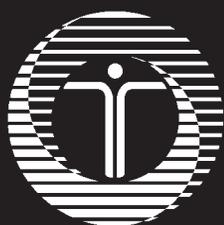


HSRC review

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Human Sciences Research Council

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The Great Challenge:
Mastering the skills and training hurdle

Message from the CEO, Dr Mark Orkin



Every five years the Department of Science and Technology requests each South African science council to be externally reviewed, to check whether it is discharging its mandate effectively, and to receive recommendations for improvement.

The HSRC's latest review was conducted last October, by a panel of seven local and international experts headed by Dr Akilagpa Sawyerr, Secretary General of the Association of African Universities. In a busy fortnight, they received presentations from HSRC components, interviewed stakeholders, digested documentation, and drafted a substantial report. It is available at www.hsrc.ac.za, or from HSRC Publishers.

The previous review, in 1997, had found that the HSRC was bureaucratically cumbersome, inward-looking, unrepresentatively staffed, and producing work of uneven quality and relevance.

A new governing Council that took office two years later, myself as its new CEO a year later, and our HSRC colleagues, accordingly undertook a far-reaching four-year transformation process.

We are pleased by the panel's assessment that 'the HSRC of 2003 is a different and much better organisation in important respects than the HSRC of 1997. It has earned the respect given to it by the bulk of its collaborators and stakeholders by the breadth, quality and relevance of its contributions to the study and practice of social development in South Africa.'

In its foreword to the panel's report, the HSRC Council noted the report's many useful recommendations for further improvement: initiating networks with counterpart agencies, especially in the rest of Africa; extending peer review of our outputs and monitoring their impact; enhancing stakeholder involvement in formulating our research agenda and designs; improving the management of our relations with our research users; heightening our attention to gender (and other discriminatory differentia); better co-ordinating our decentralised capacity-development efforts; providing upgraded corporate services and systems to support research across our five offices; developing and implementing a systematic communications strategy; and others.

There was one important respect in which the Council differed from the panel. In some places their report contemplates whether the HSRC should do less actual research, in favour of more co-ordination of researcher networks with higher education institutions.

The Council welcomed the observation that such networking needed greater institutional attention, to consolidate and extend the many research relationships already in place. But it affirmed that the HSRC, as mandated in its statute, would continue responsibly to undertake policy-relevant social-scientific research, especially the large-scale, collaborative, multi-year projects upon which it has increasingly focussed on behalf of users.

The contracts and grants awarded by these users – which have increased fifteen-fold in the last four years, from R6m to R90m per year, and now exceed the Parliamentary grant – have not only enabled the HSRC's renaissance and assured its financial sustainability, but also confirm its relevance to tackling the development challenges of South Africa and the continent.

WHO WE ARE

The Human Sciences Research Council (HSRC) is South Africa's statutory research agency dedicated to the social sciences. It has approximately 150 researchers and 100 support staff. Its revenue comes in equal shares from a Parliamentary grant, and from earnings (tenders, commissions and foundation grants).

WHAT WE DO

The HSRC does 'social science research that makes a difference', concerned with all aspects of development and poverty alleviation in South Africa, the region, and in Africa. It undertakes large-scale, policy-relevant, collaborative research primarily for government departments at national, regional and local levels, for other public entities, and for local and international development agencies.

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MS BONGKI DUBE

MS BONGKI DUBE has been appointed as a Senior Researcher in IRRD. Before joining the HSRC, she was responsible for establishing a partnership between the University of Natal (Pietermaritzburg), rural communities and service providers, to facilitate rural development through community-based service learning.



PROFESSOR ADAM HABIB

PROFESSOR ADAM HABIB, former Director of the Centre for Civil Society and Research Professor in the School of Development Studies, University of Natal, has joined the HSRC's Democracy and Governance (D&G) Research Programme from 1 January 2004. He will be taking over as Executive Director on 1 April from Professor Roger Southall, who will remain in D&G as a Distinguished Research Fellow.



MR KWAME OWUSU-AMPOMAH

MR KWAME OWUSU-AMPOMAH recently joined the HSRC's Integrated Rural and Regional Development (IRRD) Research Programme as Chief Researcher from the former University of Durban-Westville – now the Westville Campus of the University of KwaZulu-Natal – where he taught social science research methods and state and development in the School of Governance and the School of Public Administration.



MR SIZWE PHAKATHI

MR SIZWE PHAKATHI, who joined the Employment and Economic Policy Research (EEPR) as a Senior Researcher, was previously a Research Officer at the Sociology of Work Unit (SWOP) at the University of the Witwatersrand and at the Centre for the Study of Violence and Reconciliation (CSVR) in Johannesburg.



PROFESSOR JOHN SEAGER

PROFESSOR JOHN SEAGER has been appointed as Research Director in the Social Aspects of HIV/AIDS and Health (SAHA) Research Programme in Cape Town, where he heads the Human Development and Health Research Unit. Before joining the HSRC, Seager was Director of the MRC's Health and Development Research Group and of the WHO Collaborating Centre for Urban Health.



MR THABO SEPHIRI

MR THABO SEPHIRI, a Senior Researcher in EEPR, worked as a researcher at the Fafo Institute for Applied Social Science before joining the HSRC.

EARLY WARNING SYSTEM ON FOOD INSECURITY FOR SA

Southern Africa is experiencing high and rising levels of household food insecurity. What is most alarming is that this is being caused not only by unfavourable weather but also by ongoing factors, including HIV/AIDS and, in some countries, poor governance. To increase the effectiveness of their response, many governments in the region are introducing proactive 'food insecurity and vulnerability information and mapping systems' (FIVIMS).

The Department of Agriculture has just awarded a tender worth R2,44 million to a consortium to develop and help pilot the implementation of the first such system in South Africa. The HSRC's Integrated Rural and Regional Development (IRRD) Research Programme will lead the consortium. The overall goal of food security, explains principal investigator Dr Scott Drimie, is to make poor households 'food secure and not only food self-sufficient. In other words, to make food accessible at affordable prices.'

Other members of the consortium are the CSIR, the Agricultural Research Council, the Universities of Cape Town, Witwatersrand and the Western Cape, private sector service providers, and an NGO, the Kayamandi Development Services. The team also expects to draw on the expertise of FEWSNET, an international NGO that has been instrumental in designing and putting into operation similar systems in a number of other Southern African countries. The project is due to commence in the Sekhukhuniland area shortly.

TOP HSRC RESEARCHER RECEIVES SEKUNJALO AWARD

Dr Olive Shisana, Executive Director of the HSRC's Social Aspects of HIV/AIDS and Health Research Programme (SAHA), receives the Sekunjalo Investment Group's Social Entrepreneurship and Service to Country Award from Mr Ngoako Ramatlodi, Premier of Limpopo Province (left), with Mr Ebrahim Rasool, Western Cape Finance and Economic Development MEC, looking on. Shisana's work as Director General of the Department of Health and her work on HIV/AIDS at the HSRC were cited as motivating factors for the award.



NewsRoundup

Teamwork to help drive municipal land reform

The HSRC's Democracy and Governance (D&G) Research Programme is establishing an informal network to share information on municipal commonage initiatives, research findings and other relevant matters. This was one of the outcomes of a workshop on municipal-held land, hosted by the HSRC and the Development Bank of South Africa in Midrand at the end of last year.

