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TECHNICAL COLLEGE RESPONSIVENESS PROJECT

GRADUATE TRACER STUDY

EXECUTIVE SUMMARY OF RESEARCH FINDINGS

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1 Aim and objectives of the study

The graduate tracer study is one of four components of a project entitled “Investigating ‘responsiveness’: Employer satisfaction and graduate destination surveys in the South African technical college sector” conducted by the Human Sciences Research Council (HSRC). As the title suggests, the project aimed to investigate technical college responsiveness through a triangulation of the findings of a tracer study of graduates conducted in late 2001 and an employer satisfaction survey conducted in early 2002 – an investigation enhanced by case studies of selected newly-merged Further Education and Training (FET) colleges and a socio-economic analysis of the local labour markets within which technical colleges are located.

The aim of the tracer study component was to investigate technical college responsiveness as measured by

- graduate perceptions of their technical college experience and the extent to which it prepared them for the labour market
- graduate employment rates; and
- graduate satisfaction with their employment situations.

The cohort selected for the study was all learners who achieved an N2, N3 or NSC qualification at a technical college in 1999 in any of the Department of Education programmes.

2 Response profile by province

The total number of graduates who completed valid questionnaires as part of the “Technical College Learner Satisfaction Questionnaire” survey was 3 503. More than half of all responses (53.5%) were from graduates in Gauteng, only four other provinces (Free State, KwaZulu Natal, Mpumalanga, and Western Cape) providing more than 5% each of the responses. The findings for the Eastern Cape, Northern Cape, Limpopo, and the North West are not necessarily generalizable to the total populations of these provinces – there being fewer than 100 responses from each of these provinces.

3 Response profile by population group

Eighty percent of respondents to the survey were African, 7% Coloured, 1% Indian, and 12% White. A comparison with the national technical college enrolment distribution in 1998 (*Quantitative Overview of South African Technical Colleges*) reveals an over-representation in the tracer study survey of Africans (the national enrolment percentage is 71) and an under-representation of Whites (the national enrolment percentage is 18).

4 Response profile by gender

Seventy-one percent of respondents to the survey were male, 29% female. A comparison of these response rates with the gender profile of students enrolled in technical colleges in 1998 (*Quantitative Overview of South African Technical Colleges*) reveals that while nearly three-quarters of respondents to the present survey are male, only 56% of students enrolled in technical colleges in 1998 were male.¹ The disproportionately high male enrolment in technical colleges in relation to the male-female divide in the general population – 48% male, 52% female (*Labour Force Survey*, 2001) – is attributable to the fact that a very small number of female students enrol

¹ This percentage is based on information obtained on only 70% of the colleges (*Quantitative Overview of South African Technical Colleges*, 2000).

for Engineering programmes (*Quantitative Overview of South African Technical Colleges*), which account for the majority of technical college enrolments.

5 Response profile by age

The average age of respondents to the survey at the time of graduation (i.e., in 1999) was 21. This is consistent with the finding that 81% of graduates had achieved a Grade 12 qualification *before* achieving an N2, N3 or NSC. Thirty-one percent of respondents were aged 15-19, 56% were aged 20-24, and 12.6% were older than 24. By comparison with students in the vocational education system (TAFE) in Australia, where 62% of students are older than 24 – indicating that they are early- to mid-career – South African technical college students are for the most part either first-time entrants or at least very early-career students.

6 Parental education

Thirty-one percent of graduates' fathers / male guardians have a primary school education or less, 42% Grade 12 or less, 8% a college qualification, 9% a higher education, while 10% do not know their male guardians' education level. Thirty-two percent of graduates' mothers / female guardians have a primary school education or less, 46% Grade 12 or less, 8% a college qualification, 8% a higher education, while 6% do not know their female guardians' education level. This high degree of correlation between male and female guardian education levels is similar to that in the general population (*The People of South Africa: Population Census, 1996, 1998*).

For the graduate tracer study, the national total of

- African learners' fathers / male guardians with a primary education or less is 38%, and with a higher education 6%
- White learners' fathers / male guardians with higher education is 29% and with a primary school education or less 0.5% (in relation to the aggregated total of 31%)
- African learners' mothers / female guardians with a primary education or less is 39%, and with a higher education 7%; and
- White learners' mothers / female guardians with a higher education is 15.7% and with a primary education or less 0.5% (31.6% below the aggregated national total).

