

CHALLENGES AND PRESSURES FACING THE ACADEMIC PROFESSION IN SOUTH AFRICA

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Much was expected to change in the academic profession in South Africa following the election of a black government in 1994. Staff equity profiles suggested that the number of black and women academics would increase significantly. Everyone expected that black institutions would receive redress funding to compensate them for decades of underdevelopment. Academics anticipated that salary levels and working conditions would improve. Others expected improvements in research output. In addressing these issues, this chapter examines a number of questions. What is the state of the academic profession in the most developed country in Africa? What terms govern work and employment conditions of academics in South Africa? What changes have occurred in the employment of black and female academics following the election of a democratically elected black majority government in 1994? How do salaries of South African academics compare internationally and what key changes are shaping the development of work practices in South Africa?

THE SHAPE OF THE HIGHER EDUCATION SYSTEM

As in many other countries, higher education institutions in South Africa operate within a regulated framework that is currently founded upon a binary structure. This binary divide is an effect of the transference of tertiary institutions and programs in education, nursing, and agriculture to higher education institutions.¹ Overall, South Africa presently has 36 public higher education institutions: 21 universities

and 15 technikons.² The role of these institutional types has been described as follows:

The universities and technikons are intended to be complementary sectors with formally equal status but with differentiated missions. The binary distinction between the two sectors is based on the universities' role in general formative and professional education and basic and applied research, and the technikons' role in vocational and career education and "product related" research and development. (NCHE, 1996)

Taken together, 33 are residential institutions, and 3 (2 universities and 1 technikon) function mainly as open distance-learning centers. These institutions are largely subdivided in terms of their racial origins and are either described as historically white universities (HWUs) and historically white technikons (HWTs) or as historically black universities (HBUs) and historically black technikons (HBTs). Among the universities, 11 are historically white institutions and 10 historically black institutions. Among the technikons, 8 are historically white institutions and 7 are historically black institutions.

Among the universities, language provides a further key historic marker, as some white universities were established as English-medium institutions and others as Afrikaans-medium institutions. Besides language differences, these institutions historically differed sharply by dint of their missions. First, English universities were dedicated to the intellectual pursuit of truth, justice, academic freedom, and autonomy, while Afrikaans universities were required to promote social order and to facilitate the advancement of Afrikaans speakers and the Afrikaans community. Second, in contrast to the Afrikaans universities, which did not admit any black students until the 1980s, the open English universities admitted small numbers of black students from the 1920s onward, but maintained segregation practices until the early 1970s by either excluding blacks from residences or admitting them to separate residences.

By contrast, black institutions, mainly established to promote the self-development of blacks in ethnic states, are divided in terms of ethnic classification and regional location. The origins of these institutions can principally be traced to the passage in 1959 of the Universities Extension Act. This act established the university colleges of the north (for Sotho, Venda, and Tsonga speakers), Fort Hare (for Nguni/Xhosa speakers), Zululand (for Zulu and Swazi speakers), Western Cape (for "coloureds"), and Durban (for Indians). Later, a further three residential black universities were established in ethnically

segregated "homelands" during the 1970s and 1980s and one distance-education university for black students.

The origins of technikons are more recent. Most developed during the 1970s and 1980s from colleges for advanced technical education and are similarly divided along language, race, and regional lines. Importantly, however, while historic character still defines the operation of all the institutions discussed above, almost all have shed key parts of their historic legacy. For example, instruction at Afrikaans institutions also occurs in English, and some HWU English universities now have more black (African, coloured, and Indian) than white students. Similarly, African students outnumbered coloured students at the University of the Western Cape (formerly for coloureds only) from 1996 to 2001, while African students also outnumber Indian students at the University of Durban Westville (formerly for Indians only). As a result, racial and cultural features no longer constitute the key differences between types of higher education institutions. Instead, resource differences in terms of infrastructure, funding, and research and differences in staff qualifications, staff equity, student numbers, and student quality increasingly encapsulate institutional differences.

ACADEMIC STAFF: BASIC DATA

Staff Totals

The most pertinent feature characterizing staff positions is the inequality in the distribution of senior staff by type of institution. Most staff members are appointed on a full-time permanent basis. Overall, in 2000, about **14,000** permanent faculty members (instruction and research staff) were employed at universities and technikons (DOE, 2002a). About 10,500 (75 percent) permanent staff worked at universities, compared to 3,500 (25 percent) at technikons (See table **11.1**). With reference to universities, 80 percent of permanent instruction and research staff were employed at HWUs and 20 percent at HBUs. Regarding other institutional differences among permanent staff, about 96 percent of professors were employed at universities, 79 percent of associate professors, and 79 percent of senior lecturers, while most junior staff worked at technikons (CHE, 2001). Among these staff, about 82 percent of professors in the university system were employed at HWUs, compared to 18 percent at HBUs.