'Municipal commonage land is by far the greatest developmental asset for the poor in many small towns,' says D&G researcher,

Ms Anja Benseler. However, for many municipalities the transition to using commonage this way was a double blow: valuable rental income was lost since commonage tended to be rented out to commercial farmers and the new users of the commonage often involved large, complex groups of farmers, thus multiplying the management load for municipalities.

Yet municipalities are the key developmental agency. They can synchronise the resources and programmes of different sectors into meaningful and appropriate programmes and projects. The workshop identified the following initiatives:

- The Departments of Land Affairs and Agriculture/LandCare will lead the way forward.
- An initial task team, consisting of government departments and NGOs, will guide an integrated research and policy inquiry process.
- The HSRC will compile an e-newsletter list to establish an informal network to support these initiatives and distribute information.

*View A Passion to Govern: Third-Generation Issues Facing Local Government in South Africa, on www.hsrc.ac.za, a study on commonage co-funded by the Department for International Development (UK), the Open Society Foundation of SA, and the Centre for Development and Enterprise (CDE). A shorter version, entitled 'Post-apartheid Local Government Reforms, a Small Town Perspective', appeared in *CDE Focus*, 8 March 2003, which is available from CDE, tel. (011) 482 5140.*



Brendan

Film series captures experiences of youth

The generation of children entering school in 2004 do so in a climate of relative peace. Not so for those who took their first steps into South Africa's schools in 1991.

Interviewed in Alexandra Township in his first months of school, Brendan's imagination was peopled by hippos, soldiers and gunshots. He is just one of 18 children who were filmed in 1991, 1997 and again in 2004. *Colouring In Our Classrooms* (1997) captured the richly diverse experiences of black and white children in urban mixed and uni-racial schools, coming from poor and rich communities around Johannesburg, Soweto and Alexandra. The follow-up film, this year's *7Phezulu* (a play on the British *7 Up* series), provides a bittersweet insight into the not-so-rosy lives of a generation that is still searching for its place in the new South Africa.

The 1997 documentary revealed a generation struggling with identity and aspiring to a better life. Black and white pupils in the private and racially integrated middle-class schools were grappling with friendships across the colour line and coming to terms with difference.

They were all alive to the inequalities and violence around them. Some had emigrated and one was traced to Australia. Her memories of the poverty she had left were those of disgust.

Now in 2004, those who could be found have been filmed again. Some are at university, some still at school, one has been institutionalised with schizophrenia. One has dropped out and is unemployed. This time around, the film crew gave the participants cameras. Their clips of themselves, friends and family are interspersed with footage from the film crew.

In 1991, this film project depended on a shoestring budget from

the Wits Education Policy Unit and was filmed by a drama student. In 1997, a slightly larger budget enabled filming by Kagiso Educational Television. This year, the joint efforts of the Wits Education Policy Unit and the HSRC have resulted in a better-funded documentary filmed by cuttoblack. It will be screened on SABC and will be available for wider use.



SIGNS OF GROWTH COULD LEAD TO R&D TAKE-OFF

By Michael Kahn

Governments know that there is a positive relationship between economic competitiveness and spending on research and development (R&D), yet some feel uneasy about committing R&D funds. Their advisers and constituencies rightly ask, 'What is the result of this spending?' and 'Where does the money go?'

The former is difficult to answer. The latter question, also complex, is a subject of study in all industrialised and newly industrialising economies. Indeed, a condition for membership of the Organisation for Economic Co-operation and Development (OECD) is the compilation of reliable R&D indicators.

R&D surveys follow the guidelines of the OECD Frascati Manual, which measures the inputs for R&D. Typical questions are How much is spent? Where do the funds originate? To what research areas are they attributed? What are the headcounts and qualifications, gender, group and age profiles? Even these items, while apparently simple, create confusion. Indeed, what counts as R&D?

Unlike some OECD countries there is no compliance mechanism to participate in the survey so that respondent buy-in is a major consideration. The survey is a highly labour-intensive activity that depends upon the deployment of senior fieldworkers. The survey was made yet more intricate by the inclusion of questions on the issue of staff mobility.

We covered all universities, technikons and science councils; the major players in government; captured data from the JSE Top 50 and the Technology Top 100; and interacted with firms performing R&D. The not-for-profit sector was also surveyed. A major lesson was that one could never communicate project intentions enough, and that understanding institutional power relationships is a key to accessing information.

And the findings? The most important indicator is that South Africa now spends 0.76% of GDP on R&D – a real gain on the 0.69% recorded in 1997, but short of the Department of Science and Technology target of 1% for 2005. The number of full-time equivalent researchers is up at 19 452

(18 073 in 1997/98). Spending on basic research has increased from 8% to 12%, but the business sector spend (mainly applied research) remains steady at 54%. One surprise, regarding the geographic spending, is that the Free State is now third after Gauteng and the Western Cape (because of Iscor).

Regarding group and gender, strong disparities remain, but the science councils have progressed since the 1994 study by HSRC Board member Enver Motlala. Science councils'

Typical questions are how much is spent? Where do the funds originate? To what research areas are they attributed?

R&D staff from previously disadvantaged groups rose from 7% in 1994 to 45% in 2001.

Last is the extent of concentration. The top twenty leading R&D performers account for two-thirds of total spending, and comprise science councils, defence industries, petrochemicals, mining houses, financial services, one ICT player and higher education. Ten of

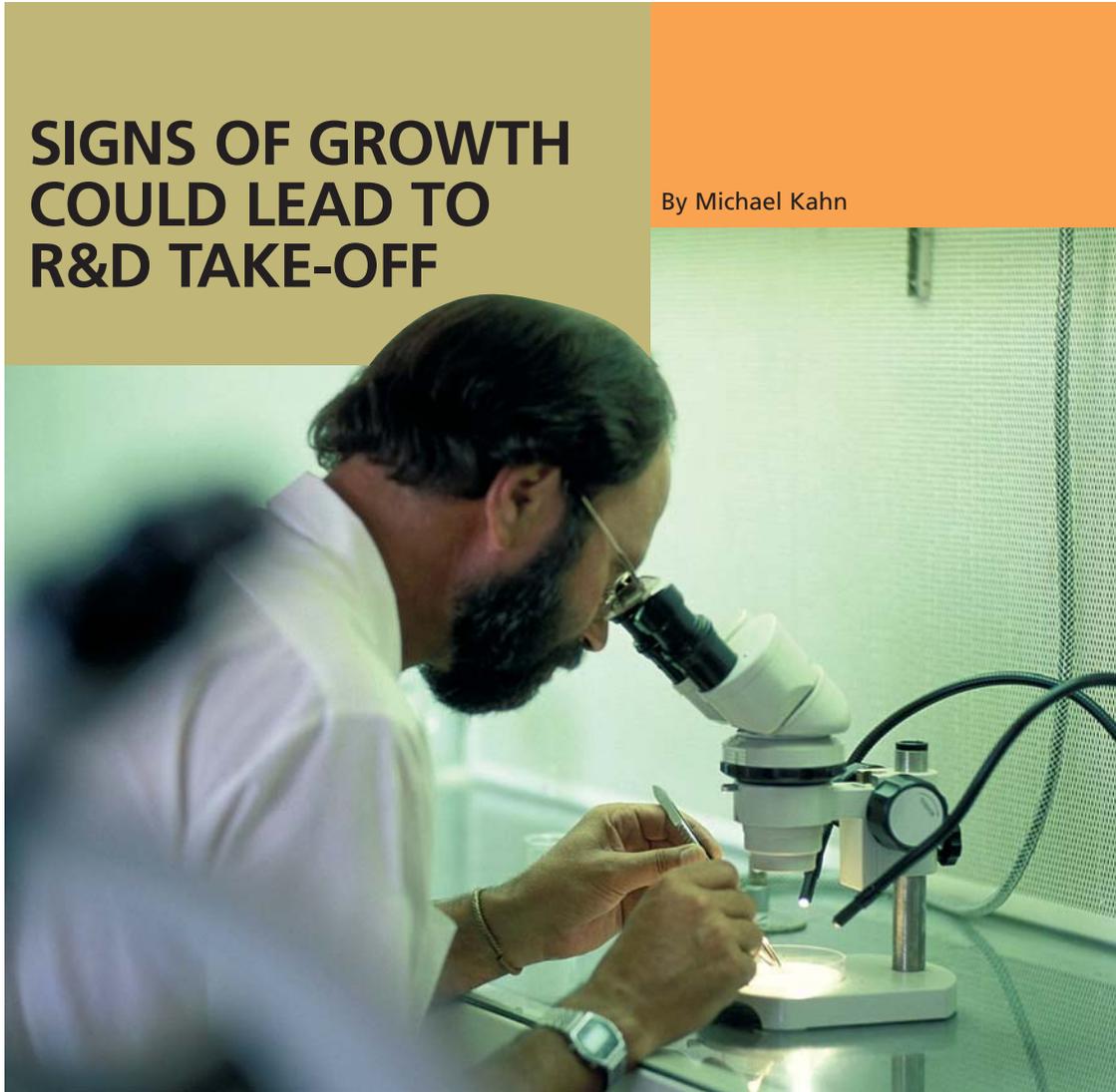
these entities are either state owned or state funded.