7 Education level of technical college graduates

The profile of graduate responses by qualification type achieved in 1999 is as follows: 9% of learners achieved an NSC, 48% an N2, and 43% an N3. The overwhelming majority of graduates, then, achieved an N-certificate in a particular vocational area rather than in a range of areas (the NSC being composed of six or more subjects) – underlining the importance placed upon the need to secure employability through technical qualification.

A total of 65.9% of respondents went on to achieve a qualification after 1999. An analysis of the highest qualifications achieved by this sub-set of respondents reveals that 7% achieved an NSC, 20% an N3, 21% an N4, 24% an N5, 26% an N6, and 2% a technikon or university certificate or diploma. Seventy-one percent of the 65.9% of respondents who achieved their highest qualification after 1999 achieved an N-qualification higher than an N3 / NSC, therefore. While technically both N4-N6 certificates and university or technikon certificates and diplomas are classified as higher education qualifications, there appears from these statistics to be a clear barrier to access to traditional higher education institutions – notwithstanding the fact that only 42.6% of graduates had achieved an N3 in 1999 – and therefore a parochialism about technical college education and training.

A comparison of these statistics with those indicating the percentages of graduates who were studying at the time of the survey (late 2001), however, suggests that this assumption is only partly accurate. Thirty-five percent of graduates were studying at the time of the survey, 61.9% at the N4-N6 level – which is consistent with the highest qualification statistics reported above – but 20.5% at diploma level. And while 71% of those studying were enrolled with technical colleges – clearly completing their N4-N6 qualifications – 11.7% were enrolled with technikons and only 1.9% with universities. There appears, then, to be some throughput to technikon education.

A quarter of learners studying towards all qualification types listed besides “Other” – that is, N3, NSC, N4, N5, N6, Diploma and Degree – cite wanting to achieve a higher qualification as a main reason for studying further – at each qualification level, this reason attracting a greater percentage of responses than any of the other reasons cited. In the case of learners studying towards the achievement of N3, NSC, N4, N6 and “Other” qualifications, “To improve my chances of finding a job” attracts the second highest proportion of responses as a main reason for studying further. Irrefutably, then, higher education study – or at least further study beyond the N2 / N3 / NSC level – is viewed as the gateway to employment.

8 Study choices of technical college graduates

The Engineering Studies programmes (Electrical and Mechanical Engineering, and Construction) were easily the most heavily subscribed amongst graduates, accounting for 82% of study choices. Nearly six out of ten graduates achieved their qualification in Electrical Engineering alone, 19% in Mechanical Engineering, and 3% in Construction. Electrical and Mechanical Engineering are more-or-less equally distributed across all three certificates (N2, N3 / NSC), while an unequal distribution across N2, N3 and NSC is evident in the case of Secretarial Studies and Administration.

Both the aggregated picture and a disaggregation by population group indicate a concentration of study options within a narrow range of fields. Electrical and Mechanical Engineering appear amongst the top five choices of all four population groups, while the remaining fields (Secretarial, Construction, Grade 12, and Administration) appear amongst the top five choices of three of the four population groups. White learners’ choices are distributed across far more fields of study than are African learners’ choices. The very low proportions of White learners who achieved a qualification in the Engineering programmes (Electrical, Mechanical, and Construction) is probably indicative of the extent to which White learners intent on obtaining a qualification in Engineering either enrol in technikons and universities rather than technical colleges or, by dint of their superior marks in Mathematics and Physical Science at school, enrol in Engineering programmes at higher levels (either in technical colleges themselves or in higher education institutions) than do their black counterparts.

The extent of support for the reasons advanced in the questionnaire for these study choices indicates that while 24% of graduates chose their field of study in order to enhance their employability, a massive 61% based their choice upon interest in the field of study. This is an oblique comment on the extent to which either their schools or their families prepared them for college study, and ultimately upon the career guidance system in place in the school and technical college sectors.