Given this discrepancy in senior-level staff, HWUs have stronger academic and research reputations than other institutions (NWG, 2002). Most staff also attach considerable academic prestige to employment at

Table 11.1 Distribution of university and technikon staff, 2000

	Universities		Technikons	
	HWUs	HBUs	HWTs	HBTs
Number of institutions	11	10	8	7
Number of staff	7,689	2,592	2,229	1,209
Percentage of staff	56	19	16	9
Percentage of professors	80	15	4	1
Percentage of associate professors	60	20	15	5
Percentage of senior lecturers	57	23	13	7

Note: Data from Department of Education, 2002a.

an HWU since the large HWUs are viewed as quality institutions and have good infrastructure. As a result, they are always likely to attract the better-qualified staff. However, for some staff, HWUs lack legitimacy due to their large number of white staff, conservative academic orientations, and historical legacy. This judgment applies particularly to Afrikaans HWUs and HWTs, where language and political orientations complicate interaction between black and white staff.

Gender and Race Patterns

Portraits of staff indicate that significant gender and race disparities exist and that women and blacks are overrepresented in lower-ranked jobs, despite attempts to promote staff equity (Subotzky, 1998, 2001; Cooper and Subotzky, 2001). Collectively, these portraits show that whereas in 2000 women comprised 52 percent of the national population, they constituted 38 percent of academics at both universities and technikons. (See table 11.2.) Looking at the positions women hold further reveals the extent of disparities in rank. This shows that women still remain underrepresented at senior levels, as 13 percent of professors, 24 percent of associate professors, 36 percent of senior lecturers, and 49 percent of lecturers were female in 2000.

In each equity group, the proportion of women and of Africans, coloureds, and Indians has changed only slightly since the early 1990s, with the number of white male staff correspondingly decreasing. For example, whites constituted 83 percent of permanent instruction and research staff in 1986, 76 percent in 1992, and 73 percent currently, while African staff increased from 11 percent in 1992 to 16 percent in 2000 (Bunting, 1994; DOE, 2002c). Similarly, women increased from 33 percent in 1992 to 38 percent in 2000,

Table 11.2 Gender patterns, 2000

	Male (%)	Female (%)
National population	48	52
Staff in 2000	62	38
Professors	87	13
Associate professors	76	24
Senior lecturers	64	36
Lecturers	51	49

Note: Data from CHE, 2001.

Table 11.3 Highest, most relevant staff qualifications at universities and technikons, 2000

Degree (or equivalent)	Universities (%)	Technikons (%)	Total (%)
Doctoral degree	42	6	32
Master's degree/diploma	31	23	29
Other graduate: honors/ diploma or certificate	16	41	22
Other first bachelor's/ diploma or certificate	5	22	11
Other + unknown	5	8	6

Note: Data from Department of Education, 2002a.

Most doctorates are awarded by HWUs. In 1998, technikons contributed 2 percent to the number of doctoral graduates. Most of these qualifications were awarded in science, engineering, and technology, where research and student funding levels are highest and where strong institutional support for students exists. The humanities have for a long time graduated the most Ph.D.s, but this is changing as funding levels and institutional support for staff development is expanding. In combination, these changes could positively affect lecturer recruitment in the future, as some staff development programs link recruitment and training of junior staff to enrollment in Ph.D. programs. On the other hand, many institutions support staff development programs with great reluctance, as they fear poaching and staff loss and cannot afford to invest substantial sums in such programs.

Age Levels

In terms of age, academics are fairly old, considering that average life expectancy in South Africa is about 60 years. In 2000, 23 percent were under 35 years, 63 percent were aged between 35 and 54 years, and 14 percent were older than 55 years (the age at which voluntary retirement is currently available to staff at institutions concerned with cutting salary costs). Age levels vary considerably by rank. Among professors, in 2000, 33 percent were 55 years and older, compared to 18 percent among associate professors, 13 percent among senior lecturers, and 5 percent among lecturers. Conversely, 48 percent of professors were aged between 45 and 54 years, compared to 44 percent of associate professors, 35 percent of senior lecturers, and 20 percent of lecturers. Collectively, this indicates considerable overlap among seniority, qualifications, and age, since lecturers are clearly on average

Table 11.4 Age levels by rank at universities and technikons (percentages)

Age levels	Professor	Associate professor	Senior lecturer	Lecturer	Other	Total
Under 25 years				1	14	2
25-34	1	4	15	36	45	23
35-44	17	33	37	38	22	33
45-54	48	44	35	20	15	30
55-65	33	18	13	5	4	12
Over 66	1					1
Total	100	100	100	100	100	100

Note: Data from National Department of Education, 2002c.

younger than other groups and are less qualified, while professors are on average older and hold the highest qualifications. (See table 11.4.)