What is the overall message? Despite the losses through emigration of highly skilled professionals, the R&D system has remained relatively robust and is now showing signs of real growth. In addition, the innovation survey carried out by the University of Pretoria with Eindhoven University points to considerable willingness of manufacturing firms to introduce innovations. I would argue that even though the bulk of this reported innovation lies in imitation, this is nevertheless a positive finding. After all, the Asian Tigers have all moved through this phase. We may be but one step short of the 'creative imitation' (*'n boer maak 'n plan*) that has enabled South Korea to become a crucible of technological innovation.

The challenge for the country is to reach the target of investing 1% GDP on R&D, a level that is regarded as a precondition for sustained industrial take off. •

The high-level key results of the National Survey of Research and Experimental Development (R&D) report is available from media@hsrc.ac.za.

Professor Michael Kahn is Executive Director of the HSRC's Knowledge Management (KM) Research Programme.



By Linda Chisholm

PUBLIC DEBATE LACKS QUALITY INFORMATION AND ANALYSIS

Who are the top students?
See Late Final today

Minister Kader Asmal's announcement of a 73.3% pass rate in 2003 was the opening salvo of an Education Department celebrating ten years of democracy. It did not take long for the return volleys to be fired. As in previous years, the battle over matric condensed and conflated a range of different concerns. These related on the surface to matric and at deeper levels to the nature of the social order itself. The shape of the debate suggests an urgent need for more substantial research and analysis of the exam.

The annual disputes over the matric results consistently scandalise and shame the nation. In the early 1990s, stark differences in the achievements of black and white students called into question the nature of the matric exam as much as the inequalities within the wider society. Subsequent policy under Education Minister Bhengu moved to change the exam into year-mark and exam-mark components. In the mid-1990s, mismanagement of the exam drew attention not only to leaks of exam papers but also a perceived lack of discipline, order and control within newly established departments of education. Professor Kader Asmal, Minister of Education since 1999, initially focused on the re-establishment of order and discipline in the management of the examination. But in 2003 the public debate shifted ground to a concern with political manipulation of results and corresponding suspicion of public bodies entrusted with assuring quality and standards.

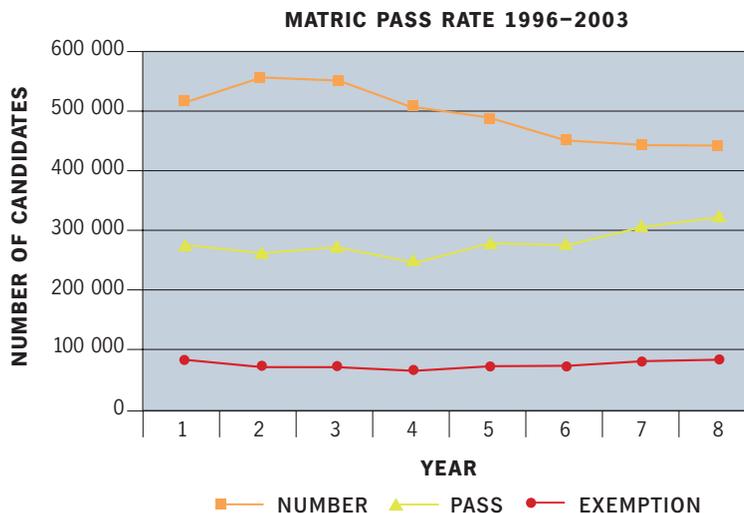
There is something farcical to the debate when low pass rates are used at one time as testimony for poor standards and high pass rates are used at another as evidence for the same

Two issues remain constant: the political nature of the debate and the central position of 'standards', as if these are static and universal. There is something farcical to the debate when low pass rates are used at one time as testimony for poor standards and high pass rates are used at another as evidence for the same. Analysts tried, as in every year before, to separate the real issues from the emotional, the substance from the bluster. As in every year before, posturing and positioning

caught the public attention. But the analytical tools, quality and disaggregation of information were rarely subject to substantive analysis.

The main tool used in analysis of the matric exam is the pass rate. Complex analyses of the pass rate are rare. Most often, the change in percentage from one year to the next becomes a reason to celebrate or decry them. Historical perspective of any kind is almost always absent from the debate.

An analysis of trends rather than rates since 1996 does show that while the total number of candidates has declined, both the number passing and the number with exemption have risen:



If one takes the percentage increase from year to year, closer examination of the results over time reveals that 2003 was not the year in which changes were most dramatic. The percentage increase in passes from 2002 to 2003 is only 5.5% and the exemption pass increase is only 9.4%. The big percentage increase occurred in 2001. So from 2001 to 2002 it is 10.3% and 10.8% respectively. Cumulatively, from 2001 to 2003 the increases are 16.3% and 21.3% respectively. The 1996 and 2001 pass figures are basically the same with hardly any change in real numbers of passes or exemptions.

The key is the drastic drop in number of students writing which

produces the massive increase in pass rate disproportionate to the increase in numbers actually passing. This does not mean much until anecdotal stories about standards dropping are added; only then is there cause for concern. But we do not know if indeed they are.

The data does not tell us whether standards are dropping or not, or about the relationship of writing and passing on standard and higher

The available information is at too great a degree of generality to draw any firm, real conclusions about whether teaching and learning in schools overall have improved or deteriorated

grade to the actual pass rate. This would, at the very least, need different kinds of research and analysis – of question papers over time and structural and cultural processes surrounding higher and standard grade choices and results.