9 Employment status of technical college graduates

Twenty-eight percent of graduates were or had been employed at the time of the survey by a company / organization, 6% were either self-employed or assisted someone in his / her small business, 62% were unemployed, and 4% were not economically active. Graduates studying further should have indicated that they were “unemployed but not seeking employment”; but because many

graduates may simultaneously have been studying *and* looking for a job – studying precisely because they could not find employment – the statistics may be slightly distorted. *Nevertheless, nearly two-thirds of respondents to the survey indicated that they were unemployed.*

A disaggregation by population group reveals a striking discrepancy between the percentages of unemployed White and African graduates. While 69.7% of African graduates were unemployed, only 24.2% of White graduates were unemployed.

10 Employment experience of technical college graduates

General trends

Of the 33.6% of graduates who found employment after achieving their N2, N3 or NSC, the majority (64.8%) worked in the private sector, while roughly equal proportions (15.3% and 18.8%) worked for or within the state and non-governmental organizations (NGOs) respectively. There is very little evidence of self-initiated enterprise, only 1% of graduates being / having been self-employed. Almost identical proportions of those graduates who were employed were in permanent (41%) or in temporary contract (40.8%) employment. Only a quarter (26.6%) of graduates worked a 33 to 40-hour week, more than a third (36.3%) working a 41 to 48-hour week and 14% working more than 48 hours per week.

Employment by sector

The employment of technical college graduates by sector is compared below with employment by sector in the general population:

Sector	% college graduates employed in the sector	% South African workers employed in the sector
Agriculture / Hunting / Forestry / Fishing	1.8	11.8
Mining / Quarrying	11.4	4.3
Manufacturing	18.9	13.8
Electricity / Gas / Water Supply	15.1	0.8
Construction	7.8	5.0
Wholesale / Retail / Repairs / Hotels	17.7	24.7
Transport / Storage	4.7	4.7
Financial / Insurance / Real Estate / Business Services	7.1	8.3
Community / Social / Personal Services	14.3	16.9
Private households with employed persons	N/A	9.3
Other	1.2	0.4
Total	100.0	100.0

The category “Private households with employed persons” was not used in the technical college survey; employees who in the *Labour Force Survey* were included in this category were included under “Community / Social / Personal Services” in the HSRC survey. As the *Labour Force Survey* findings reveal, “Private households with employed persons” is the fifth-largest employer of South African workers.

A disaggregation by population group reveals that Electricity / Gas / Water Supply, Community / Social / Personal Services and Wholesale / Retail / Repairs / Hotels are amongst the top five sectors in which graduates from all four population groups are employed, while Mining / Quarrying and Manufacturing are amongst the top five for three of the four groups.

From a gender perspective, the top five sectors in which male graduates are employed are Manufacturing, Wholesale / Retail / Repairs / Hotels, Electricity / Gas / Water Supply, Mining / Quarrying, and Community / Social / Personal Services, while the top five sectors in which female

graduates are employed are Community / Social / Personal Services, Wholesale / Retail / Repairs / Hotels, Financial / Insurance / Real Estate / Business Services, Electricity / Gas / Water Supply, and Manufacturing.

An analysis conducted to ascertain which of a range of variables was the strongest predictor of the outcome of Question 3.7 – “What is / was the main activity of your employer / organisation / small business?” – revealed that of the variables

gender
age
education level of father / male guardian
education level of mother / female guardian
population group: and
province in which respondent works

“province” emerged as the most significant predictor of the sector in which the respondent worked. The sector in which a graduate works is therefore most closely associated with the province in which he / she works. This finding confirms the distribution of sector employment across the nine provinces as well as within the provinces, revealing that

- Sectors in which graduates are employed are often strongly associated with the provinces in which those sectors are pre-eminent. Thus, for example, nearly half of all graduates employed in Limpopo (45%) work in the Mining / Quarrying sector, while three out of five graduates employed in the Northern Cape (62%) work in the same sector. While the Mining / Quarrying sector is the largest employer of technical college graduates in these provinces, however, it hardly features in the Eastern Cape, KwaZulu Natal, or the Western Cape. Similarly, Wholesale / Retail / Repairs / Hotels is the largest employer of graduates in four of the nine provinces – the Free State, Gauteng, North West, and the Western Cape.
- The distribution of sector employment across the provinces varies enormously. Thus while Gauteng, KwaZulu Natal and the Western Cape reflect a fair amount of graduate employment in almost all sectors, the same is not true of other provinces. In the Free State, for example, no sector employs more than 6% of graduates, while in the Northern Cape and Mpumalanga only one sector each employs 10% or more – 11% in Mining / Quarrying in the Northern Cape, and 10% in Agriculture in the North West.

