



# PART THREE

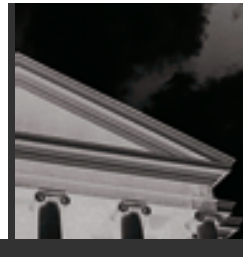
## LOOKING FORWARD

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11. Implications of the findings

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# II. IMPLICATIONS OF THE FINDINGS



The research findings from Phase One of the Student Choice Behaviour project confirm, in some instances, the results of previous research and, in others, common perceptions about learner behaviour with regard to HE. In addition, certain findings throw new light upon previously unresearched areas and point up major differences between perception and reality. The intention of this section of the report is not so much to rehash the findings of the study. Rather, this section draws some preliminary conclusions about the significance of the findings in the light particularly of the *National Plan for Higher Education* (DoE, 2001a), and spells out some of their policy implications.

## 11.1 Increasing size and altering shape

On the basis of current enrolment patterns, the Ministry of Education estimates (DoE, 2001a) that 188 000 learners are required to enter the HE system each year if a participation rate of 20% is to be achieved. The current number of first-entry learners to undergraduate programmes in the public HE system is more or less constant at 120 000 per year. If all the learners in the present survey indicating their intention of entering HE in 2002 had actually enrolled with institutions in the first three months of this year, 270 620 learners would have entered the system. If only half this number had entered the system, the target of a 20% participation rate would still have been reached. Most of those who indicated that they intend entering HE are, given the trend of the last three years, likely not to do so, however – a recognition of which is the primary reason for this study.

At the same time, the Ministry of Education dispels any notion that it is engaged simply in a numbers game. There is undeniably a correlation between economic development and the level of participation in HE, which the Ministry recognizes; and with a participation rate of 15%, South Africa lags behind other comparable middle-income countries, whose participation rate in HE is just over 20%. But the Ministry sees the need to balance concerns about the low participation rate (the size of HE) and about the fields of study (the shape of HE) in which learners are enrolled and, more critically, graduate, with the armoury of skills with which graduates enter the labour market:

The issue, then, is not whether there should be more or fewer enrolments in business and commerce and science, engineering and technology as against the social sciences and humanities, but whether the higher education system as a whole is geared towards addressing the skills and competencies required of all graduates in the modern world (DoE, 2001a: 31).

In this regard, the *National Plan* makes reference to Michael Gibbons's list of the skills required by graduates in the 21st century: computer literacy, knowledge reconfiguration, information management, problem-solving in the context of application, team building, networking, negotiation / mediation, and social sensitivity (Gibbons, 1998). SAQA, in its expression in the National Standards Bodies Regulations (RSA, 1998) of the critical outcomes learners need to acquire in achieving qualifications, is clearly working off a similar list. Asked to indicate how well they thought their school education had prepared them for adult life in terms of five variables that overlap significantly with the Gibbons and SAQA lists, learners responded in extremely positive vein (the composite mean being 4.2 out of a maximum possible score 5):

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- Ability to work with numbers and figures 3.9
- Ability to write well 4.4
- Ability to communicate well with others 4.4
- Ability to work as a member of a team 4.1
- Ability to solve problems 4.1

Even on the numeracy variable, 70% of learners felt that their schools had prepared them well to very well (4 and 5 on the five-point Likert scale). The high drop-out rate amongst first-entry students in the South African public HE system (25%), however, belies this optimism. Speculatively, learners may have had doubts about the confidentiality of responses to questions about school effectiveness, and even have calculated that responding that their school had prepared them well in terms of the listed variables would somehow increase their chances of entering HE. The alternative is that their self-knowledge – perhaps in the absence of valid comparators – is sadly deficient.

From a Ministry of Education perspective, the dual requirement must be that one does more with what one has – improving the throughput of learners in the HE system – and that one does more to get a critical mass into the HE system to do more with – improving the throughput of learners in the secondary education system. In this regard, the statistics for Mathematics and Physical Science enrolment in the secondary school system – gleaned from the responses to question 1.1 of the questionnaire – are sobering. Of a total of 293 499 learners<sup>1</sup> taking Mathematics for matric, only 43 002 (15%) are taking it on the higher grade, while a massive 241 951 (83%) are taking it on the standard grade (the balance are taking it on the lower grade, or their responses are unclear); and of a total of 176 039 learners taking Physical Science for matric – almost 120 000 fewer than are taking Mathematics – 58 777 (33%) learners are taking it on the higher grade, while 112 937 (64%) are taking it on the standard grade (the balance again taking it on the lower grade, or their responses are unclear). Standard grade passes are simply not going to gain learners access to universities, and may even restrict access to technikons in some instances. Learner choice of field of study is constrained, then, at the secondary school level; factoring in the host of other factors that this survey has shown to affect learner decisions with regard to HE constrains decision-making even further.