EMPLOYMENT CONDITIONS

Type of Duties

Universities and technikons assume responsibility for employing academic staff in tenured positions in disciplines and departments. Generally, the department head assigns staff duties. In some departments teaching workloads are distributed through collective decision making. These loads include unequally distributed administrative work. Generally, the extent of this inequality relates to duties associated with internal positions such as course coordinator or member of a postgraduate committee. Beyond this, all permanent academic staff have teaching, research, administrative, and service responsibilities. This is shared with an increasing number of contract temporary staff, although contract staff members are not necessarily expected to undertake research. However, whereas few contract staff at technikons do research, most do research at universities in order to improve their qualifications, position, and status.

Job Types and Requirements

Regarding job types, academic job classifications or ranks of permanent staff at both universities and technikons range from below junior lecturer (including senior laboratory assistants) to junior lecturer, lecturer, senior lecturer, associate professor or associate director, and professor or director. Generally, these ranks denote teaching functions,

Contract Work

As with permanent full-time staff, temporary employees are not homogeneous, but differ by rank, role, type of contract, length of service, and highest qualification. The incidence of temporary appointments is increasing due to the low salary costs attached to such positions. At some institutions headcount figures show that temporary appointments account for 50 to 60 percent of academic staff—up from the average of around 20 percent that prevailed at many institutions during the period between 1990 and 1995. Males comprise about 60 percent of temporary instruction and research staff at both universities and technikons. White males, at about 55 percent, are the largest numerical group among males. Among females, white women comprise close to 70 percent of temporary staff at universities because of higher qualifications, although black females are the most underrepresented group in higher education. However, of late, to meet employment equity criteria, more black males and females are also being employed.

Mostly, contract staff members have limited terms and responsibilities. Temporary employment mostly involves low-cost staff replacement strategies. It is not uncommon for senior positions at universities to remain vacant for extended periods due to the absence of suitable candidates. In some cases, replacement strategies involve the appointment of two junior staff members to fill one senior position to provide greater teaching support. In other cases, permanent staff take sabbaticals to improve qualifications, leading to the recruitment of replacements and increased teaching loads and supervision responsibilities for other staff. Beyond this, temporary appointments are common in academic student support programs and in newly established projects.

Reasons for the use of temporary staff are diverse. The increase in the number of temporary staff from the late 1980s onwards overlaps with the increase in the number of students and massification. It also corresponds with an increase in the number of courses taught to undergraduate and postgraduate students and the increasing reliance on permanent staff to teach new postgraduate courses. In these terms, the increase in temporary contract work is linked with an important status divide that points to clear teaching hierarchies. In this hierarchy, temporary staff mainly teach first-year and part-time students, with Ph.D. holders and professors mainly teaching senior students. In other cases, part-time staff teach specialist courses at senior levels. Two other distinguishing features are efforts to reduce expenditure on salaries while protecting permanent staff from excessive workload increases.

At universities, typically, temporary contract appointments of less than one year occur especially at lower levels in academic departments. This restriction (under a year) circumvents national labor relations laws that suggest that employees on one-year contracts should be treated as permanent staff if their contracts are renewed. Increasingly, longer-term, three-year contracts are also being considered to recruit staff and to make employment conditions more attractive. Other motives include laying a firmer basis for staff development, limiting turnover among temporary appointments, facilitating staff retention, and creating more stable employment conditions. Indeed, for several academic contract staff members, their working life at higher education institutions is not transitory. In some cases, a number of contract staff have been employed at the same institution for more than ten years.

At technikons, part-time staff numbers are increasing. In some departments, part-time staff outnumber permanent academic staff. Mostly, technikons recruit part-time staff from industry. Many are employed for short periods and are paid on an hourly basis. Tj0.418 T

strongly rooted. The origins of this idea can be traced to resistance of academic staff to apartheid policies in the 1980s. This resistance took several forms involving solidarity actions with student protesters, voluntary participation in the self-imposed academic boycott of South Africa, refusal to apply for state funding to undertake research, and protests at state dismissals and imprisonment of some employees. Institutionally, black staff members also often established new staff associations to protest the existence and operation of all white staff associations and to create space for new policy actors within institutions.

These university-based associations eventually established a national political association for progressive academics at universities in the late 1980s to coordinate antiapartheid staff activities. This structure is currently dysfunctional, as the common purpose that bonded members has dissipated and many of the initial leading figures have left universities. In its place a trade union that draws together staff from a few institutions and has little more than 1,000 members was formed (Webster and Masoetsa, 2001). As a result, local staff associations mainly undertake collective bargaining. In terms of technikons, one national staff association that negotiates salaries, benefits, and working conditions for technikon staff exists.

Most of these staff associations are weak and fragmented, which means, first, that academics lack a national voice and have recently not been a part of the national policymaking process. Second, local staff associations undertake collective bargaining. Historically, white-led racially divided associations in the past mostly accepted management salary offers while negotiating other institutional benefits. Especially at HBUs these racially established staff associations later merged with the new black associations, with staff from the latter structures playing a more prominent subsequent role due to their greater legitimacy. A second important factor responsible for their ascendancy was staff replacement strategies that largely involved the replacement of conservative white staff.

