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Free State Youth Commission Report on the appropriateness of education and training in the Free State Province

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Free State Youth Commission Report on the appropriateness of education and training in the Free State Province

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EXECUTIVE SUMMARY

The demand for human resources in the Free State province is defined by its macro-economic strategy. The supply of human resources is defined by the output of the Free State education and training system. The objective of this report was to determine whether demand and supply were matched. The study focused primarily on information available over the period 2000 to 2004. This included desk-top reviews of published documents and policy, research on local economic development (LED) in the Free State, scholarly work on demand-and-supply dynamics in educational systems, as well as data obtained from National and Provincial Department of Education mass information systems.

The economic analysis reflected that the Free State economy was underperforming when compared to other provinces. It showed the Free State's susceptibility to the power of external influences and indicated that growth needs to be developed from within the Free State. Consequently, the Free State Provincial Government developed the Free State Development Plan (2002/2005) through extensive stakeholder consultation. This strategic document has built onto the existing strategic plans of both Provincial and Local Government and is based on accepted models of strategic development. Despite excellence in some areas, the major challenge remains to get things done. While training and education in business skills may be seen as an LED accelerator, economic results may also be achieved by getting the right people on the economic bus, the wrong people off the bus, and the right people in the right seats.

Of concern is that the number of matriculants declined by 21% over the period 2000 to 2003. The impact of HIV/AIDS, teenage pregnancies and the lack of available jobs were suggested as possible explanations. In addition, 71% of the individuals exiting the secondary school system do not have a senior certificate with endorsement, and consequently, little hope of employment. This poses a provincial threat and emphasises a key performance area of the provincial Further Education and Training (FET) sector, which is not yet fully realised.

The output by the provincial education and training system, especially Higher Education and Training (HET), was well aligned to macro and sectoral economic development strategies. Overall, a gap in the provision of NQF level-5 qualifications exits. This gap presents opportunities for growth within the FET sector, should legislative changes be considered to promote an FET/HE partnership model aimed at sectoral development in the Free State.

Unfortunately, the number of people qualified within the HET band far exceed the number of jobs. These individuals are not absorbed into the provincial economy, and the province's educational system has become a means to find a job beyond the provincial borders.

The highest priority therefore remains the stimulation of economic growth in the Free State. The educational system will respond accordingly.

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GLOSSARY

BEE	Black Economic Empowerment
CAA	South African Civil Aviation Authority
CBE	Council for Built Environment
CBRTA	Cross-border Road Transport Agency
CHE	Council on Higher Education
CIDB	Construction Industry Development Board
CPFSP	Community Projects Fund Support Programme
Credit	*Credit* refers to the value assigned to a given number of notional hours of learning. Notional hours of learning refers to the total learning time required by an average learner to meet the defined outcomes in terms of contact time, learning in the workplace and self-learning activities.
DEAT	Department of Environmental Affairs and Tourism
DPLG	Department of Provincial and Local Government
DPW	Department of Public Works
ECDP	Emerging Contractor Development Programme
FET College	A *further education and training college* refers to a college which provides further education and training on a full-time, part-time or distance basis and which is: (a) established or is regarded as having been established as a public further education and training institution in terms of this Act; (b) declared as a public further education and training institution in terms of this Act; or (c) registered or conditionally registered as a private further education and training institution in terms of this Act.
FSDP	Free State Development Plan
FTEs	Refer to full-time teaching equivalents, which are based on the length of the course. For example, a student studying full-time for a year course would be 1 FTE while a student studying full-time for a six -month semester course would be 0.5 FTE.
GDP	Gross Domestic Product
GET	General Education and Training
GGP	Gross Geographical Product
GVA	Gross Value Added
HE	Refers to h*igher education* as defined in the Higher Education Act 1997 (Act No. 101 of 1997).
Headcount	Refers to the number of individual students
ITMAS	Tourism Marketing Scheme
Learning programme	A learning programme is a purposeful and structured set of learning experiences that lead to a qualification.