Employment by occupation

From an occupational perspective, there is a marked difference between the occupations in which college graduates and workers in the general population are employed:

Occupation	% college graduates employed	% South African workers
Legislators, Senior Officials and Managers	0.9	5.3
Professionals	1.4	3.8
Technicians and Associate Professionals	20.5	9.9
Clerks	11.8	9.0
Service Workers, Shop and Market Sales Workers	15.8	13.7
Skilled Agricultural and Fishery Workers	0.9	7.2
Craft and Related Trades Workers	25.8	12.7
Plant and Machine Operators and Assemblers	15.7	9.1
Elementary Occupations	3.5	21.4
Domestic Workers	N/A ²	7.7
Other	3.9	0.2

² Domestic workers were included under “Elementary Occupations” in the Technical College Learner Satisfaction survey.

Total

100.0

100.0

The over-representation of Technicians and Associate Professionals, Craft and Related Trades Workers and Plant and Machine Operators and Assemblers in the technical college profile would seem to be in line with the technical orientation of colleges. The under-representation of Professionals, however, suggests that college graduates support, but do not operate at the level of, professionals.

A disaggregation by population group reveals, as in the case of the sector analysis, a strong degree of overlap in the top five occupations of graduates of the four population groups – for all of which Craft and Related Trades, Plant & Machine Operators, Technicians & Associate Professionals, Service Workers, Shop and Market Sales Workers, and Clerks occupy the top five positions.

A disaggregation by gender reveals that here too there is a high degree of overlap in the top five occupations of male and female graduates – Craft and Related Trades Workers; Technicians and Associate Professionals; Plant and Machine Operators and Assemblers; Service Workers, Shop and Market Sales Workers; and Clerks. While Clerks and Service Workers, Shop and Market Sales Workers occupy the top places in the female graduate profile, Craft and Related Trades Workers and Technicians and Associate Professionals occupy the top two positions for males. The gender differentials within these occupations differ hugely, however – to the extent that an inferential analysis reveals that of all the possible variables affecting the outcome of Question 3.8 (“What is / was your occupation?”), gender emerges as the strongest predictor of a graduate’s occupation. Gender is therefore not only the strongest discriminating, but also a strong discriminatory, factor in employee occupation amongst technical college graduates.

A cross-tabulation of the sectors in which technical college graduates work and their occupations reveals a fairly close match between the two. Only in the Community / Social / Personal Services sector – the major state employer – is there a significant percentage of graduate employees (23%) at the clerical level.

Monthly income of employed graduates

An analysis of the monthly income of employed graduates reveals that 36% earn less than R 1 000 per month, 45% between R 1 001 and R 3 000 per month, and 19% more than R 3 000 per month. A comparison with workers in the general population (*Labour Force Survey*) reveals that two-thirds of workers with a diploma / certificate with a Grade 12 earn more than R 2 500 a month, and that 47% of workers with a diploma / certificate with a Grade 11 or lower earn more than R 2 500 a month. Since the majority of technical college graduates would fall into these two categories, the comparison suggests that a lower percentage of college graduates than of workers in the general population with comparable qualifications earn more than R2 500 to R3 000 per month.

This suggests that an N2 or N3 / NSC qualification is not highly regarded by the marketplace and / or that a large proportion of technical college graduates are employed in occupations for which their college education has not adequately prepared them. Indeed, 45.1% of those employed indicated that their job was not appropriate to their college qualification (N2, N3 / NSC), the clear majority (38%) claiming that they took the job because they could not find employment better linked to their level of education. Moreover, 36% of respondents who were self-employed cited not being able to find a job in the field in which they were trained as their chief reason for working for themselves – the next most popular reason (attracting only 14.6% of responses) being “It is / was better than having no job”.