Nonetheless, fragmentation continues since staff support for associations is poor. Indeed, most associations have small executive structures and few paid-up members. Generally, executive structures tend to come together to address salary, retrenchment, and institutional benefit issues. One recent departure involved a white staff association at an Afrikaans HWU, raising concern about employment equity-related staff replacement strategies. Also, few institutions employ staff or pay for staff activities. As a result local associations are inactive for extended periods during any given year due to poor support and a lack of external pressure.

Regarding salary negotiations, some associations have refrained from negotiating increases in individual years. Increases typically involve a yearly notch increase plus a negotiated increase. Where increases are negotiated, these are often backdated as negotiations often start late. To rectify this, in some cases, academic staff associations and unions negotiating for administrative staff are considering sharing resources and negotiating joint increases. Mostly, increases correspond to the prevailing inflation rate or are set in line with institutional funding constraints, which are severe. For example, at one institution staff in some categories complain that they have not received increases for the last three years. In another case, annual salary increases are expected to be less than 5 percent for the subsequent five-year period.

Salaries

Salaries at public higher education institutions are low in comparison to what South Africans with similar qualifications earn in the private sector. Salaries are also low when compared to those available in the public sector and at research councils and foundations. In these spheres salaries have increased significantly since the establishment of a democratic government in 1994. This has resulted in large numbers of senior staff leaving to lead research divisions at public research councils. Converted to U.S. dollars, for most of these former staff, the average salary increase involves a per annum increase of \$10,000. By contrast, salary increases in higher education remain constricted due to institutional debt concerns. Other problems also mitigate significant pay raises. These include the fact that salaries for all staff consume 70 percent of expenditure at some institutions, that salaries depend on the level of state funding and that state funding is likely to be reduced.

Regarding current pay scales, across institutions pay scales differ by qualification, rank, seniority, age, past work experience, and years of service. Although limited national data exist, it is becoming clear that considerable variation exists between pay levels at some institutions. This difference relates to varying institutional capacity and quality. It is also clear that financially viable institutions such as HWUs pay higher salaries. As a result, black staff, due to their concentration at HBUs, earn less than white staff members who are mainly employed at HWUs. At HBUs and HBTs recruitment is generally done in relation to existing pay scales due to institutional constraints. In some cases, more so at HWUs, individuals negotiate salary scales and benefits.

This particularly applies to senior-level appointees such as professors and deans. Broadly, salary bands for permanent employees, presented in notches, range from \$7,800 per annum at the bottom end to \$22,500 at the upper end at some institutions. Including associated benefits such as housing allowance, medical aid, pension, group life insurance, and annual bonus payments, the gross remuneration range changes to \$12,200 at the lower end and to \$32,000 at the upper end. Higher salaries are also paid to A-rated researchers who draw large research funds, have valuable networks, and constitute important assets at HWUs where they are concentrated.

In the case of researchers, salaries are generally equivalent to those of permanent staff or slightly higher. Salaries are sometimes slightly higher, often in an effort to compensate part-time research staff for the absence of other benefits such as pension, medical aid, or housing allowance. In the case of contract teaching staff, salaries tend to be lower than those paid to permanent staff enjoying similar ranks where salaries are drawn from fixed faculty budgets. This depends on the size of the available budget and the competing demands made by other departments. These factors sometimes lead to some contract staff being paid at nonnegotiable rates that vary from \$14 to \$30 per hour. Beyond this, salaries of part-time lecturers are mostly nonnegotiable and tend to vary from \$300 to \$700 per month.

Do academics form part of the middle class in South Africa? Yes, salary levels and remuneration packages place them among this economic interest group. However, while salaries of middle-income earners have increased substantially of late, the scale of these increases did not extend to academics, unless they undertook private contract work. Do academics lead comfortable middle-class lives? No easy answer exists. For many, the standard of living and quality of life are good, although sharply rising food prices and significant increases in private medical tariffs and in car and house prices have occurred lately. The average cost of living is also high. In 1999 interest rates peaked at 24 percent, after averaging between 12 and 14 percent in the early 1990s. Currently, the level is 15 percent, but this seems set to increase over the next year. Also down from average levels of 11 percent for the period from 1998 to 2001 is inflation. This is currently 6.1 percent, but also seems set to rise and to erode disposable income levels.

In these terms, single academics at the lower end of salary scales and even in the middle will find great difficulty in paying off both a house and a car. Few at the lower end could do this and invest in personal retirement savings or other financial security schemes. Salaries at the lower end are also not attractive, as consumer debt burdens are

high and many new potential staff comprise the first generation of middle-income earners in families. Some of these individuals are ultimately responsible for family and household income and often need to share resources with younger siblings and other family members. Therefore, some experience great pressure to earn high salaries and to forsake academic employment since their skills also equip them for other jobs.

