

Appendix 4

Government steering of doctoral production

Government steers the higher education system mainly through three instruments:

- a. The **funding framework** provides financial incentives to achieve the goals set for higher education. Accordingly, the current funding framework, which was introduced in 2003 and became effective in the financial year 2004/05, was designed to give the minister the ability to reprioritise funding allocations in line with new priority areas and policy incentives.
- b. The **programme approval process** gives the minister the leverage to phase out inefficient and expensive duplications, improve the quality of programme offerings, align programme offerings with institutional capacity, and ensure that programme offerings are aligned to economic needs. The minister has to approve the PQM (programme qualification mix) of each university for subsidy purposes, while the CHE has to accredit programmes to ensure that both the programme content and the university resources ensure a quality programme offering. **Quality assurance** is the function of the HEQC, a permanent committee of the CHE.
- c. The **enrolment planning process (linked to the funding framework)** needs to ensure that student-enrolment growth in the system is aligned with broader social and economic needs, the capacity of the system in terms of human and capital resources, and the available fiscal resources. It is thus acknowledged that the enrolment process cannot be determined by institutional and student choice alone, but has to be *steered* in order to achieve the desired outcomes. Funding is thus used to support the achievement of the enrolment plans of universities.

The Higher Education Act (1997) gave the minister the power to determine the 'shape and size' of institutions. Size refers to the number of enrolments, while shape refers to the enrolments in various fields of study and ratios of undergraduate and postgraduate enrolments, and the like. As a consequence of this increased steering power assigned to the minister, the *National Plan for Higher Education* (MoE 2001) proposed ensuring institutional diversity by basing this on the type and range of qualifications offered.

As a first step in implementing the planning model and related goals outlined in the *National Plan for Higher Education*, the PQM profile of each higher-education institution was reviewed through a consultative process between the Ministry and the institutions, with advice from the Council on Higher Education (CHE). Some of the programmes were removed from the PQM mix of institutions based on past enrolment and graduation trends. Approval to offer postgraduate programmes where there were no enrolments recorded by institutions in 2000 (the first full year for which HEMIS data were available) was withdrawn except in instances where the withdrawal would have disadvantaged students from pursuing their studies in the field, and on condition that adequate supervisory capacity was available. Approval to offer programmes was also withdrawn if the programmes were not appropriate to the mission of the institution (for example, the offering of programmes in literary studies by [former] technikons or programmes in home economics by universities). Since the PQM review process (completed by 2008), the guidelines for approving new programmes have been much more rigorous, with a focus on institutional capacity and regional collaboration rather than competition.

Funding of doctoral students and graduates

The current funding framework, which provides substantial subsidy incentives for research doctoral degrees, was introduced in the 2004/05 financial year, with a migration strategy for the first three years and full implementation in the 2007/08 financial year. Two subsidy components are of relevance to research doctoral students, namely teaching-input grants and research-output grants. Teaching-input grants provide a subsidy for enrolments depending of the level (undergraduate and equivalent weight = 1, honours and equivalent weight = 2, masters and equivalent weight = 3, and doctoral and equivalent weight = 4). Teaching-input grants also apply a weight for the subject matter of the programmes. For funding purposes, the courses are grouped into four funding groups, each with a different weight:

- Funding group 1: education, law, psychology, and public administration and services receive a funding weight of 1.

- Funding group 2: business, economics and management studies, communication and journalism, computer and information sciences, languages, linguistics and literature, philosophy, religion and theology, and social sciences receive a funding weight of 1.5.
- Funding group 3: architecture and the built environment, engineering, family ecology and consumer sciences, and mathematics and statistics receive a funding weight of 2.5.
- Funding group 4: agriculture and agricultural operations, visual and performing arts, health professions and related clinical sciences, life sciences, and physical sciences receive a funding weight of 3.5.

This in effect means that for each full-time equivalent doctoral enrolment in the four funding groups the following subsidy amounts were paid in the 2013/14 financial year:

- Funding group 1: R 43 424 (USD 4 342)
- Funding group 2: R 65 136 (USD 6 514)
- Funding group 3: R108 560 (USD 10 856)
- Funding group 4: R151 984 (USD 15 198).

Each doctoral enrolment gets a credit value of 2. This means that a doctoral student earns approximately double these amounts in teaching-input subsidy for a university over the period of registration. The two subsidy credits allocated to a doctoral student enrolment are spread over a number of years based on the average time that students in the degree take to graduate. For each research doctoral graduate, universities received R357 081 (USD 35 708) research output subsidy in 2013. The amount allocated per doctoral graduate declined slightly over the last three years from R364 562 (USD 36 456) in 2011/12 to R357 993 (USD 35 799) in 2012/13 and R357 081 (USD 35 708) in 2013/14. This was as a result of steep increases in research output units from universities, especially research publications, which are funded from the same research output grant. Depending on the average number of years that doctoral students take to graduate, and changes in the rand values of the subsidy components from year to year, a university thus currently receives (in total for the duration of registration) approximately R447 000 (USD 44 700), of which 19% of the amount is teaching input and 81% is research output subsidy for a doctoral student in *funding group 1* who graduates. A doctoral student in *funding group 2* earns the university approximately R490 000 (USD 49 000), of which 27% is teaching-input and 73% is research-output subsidy, and a *funding group 3* doctoral student who graduates earns the university approximately R577 000 (USD 57 700), of which 38% is teaching-input subsidy and 62% is research output. The subsidy earned by a *funding group*

4 doctoral graduate is approximately R664 000 (USD 66 400), of which 46% is teaching-input and 54% is research-output subsidy. In addition, universities receive the annual fee income from the students for each year of registration.