC countries.

As can be seen from Table 1, the new government's funding of this enlarged higher education system increased in both real and nominal terms throughout the period 1995–2001.

Details of total government allocations to the system in nominal rands can be seen in Figure 5. The growth in real rands which occurred in government appropriations for the system between 1995 and 2001 was matched by the growth which occurred in student enrolments. In other words, the government was not able to increase in real terms its appropriations per higher education student. The overall government units of funding nevertheless remained constant over the period, as can be seen in Figure 6. This shows that in real rands, government appropriations per subsidy student unit remained constant over the five-year period from 1997 to 2001. As the earlier discussion showed, this did not occur between 1988 and 1994, the last years of the apartheid government.

During those years subsidies per student fell in real terms. The refrain so often heard in South African higher education, namely that the system is ‘suffering’ from a decrease in government funding, is empirically incorrect. An argument could be made that the level of funding is not high enough, but not that funding has decreased since 1994.

Table 1. Average annual increases in government appropriations: 1995–2001

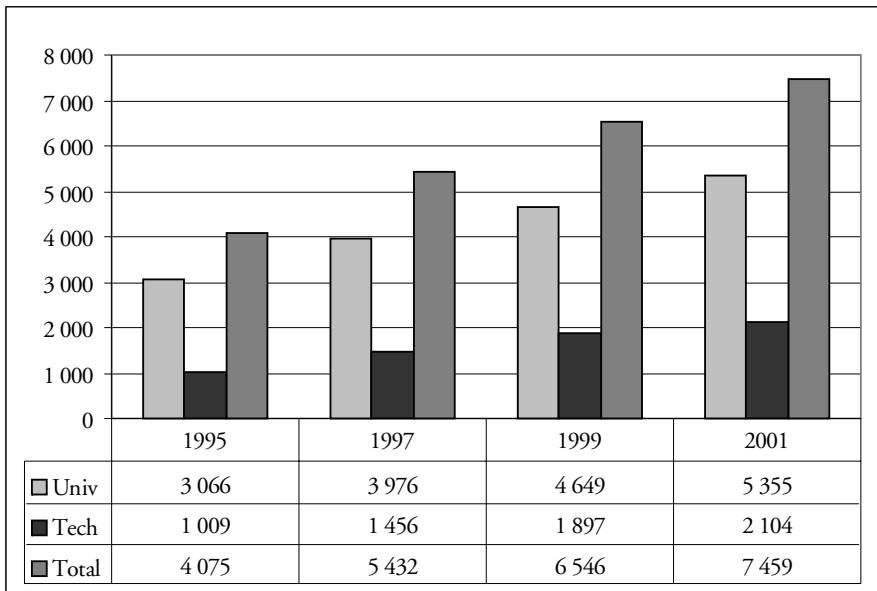
	Nominal rands	Real rands on base of 1995 = 100
Universities	10%	2%
Technikons	13%	4%
Total	11%	2%

Source: Department of Education, 2001

Figures 6 and 7, however, hide important shifts which occurred within the various groupings of institutions. Figure 7 shows clearly that the flows of government funds to institutions were uneven during this period, primarily because of the changing patterns of student enrolment within different groups of institutions (details of these enrolment shifts are offered in Chapter 5).