From a population group perspective, the percentages of African and White graduates earning less than R1 000 per month are markedly different – 42.1% and 27.4% respectively. But while 58.9% of White graduates earn between R1 001 and R3 000 per month, only 37.6% of African graduates earn this amount. This means that very similar percentages of African and White graduates earn less than R3000 a month – 79.7% of Africans, and 86.3% of Whites – and, concomitantly, that more African than White graduates earn more than R3 000 per month – 13.7% of Whites and 20.3% of Africans. The conclusion to be drawn is that technical college education is the great leveller as far as income distribution across White and African graduates is concerned – a comment more on the marketability of a technical college education than on racial discrimination in employers' remuneration practices.

A disaggregation of income data by gender reinforces this picture. While 33.3% of male graduates and 46.9% of female graduates earn less than R1 000 per month, 46.6% of males and 39.9% of females earn between R1 001 and R3 000 per month – which means that while 13.2% of female graduates earn more than R3 000 a month, the percentage of male graduates earning this amount is only 20.1%. While the gender differences are more marked than the population group differences, the trends are similar.

11 Choice of technical college as a study option

Graduates' top five reasons for having chosen to study at a technical college (rather than another institution type) are interest in a field of study offered by a college (34%), the opportunity to acquire more practical training at a college (17%), affordability of college education in relation to technikon or university study (16%), not being able to get into a technikon or university (13%), and wanting to enter a college rather than stay at school (7%). That interest in a particular field of study is much more popular a reason for graduates having chosen to study at a technical college than not being able to get a job bears out the earlier argument that at the N2 / N3 / NSC level the focus is more on further study than on job-seeking.

Parental influence on learner choice to study at a technical college is minimal (3%).

12 Choice of particular technical college

Graduates' top five reasons for having chosen to study at a particular technical college are affordability of fees (19%), the ability to study the programme of the learner's choice (18%), the reputation of the field of study choice at the college (17%), the offer of practical training in the field of the learner's choice (13%), and the proximity of the college to the learner's home (11%). Only one in ten learners wanted to assert his / her independence in moving away from the family home to study.

Significantly, the notion of the graduate's being able to find employment in the area around the college of his / her choice has *not* featured highly in the decision-making process (4%). From a responsiveness perspective, this would suggest that the concept of a local labour market is not uppermost in the minds of technical college learners at the institutional choice stage.

13 Language of learning at college

While 95% of graduates learned through the medium of English, only 9.9% speak mostly English at home – which gives some indication of the scale of the linguistic challenge facing South African education, and goes some way towards explaining the very uneven throughput rates reported by the CCF study into technical college education (*Quantitative Overview of South African Technical Colleges*).

14 Quality of provision at the college

Asked to rate their college education according to a number of variables, graduates responded as follows:

Variable	Mean
Quality of teaching	4.4
Practical instruction	3.3
Fairness of marking	4.2
Help with language problems	4.0
Help with study methods	4.1
Staff available to help me when needed	4.3
Condition of buildings	4.3
Text books	4.2
Lecture handouts	4.2
Library material	3.2
Computer laboratories	3.5
Engineering workshops	3.3
Other practical workshops (Educare, hair salons, etc.)	3.1
Personal security at the college	3.9
Security of belongings at the college	3.8

All of the mean values are above 3 (“Neither bad nor good”) on the five-point likert scale. While there is some indifference about aspects of college provision, more than half of the items have values above 4. Closer inspection reveals that all items concerned with actual teaching – quality of teaching, fairness of marking, help with language problems and study methods, staff availability, text books, and lecture handouts – are scored above 4. Respondents are less positive, however, about the practical aspects of college provision – practical instruction, laboratories and workshops – practical instruction, ironically, being one of the key attractions, according to graduates, of technical college study. Noteworthy is the fairly indifferent value accorded to Engineering workshops (3.3) in the light of the high enrolment patterns in Engineering Studies.