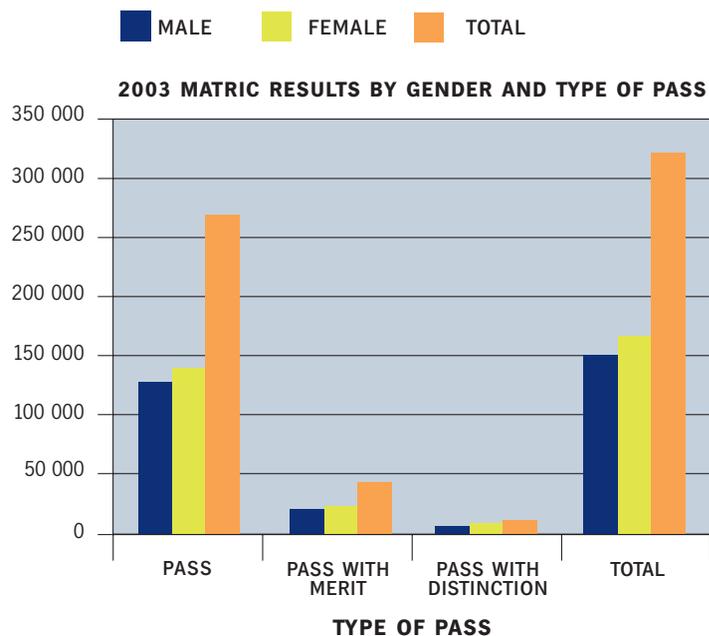
More importantly, the available information is at too great a degree of generality to enable us to draw any firm, real conclusions about whether teaching and learning in schools overall has improved or deteriorated from one year to the next, let alone from one decade to the next.

But how comparable is the information actually? Can we compare a matric based on an exam with a matric based on an exam and continuous assessment?

Can we compare results of exam papers that vary dramatically from year to year? In the US, the smallest change of a question in the SATS exam calls into question the comparability of results. Can we compare results when what is expected of students changes over time; when less emphasis is placed on recall and more on learning, understanding, problem-solving; and when question papers and what is being examined change?

Can we compare, given the complexity of the exam as a national exam and the differences between subjects and expectations over time in each? The amnesic ease with which South Africans use statistics that are questioned from year to year calls for further investigation.

The information provided by the Department in these annual debates is furthermore rarely opened up for further research and scrutiny. Take for example the case of results by gender. Slightly more girls than boys passed matric in 2003, and more girls passed with merit and distinction than boys. Does this mean the gender gap has closed? No: girls also achieved a few percentage points less than boys in official subjects excluding languages. This clearly needs much closer and deeper analysis.



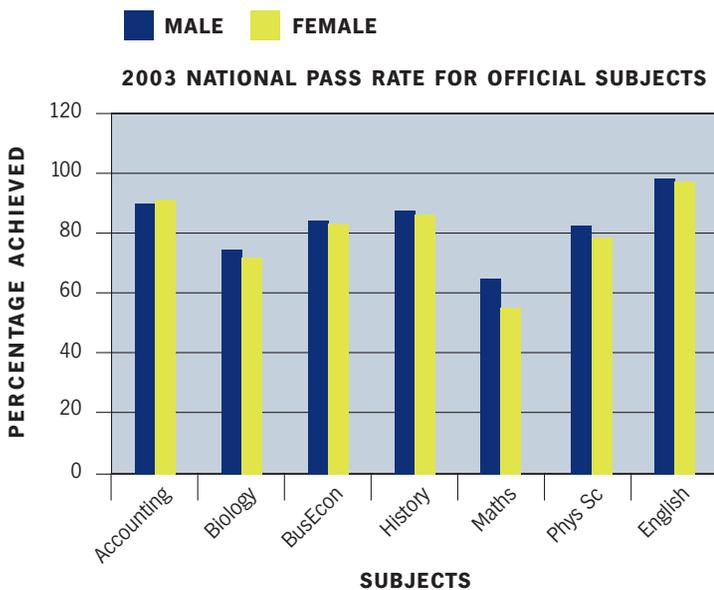
The amnesic ease with which South Africans use statistics that are questioned from year to year calls for further investigation

This example alone illustrates that the picture is much more complex than the national debate allows for, and that the information itself suggests questions for further analysis of who is achieving well and who is not and what is actually happening in schools.

Regardless of the ongoing annual discourse of derision, statistical realities or legitimacy of comparison from year to year, South Africans continue to want to use matric to pronounce on how well its school-leavers are doing and on how well the society is doing. The introduction of the Further Education and Training Certificate (FETC) should improve on matric. But whether it will or not is currently open to debate. When it replaces matric, there are likely to be continuities and discontinuities in processes, results and debates. It is likely to continue to be a yardstick of performance under a different name. For these reasons, it is vital that there should be a more sustained engagement with the nature and quality of information and analysis in the public domain. •

For more information, e-mail media@hsrc.ac.za.

Professor Linda Chisholm is a Research Director in the HSRC's Child, Youth and Family Development (CYFD) Research Programme.



'JOINED-UP' SOLUTIONS FOR TRAINING AND SKILLS HURDLES

Human resources development (HRD) is a gateway for South Africa's growth and its participation in the global economic arena. It can provide the job skills and opportunities needed for the country's growing youth labour market; open up trade opportunities with other countries; and offer solutions to the country's brain drain in the sectors of science and innovation.

Dynamic growth in HRD depends on investments in infrastructure being made on a scale far beyond the means of any single employer. What is required is large-scale investment in education and training institutions, research and development (R&D) facilities, networking activity among employers through formal associations, innovation partnerships between higher education institutions and industry, and industrial stability.

For investment in infrastructure to succeed, it should involve the State, employers and civil society working in co-operation to reach their common goals in HRD. The international literature refers to this as a 'joining up' of social institutions interacting and working together to reach their common goals in HRD.

To stimulate this process of co-ordination, the HSRC has launched a series of triennial reviews on HRD in South Africa, entitled *Human Resources Development Review 2003*, funded by the Department of Science and Technology. This edition's 28 chapters focus on the demand-side and supply-side dynamics that affect HRD as well as the pressing issue of skill shortages in key professional areas.

The analysis identifies severe problems in three key sub-systems of the larger South

African society: the youth labour market, the world of work (i.e. the national economy and its associated institutions of enterprise training), and the national system of science and innovation.