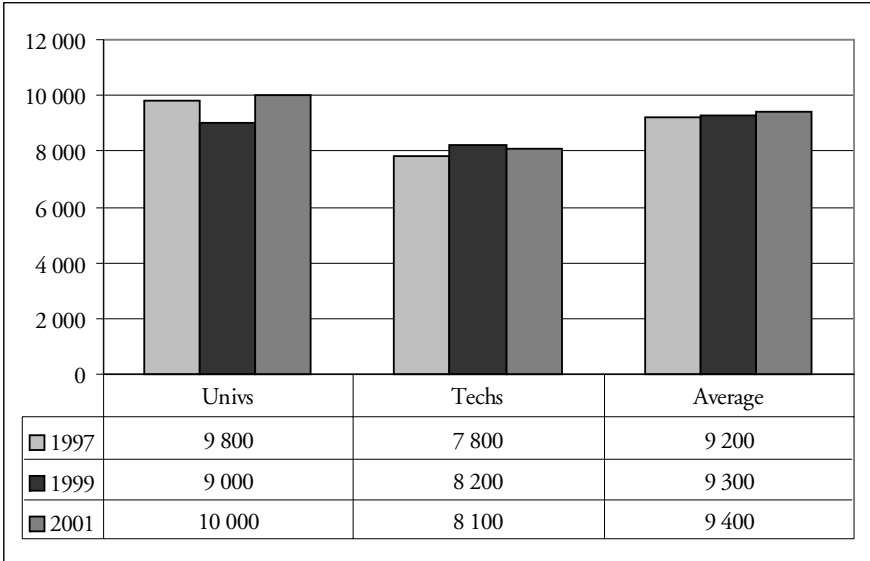
Figure 7 shows that government appropriations to the historically white Afrikaans-medium universities increased in real terms over the period 1995 to 2001, and increased

Figure 5. Total government appropriations in nominal rands (rands millions): 1995–2001



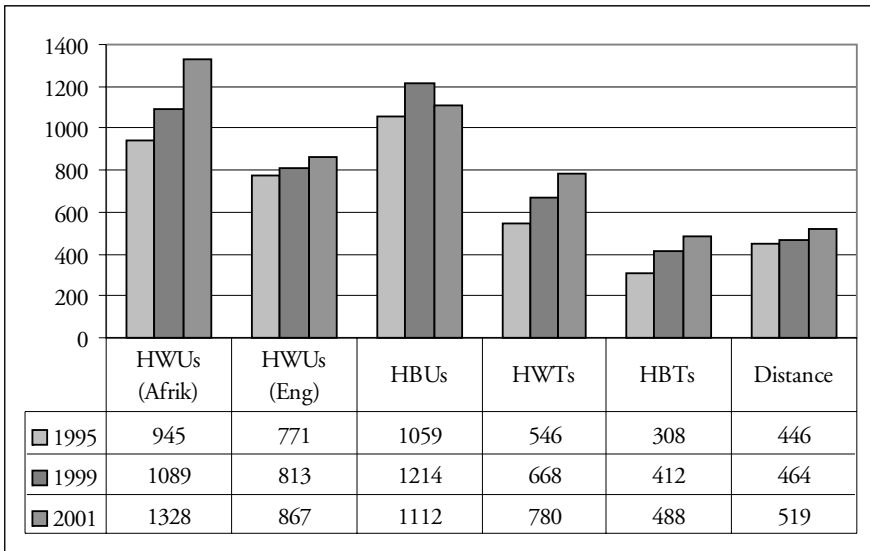
Source: Department of Education, 2001

Figure 6. Government appropriations per subsidy student unit in real rands² of 1997



Sources: Department of Education, 2001; SA Reserve Bank at www.resbank.co.za

Figure 7. Government appropriations by institutional grouping in 1995 real rands (millions)



Source: Calculations based on information contained in Department of Education, 2001

particularly sharply between 1999 and 2001. In terms of real rands, the government appropriations of the historically white Afrikaans-medium universities increased by R239-million (or 22%) between 1999 and 2001. Those of the historically white English-medium universities increased in real rands by R54-million (or 7%) between 1999 and 2001. In marked contrast, the government appropriation total of the historically black universities fell in real rands by R102-million (or 8%) between 1999 and 2001. The key reasons for these marked differences in growth in government appropriations totals can be found in the different adaptive strategies which institutions employed during the years 1995 to 1997, particularly those related to government funding of the higher education system. A discussion of these different strategies is offered in the conclusion which follows Chapter 5.