### 11.2 Higher education and choice

An erstwhile President of the American Educational Research Association describes thus how she came to study psychology at university:

In high school, I specialized in 18th century literature and 19th century history, and was on my way to study history in college. Why switch? I saw a television programme on animal learning, on how animals learn naturally in their environments, an introduction to ethology ... I looked up animal learning in my handy guide to universities and found that to study learning, you needed a degree in psychology. Thus prepared, I set out for an interview, having seen one television programme and read Freud's *Psychology of Everyday Life* on the train getting there. By chance the head of department was an expert in 18th century literature. We discussed poetry for two hours. I got a scholarship to study psychology! (Brown, 1994; cited in Hodkinson, 1995: 7).

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<sup>1</sup> These numbers are weighted.

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The elements of the process that results in her studying psychology are the following:

1. The learner has a clear sense of what she wants to study at university: history.
2. Fortuitously, she sees a television programme on animal behaviour that unearths what is presumably a latent interest in learning.
3. She makes the link between learning and psychology.
4. She schedules an interview with the head of a psychology department in a university.
5. By chance, her and her interviewer's interests in 18th century literature coincide, and she gets the scholarship to study psychology.

This process combines elements of conscious decision-making (the decision to study history at university, the decision to schedule an interview with a psychology professor), problem solving (making the link between learning and psychology), and sheer chance (seeing the television programme on animal learning, and discovering that the psychology professor also has an interest in 18<sup>th</sup> century literature).

But this is the story of an affluent woman's study choice in a developed-world context. As the present study has shown, the situation for most South African learners precludes the niceties of study choice that characterize Brown's account. Low SES – the lot of nearly eight out of ten learners in the secondary school system – shapes expectations in ways that only those who are themselves born into poor families can fully understand. For most in this group, HE is on a chimerical horizon: they may have the freedom to dream about HE (hence, perhaps, the high rate of learners intending to enter HE); but they do not have the means to actualise that dream.

The study by Hodkinson (1995) from which the Brown story is taken investigated, through interviews, the accounts of 115 Grade 11 and 12 learners of why and how they had decided on a particular course of action for the next year and beyond. The findings reveal that a variety of factors impinge upon the choice process:

1. Influence of close relatives or neighbours who had worked in the same fields;
2. Work experience of learners themselves;
3. Particular interests which they wanted to incorporate into careers – some of them childhood ambitions;
4. The desire for a job that offered training that would lead to career advancement;
5. Change of mind, and indecision; and
6. Careful, considered decision-making leading to the choice of a job.

In the South African context, the first of these is restricted, because high levels of unemployment mean that there are fewer working relatives and neighbours to draw on. Nevertheless, some or all of these may be at work in learner's minds as they struggle to make sense of the options open to them.

Using Bourdieu's notion of *habitus* – the ways in which a person's beliefs, ideas and preferences are individually subjective but also influenced by the objective social networks and cultural traditions in which that person lives – and Giddens's notion (Giddens, 1984) of the development of consciousness through schemata – conceptual structures that serve as tools for understanding aspects of experience, filtering out 'irrelevances' and allowing sense to be made of partial information – Hodkinson develops the construct that young people make career decisions within horizons for action (that area within which actions can be taken and decisions made), concluding that:

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Habitus and the opportunity structures of the labour market both influence horizons for action and are interrelated, for perceptions of what might be available and what might be appropriate affect decisions, and job or training opportunities are simultaneously subjective and objective. Because schemas filter information, horizons for action both limit and enable our view of the world and the choices we can make within it (Hodkinson, 1995: 7).

The decision-making process, as foregoing sections of this report have demonstrated, is complex. A variety of factors – external and internal, objective and subjective, real and imagined – influence learners in particular ways. Nor is there necessarily a consistency in the choice process – which renders the notion of intervention to shape decision-making all the more difficult. Nevertheless, some of the implications of the findings of this study for policy-making are outlined below.

### 11.3 Policy implications of survey findings

#### 11.3.1 Intention to enter HE

##### 11.3.1.1 Academic performance

There is a positive correlation in the findings between academic performance, as measured by average symbol achieved in Grade 11, and intention to enter HE – the higher the average Grade 11 symbol, the greater the intention to enter HE. If the participation rate in HE is to be increased, ways must be found to improve school performance to at least enable more learners to realistically include HE within their horizons for action. Improving the quality of teaching and learning is clearly a priority in this regard.