MFRC	Micro-finance Regulatory Council
MIS	Mass Information System
NQF	National Qualifications Framework levels
Pass rate	Refers to the number of learners who wrote and passed an examination expressed as a percentage.
PDI	Previously disadvantaged individuals
PEAC	Premier's Economic Advisory Council
Qualification	A *qualification* is the formal recognition and certification of learning achievement awarded by a specific institution.
SAMSA	South African Maritime Safety Authority
SANRAL	South African National Roads Agency
SAPSE	South African Post-School Education
SATACO	South African Taxi Council
SMME	Small, medium and micro-enterprises
Success rate	Refers to the number of learners who wrote and passed an examination expressed as a percentage.
TEP	Tourism Enterprise Programme
Throughput rate	Refers to the number of learners who enrolled and passed an examination expressed as a percentage.
Youth	Defined by the Youth Commission as those in the age cohort of 15 to 35 years.

INTRODUCTION

Skilled human resources are amongst the most crucial inputs of a modern economy. On average, more productive people earn more, which tends to be, at least partly, the result of education and training. Ideally, well-qualified individuals are capable of interpreting market needs and producing what consumers want, which in turn will promote economic growth. Under such conditions a government would accept the responsibility of stimulating macro-economic growth, while education and training systems would deliver human resources according to market needs.

Prior to the 1980's the focus was on the development of the capacity of education and training after which growth slowed down. Nowadays, general economic conditions no longer warrant the training of as many people due to budgetary constraints. Quality of training has become priority and the emphasis has moved towards the right education and training for the right person at the right time. This concept is generally known as demand-driven education and training. When education and training systems (primary, further education and training and higher education) collectively match this demand, the educational system is characterised as appropriate.

The quest for the best approach to delivering appropriate or demand-driven education is a controversial issue among different proponents in the world of education and training (De Moura Castro & Cabral De Andrade, 1990: 350-354). Some swear by investing heavily in vocational training to provide skilled labour to developing economies. Others believe that vocational training is secondary to real education where the great achievements of humanism, literature and science are stressed in providing the leadership that drives economic development. Some believe that customising learning programmes to company needs would improve return on investment, while others maintain that a fragmented approach tends to reduce the cumulative benefit to society.

Whatever the approach, government has to pay and therefore maintains the right to intervene directly in the provision of training. This was recently demonstrated during the restructuring of the South African educational system with the changing subsidy strategy signalling clear demand directives. Even within companies, demand-driven training is encouraged through, for example, the Skills Development Act (Act 97 of 1998) and the Skills Development Levy Act (Act 9 of 1999).

In its simplest form, demand-driven education and training may be defined as the minimum quantity of skilled labour required for achieving an output at a target level. This suggests using forecasting models to predict the number of school leavers or graduates in terms of occupational categories. This is another highly controversial field of study. Experts debate the assumed links between productivity levels and occupational structure, or occupational structure and educational qualifications, thereby questioning the validity of forecasting techniques. Moreover, incompetent firms tend to request students with the same undesirable skill and behaviour profiles that mark their workers. This, in turn, affects the message of appropriateness to educational systems.

Matching supply to demand also poses complex problems, as there are always exceptions to the rule. In the former eastern block countries ideal demand is maintained through a socialistic mindset, causing industry and schools to stay locked in a vicious circle of low quality. In contrast, Brazil and Singapore stimulated excellence where there was no demand before through sound investments in SET-related training systems (De Moura Castro, 1997: 114-117).

From a sociological point of view, the lower status of vocational programmes also disturbs the dynamic of demand and supply. We often find that students would rather turn away from vocational training towards other alternatives; even when white-collar jobs are harder to find and pay less (De Moura Castro, 1987: 605).

Minimum access requirements also prove to affect demand and supply functions, for example a high demand for engineers may exist, but a low percentage of available places are being filled simply because of a lack of entrants with the requisite background in science and mathematics.

At the one end the changing global economy demands a combination of conceptual, techno-operational and emotional skills in the tertiary sectors, while at the other end major job losses were recorded in primary and secondary economic sectors.

Regardless of occupation, good working habits, operational excellence and a positive attitude towards work remain the hallmarks of good employees at all levels. Unfortunately, these skills cannot be added or subtracted from a curriculum model as though they were alternative spare parts being built into a engine. Ministers may be good at setting policy, delivering speeches and defusing crises; administrators and institutions may be good at compiling curricula, but ultimately teachers teach what they value while the social or learning environment conditions the interest of students.

The net result is that the output of education and training institutions varies greatly. For that matter, a diploma or degree only indicates in which area a student specialised. The point is that the reputation of a learning programme and its institutional association has become the key long-term differentiator.