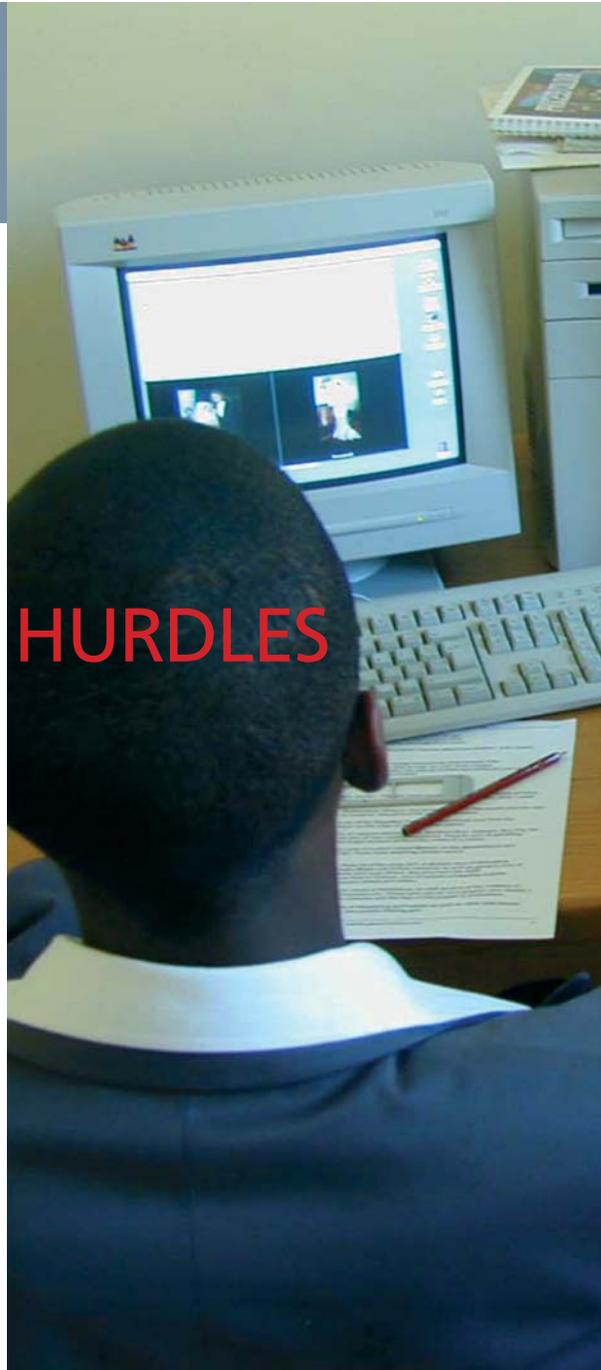
Problems that arise in these sub-systems, such as a mismatch between schooling and employment opportunities in the youth labour market, rarely trace back to one institution or the policies of one government department.

For investments in infrastructure to succeed, it should involve the State, employers and civil society working in co-operation to reach their common goals in HRD

Rather, they relate to a cross-section of government policies and so their solutions need to be forged cross-sectorally, across various government departments.

As the *Human Resources Development Review 2003* points out, these three sub-systems face severe problems that are putting the brakes on HRD in South Africa. Key institutions in each sub-system are 'out of sync' with the dynamics and needs of other institutions, in some cases even working against each other.

For instance, the fundamental contradiction in the country's youth labour market is that, as the school system has grown over the past decade, the number of formal-sector jobs available to school-leavers has shrunk. Resolving this dilemma will require new employment policies, economic sector growth



strategies, public works schemes, child welfare policy, educational quality assurance strategies, improved achievements in Grade 12 examinations, student financial aid schemes, and enhanced technical and vocational education policies. This requires joined-up policy and implementation far in excess of what has already been achieved by the government.

There is a similar dualism in the world of work, where the advancing high-technology export sector is leaving behind the much larger population of workers with intermediate and low skills. The solution requires the generation of high-end as well as low-end employment opportunities; the implementation of a package of welfare transfers (through unemployment benefits and/or massive public works programmes) to



output of scientific articles has remained static over the past decade, with a slight decline since 1997. Higher education institutions and science councils are struggling to recruit and retain young scholars who publish, while the existing publishing population moves closer to retirement age.

South Africa spends 0.76% of gross domestic product on R&D – far less than, for instance, Australia, Canada, Finland, Germany and Spain. Enrolments for doctoral degree programmes in science, engineering and technology are low, growing at an average of 2% a year between 1985 and 2000, and most students enrolled for post-graduate degrees are still white and male. Post-graduate studies in the human sciences still dominate. And between 1987 and 1997, the country lost 41 496 skilled emigrants – 3.2 times more than the 12 949 officially declared.

In other words, just as South Africa faces the possibility of moving up the global value-chain in terms of increased exports, so its science system weakens – not good news for the country's global competitiveness.

The government's new National R&D Strategy aims to develop science and technology capacity along five critical technology platforms and increase the number of women and black scientists in key fields where they are under-represented. The Cabinet has also committed to substantially increasing the science budget from 2004/05 to 2006/07 to finance these reforms.

The call for joined-up policy action applies

compensate for the lack of basic jobs and to stimulate the domestic economy; and greater relaxation of the government's monetary and fiscal policies and the adoption of a more expansionary stance, to stimulate economic growth from within.

Again, there is the need for a more aggressive joining-up of economic, industrial, firm-based, and education and training policies, to create one overarching and coherent economic and human resources development strategy for the medium to long term.

South Africa's system of science and innovation has been weakening. This is a major problem because the science system plays a vital role in helping the country to improve production methods, outputs and employment levels, and to maintain a competitive ranking

Just as South Africa faces the possibility of moving up the global value chain in terms of increased exports, so its science system weakens

against other countries in the global economy.

For instance, South Africa was ranked 94th out of 162 countries in the human development index in 2001 and dropped to 107th place out of 173 countries in 2002. The country was rated 39th out of 72 countries in the technology achievement index in 2001, coming in ahead of other developing economies such as Brazil (43rd), China (44th), Algeria (58th) and Indonesia (60th).

South Africa may lose this small edge against other middle developing economies as it falls behind in areas such as research output and scientific publishing. The total

here too, across scientific, industrial, employment and economic sectors.

Such complex social problems require multi-faceted policy solutions across government departments and private sectors, along with a sophisticated and up-to-date management information system. Only in this joined-up way will the country's broad HRD problems be effectively eliminated. •

For further details on the publication, see back cover.

Dr Andre Kraak is Executive Director of the HSRC's Human Resources Development (HRD) Research Programme.

THE IMPACT OF HIV/AIDS

on the health sector

By Olive Shisana



Almost half of all South African hospital patients, 46.2%, are HIV positive, while 15.7% of the health workers who care for them are also living with the virus.

These are some of the findings of a joint HSRC and Medical University of SA (Medunsa) study into the impact of HIV/AIDS on the health sector, entitled *The Impact of HIV/AIDS on the Health Sector: National Survey of Health Personnel, Ambulatory and Hospitalised Patients and Health Facilities 2002*. It is based on a representative sample of 222 public and private health facilities country-wide, and interviews with 2 000 staff – from specialists to cleaners – and 2 000 patients.

The National Department of Health (NDOH) identified the need for a study – the first of its kind – to measure the impact of HIV/AIDS on the South African health sector

to inform future planning on policy and programme development.

The HSRC and Medunsa successfully bid for a tender to conduct the research for the NDOH, who funded the study together with the US Centers for Disease Control and Prevention. The Department worked closely with researchers by providing technical support during the study.

Since the completion of the report, the Department has been using the information to inform planning and programme interventions, in particular regarding the implementation of the Operational Plan for the Comprehensive HIV and AIDS Care, Management and Treatment for South Africa.

The report has been distributed to key stakeholders by the HSRC, as agreed with the NDOH. The report is made up of different sub-studies, investigating:

- HIV/AIDS prevalence among health workers and patients (anonymous HIV tests);
- the impact of HIV/AIDS on health workers;
- the impact of HIV/AIDS on the health services;
- AIDS mortality among health workers.

MAIN FINDINGS

HIV/AIDS prevalence among health workers and patients

Data for this study was collected from anonymous saliva-based HIV tests of health workers and patients in the Free State, Mpumalanga, KwaZulu-Natal and North West.

An estimated 15.7% of health workers in public and private hospitals were found to be HIV positive. However, among those aged 18–35, the prevalence was 20.0%. Single African nurses were found to be most at risk. A total of 28.0% of patients attending public and private health facilities, including clinics, tested positive for HIV antibodies. However, this figure jumped to 46.2% at public hospitals and 36.6% in the private sector.