5. TOTAL INCOME AND LONG-TERM INVESTMENTS 1993–1999

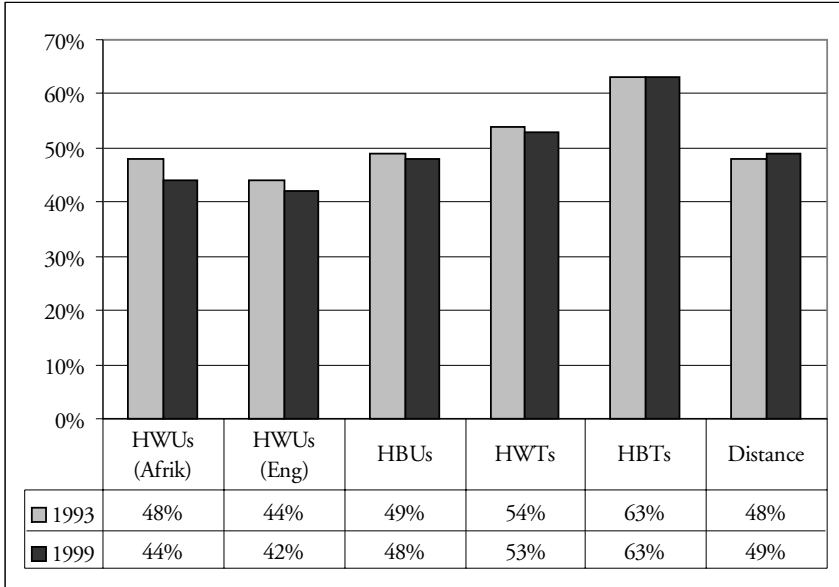
Figures 8 and 9 compare government appropriations and private income as proportions of total institutional income for the years 1993 and 1999. The institutions which appear in these categories are those which formed part of the old RSA – those parts of South Africa which were not included in the four TBVC states prior to 1994. The data thus apply to 29 of the current 36 universities and technikons in South Africa.

Figure 8 shows that, other than for the group of six historically white Afrikaans-medium universities, government appropriations as a proportion of total income remained stable in the remaining 23 institutions in 1999 compared with 1993. The government appropriation proportion of the historically white Afrikaans-medium universities fell to a level comparable with that of the historically white English-medium universities, not because of declines in the government appropriations but because of sharp increases in their levels of private funding. This private funding would have been income which the Afrikaans institutions generated from non-government contracts, but most importantly income derived from long- and short-term investments.

Figure 9 compares, for 1999 only, the extent to which the different groups of institutions were dependent on student tuition fees as the major source of their private or non-government income. By international standards, the proportion of government funding in relation to the overall budget is low. For example, Albrecht and Zideman (1992) placed various countries in three bands as far as their dependency on government funding was concerned: high, medium and low. In 1995 South Africa was placed in the low dependency band, along with countries such as the USA and Japan. The medium dependency band included countries such as Britain and India, and the high dependency band a wide range of European, African and other countries such as the Netherlands, Norway, Kenya, Nigeria, Brazil and China.