Reputable educational organisations require substantial sources of funding in ensuring sustainability and universities tend to adopt a more managerial and entrepreneurial business-like approach. Lategan (2002) argues that higher education is still valued, but that the perceived value of university life in a customer-driven society is questioned with regard to societal impact, financial contribution and the building of scholarship. Universities are in fact competing against emerging organisations that sometimes provide better knowledge production and transmission, for example, the Microsoft Academy or McDonald's Hamburger University.

Students have therefore become both clients and students, and organisations competing in the educational sector realise the importance of employability, supporting student services and cost

effectiveness. Smaller private training providers tend to operate with greater flexibility and efficiency when compared to the larger, more well-established institutions. In maximising efficiency at the lecturer-learner interface level, higher education systems now decentralise their organisational structures to clusters of related learning programmes.

Evidence hereof is the newly gained legitimacy of universities of technology with the autonomy to compile competitive curricula according to market needs. The check and balance, however, for institutions operating within this freedom is that the quality of learning programmes will be regularly audited to ensure that the need for government for demand-driven education and training is indeed satisfied.

Several studies have indicated that one of the common denominators of successful organisations is their ability to learn from past experience and to incorporate this new learning into their behaviour. Learning organisations scrutinise their experience and derive lessons from this analysis. They accept that it is better to admit past errors than to persist in moving in the wrong direction. In addition, South African provincial educational systems would comply with the need to address regional needs.

In contrast to successful organisations, weak education and training organisations do not have the faintest idea of what happens to their graduates once they graduate, or of their internal organisational effectiveness and efficiency. They are consequently in need of a tool to tell them whether they are off the mark and in what way the institutional mind-set needs to be adjusted.

Analysing the appropriateness of the educational system in the Free State would provide such an analytical tool. This would imply, at the minimum, an analysis of labour market trends and the ability of all levels of the educational system to deliver qualifications that are in line with the Free State's macro-economic development objectives.

RESEARCH GOAL AND OBJECTIVES

The overall goal of this research was to determine the relevance of education and training in the Free State. The research was structured into five objectives with each objective leading to a separate report. These objectives were:

1. To investigate macro-economic policies on the economic development of the Free State province and to determine how the provincial educational system matches macro-economic development initiatives.
2. To determine the relevance and appropriateness of education and training by consulting managers on different levels of private and public organisations.

3. To determine the expectations, experiences and perceptions of school leavers and students (college, university of technology, classic university) regarding their preparedness for entering the labour market.

4. To determine the perceptions of entrants (school, college, university of technology, university) into the labour market regarding the appropriateness and the relevance of their education and training.

5. To gain an understanding of how unemployed youth battle to find jobs, their experiences, the processes they undertake to find a job, and how they cope with not being employed

This report reflects on the first objective.

ASSUMPTIONS

The research focused on macro-variables driving the demand and supply of education and training in the Free State. Demand was broadly defined in terms of the economic development within specific sectors, whereas supply was evaluated in terms of the ability of the Free State educational system to deliver qualifications in line with sectoral development. The following assumptions were made in maintaining a macro-focus.

1. The Free State Provincial Government was viewed as an organisation tasked by National Government to develop the Free State economy to the benefit of its inhabitants and moreover, to contribute to the long-term prosperity of South Africa.

2. The analysis of demand was focused at the provincial level. While cognisance was taken of district needs and developments, the district analysis will not be reported.

3. Provincial economic analysis was clustered into nine sectors based on the availability of data and the comparability of research and policy reports. These sectors were Agriculture, Mining, Manufacturing, Electricity and Water, Construction, Trade and Commerce, Transport, Financial Services, and Community Services. The objective of the study was not to forecast human resources needs per sector, but rather to identify areas of economic development where human resources will be required.

4. Effective educational systems respond to macro-economic initiatives by need through the provision of adequately qualified human resources. Consequently the contribution of the Free State educational system was examined in terms of partnership theory (Scheuing, 1994).

   It was assumed that individuals with primary education would barely contribute to economic development, and therefore the focus was on public secondary schools, as well as the FET and HE sectors.

Providers of private and distance education were excluded from this study since private providers are not subsidised by government and because data sources were not consistently comparable with provincial mass information systems.

Educational effectiveness and efficiency revolve to some or other extent around access, success, research outputs and community service. This report only focused on a main educational system output, namely the number of qualified individuals qualified over NQF levels 2 to 8 and their alignment to the nine sectors mentioned in the second assumption.