The impact of HIV/AIDS on health workers

HIV/AIDS is taking its toll on health workers through illness, absenteeism, low morale and an increased patient load. Some 16.2% of staff had been treated for stress-related illnesses, and the majority of these had to take sick leave. Over a third (33.8%) of health workers said they had low morale caused by stressful working conditions, heavy patient workloads, staff shortages and low salaries.

Some 73% of health workers reported that their workload had increased in the past year. Professionals felt this burden most acutely, with 81% reporting an increased burden. About a third of workers reported that their workloads had increased by 75% over the past year.

The impact of HIV/AIDS on the health services

Patients with HIV/AIDS stayed in hospital for an average of 13.7 days, in comparison to the 8.2-day average of HIV negative patients. In district hospitals, the average stay for HIV positive patients was 20.3 days in comparison to 5.2 days for HIV negative patients. A longer stay means greater cost.

Based on medical admission records, there has been a large increase in HIV/AIDS-related admissions between 1995 and 2000. However, there has not been an overall increase in the total number of admissions. The fact that there are more AIDS patients but not more hospital admissions suggests that non-AIDS patients have been ‘crowded out’ by AIDS patients. This is particularly the case in public hospitals, which operate at 80–90% occupancy rates in comparison to private hospitals, which had an average bed occupancy of 54% in 2000.

Despite the fact that there has not been a marked increase in admissions, the vast majority of health workers believe that their

workload has increased. This may be because AIDS patients are generally sicker and need a lot more care than other patients. Some 80% of facilities said that they needed more staff to cope with the HIV/AIDS epidemic, with the greatest need being expressed in public hospitals.

Only 42.4% of health facilities had their own HIV/AIDS policies, while only 19.3% of managers had ever seen the government’s national 2000–2005 HIV/AIDS strategy. More encouraging, however, is the fact that 66.5% of health workers had access to the Department of Health guidelines on HIV/AIDS care.

Three quarters of private facilities never had HIV testing kits in stock, while this figure was 59.2% for primary health facilities and 32.1% for public hospitals. Only 65% of health facilities had adequate sterilising equipment, with 30% of primary health care facilities reporting that they never stocked such equipment. This indicates that patients are at risk of getting infections in hospitals.

TB treatment was generally widely available, but antiviral agents for the treatment of serious opportunistic infections such as cytomegalovirus and herpes were not generally available.

AIDS mortality among health workers

There is very little information about AIDS mortality among health workers.

An estimated 13% of health workers died from HIV/AIDS-related illnesses from 1997 to 2001. This figure is based on a sample of mortality figures from between 1997 and 2001

provided by Statistics SA. According to an analysis of these figures, 5.6% of health workers died of AIDS-related illnesses, while a further 7.5% died of AIDS-related TB. However, it is difficult to come up with accurate figures using death notification as stigma and fear that insurance companies will not pay out has driven families to hide the cause of death.

RECOMMENDATIONS

If South Africa is to manage HIV/AIDS properly, it is necessary to develop a national treatment plan to reduce the burden on the health sector. This plan needs to include HIV/AIDS treatment guidelines, training health workers to manage HIV/AIDS, improving staff–patient ratios, ensuring supplies and drugs are available and ensuring that all health facilities have the government HIV/AIDS strategy. This report has been useful in planning the roll-out of the ARV programme.

In addition, government needs a human resource plan for the health sector that includes training more nurses to compensate for AIDS-related deaths. This is a matter that the Department may take up with its provincial departments.

The HSRC and its research partners have provided the department with empirical evidence to inform its policies and short- to medium-term interventions. •

For further details on the report, see back cover.

Dr Olive Shisana, the principal investigator of the report, is the Executive Director of the HSRC’s Social Aspects of HIV/AIDS and Health (SAHA) Research Programme.





Dempster presented the team-teaching modules on genetics and evolution.

Implementing the programme in poor schools is a challenge. Only a third of the teachers have laboratories at their schools and even some of those with laboratories don't have equipment or materials to conduct experiments. So, learning how to do practicals using ordinary ingredients without laboratory equipment was empowering.

Even so, some participants such as Kuzeka Gecelo from Lingeletu Junior Secondary School in Cala, Eastern Cape, had to think about how they would do parts of the practicals many others would take for

Teaching teachers about EVOLUTION

By Gillian Warren-Brown

Slimy strands of DNA extracted from an onion and floating in a test tube like tiny drifts of cloud evoked exclamations of delight from a group of 33 biology and natural science teachers from across the country – reminding them just why they had chosen the field of science.

'It's beautiful,' repeated Thomas Jafta, as they wound the DNA onto a glass rod. With eyes shining and a huge grin on his face, he said triumphantly, 'We've done it!' In an experiment using materials such as shampoo and table salt instead of an expensive solution, they had successfully isolated the essence of what makes an onion an onion.

Jafta, a biology teacher at Newlands East Secondary School in Durban can't wait to do the practical with his learners so they can see it too.

The teachers were attending a week-long training course in Cape Town entitled *Crossing Over*, organised by the HSRC.

The course had its genesis in another HSRC workshop held last year entitled *Evolution and Education in South Africa*. Here it became clear that the concepts involved in evolutionary theory, which is to be introduced into the school syllabus for the first time, are poorly understood.

Colleen Dawson, an education consultant involved in planning the course, says apart

from teachers having to grapple with the new content, they will have to deal with the perceived conflict between the theories of evolution and creation. This is an issue that cuts across all race groups.

The pilot training course, sponsored by the Netherlands embassy, and approved by the national Department of Education, was advertised in *The Teacher* and selection was based on teachers' qualifications and an essay they had to submit. Fortunately, every province was represented.

Only a third of the teachers have laboratories at their schools and even some of those with laboratories don't have equipment or materials to conduct experiments

Dawson says it would be useful to run such courses at provincial level now that a successful pilot has been completed.

The teachers had a varied programme covering content from genetics to evolution; practicals; outcomes based education (OBE) lesson planning; and outings to Kirstenbosch Botanical Gardens, the West Coast Fossil Park and the MTN Science Centre. Evolutionary biologists Dr Jaishree Raman and Dr Edith

granted – like having boiling water and ice (used in the onion DNA practical). There is no electricity at Gecelo's school – a group of rural rondavels – so she would have to build a fire in a brazier if she wanted to heat water, or go to the nearby clinic for help.

Their visit to the West Coast Fossil Park was, for many of the teachers, a first encounter with fossils. Comprehensive explanations by manager Pippa Haarhof and her team helped them grasp the concept of geological time stretching back 4.6 billion years (the age of the earth) and the changes over time known as evolution.

Highlighting the need for this and similar programmes for teachers, Dempster, who works regularly in teacher education, says that in general, teachers' knowledge of modern biology and evolutionary theory is very poor: 'It's important for them to recognise that evolution is a unifying concept in biology.'

Raman adds: 'Biology is about looking for patterns and relationships. The only way you can make sense of this is through the evolutionary cycle.' •

This is a shortened version of an article which appeared in the *African Scientist* magazine, a new publication by the HSRC's Social Cohesion and Integration (SCI) Research Programme. For more information, e-mail ahadland@hsrc.ac.za.

Ms Gillian Warren-Brown is a freelance journalist.

URBAN RENEWAL UNIT

to round up experts for cities

By Udesch Pillay
and Jacques du Toit

A massive redevelopment task faces South African towns and cities. Many manufacturing and central business districts are in decline because of the recent economic recession, coupled with the combined impact of globalisation and political isolation.