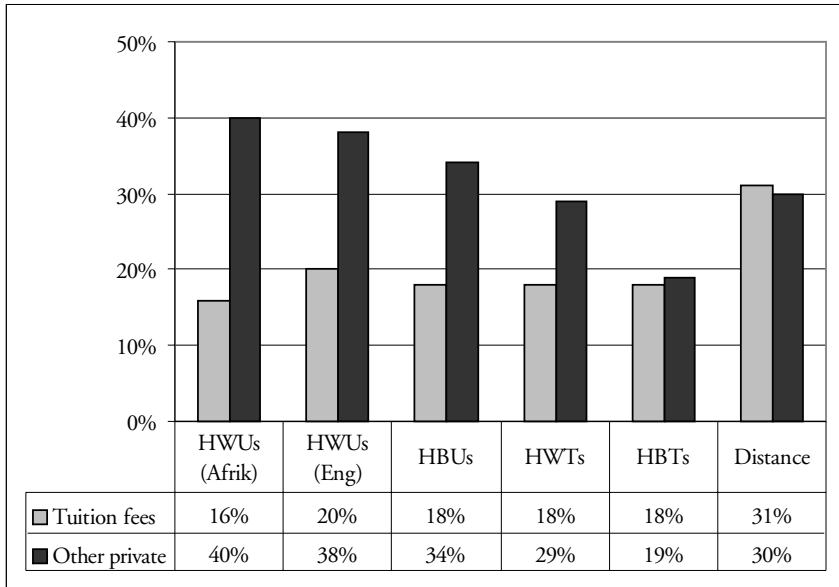
Figures 10 and 11 show what effect the 1993–1999 changes in income patterns had on the long-term investment holdings of 27 of the 29 universities and technikons in the old RSA (information for Unisa and Technikon SA was not available at the time of writing). Figure 10 shows somewhat starkly that the total market value of the long-term investments of the six historically white Afrikaans-medium and the four historically

Figure 8. Government appropriations as percentage of total income: 1993 and 1999



Source: Bunting, M., 2001

Figure 9. Private income as a percentage of total income in 1999



Source: Bunting, M., 2001

white English-medium universities nearly doubled between 1993 and 1999. In 1993, these ten universities held long-term investments with a market value of R2.078-million; in 1999 their long-term investments had a market value of R4.008-million. In 1993 as well as in 1999 these historically white universities held 82% of the total of long-term investments of the 27 contact universities and technikons of the old RSA. This suggests clearly that no redistribution of funds between historically white and historically black institutions occurred in the years after 1994.

The most significant increase which occurred in the long-term investments of the 27 institutions reflected in Figure 10, was that of the historically black technikons. Two of these technikons had by 1999 accumulated substantial long-term investments off very low bases in 1993.

The problems faced by the historically black universities emerge clearly from Figures 10 and 11. The market value of their total long-term investments dropped slightly in 1999 compared with 1993. When calculated in terms of the days of operating income which these investments represented, a much sharper decline occurred. By 1999, the market value of the long-term investments of the historically black universities was equivalent to only 84 days of operating income, compared with an already low figure of 116 in 1993.

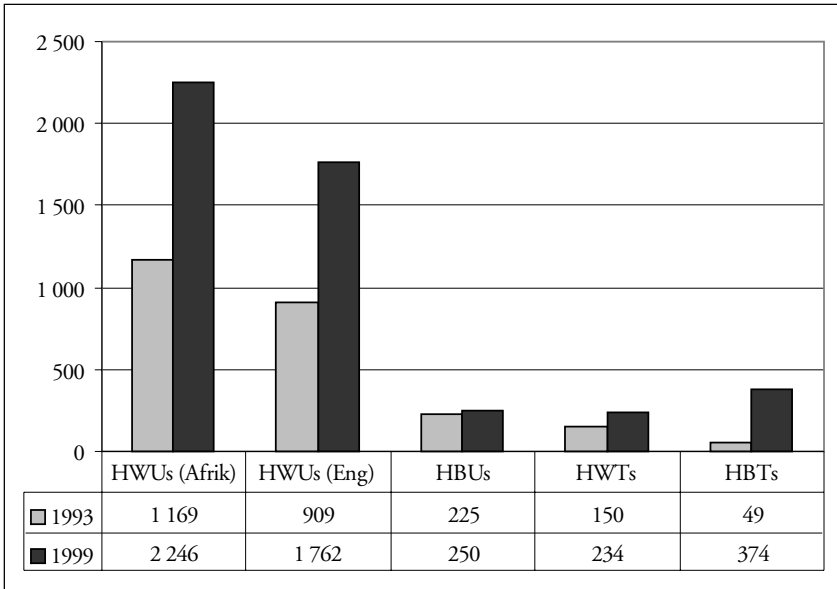
The sharp growth that occurred in the long-term investment holdings of the historically black technikons is reflected in Figure 11 in a sharp increase in the income-days-equivalent of these holdings. The graph shows also that the figure for the historically white technikons remained as low in 1999 as it was in 1993.