5. The provision of qualified individuals was limited to four years, namely the period 2000 to 2003. This period was delimited on the basis of two reasons:

Firstly, the availability and comparability of data retrievable from the mass information systems for the secondary school, FET and HE sectors.

Secondly, to reduce the influence of change on estimating the capacity of the provincial educational system to deliver appropriately qualified human resources. It was assumed that successful tertiary students would have achieved a qualification over a period of three years and that an analysis of qualifications awarded over the period 2000 to 2003 would reflect on educational activity from 1997 to 2000 – a relatively stable period, when compared to recent institutional changes in the national educational landscape.

RESEARCH METHODOLOGY

Phases

The investigation was conducted in three phases. The first phase revolved around an analysis of Free State macro-economic development initiatives. The second phase analysed the ability of the Free State educational system to provide qualifications related to each sector. Finally, the match between the Free State's macro-economic development initiatives and the products of its educational systems was determined.

Resources

The research utilised existing provincial and local government data, as well as the network of the Centre for Development Support. Primary information was sourced from a desktop-based review of published documents, policy, research on LED in the Free State and academic writing which examines demand and supply dynamics in educational systems.

Validity

The value of a research report lies in its objectivity, which in turn is maintained through the research methodology. Since the value of research or annual reports varies, the validity of the information resources employed in this study were determined against the research methodology.

Primary resources on which conclusions were drawn included: The Free State Economic Profile, a research study for the Premier's Economic Advisory Council by Urban-Econ Development Economists, the Free State Development Plan, the Free State Poverty Relief Strategy, and available documents on the Free State Department of Labour Skills Development Plan.

ANALYSIS OF THE FREE STATE ECONOMY

The Free State economy in the national context

From a strategic perspective on economic and socio-economic performance, the Free State contributes about 5% towards the GDP and about 6% of the national population. The *per capita* GVA of the province is about R14 228 per annum, which is slightly lower than the South African average of R17 708. Over the period 1990 to 2002 the Free State was the only province that managed a negative annual growth, whereas the national average over this period was 1.9% p.a., implying that the population of the Free State gradually got poorer over this period (Free State Economic Profile, 2003: 2-4).

This poor performance is predominantly linked to the declining mining sector, which used to be a key contributor to the provincial economy. The poor performance of the mining sector can be attributed to the increase in production costs and the depletion of resources. The future of the sector will be impacted by factors such as HIV/AIDS and the requirement by national government to transfer a portion of ownership to PDI. All these factors are exogenous to the province, which emphasises the openness of the economy.

The Free State Province Economic Strategy (2003: 7) and the report on the Free State Economic Profile (2003: 3-14) note several provincial strengths, namely its central location, a variety of minerals, soil quality, the skills pool, gold refineries, FARMOVS-Parexel, having the second-lowest wage rate in South Africa (US$ 172-272), a road network of which 55% is at least in a fair condition (885 km of national roads, 7 045 km of blacktop roads, 21 942 km of secondary roads, just over 20 000 km of gravel roads), an airport, four inland customs, two hydroelectric power stations, rivers, and the lowest industrial rental rate of all the provinces. At present the main drivers to the provincial economy are mining (14%), manufacturing (15%) and community services (28%).

An analysis of the latter source of income revealed that 5% of the income of the Free State Government is self-generated, while the remainder of the budget consists of equitable shares and conditional grants received from national government. The majority of these funds are spent on salaries (e.g. 61% of the 2003/04 budget). Over the period 1998/99 to 2003/04 expenditure increased by 8.4% while the capital budget improved by 11% per annum, with major allocations to infrastructure. This implies that the money flowing into the province's capital web has proportionally increased. The report on Free State Economic Profile (2003: 3-14) points out that 56% of the Free State households have access to electricity, 96% have access to piped water and

about 70% of households have access to a form of sanitation better than a bucket system – a result which ranks the province far above the South African average. In terms of budget allocations, the priorities of the Free State government are in order of priority: education; health; social development; public works, roads and transport; local government and housing (Free State Economic Profile, 2003: 3-14).

The term “human capital” refers to the capacity and ability of local communities to initiate and drive the provincial economy through a combination of labour and entrepreneurship. The significant variables determining the quality of human capital are population age and gender composition, the proportion of economically active individuals in the population, the level of education, and the health profile (Free State Economic Profile, 2003: 3-8).