##### 11.3.1.2 Population group

The fact that significantly fewer coloured learners than learners in other population groups intend entering HE suggests that further research needs to be undertaken within that group to establish the underlying reasons for this. Since there are no obvious factors within the present study that impinge more upon coloured than upon other population group decision-making, there may be other sociological reasons for the lower rate not broached in the survey.

Hendry (2002) indicates that the low coloured learner intention to enter HE is a serious problem for (in particular the planning departments of) institutions in the Western Cape – all of whom would welcome such further research.

##### 11.3.1.3 Employment

The notion of HE enhancing employability is clearly the most significant of the listed variables in affecting intention to enter HE. (The related notion, that HE will lead to a higher income, is not far behind.) That employability is the primary driver behind intention to enter HE has both negative and positive implications: negative, in that it is the high unemployment rate in the country – and therefore the fierce competition for jobs – that holds HE up as indispensable; positive, in that the notion that HE is indispensable to finding a job should have the effect, over a period of time, naturally of increasing the

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participation rate in HE as more learners strive to better their marks to gain access to HE. Further research might explore how this tension could be exploited.

### *11.3.1.4 Family encouragement*

If family encouragement of learners to enter HE is indeed the best predictor of post-secondary educational aspiration, as the American research cited suggests, ways need to be found either to enhance family communication, where families are intact, or, where they are not, to find surrogate means of providing the encouragement that learners need to shift their focus toward HE. This is a complex issue, since encouragement of learners can only come from parents or guardians who themselves are sufficiently secure, financially and educationally, to provide such support – which, as the survey findings demonstrate, is not the case in many South African households. Nevertheless, if the participation rate in HE is to be increased, the issue of encouragement of learners – whether at home, at school, or in the community – needs to be addressed.

### *11.3.1.5 Funds for HE study*

The Ministry of Education, having recognised that access to funds for HE study is one of the chief disincentives to entering HE, has increased the National Student Financial Aid Scheme (NSFAS) allocation available to academically able students who would otherwise not be able to afford HE from R600m in 2001 to R800m in 2002. This allocation has enabled 100 000 learners to participate in HE in the 2002 academic year – an investment the Ministry (and its donors) are happy to make, since the pass rate of students who receive funding from the NSFAS is reportedly much higher than that of learners who are not assisted by the state.<sup>2</sup> Given the doubt cast in the *National Plan* about whether the scheme meets the needs of poor learners, however, the Ministry will need to monitor the extent to which the scheme facilitates access of academically capable learners from poor communities to HE.

It is worth emphasizing that parental ability to fund HE study appears in the penultimate position in the ranking of variables influencing intention to enter HE, and is least important for African learners – whose parents can least afford to send their children to HE. The corollary is that external sources of funding (NSFAS, bank loans, bursaries, and scholarships) are most important for Africans (then for coloureds, then for Indians, then for whites). These findings suggest that the Ministry should be considering all possible avenues for allocating financial aid to needy learners.

### *11.3.1.6 Learners with siblings with HE connections*

Whether a learner has siblings who are studying or who are graduates of a university or technikon is the most significant predictor of learner response to the question of whether they were intending to enter HE within three years of the date of the survey. While 83% of learners with siblings with such HE connections intend entering HE, only 69% of learners without siblings with HE connections intend doing so. Learners with siblings with HE connections, the regression analysis reveals, are nearly twice as likely to have said that they intend entering rather than not entering HE than are learners without siblings with HE connections.

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<sup>2</sup> This information was relayed to the HSRC Colloquium on 'Understanding Private Higher Education in South Africa' on 9 April 2002 by the Minister of Education, Prof Kader Asmal.

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At the same time, however, of the 20% of students who drop out of HE each year (see section 1.2), a number must be siblings of learners who intend entering HE. Further research would need to establish how many such siblings have dropped out of the HE system without completing a degree or diploma and to what extent this adverse sibling experience impacts on both learner intention to enter HE and learner choice of institution.

### *11.3.1.7 Career guidance*

A higher percentage of learners having received some career guidance rather than not having received any such guidance intend entering HE (79% versus 60%). Career guidance in whatever form, therefore – and the forms are pursued in question 1.7 of the questionnaire – has a positive effect on intention to enter HE – an effect which a chi-square analysis shows to be significant, if not very strongly so.<sup>3</sup> The implications for policy are that the Department of Education should increase its support for career counselling initiatives in schools – particularly where learners are not in a position, or feel themselves unable, to discuss their future plans with parents or guardians. This would involve not merely improving the quality of career counselling in those previously advantaged schools which offer career guidance, but establishing the service in schools which have no such tradition.