More than 55% of national production takes place within our six largest urban centres: Durban, Johannesburg, Cape Town, East Rand, Pretoria and Port Elizabeth. Since these cities account for a large and increasing portion of the country's total population and economic production, any decline in those centres puts the nation's political and economic stability at risk.

To contribute to stemming such disintegration, the HSRC established the Urban Renewal and Development Research (URD) unit – a South African urban research facility that aims to co-ordinate urban research into a more coherent programme of urban policy intervention.

The URD unit's flagship project, entitled *State of our Cities*, involves commissioning research outputs by top urban scholars that will eventually feed into a seminar series and a high-quality HSRC publication. Scholars will respond to a competitive grant application process and be selected on merit, according to the way their proposed output aligns with the thematic focus of the HSRC publication.

The research priorities, focus areas and terms of reference in relation to all facets of the project will be set by an urban reference group, consisting of eight members. These prominent local and international urban scholars and practitioners will help the URD unit to become a central hub of urban social research in South Africa and Southern Africa by establishing partnerships and collaboration projects.

Focusing on cities and towns will help set the stage for South Africa's international and continental role in the future. Globalisation

and the internationalisation of capital have advanced some of the world's major cities while excluding others. For example, The Globalisation and World Cities Network currently ranks Johannesburg in category 6 (out of 12) – a 'minor world city', on a par with cities like Amsterdam and Washington. Cape Town, however, has been rated in the lowest category – showing minimal evidence of world city formation, like Brasilia and Glasgow. Such conclusions have serious

A decline in SA's urban centres puts the nation's political and economic stability at risk

consequences for South Africa's larger cities, and warrant a concerted programme of research around the issues of globalisation and city transformation.

Two factors that distinguish South African urban centres – dualism and a distorted spatial economy – stem from the segregationist

policies of the apartheid past. As a result, towns and cities have a well-developed formal component along with an underdeveloped informal component. These two components are usually separated not only by financial status but by distance: often people in the poorer economic category live much further from the cities where they work than those with a higher economic status.

The government recognises the need to narrow this gap in South African cities.

Recent policies addressing urban development issues, such as the Reconstruction and Development Programme and the Urban Development Framework, reinforced such national development priorities but they lacked a way to make a difference in the urban development processes.



The government's Urban Renewal Programme aims to co-ordinate resources from all three spheres of government in a sustained campaign against urban poverty and underdevelopment. Ultimately, the goal is to develop socially cohesive and stable urban communities with viable institutions, sustainable economies and accessible amenities that would raise the quality of life for underdeveloped communities.

A comprehensive urban renewal policy and its proposed vision can only be effective and successful if informed by relevant applied urban research. Such research has to be well aligned with local and international urban issues, given South Africa's re-entry into global markets. Furthermore, the government's emphasis on poverty and the human dimension in urban development suggests a specific need for a focused programme of cross-disciplinary social research.

A comprehensive urban renewal policy can only be effective and successful if informed by relevant applied urban research

The URD unit approaches urban renewal and development as cross-disciplinary issues where urban form, space and process serve as key analytical areas of investigation. The anticipated research will cover:

- Urban renewal and poverty;
- Local economic development;
- City governance and management;
- Institutional transformation;
- Urban transportation;
- Globalisation and world cities;
- Built environment and sustainable, empowered communities; and
- Urban indicators

The URD unit will also help facilitate the process of networking with urban specialists, thus becoming a central hub of urban social research in South Africa and Southern Africa. Contract research will eventually make up the balance of research activities as the unit grows and expands its capabilities.

Future capabilities will also include monitoring and evaluation of the impact of policies, strategies, programmes and projects, especially at a local government level. •

Dr Udesch Pillay is Executive Director of the Surveys, Analyses, Modelling and Mapping (SAMM) Research Programme and Head of the Urban Renewal and Development (URD) unit that resides in SAMM. Mr Jacques du Toit is a Chief Researcher and co-ordinator of the URD unit.

PROFILE



Executive Director of the Democracy and Governance (D&G) Research Programme

By Patrick Laurence

Professor Roger Southall, the HSRC's outgoing Executive Director of the Democracy and Governance (D&G) Research Programme, is – to borrow Robert Whittington's reference to Thomas More – a man for all seasons, if not in life generally then certainly in the intellectual world that he has inhabited all of his adult life.

During his service of more than 30 years in academe he has served as an administrator as well a research scholar, often even combining the two roles. Southall is thus well equipped to assume his new role as Distinguished Research Fellow at the HSRC when he passes his executive responsibilities on to Professor Adam Habib, who worked with him as a part-time Research Director.

His administrative experience includes eight years as the Head of the Department of Political Studies at Rhodes University and his two years as Executive Director of D&G. As his curriculum vitae notes, his spell as head of the Department of Political Studies at Rhodes involved incorporating the previously independent International Studies unit and – always a tough test of administrative competency – raising funds to enable the department to expand.

Southall's ability to shift between

research and administration is matched by his intellectual versatility. His MA and PhD theses are on completely different subjects, military behaviour in newly independent states and the dilemmas faced by Cadbury's in the Gold Coast between 1907 and 1938.

His books and monographs demonstrate the same intellectual flexibility, varying from writing a full-length book on the Transkei, entitled *The Political Economy of an 'Independent' Bantustan*, to a study of federalism and higher education in East Africa. While Southall has spent a major part of his adult life in Southern Africa, he has looked at the world from a wider intellectual perspective than that provided by the Africa sub-continent. His university postings include spells in Uganda – where his research on elections in a one-party state were rudely interrupted by the coup

His university postings include spells in Uganda – where his research on elections in a one-party state were rudely interrupted by the coup which ousted Milton Obote and brought Idi Amin to power

Professor Roger Southall

which ousted Milton Obote and brought Idi Amin to power – and in Canada.

He has an apparently indefatigable desire to conduct investigation into a wide range of issues and an impressive ability to persuade various foundations and institutes to fund his intellectual pursuits. A particularly interesting entry under the heading ‘extra-university awards’ includes the following item: ‘commissioned (by the Truth and Reconciliation Commission) to conduct an overview of operations of the South African security forces in the African homelands’. With typical modesty Southall laughs when asked about the research. But he believes that his research on the police and intelligence services in the putative states, and their relationships with the South African police and intelligence agencies under the previous government, was worthwhile. ‘Not much work had been done on that,’ he states.

Excluding his role in and contribution to the first of the HSRC’s annual appraisals on the state of the nation, one of Southall’s most recent publications is on the ‘Contested State of Democracy in South Africa’. In it he assesses the concerns of observers who fear that South Africa is emerging as a one-party dominant state, in which the ruling African National Congress is seen as shifting towards ‘authoritarianism’ and therefore becoming a threat to democracy (even though its political dominance is the product of democratic elections). Without contesting the ANC’s status as the dominant political force in South Africa, Southall argues that its power is not unlimited. He writes, ‘... its limits have been demonstrated by the government’s need to backtrack on major aspects of its policy, notably in regards to HIV/AIDS and its commitment to its neoliberal economic strategy’. Conceding that democracy in South Africa is ‘highly uneven’, he adds: ‘... yet, for all its imperfections, it represents a massive advance upon what went before’.

Southall, who joined the HSRC more than two years ago after a long and distinguished career as a university lecturer and professor in South Africa, Canada and Uganda, does not hanker unduly after university life. ‘Yes and no’, he replies when asked if he misses his past persona as a university don. ‘I did my bit for 30 years. It is nice, though, to get away from teaching undergraduates.’ Since joining the HSRC, he has ‘done things’ he would not have been able to do if he had remained at Rhodes.