These last graphs show that South African higher education institutions had by the end of the 1990s diversified their income to an extent not achieved in many developed countries. For example, by the mid-1990s more than 10% of the income of universities in South Africa came from grants and contracts from industry and commerce. This was a proportion matched at the time only by private universities in the USA (Ziderman & Albrecht, 1995). A further proportion of 10% of the income of universities in South Africa is generated by their investment holdings. When these proportions are added to the more than 20% generated by tuition and residence fees, it is clear that the government cannot realistically expect the proportion of its contribution to decrease in future years.

The inability of certain institutions to successfully attract non-governmental funding is a key contributor to some of the institutional crises presently being faced, and this raises the crucial issue of whether higher education in South Africa has in fact been under-funded by government throughout the 1990s. In international comparative terms, however, the proportion that South Africa spends on education (22% of total state budget) and on higher education (15% of the education budget and 0.8% of GDP) compares favourably with middle- and even some high-income countries (Task Force on Higher Education and Society, 2000).

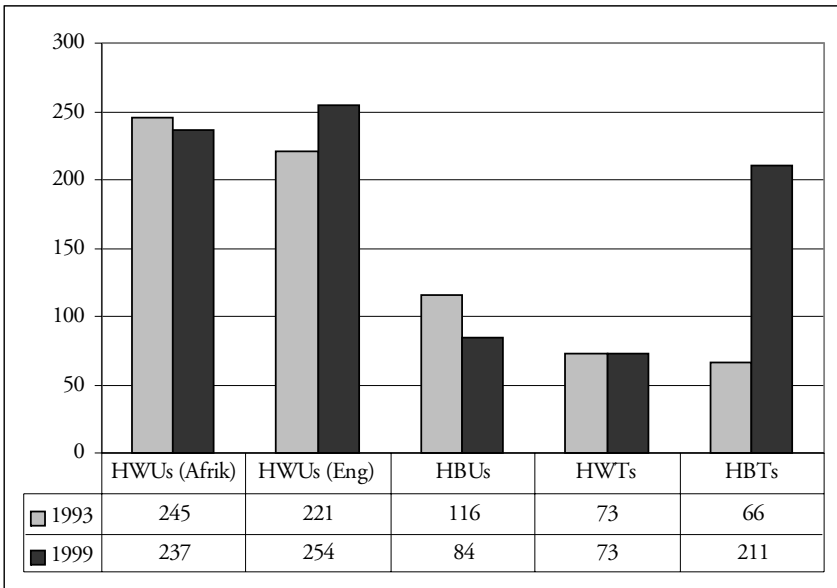
It was argued earlier that claims that government subsidies have been cut in the years after 1994 are in fact wrong. The total amount appropriated by government, particularly in the years between 1997 and 2001, increased in real terms, and the subsidy amount per student remained constant. These arguments do not affect the critical issue of whether

Figure 10. Market value of long-term investments (rands millions): 1993 and 1999



Source: Bunting, M., 2001

Figure 11. Long-term investments as days of operating income: 1993 and 1999



Source: Bunting, M., 2001

government appropriations should not have been higher during this period, given in particular the financial aid crises faced by many institutions. The South African government's contribution to institutional budgets has consistently been at a level seen only in highly developed countries. Should it not have been at the levels seen in less developed countries than the USA?