Other Income Sources

In terms of other income sources, specific institutional benefits are also available—such as bonus payments to department heads. They also benefit from lighter teaching loads, while faculty deans, deputy deans, and other management-level staff members earn substantially more and control research money and entertainment allowance funds. Nominal teaching bonuses are also paid. In some cases, travel bonuses are also paid, but not necessarily as a perk. This practice is especially prevalent at HBUs situated in underdeveloped rural areas that depend on staff from large towns. In these cases staff members are compensated for their long commutes to work.

Staff members also often supplement their income through consultancy work. Within institutions clear expectations exist around consultancy work. These expectations include doing limited consultancy work, informing institutional structures about additional income sources and gaining permission for extra work. Rules forbid consultancy work at some universities, but the practice is also extensive at these institutions. At other institutions, regulations govern the size of additional income sources and the impact on teaching and allow for institutions to be paid compensation fees. However, regulations are often flouted as direct controls do not exist, effective monitoring is well nigh impossible, and many recognize that academic salaries are low in comparative terms. Concomitantly, no good data are available regarding the extent of extra income sources and their level.

Staff Mobility

Typically, department structures at universities contain one professor, an associate professor, an elected department head, senior lecturers, lecturers, junior lecturers, and administrative assistants. More complex structures also exist in interdisciplinary schools and programs that draw together two or more departments. In other cases, some departments, especially at HWUs, are top-heavy with senior staff due

to promotions. For example, one university-based education department is comprised of two lecturers, seven senior lecturers, and other more senior staff. This is a result of the recent introduction of greater flexibility into post structures to facilitate the advancement of underrepresented groups. A secondary factor is retaining staff by providing for accelerated promotion. In form, this is associated with the development of a career track in which promotion is linked to performance and reputation. This has replaced the former restricted promotion system, in which advancement depended on the creation of new posts or the replacement of more senior staff.

At technikons, the conventional department until 1998 consisted of lecturers, senior lecturers, a department head, associate directors, and directors. Typically, promotions depended on qualifications, teaching portfolios, and years of experience. For example, promotion from lecturer to senior lecturer depended on acquisition of a master's degree and two years of teaching experience. This is changing since newly appointed lecturers increasingly require a master's degree qualification. The typical department structure is also changing. Developments over the last three to four years have resulted in the appointment of associate professors and professors. Along with this new career track linked to research output, industry links, and publications—rather than qualifications, teaching, and administrative work—is opening up. Initially, career track routes involved promotion from lecturer to senior lecturer, head of department, and director. Now a senior lecturer can also become an associate professor or professor. One further effect is the addition of an academic leader to complement the work of department heads who function as managers. However, while mobility opportunities are increasing at one level, they are constricted at others due to extreme financial stringency's and internal restructuring. Together, these factors have resulted in promotions being put on hold at some technikons.

By contrast, mobility opportunities at universities are diverse. Responsible factors include expanding opportunity structures both inside and outside higher education and policy support for employment equity. One measure of movement can be obtained from the list of senior staff with established publication track records. Much of the movement has involved the departure of midlevel and senior staff from HBUs to HWUs, technikons, and state-funded research organizations. Some of these individuals moved to more prestigious universities to gain access to increased funding opportunities and better working conditions. Others moved to technikons and research bodies that offer senior status, substantially higher salaries, resource-intensive environments, access to new networks, and the opportunity to escape

staff to student ratios differ by field of study. At some institutions 1:25 is viewed as the norm in science, engineering, and technology and 1:35 as the norm in the arts and humanities. In practice, staff-student ratios are appreciably higher in specific fields as figures of 1:70 are bandied about. This variance relates to the uneven impact of massification. This has recently induced sharp increases in student numbers at technikons. Massification was first experienced at universities with staff-student ratios at HBUs in disciplines such as sociology, in one case, of about 1:200 during the early 1990s. Since then, much has changed due to the effect of student debt, poor retention levels, and dropping enrollments. This has produced substantially improved current ratios of 1:50 in disciplines where much higher ratios were previously recorded. Along with this, working conditions at most HBUs have recently improved significantly, after deteriorating appreciably in the early 1990s.

Typically, the academic year spans 28 to 32 teaching weeks. This is divided into two semesters, which are subdivided into four quarters separated by a ten-day spring break, four-week winter vacation, ten-day autumn break, and ten-week summer break. Staff responsibilities include teaching, marking, supervising, consultation, committee work, and research and service activities. Regarding other expectations, at universities academic staff are typically expected to spend the work week at institutions and are given one day off for research each week. In addition, they are expected to do committee work and teaching over 4 days and can take 21 days leave (not including medical leave), but are expected to work a full day and to be available for consultation and supervision. A further general benefit relates to study or research leave. As in some other countries, this involves one full year's leave for every six years of work. Staff members are further expected to undertake course evaluations, but do this infrequently, although it is described as compulsory in policy documents at some institutions.