More investigation of the different forms career counselling should take is needed, however. While 15% of learners who have received career guidance indicate that discussion with a teacher is one of the forms that guidance has taken, the usefulness of this form of counselling is debatable, particularly given the survey finding that teacher influence upon learner intention to enter HE is relatively small (mean = 2.9, with 43% of learners indicating that this factor has had little to no influence upon their decision to enter HE). The American finding reported earlier that the impact of both teachers and high school career counsellors upon predisposition to enter HE is insignificant needs also to be measured in a South African context.

### **11.3.2 Choice of institution**

#### *11.3.2.1 University versus technikon*

More Indians and whites than Africans and coloureds wish to study at a university rather than a technikon, and vice versa. If university participation is to be increased, significantly more Africans will need to enter the system – particularly since the most popular choice of institution amongst white learners is not any of the public universities but a private or overseas institution. Access to universities is closely associated with university exemption, which African learners will need to achieve in far greater numbers if university enrolments are to increase. This is not to detract from the growth in technikon enrolments, but to suggest that a balance between growth in university and technikon enrolments needs to be achieved.

The latest registration data for 2000 – which would need to be updated following the HE restructuring process – reveal that 41 000 African learners entered universities as first-year undergraduate students in 2000, while about 49 000 entered technikons in the same capacity (Hendry, 2002). More pronounced, however, is the university:technikon

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<sup>3</sup> The Phi, Cramer's V and Contingency coefficients are .191, .191 and .188 respectively.

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differential amongst white first-year undergraduate students in 2000, about 30 000 of whom entered universities whilst only 9 000 entered technikons.<sup>4</sup>

### *11.3.2.2 Private versus public institutions*

That Other institutions (private and overseas institutions) constitute the most popular institutional choice of white learners, 15% of white learners choosing to enroll with such institutions (the next four most popular being the University of Pretoria – 13%, the University of Stellenbosch – 9%, the University of Cape Town – 9%, and Technikon Pretoria – 8%) confirms not only the *National Plan* anecdotal sense that white learners are moving out of the public HE system for private education or for greener pastures abroad but, from the top five list for whites, that university study<sup>5</sup> is more popular amongst whites than technikon study. The reasons advanced by the *National Plan* for the ‘white flight’, however – perceptions of increased instability and dropping standards – are not borne out by the findings of the survey, which indicate no significant difference amongst the four population groups in terms of private HE better preparing one either for the job market or for further study abroad or of private HE offering better personal security. If anything, white learners are less influenced than are colored and Indian learners by these factors – there being no difference between white and African learners in terms of their influence.

### *11.3.2.3 Socio-economic status*

There is a clear correlation in the findings between SES and choice of institution type (university versus technikon) – the lower the income of and educational levels within the learner’s family, the more likely the learner is to choose to study at a technikon rather than a university. If more learners are to choose university over technikon study, ways must be found to reduce poverty and raise the standard of living of the majority of learners in the country. In addition, better ways of supporting students in paying fees might be found, while moratoria on fees increases in the university sector might be considered.

### *11.3.2.4 Institutional choice and application*

The Ministry of Education may want to investigate the reasons for the inordinately high popularity of Technikon Pretoria as an institution for HE study (17% of learners want to study there) in comparison with the other public HE institutions – the next most popular institution being Technikon Witwatersrand (5%) – particularly because of the unreasonable pressure such disparity of choice would place upon the Pretoria institution should intention translate into registration. In this regard, the proposed establishment of a National Higher Education Information and Applications Service mooted in the white Paper on HE (DoE, 1997) is to be welcomed, particularly if high priority could be given to the applications clearing house function of such a service – which would greatly facilitate national admissions planning and the applications process itself. Such a service would go a long way towards addressing the frustrations callers (like the present writers) experience in discovering that neither SAUVCA nor the CTP knows the closing dates for the submission of applications for study to their respective member institutions.

That 36% of learners who had not yet applied to any institutions at the time of the survey in August 2001 cite not being able to get enough information about universities and

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<sup>4</sup> These figures do not include the University of the North West, because of the absence of a 2000 HEMIS submission from this institution.

<sup>5</sup> Notwithstanding the fact that private institutions are, but for a few notable exceptions like Monash and Bond, not universities.



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technikons as their main reason for not having applied to any institution (the second most popular reason – for which there was only 15% support – was that the closing date for submission of applications had not yet arrived) suggests the importance, if not the urgency, of the establishment of the National Higher Education Information and Applications Service.