6. INSTITUTIONAL ADAPTIVE STRATEGIES: 1997–2001

By 1997 most public universities and technikons in South Africa had accepted that they would in future have to adapt to two crucial changes:

- *Mission and values.* They would have to ensure that their institutional missions and values were consistent with those of the 1997 White Paper on higher education transformation. For some, this involved changing in major ways their 'institutional ideologies'.
- *SAPSE framework.* The SAPSE funding framework which had been established in 1982 for the historically white universities, and which had been applied throughout the late 1980s and early 1990s to all other universities and to all technikons, would be abolished. It became generally accepted that this was essentially an apartheid funding framework and could not be used in a transformed higher education system committed to equity and to strong linkages with national development needs. It was also accepted that the abolition of the SAPSE funding framework would result in major benefits for some groups of institutions and major costs for others.

It was also generally accepted by the institutions that it would take some years after the publication of the 1997 White Paper for the Ministry of Education to develop, to implement, and to phase in a new funding framework. This was a reasonable expectation. If work on the development of a new framework had begun in 1998, soon after the establishment of the higher education branch in the Ministry of Education, then even on a fast-track implementation process, it would have taken at least five years (ie. up to about 2002) before government funds could have been distributed to institutions under the provisions of a new funding framework.

Consequently it was assumed that, as far as higher education funding was concerned, the primary emphasis of government in the first few years after 1998 would be that of changing 'higher educational 'institutional ideologies' in South Africa. This assumption was reinforced to a certain extent by the emphasis placed on equity in the requirements circulated to institutions (in 1998) for the submission of the first set of three-year rolling plans for the years 1999–2001.

As is shown in the conclusion on page 113, the strategies adopted by institutions in the years after the publication of the NCHE report in 1996 and the White Paper in 1997 were to a large extent determined by perceptions – perceptions about the extent to which they would have to recast institutional missions and values, and the extent to which they

would lose or benefit from the dropping of the SAPSE funding framework. Because of the close links between funding strategies and student enrolment strategies, these are discussed in the conclusion which follows Chapter 5.

NOTES

- ¹ These a-factors represent the actual proportion which the government paid of its share of the ideal institutional cost generated by the subsidy formula.
- ² Real rands were determined by deflating nominal rand totals by the consumer price index supplied by the South African Reserve Bank.

REFERENCES

- Albrecht, D. & Ziderman, A. (1992). *Funding Mechanisms for Higher Education: Financing for Stability, Efficiency and Responsibility*. Washington: World Bank.
- Bunting, I. (1994). *A Legacy of Inequality*. Cape Town: University of Cape Town Press.
- Bunting, I. & Bunting, L. (1998). Research Reports 9, 10, 11, 12, 13, 14. Cape Town: Educational Policy Unit, University of the Western Cape.
- Bunting, I. & Smith, M. (1998). Research Report 15. Cape Town: Educational Policy Unit, University of the Western Cape.
- Bunting, M. (2001). Analyses of the Financial Statements of Universities and Technikons. Unpublished research papers. Grahamstown: Rhodes University.
- Department of National Education (1982). *An Investigation of Government Funding of Universities*. Pretoria.
- Department of Education (2001). *Information on the State Budget for Higher Education*. Pretoria.
- Hendry, J. & Bunting, I. (1993a). SA Universities: 1985–1990. Research Report. Cape Town: University of Cape Town.
- Hendry, J. & Bunting, I. (1993b). SA Technikons: 1988–1990. Research Report. Cape Town: University of Cape Town.
- National Commission on Higher Education (1996). *A Framework for Transformation*. Pretoria: NCHE.
- National Commission on Higher Education (1996). *Finance Task Team*. Pretoria: NCHE.
- Salmi, J. (1994). *Higher Education: The Lessons of Experience*. Washington: The World Bank.
- Task Force on Higher Education and Society (2000). *Higher Education in Developing Countries: Peril and Promise*. Washington: The World Bank.
- Williams, G. (1992). *Changing Patterns of Finance in Higher Education*. Buckingham: Society for Research into Higher Education and Open University Press.
- Ziderman, A. & Albrecht, D. (1995). *Financing Universities in Developing Countries*. Washington: Falmer Press.