Teaching and Marking

For most academics, teaching and academic development or support remain the prime responsibility. At universities, teaching loads are minimal for most staff. Ogude, Mavundla, and Netswera (2001) report that the average teaching load of a lecturer at universities is 6 to 8 contact hours per week. This varies substantially across HWUs and HBUs and between faculties. For example, workloads of academics at HBUs in sociology involve teaching two to three courses per year, compared to three to four courses per year at HWUs in sociology.

Besides teaching load, the number of contact hours also differs. Thus, in sociology at one HBU a lecturer spends 1 to 3 hours per week in a class, whereas the counterpart at an HWU spends 3 to 6 hours. Contact time in science, engineering, and technology programs at both HBUs and HWUs are also greater due to the combination of lectures, tutorials, and laboratory work. This averages 6 to 12 hours per week, with senior staff on average having less teaching responsibilities than junior staff.

At technikons, in some programs estimated teaching-related activities range from 12 to 24 hours per week. This often varies by rank, with department heads and senior staff having less contact time. Sometimes the nature of this division relates to the amount of state subsidy money staff members generate, rather than staff-student ratios. One result is that junior staff members do more teaching to larger classes at lower levels with senior staff taking smaller classes and more research students at the upper levels. In addition, lecturers are expected to have at least one compulsory consultation period per week, but are also available during other times at some institutions in faculties where core time systems are used. This core time system involves an expectation that, over and above other teaching responsibilities, lecturers should physically be present at the technikon during set hours each day. This system is largely a response to changes in management personnel and efforts to improve productivity levels.

Generally, marking loads are limited in science, engineering, and business and commerce fields, but are intensive in arts and humanities courses at universities. This sometimes involves marking assignments of more than 100 underprepared students at a time. Student development problems include poor command of English (the main language of instruction at 19 universities and at most technikons). For most students, English is a second or third language. Indeed, national census statistics indicate that English is a first language for fewer than 20 percent of the population. Many students also accordingly enroll for English development courses during their first year of studies since this is a compulsory part of academic development at some institutions.

Beyond these features, the characteristics of academic work are not well documented. However, some features are changing. At some institutions pressure to increase income from higher student numbers has resulted in academics becoming involved in marketing and recruitment drives and undertaking mentoring activities. At most institutions greater effort is also being devoted to increasing involvement of academics in committee work. This is crucial since some staff

at technikons have no committee responsibilities. In this sense, it is clear that expectations about the scope of academic work are increasing. For example, staff members are increasingly expected to produce one accredited journal publication per year, although, no prescriptions exist.

Research Output

Regarding research output, productivity increases have occurred of late as institutional reports to the national Department of Education show a steady overall growth of around 25 percent in research output from 1986 to 1996 (Bawa, 2001). This increase flowed mainly from a sharp increase in research output from HBUs from 1986 onward that resulted in their total share of research productivity increasing from 5 percent in 1986 to 12 percent in 1998, after which it decreased to 10 percent in 1999 (CHE, 2001). More specifically, research productivity increased sharply over this period at two specific HBUs—leading to their academic reputations improving significantly.

In line with earlier institutional descriptions, research performance remains uneven.³ In 1999, HWUs were responsible for 86 percent of research output, HBUs for 10 percent, with technikons accounting for 4 percent (Bawa, 2001). More significantly, the top 6 universities (out of 21) contributed close to 70 percent of research publications cited sig(Tc(t) () Tj2.130 Twt20.011 T1.033 Twf.9.68 Tj1.186 Tw/(SciencTj0 Tc(8

Reasons for the low publication rates are diverse, but can be linked to what appears to be intractable problems.

First, the training of academic staff and researchers remains limited and poor. In particular, many lack basic skills in methodology and statistical analysis. Second, research funding organizations continue to express concern about the small number of applications in some fields. Third, several accredited journals appear infrequently and urgently need substantial funding to maintain their long-term viability. Fourth, some staff remain reluctant to undertake research and instead view teaching as a vocation. Fifth, outside of some pockets of research enterprise, strong research and academic cultures are not enduring features at HBUs and technikons. Sixth, academic leadership in departments and in research units remains weak, and library holdings and the quality of library service continue to need substantial improvement at most institutions.

SOME MAJOR DEVELOPMENTS AND RECENT TRENDS

Brain Drain

Higher education in South Africa is at crossroads. As can be detected from the preceding section, several challenges exist. These include the problem of brain drain and the need to upgrade qualifications. In each of these cases, it is difficult to gauge the extent of the problems higher education faces. The brain drain phenomenon is real. Unconventionally, the main source is not the limited loss of staff to teaching institutions (mainly) in Australia and the United Kingdom. This has chiefly involved the loss of small numbers of senior white male staff in social science, commerce and financial sector fields to countries that traditionally have attracted English- and Afrikaans-speaking whites from South Africa. However, the key feature is the departure of senior male colleagues from mainly three HBUs to higher-paying jobs in the public sector and the movement of black

and an established publication record. In this sense, the staff loss is significant, as indications of declining research output is already evident and relatively inexperienced leaders head several departments. In addition, replacement is bedeviled by the poor qualification profile of permanent and contract staff and institutional debt concerns.