### *11.3.2.5 Institutional anomalies in learner choice*

A second aspect of institutional choice the Ministry, and indeed the institutions affected, may want to take into account in planning exercises concerns the provincial anomalies in learners' choices of certain institutions. Notwithstanding the Ministry's desire for the role of HE as a national system to be 'jealously guarded against any claims that are based on and promote a narrow provincialism', as it puts it (DoE, 2001a: 85), and the fact that a number of institutions have satellite campuses in provinces other than those in which they are located, national landscape and institutional planning may want to reflect upon why more learners from the North West and Limpopo than from Gauteng want to study at Technikon Witwatersrand and why more learners from Mpumalanga than from Gauteng want to study at MEDUNSA. The Ministry will know why more learners from the Northern Cape than from the North West want to study at Potchefstroom University and why more learners from Mpumalanga than from Gauteng want to study at Technikon Pretoria; but it may want to investigate the choices of learners in the Northern Cape and Mpumalanga more closely ahead of its proposed establishment of National Institutes for Higher Education in these provinces.

While the HEMIS definitions of contact-mode, distance-mode, and mixed-mode learning are clear, moreover, the extent to which mixed-mode provision bedevils attempts at promoting the regional identity of HE provision requires further investigation.

### *11.3.2.6 Provincial anomalies in learner choice*

Another aspect of institutional choice has possible policy implications for the planning of distance education provision. Only 5% of learners in Mpumalanga and 3% of learners in the Northern Cape want to study through UNISA or Technikon SA: nearly two-thirds of learners in Mpumalanga would prefer to study at contact institutions in Gauteng (especially Technikon Pretoria), while a quarter of learners in the Northern Cape would prefer to study at the two contact institutions in the Free State.

The other disproportionate findings are that 55% of learners in Limpopo want to study at traditionally contact-mode institutions in Gauteng – only 14% of learners preferring to study at provincially-based institutions – and that in the North West only 9% of learners want to study at institutions in the province, 52% preferring to study at institutions in Gauteng. The perceptions of learners in the provinces housing the University of Venda, the University of the North, the University of the North West and Potchefstroom University about these institutions speak for themselves.

### *11.3.2.7 Learner support for home-(provincially) based study*

That there are such vast differences between provinces in terms of the percentages of learners who want to study at HE institutions in their home provinces should inform Ministry of Education planning of HE provision along provincial lines. Moreover, four of

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the seven provinces which have HE institutions – the Eastern Cape, Gauteng, Limpopo and the North West – seem not to be able to attract to their institutions even half of the learners intending to enter HE who live in those provinces.

Further research should compare learner choice of institution with actual enrolment figures for the 2002 academic year once these become available.

### 11.3.3 Choice of study programme

#### 11.3.3.1 Gender

The finding in the study that male and female learners do not differ significantly with regard to their study choices – except in the case of Manufacturing, Engineering & Technology – should, were such choices to translate into enrolment, allay Ministry concerns about redressing the gender imbalances in the enrolments of students in different programmes (DoE, 2001a: 48). Similarly, the finding that the proportions of female and male learners choosing to study in the Humanities relative to other fields are not vastly different should allay Ministry concerns – should study choice translate into enrolment – about female students being clustered in the Humanities. Moreover, that 27% of female learners versus 24% of male learners choose to study in the field of Business & Commerce suggests that such fields are no longer the sole preserve of males. However, institutions might be given incentives to admit female learners to traditionally male-preserve programmes in SET in which female students remain under-represented – especially engineering programmes.

#### 11.3.3.2 Population group

Ministry of Education concerns about inequities of enrolment in different fields by different population groups – African students, like female learners, remaining clustered in the Humanities, with low enrolments in SET and Business & Commerce (DoE, 2001a: 38) – should similarly be allayed by the study choice profile of African learners in the survey. African learner choice of both SET and Business & Commerce is higher than white learner choice of these fields (40%:33% for SET, 26%:24% for Business & Commerce) in relation to their choices of other fields of study, while African learner choice of the Humanities is lower than that of whites (19%:21%). An investigation of actual enrolment figures, however, will obviously provide a more solid basis for policy-making.

#### 11.3.3.3 Study and work in South Africa

The finding that Africans and coloreds are far more influenced than are Indians and whites in choosing a field of study by opportunities of finding a job in South Africa after graduation should come as no surprise to the Ministry of Education. Nor should the similar finding that Africans and coloureds are more influenced than are Indians and whites by the notion of their qualification contributing towards the country's development raise many eyebrows. If the skills of whites are to be retained, these findings, in conjunction with the finding that private and overseas institutions constitute the first choice of institution for whites, arguably require some creative incentives (rather than the punitive requirement of a set number of years of community service) for making study and work in South Africa attractive to white learners.