The current population size of the Free State is estimated at 2.9 million (2002) with 50.4% being female. Over the period 1996 to 2001 the population growth rate in the Free State increased by 1.12%, compared to national average of 1.52%. The projections towards 2006 indicate a further decline in growth to a level of 0.72% per annum compared to the national projection of 1.18% (Free State Economic Profile, 2003: 2-5, Free State Province Economic Strategy 2003: 7).

Of the current population 28% are younger than 15 years of age, compared to the South African average of 32%. Of the total workforce 44% are aged between 15 and 65 and therefore employable, when compared to the national average of 38%. The level of unemployment (expanded definition) in the Free State averages 39%, slightly less than the national average of 41%, while unemployment among people with disabilities amounts to 50%. The male unemployment rate equals 29.4%, while the female unemployment rate equals 56.6% (Free State Province Economic Strategy, 2003: 10).

The formal sector absorbs 19% of the employed and the informal sector a further 4%. About 34% of the employed are found in elementary occupations, which is also reflected in the province’s annual income per capita, which equals R11 854, compared to the national average of R17 164. The provincial level of per capita income is comparable to that of KwaZulu-Natal and Mpumalanga. The percentage of people living in poverty in 2002 was 54.7% for the Free State, when compared to the national average of 48.9%, with the Free State dependency ratio calculated at 1:4½ (Free State Economic Profile, 2003: 2-6).

It therefore appears that a larger segment of the Free State population is able to earn a living when compared to the average for South Africa, with these people seemingly occupying positions that in general would pay less than the South African average.

Almost 100% of whites are functionally literate, in contrast to blacks (62%). Even though progress has been made in improving functional literacy in the black and coloured populations, the average for the Free State (68%) is still lower than the national average (72%). In addition the Free State

houses two universities, four FET clusters, 1760 primary schools and 392 secondary schools with the 2002 matric pass rate being 46%. The learner-to-teacher ratio is 30.5:1 and the learner-to-classroom ratio equals 28.7:1.

The health status of a population indicates the ability to work and to create wealth. Few of the serious diseases found in South Africa (malaria, measles, tuberculosis, typhoid, viral hepatitis) were reported in the Free State in 1998. Unfortunately the HIV/AIDS infection rate, based on the infection rate of woman attending antenatal clinics, is estimated at between 20.2 and 25.3% (Free State Province Economic Strategy, 2003: 9). This infection rate is the third highest of all provinces. Higher infection rates are associated with prostitution in the mining sector and with towns that are located along the N1 highway (Free State Economic Profile, 2003: 3-11). The Free State also has a reasonably well-developed health infrastructure and its ratio of about 2.4 doctors and 32.5 nurses per 10 000 of the population would place the province with the third-highest ratio of total medical personnel in South Africa (Free State Economic Profile, 2003: 3-23). The analysis of the infrastructure, as well as natural and human resources found in the Free State economy indicates that the province is by far not the poorest in South Africa. The province scores lower than the average for South Africa in a number of key indicators and is underperforming.

Comparison of district economies

A summary of the relative size and nature of the various district economies is shown in Table 1.

TABLE 1: The size and nature of the various district economies in the Free State[1)]

District	GGP (%)	GDP per capita (R)	Operating budget per capita (R)	Unemploy-ment (%)	Urbani-sation (%)	Significant economic activity	Sectoral contribution to district GDP (%)			
							AGRIC	MANF	SERV	T&C
Motheo	31	8475	135	31	90	Services			51	
Lejweleputsa	26	10730	96	27	76	Goldmines	13	6	85	12
Northern Free State	26	12880	237	27	79	Petro-chemicals	10	37	17	
Thabo Mofutsanyana	14	4415	145	37	43	Tourism, Agriculture	24			
Xhariep	3	4605	152	29	70	Agriculture	36		35	

[1] Information based on the Free State Economic Profile (2003: 4-6)and Free State Province Economic Strategy (2003: 10-15).

From a strategic perspective on the district economies, the largest contribution is generated by the Motheo district (31%), which can largely be attributed to the large government and other tertiary facilities located in Mangaung. Motheo also managed the highest growth rate of all districts over the period 1990 to 2002.