However, while staff losses at HBUs have occurred mainly in education and social science fields, these departures have been offset by several factors. For example, in many ways, this movement constitutes a benefit to the higher education system as many erstwhile colleagues work in closely related sectors and channel research and other development funds to higher education institutions. Also, some level of staff stability is also evident, while senior staff is increasingly being recruited from other African and European countries. For example, figures for 2000 indicate that foreign nationals constitute about 5 percent of permanent instruction and research staff (DOE, 2002d). Demographic features indicate that about 75 percent of these staff members are male, 40 percent come from an African country other than South Africa, and close to 40 percent (of whom more than half are employed at two English HWUs) come from a European country. In this sense, resource depletion has been augmented by the infusion of new staff and greater demographic and intellectual diversity. For many staff and students this is a rewarding development.

Mainly, this change in the recruiting base of staff is a consequence of the change in government from the apartheid oligarchy to a democratic order. This lifted the self-imposed academic boycott that existed from the mid-1980s to the early 1990s and contributed to several institutions' deciding to embrace internationalization practices. Other consequences of this changing environment include more regular visits from overseas academics; international research cooperation agreements and projects; the greater infusion of universal perspectives into higher education; and more regular exposure of South African academics to international academics and conferences. In this sense, systemwide, the changing academic environment is benefiting immensely from a stronger emphasis on internationalization practices.

On the other hand, the effect of brain drain is starkly visible in departments. For example, in some departments senior staff are comprised solely of individuals who obtained Ph.D.s in the last three years. In many other departments, promotions are tackled hastily to fill gaps left by departing senior staff. t gaps indicat cooperatio arfilr am0.

has particularly increased the supervision load of newly graduated Ph.D. holders and inexperienced staff. The same conclusion applies to employment equity promotions. By law, all institutions need to devise employment equity plans and set targets. Tensions exist between reliance on merit principles and the use of equity criteria in recruiting and in promotions since both types of criteria are necessary.

Beyond this it seems important to recognize that brain drain signals that staff are highly mobile. It is also important to recognize that brain drain is interrelated with factors such as low remuneration levels, increased staff workloads, institutional instability caused by student debt, intellectually unexciting environments, new career opportunities, and low staff morale. This has not been measured but is often mentioned. Yet, while staff members depart, few institutions have staff retention or staff development plans and strategies. Instead, ad hoc responses proliferate when resignations loom. At times, this involves counteroffers of promotion and better pay, suggesting that greater attention should be paid to academic career paths. A further strategy involves seconding staff to external research centers in order to delay departures and to stabilize employment patterns.

Of course, these management responses at some institutions also need to be understood in the context of fiscal constraints and the need to free positions in order to effect equity criteria. A further variable involves increased competition between institutions to attract senior staff and to improve chances of accessing research funds. As indicated earlier, HBUs, in particular, experience great difficulty in competing with HWUs. For example, in one case, an HWU was able to recruit a staff member to a vacant lecturing position, although the applicant was offered a senior lecturer position at an HBU. The key factor influencing the decision was the offer of a higher salary and better bonuses. Of some historic irony here is the fact that material factors drive these recruitment initiatives, whereas staff recruitment during the late 1980s was partly linked to the need to reinvigorate intellectual environments and to draw together a critical mass of intellectuals.

Academic Autonomy and Institutional Decision Making

Overall, academic autonomy can be understood in two ways: freedom to determine what is taught, to express views, and to operate without external state interference (Du Toit, 2001). Today, academic autonomy remains contentious. Culturally, academics are free to determine the content of curricula. However, the recent establishment of new quality assurance structures and the expectation that content should

be linked to outcomes will likely introduce greater uniformity in programs across institutions. More broadly, academic freedom to express views is not unfettered. In one recent case, a staff member was dismissed for criticizing management. In other instances, staff members have been asked to explain their published reflections on academic experiences—indicating increasing sensitivity to criticism within institutions. Much of this sensitivity relates to increased competition between institutions and the recognition that competitors exploit criticism.

Regarding state interference, all institutions enjoy autonomy. However, recently government passed the higher education amendment act to allow the minister of education to determine the purpose and function of institutions. This allows for prescriptive policies and effectively erodes institutional autonomy. Collectively, government influence derives from several sources: laws, provision of subsidy funds, policy formulation and implementation, and ministerial appointees to university and technikon councils. In addition, stipulations in the act allow the minister of education to appoint temporary managers at higher education institutions where leadership crises exist. A further recent intervention resulted in a court case questioning the extent of the minister's powers following initiatives to merge a distance education university and its technikon counterpart. This case called into question the mediating political role government sometimes plays in policy issues.