At a disaggregated level, African respondents assign higher values than do White respondents to the quality of teaching (4.5 versus 4.1), personal security at the college (4.0 versus 3.4), and security of belongings at the college (3.9 versus 3.1) – the latter two not unsurprising in the context of predominantly African-learner campuses. White respondents assign higher values than do African respondents to practical instruction (3.6 versus 3.2) and computer laboratories (3.9 versus 3.5). In other respects, there are no significant differences between the four population groups on the listed aspects of college provision.

Given the positive response profile for college provision, it is not surprising that 87.9% of graduates would recommend the technical college where they studied to their family or friends. Nor is there much difference in the responses of the four population groups to the question – White learners being slightly more optimistic than African learners about recommending the college to family and friends.

15 Career guidance

Half the respondents indicated that they had received some guidance before entering the college, while 60% indicated that they had received some guidance during their enrolment at the college. Two out of five graduates, therefore, received no guidance on their study direction at college.

More than two-thirds of graduates indicate that their colleges did not assist them in finding employment – only 12.5% of graduates indicating that such assistance was not required. Amongst

the two-thirds of graduates nationally who received no job-related assistance are learners who furthered their technical college education but who knew that no such employment seeking or job placement service was provided (35% of graduates were studying at the time of the survey in late 2001, while 73% of graduates went on to achieve a qualification higher than an N3 / NSC – i.e., an N4, N5, N6, or technikon or university qualification – after 1999). Either way, the vast majority of learners who exit a technical college with an N2, N3 or NSC join the ranks of the economically active with inadequate preparation.

Of the 17% of graduates who received job-related assistance, 53% indicated that the college arranged for employers to interview students at the college. A quarter indicated that assistance took some other form – 18 different forms having being indicated. Half of these suggest active college-industry links in the interest of securing employment for graduates.

16 Work experience during technical college study

More than three-quarters of graduates (78.2%) indicate that they did not acquire any work experience during their college studies. Of those who did acquire work experience, more than half (53.8%) found work by themselves, just over a quarter (27.8%) worked in a company that had links to the college, while 18.5% worked in the college itself. The majority were left to fend for themselves on the work front.

The vast majority of graduates (89.3%) were not apprenticed under an Industry Training Board during their studies – a serious comment on the effectiveness of the Training Board scheme – while an even larger percentage – 90.5% – did not qualify as artisans either during or subsequent to their studies.

17 First employment after technical college studies

Of those graduates who found employment after their college education, more than half (53%) did so through personal contacts – acquaintances, friends, or family (including joining the family business). *Only 14% secured employment through the offices, direct or indirect, of the technical college.* A further 11% took the initiative in finding employment – through approaching an employment agency, taking holiday jobs, becoming self-employed, or placing their own advertisements in newspapers. On average, it took graduates six months to find employment after leaving the college.

18 Relevance of studies to work situation

Twenty-eight percent of graduates employed indicated that they used their skills to a small extent or not at all in their jobs, while 56% said they used their skills to a large or very large extent. A similar percentage of graduates (55%) indicated that their jobs were appropriate to their college qualifications. For the 45% of graduates for whom their jobs were *not* appropriate to their N2, N3 or NSC qualifications, they took the jobs mainly because they had not yet been able to find a job better linked to their level of education (38%), their present jobs afforded them better career opportunities (14%), they did not mind having a job that not linked to their studies (9%), they had to accept work that was not closely linked to their studies at the beginning of their careers (8%), and their jobs allowed them to look after their family's needs (8%). The first two reasons suggest that technical college provision is not closely enough aligned to the needs either of the learner or of the marketplace – unless employers take on college graduates for reasons other than those that graduates would normally be expected to be hired for.

19 Job satisfaction

Income appears last in a list of six variables contributing to job satisfaction – the others being content of work, working conditions, opportunity to learn while working, opportunity to use knowledge and skills acquired during studies, and job security. This finding confirms the paramouncy of having a job.

Overall, graduates were indifferent to the issues of whether their college education had helped them find a satisfactory job (mean = 2.9 on a five-point Likert scale) and create long-term career opportunities for themselves (mean = 3.5).