The economy of Lejweleputswa is dominated by mining, which has resulted in the district economy being fairly concentrated. However, the mining sector has experienced strong negative growth rates, with massive loss of employment opportunities. The dramatic negative growth in mining has resulted in the district being the only one with a negative aggregate growth rate for the period 1990 to 2002. The district also has a large agriculture sector, and the Bothaville area is one of the most important maize-producing regions in South Africa.

The economy of the Northern Free State is dominated by manufacturing, which can be attributed to the large petrochemical plants at Sasolburg. The contribution of the district to the provincial economy is far more than its share of the provincial population.

Thabo Mofutsanyane is the poorest district in the province, and its contribution towards the provincial economy is far less than its share in the provincial population. This can be attributed to the fact that the district includes the former Qwa-Qwa, which is one of the poorest regions in South Africa.

Xhariep has the smallest economy, and also contributes proportionally less towards the provincial economy than its share of the provincial population.

Overview of the agricultural sector in the provincial economy

The business landscape of agriculture has changed dramatically since the mid 1990's, with the phasing out of major subsidies and tariff structures, as well as the dissolving of the control boards. The market is now largely deregulated and exposed to the forces of the free market system. Agriculture support to farmers is vested in the provincial governments, whereas the national department retains the overall regulatory and policy functions.

This has exposed the sector to high levels of international competition. However, the international playing field is not even, as the American and European farmers are still heavily subsidised. Also, the recent strengthening of the ZAR has further marginalised export profits.

The agriculture sector has always been an important element of the Free State economy, and the trends indicate that the relative importance of the sector is slowly increasing. However, the sector experienced a loss of employment opportunities. The natural resource base of the province, and particularly the fluctuations in annual rainfall, renders the sector a considerable business risk, and there is a tendency to replace maize with other commodities.

The further development of the agriculture sector may require a radical rethinking and replanning of the current commodity portfolio. Some opportunities may exist in certain niche products, together with the addition of maximum value at farm level (Free State Economic Profile, 2003: 5-6).

Overview of the mining sector in the provincial economy

The institutional environment for mining has changed dramatically since 1994, with the government requiring tangible progress in the economic empowerment of the previously disadvantaged communities. Two initiatives in particular will impact on the sector, namely the so-called Mining Charter, and the proposed Royalty Bill.

The key requirement of the Mining Charter is that 26% ownership of mining assets must belong to PDI in 10 years. This 26% refers only to assets. The charter also imposes an interim period of 5 years, after which an initial assessment of the implementation will be done. It is hoped that after 5 years, about 15% of the mining assets will be owned by PDI (about R100bn worth of assets). To achieve this, the private sector has undertaken to assist PDI to secure the necessary funding.

The other significant institutional factor is the proposed Royalty Bill, which intends to tax mining companies on their gross revenue. This new royalty regime will come into effect in 2008. The bill imposes different rates for different commodities. As an example, the tax on the gross revenue of platinum is 4% and for diamonds 8%.

The mining and quarrying sector is an important component of the provincial economy, particularly in Lejweleputswa (renowned as the Free State Goldfields), where the sector contributes about 60% towards the local economy. However, the sector has experienced a decline in its production levels, accompanied by a significant loss in employment opportunities.

The sector is impacted by a number of factors, the most important of which is the natural resource base, which has a finite lifespan. As such, the Free State Goldfields, which is the main driver of the sector, will in future become exhausted, resulting in the closing of the mines. Secondly, the strengthening of the ZAR against the main trading partners has significantly decreased the profitability of gold mines. Thirdly, the dramatic increase in the incidence of HIV/AIDS amongst mine workers has resulted in a loss of skilled labour, which is very costly to replace. Fourthly, there is a perception that the new legislation requiring a transfer in ownership will further marginalise some of the mines. The combined effect of these impacting factors makes the future of the provincial mining sector unclear. However, due to the strategic importance of the sector, it is imperative that the sector be properly planned and structured to minimise the business risks (Free State Economic Profile, 2003: 6-6).

Overview of the manufacturing sector in the provincial economy

The contribution of manufacturing to the provincial economy and employment opportunities has remained fairly stable, with a slight decrease in its relative contribution towards employment. Most of the manufacturing concerns are involved in the food industry, followed by non-industrial chemical products and thirdly the industrial chemical industry. Referring to the last-mentioned industry, the petrochemical plants located at Sasolburg have particular strategic importance, as

they play a vital role in reducing South Africa's dependence on the importation of oil. Other industries of note include textiles, fabricated metal products, clothing and other non-metallic mineral products.