This role is particularly evident from recent student boycotts, during which government officials met with student leaders following the breakdown of their negotiations with management. Such meetings have not focused solely on reestablishing lines of communication between students and institutional leaders. Instead, in one case settlement terms were offered and leaders of one national student organization, sympathetic to government policies, stepped in to persuade local student leaders to end their boycott. In this way, higher education is not free from government interference, but academics do control their own activities and function within the ethos of a prevailing culture that emphasizes academic autonomy and autonomous institutional decision making.

Quality Assurance and Peer-Review Mechanisms

One significant looming change involves the extension of quality assurance mechanisms. Recently, in 2001, the Higher Education Quality Control (HEQC) framework was outlined. Together with the

recent establishment, since 1997, of the South African Qualifications Authority, National Qualification Authority, National Standards Bodies, Standards Generating Bodies, and the Sector Training Authorities, the HEQC is responsible for approving the outcome of training, accrediting courses, and monitoring and reporting on institutional efficiency. In this sense, quality control mechanisms provide a platform to establish more uniform standards across institutions and to establish benchmarks for evaluating the performance of staff

recognition and C to established researchers with a sustained recent record of productivity. P and Y provide peer ratings for researchers younger than 35 years of age who have obtained doctorates and are judged to have the potential to establish themselves as researchers, while L covers all researchers younger than 55 years of age who cannot be placed in another category. In each case, researchers are expected to apply for ratings. Subsequently, documentation is referred to subject-specific specialist committees that identify the names of at least six peer reviewers. The specialist committee is required to examine the quality of research outputs by the applicant over the last seven years, to judge the applicant's standing as a researcher and the quality and appropriateness of the sources in which the applicant has published. Peer reports are subsequently referred to members of assessment panels that assign ratings (NRF, 2002).

The implications of this review process are potentially enormous. Ratings in science, engineering, and technology have shown that close to 90 percent of A-rated researchers are clustered at HWUs. HWUs also have the most B- and C-rated researchers in science, engineering, and technology and use these quality indicators to recruit students and to enlist donor support. Implicitly, this shows that institutional differentiation is also increasingly being linked to research ratings and performance. Implications also exist for individuals, as A-rated scientists command more prestige, have greater access to research funding, more research students, and have fewer teaching responsibilities. More broadly, it is already evident that research awards are driven by qualifications linked to possession of a Ph.D. This is especially true in cases where South Africans undertake joint research with overseas researchers and with regard to donor criteria that link leadership of team research to possession of a Ph.D. As indicated previously, these criteria favor HWUs and imply that the existing gap between historically white and historically black institutions will increase in the future.

CONCLUSION

Structural features associated with higher education under apartheid still remain. What is of current interest is the way in which a hierarchy of academic tasks and working conditions is emerging. The example of A-rated scientists with limited teaching responsibilities and high salaries provides one illustration. Other examples are clear from the greater use within institutions of titles such as senior professor and super professor, distinctions between full-time and contract staff, and the limited involvement of senior staff in undergraduate

teaching. At some technikons, it is also evident from efforts to link teaching loads to the amount of subsidy money staff generate and reward senior staff who teach senior students with lower teaching loads.

Of some interest regarding working conditions are research suggestions that staff job satisfaction is reasonably high. In some ways this is not surprising. Working conditions have certainly deteriorated in many departments since the early 1990s, but many staff have also adjusted. In other cases, working conditions, especially at HBUs, have also improved lately due to declines in student numbers, improved managerial efficiency, and the better provision of resources. Beyond this, it is not clear that staff members are overworked although complaints of high teaching loads at technikons and of marking loads at universities are frequent.

By contrast, staff morale is much more uneven as many institutions are contemplating retrenchments to reduce salary costs and staff remain uncertain about the outcome of institutional restructuring initiatives. Factors underlying these uncertainties appear important. For example, suggestions that technikons may become universities of technology in the near future have motivated concern about improving qualifications and how restructuring will affect institutional alignments and activities. At universities, concern about job security, salaries, and remuneration levels is motivated by efforts to change the proportion of students in the system. Over the lasttt manmentt0.499 85h1a

NOTES

1. This process first involved a reduction in the number of tertiary institutions, followed by the incorporation of the remaining institutions and programs into higher education institutions. This process is almost complete. For example, in education, the more than 300 non-higher education tertiary institutions have been reduced to less than 10, which all await incorporation into higher education institutions.
2. The term *technikon* is essentially a noun used to refer to technology-related teaching activities and is viewed in South Africa as a substitute term for an institute of technology.
3. It bears mentioning that some concern surrounds measurement of research output since disparities exist in the list of accredited journals used in different indices. One result is that the official South African registrar on publications probably underreflects research productivity.

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