20 Revisiting study choices

Ironically, given the relatively low mean values on items concerned with employment situation and job satisfaction, graduates (of all population groups) were positive about choosing to study at the same technical college (mean = 4) and extremely positive about choosing the same study programme (mean = 4.5). The fact that many graduates go on to achieve higher qualifications suggests that they see their further education and training as having provided a firm foundation not only for future study but for longer-term career development.

21 Implications of the findings

- 21.1 The age discrepancy between students in the Australian TAFE sector and students in the South African technical college sector has major implications for the promotion of life-long learning in the South African education and training system: if skills upgrading to meet the needs of the economy is to take place, far higher numbers of mid-career learners must be brought into the technical college system.
- 21.2 While there is poor mobility from technical colleges to universities, there is some mobility from colleges to technikons – a mobility that would need to be significantly enhanced were the objective of the Ministry of Education to increase the participation rate in higher education from 15% to 20% over the next ten to fifteen years (*National Plan for Higher Education*) to be realised.
- 21.3 Technical college learners in the main continue their studies beyond the N2 and N3 / NSC level, whether at technical colleges or (other) higher education institutions. Under the new dispensation, technical colleges are “Further Education and Training institutions” (*A New Institutional Landscape for Public Further Education and Training Colleges: Reform of South Africa’s Technical Colleges*, 2001), their “higher education” provision being subsumed for the most part by other providers – though FET institutions, because of the current nebulousness surrounding the distinctiveness of NQF level 4 and level 5 standards, will continue to offer some HE until the overlaps between levels 4 and 5 are resolved. It would appear, then, that technical college graduates see further education and training (FET) as a stepping stone to higher education and ultimately to finding employment – a point underscored by the finding that a quarter of graduates studying further cite achieving a higher qualification as one of their main reasons for doing so, while 22% cite improving their chances of finding a job as a main reason for further study.
- 21.4 The fact that the fields of study within which graduates achieved their qualifications comprise a small sub-set of the range of programmes offered by technical colleges suggests, on the one hand, a good deal of wastage in terms of college resource expenditure on provision of programmes subscribed to by relative minorities of learners, and on the other

that learners are intent on enrolling in programmes that will not necessarily lead to employment uptake. Colleges appear to be driven, then, by the principle of filling available places rather than by any real understanding of the demands of the labour market – possibly because funding for equipment-intensive programmes is more accessible than for programmes that do not require comparable financial outlays (an issue that will require further analysis).

- 21.5 The fact that White graduates are employed at a higher rate than African graduates suggests, at face value, that there continues to be discrimination against Africans in hiring practices.
- 21.6 The distribution of employment sectors within and across provinces provides an indication of strong bias towards select sectors in some provinces and broad sector diversification in others. From an economic perspective, arguably a balance needs to be maintained between the two. The former is a strength, provided that sufficient job creation is possible within the parameters of particular sectoral activity (for example, provided mining activity, for example, is sustainable in the middle to long term). The latter's strength lies in the distribution of sectoral activity *within* a province, minimising a reliance upon one or two sectors. Ultimately the macro-economic policy of the country must determine the balance between local, regional and national economies – which lies outside the scope of the present study.

What is notable from the sectoral findings, however, is that in certain cases a province features as a strong employer neither of graduates in any sector nor of graduates in the sector that would traditionally be assumed to be its particular strength. In the case of the Free State, for instance, the Agriculture / Hunting / Forestry / Fishing sector would be expected to employ large numbers of technical college graduates in particular; yet it fails not only to do this but to employ significant numbers of graduates in *any* sector. Such a finding requires further investigation.

- 21.7 That only 14% of employed graduates secured employment through the offices, direct or indirect, of the technical college suggests that far more attention needs to be devoted to the issue of job placement than hitherto.
- 21.8 The low employment rate of graduates with an N2 / N3 / NSC qualification acquired at a technical college is cause for concern if the achievement of a Further Education and Training Certificate (level 4 of the National Qualifications Framework) is to provide a marketable exit qualification for learners. All FET stakeholders – the Department of Education, the Department of Labour, Sector Education and Training Authorities (SETAs), colleges, employers, local councils, and others – will need to work together to ensure that the supply of college skills meets the needs of individuals, communities, local and national economies, and the nation as a whole.