The activities that would have eluded him if he had not decided to move on include research into the complex and explosive situation in Burundi, a deeply divided country where former President Nelson Mandela and current Deputy President Jacob Zuma have played a major role in negotiating a settlement between the adversaries in one of Africa’s most bloody and protracted conflicts.

Another activity which his decision to move to HSRC opened to him is his involvement in the HSRC’s State of the Nation series (he was a co-editor with Dr John Daniel and Professor Adam Habib in the first volume which stretches from 2003 into 2004). He describes

the series as a ‘collegial production’, observing, ‘We share the burden’. The pending volume will include an appraisal of the state of schools in post-apartheid South Africa, an assessment of the government’s black economic empowerment programme and an in-depth analysis of the 2004 election.

Responding to an invitation to spell out his views on the state of education in South Africa today and, in particular, to comment on the view that the matriculation results have been inflated to convey the impression that quality of education is improving dramatically, Southall replies carefully, quoting his HSRC colleague, Linda Chisholm, ‘We need to take the argument away from the matriculation results,’ Southall states. ‘It is used as a hook for people to string their ideological baggage on.’ There is a ‘general drift upwards’ when education today is compared with the Bantu Education programme of Hendrik Verwoerd and his co-apartheid protagonist W. W. M. Eiselen. The school graduates – i.e. matriculants – of today are better than those who passed through the school system under the tutelage of Verwoerd and his accomplice, Eiselen, Southall avers.

Southall’s wife, Hilary, is Chair of the Council of Statistics South Africa, and his son, Ben, has just graduated in economics and business studies at the University of Cape Town. He is one of the fortunate people who seems to have been fulfilled in his career choice and who is able, when the time comes, to move on to new challenges. •

Mr Patrick Laurence is the Editor of Focus, a journal of the Helen Suzman Foundation.

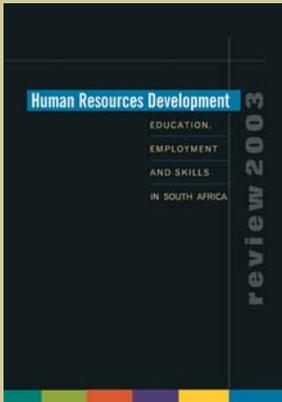
That the ANC’s power has its limits have been demonstrated by the government’s need to backtrack on major aspects of its policy, notably in regards to HIV/AIDS and its commitment to its neoliberal economic strategy’

BELOW: Professor Roger Southall (right) with Professor Jakes Gerwel, chairman of the HSRC Council, at the launch of the Bloemfontein office.



NEW HSRC PUBLICATIONS

www.hsrcpublishers.ac.za



Human Resources Development Review 2003: Education, Employment and Skills in South Africa

This flag-ship human resources development (HRD) project has two components: the production of the print triennial *HRD Review*, which analyses key education and training, labour market and macro-economic indicators; and a comprehensive web-based data warehouse, providing an improved information and analysis infrastructure to support government decision-making in the HRD arena (see www.hrreview.hsrc.ac.za).



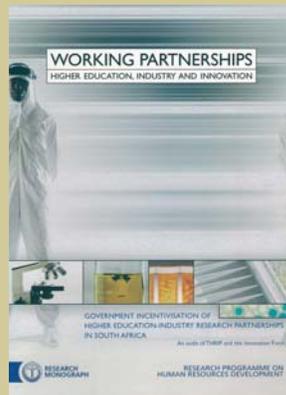
The Impact of HIV/AIDS on the Health Sector: National Survey of Health Personnel, Ambulatory and Hospitalised Patients and Health Facilities, 2002

This report examines the impact of HIV/AIDS on the public and private health facilities in South Africa, and outlines the sub-systems that are affected by an increase in the number of HIV/AIDS patients seeking clinical care, leading to overcrowding and increased workloads. The study makes recommendations for managing the HIV/AIDS case load.



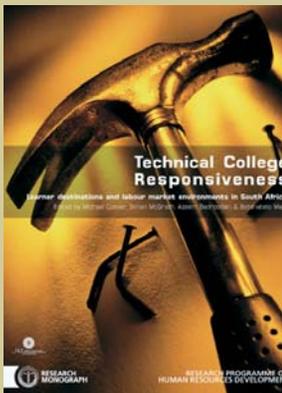
Flight of the Flamingos: A Study on the Mobility of R&D Workers

This study aims to address concerns about the sustainability of South Africa's R&D workforce and the perceived negative effects of the 'brain drain'.



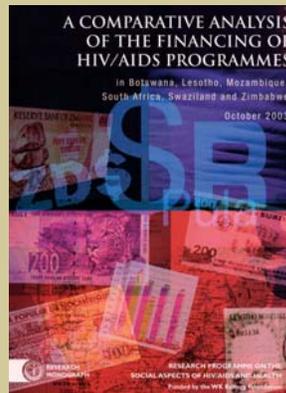
Government Incentivisation of Higher Education-Industry Research Partnerships in SA: An Audit of THRIP and the Innovation Fund

Part of the Working Partnerships series, this report looks at the extent of network practices in South Africa and the impact of global trends in biotechnology, ICT and development. The series will explore partnerships in relation to knowledge production, enterprise productivity and innovation.



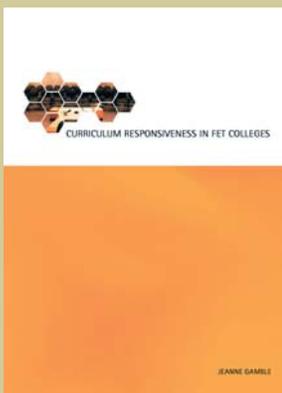
Technical College Responsiveness: Learner Destinations and Labour Market Environments in South Africa

This report investigates the responsiveness of technical colleges within the emergent further education and training (FET) landscape in South Africa. Three separate studies are presented: a tracer study of technical college graduates; an employer satisfaction survey of employers of college graduates; and institutional profiles, including socio-economic and local labour markets.



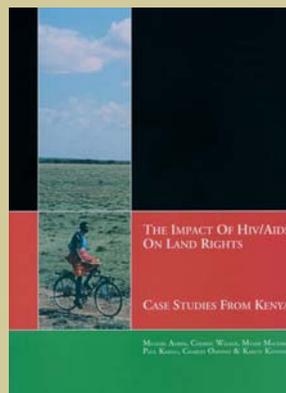
A Comparative Analysis of the Financing of HIV/AIDS Programmes in Botswana, Lesotho, Mozambique, South Africa, Swaziland and Zimbabwe

This report compares mechanisms for the financing of HIV/AIDS programmes in Southern Africa and was an initiative of the Social Aspects of HIV/AIDS Research Alliance (SAHARA).



Curriculum Responsiveness in FET Colleges

This study pinpoints key themes in FET curriculum change, such as global experiences applicable to South Africa and the complex challenges facing SA curriculum development in a fragmented sector with no institutional character and identity.



The Impact of HIV/AIDS on Land Rights: Case Studies from Kenya

This study explores the relationship between HIV/AIDS and land rights in Kenya, with a particular focus on women as a socially vulnerable group. It examines three village case studies in different parts of Kenya, and attempts to distinguish the role of HIV/AIDS in precipitating or aggravating tenure insecurity from other influences.