The manufacturing sector generates an intermediate contribution to the provincial economy, but is a major driver to the economy of the Northern Free State where it contributes more than 40%. The main driver of the sector in the Northern Free State is the petrochemical plants located at Sasolburg. These plants have particular strategic value for South Africa, as they reduce the dependency of the country on oil imports.

The manufacturing sector experienced a general downward trend in both its production levels and employment. The reintroduction of South Africa into the highly competitive international business environment has particularly affected the manufacturing sector, which used to enjoy much protection in the form of subsidies and tariffs. Particular factors that affect the competitiveness of the South Africa manufacturing sector include high labour costs and the general lack of certain skills. The further development of the sector may require a move towards the SMME-type industries that are more flexible in their production profiles (type and volume of production) and focus on a particular niches in the value chain. Also, e-commerce has become the dominant business mode, and enterprises will have to adopt the associated business approach to survive.

Imports grew steadily over the period 1996 to 2002, with no major fluctuations. It is assumed that the imports mainly comprise capital equipment used in the production process, while exports mainly comprise primary, intermediate and final commodities, such as agriculture products. Another important export commodity is gold. As a result of the fluctuating exports, the trade balance also fluctuated in tandem. If the dramatic increase in exports in 2002 is discounted, it would appear as if the province is a net importer.

The volume and composition of imports and exports are not only determined by the effective demand and supply, but also by the exchange rate and the existence of tariffs and trade agreements. The economy of the Free State province, like any other free economy, is open and impacted by factors over which it is has no control. In general, a provincial economy is more vulnerable in this sense, as it is smaller and narrower than the domestic economy. This vulnerability to exogenous factors is clearly reflected in the fluctuating export levels. Using only the exchange rate as a criterion, the exports increased dramatically in 2002 when the ZAR was valued low against the other main international currencies following the terrorist attack on the World Trade Centre in the USA. It can, therefore, be speculated that this dramatic increase was not the result of increased production or a buoyant international demand, but that it was exchange rate driven. With the gradual appreciation of the ZAR, it can be expected that provincial exports have decreased again.

South Africa has signed a number of preferential trade agreements with countries, including with the neighbouring Lesotho. Another important agreement is the so-called "AGOA" with the United States of America. Also, it would appear as if the preferential trade agreements as part of SADC and the ACP – EU agreement will start bearing fruit in the near future. These agreements offer specific opportunities which should be explored in detail to develop a portfolio of export commodities (Free State Economic Profile, 2003: 7-4).

Overview of the electricity and water sector in the provincial economy

Energy plays a vital role in any economy, and South Africa has an above-average primary energy intensity. This can be attributed to the structure of the domestic economy, which includes large-scale energy-intensive mineral beneficiation industries. South Africa is still heavily reliant on coal as a source of energy. However, the development of Mossgas and the recent discovery of a rich gas resource off Mossel Bay will reduce South Africa's reliance on oil imports. In this regard, the petrochemical industries at Sasolburg are strategically important, as they reduce South Africa's reliance on oil imports.

South Africa supplies two-thirds of Africa's electricity and is one of the four cheapest electricity producers in the world. About 92% of South Africa's electricity is produced from coal and the industry is dominated by Eskom, which supplies more than 95% of electricity in South Africa. The National Electricity Regulator (NER) was established in 1995, with its purpose being to manage the generation, distribution and supply of electricity in South Africa. The Department of Minerals and Energy (DME) has been tasked to develop a national electricity basic services support tariff to facilitate alleviation of poverty through the provision of basic electricity. It is proposed that all households connected to the national grid be issued with 50kWh/month free of charge.

About 68% of households in the province have access to electricity. In terms of the constitution (Act 108 of 1996) everybody has the right to clean water. Great strides have been made towards achieving this goal. The most important legislation that governs the provision of water is the Water Services Act (Act 108 of 1997) and the National Water Act (Act 36 of 1998). About 94% of households in the province have access to potable water.

This sector generates a marginal contribution towards the provincial economy, mainly because the province does not have large electricity power stations. The sector is very capital intensive, and generates less than 1% of all formal employment opportunities. The sector plays a critical role in maintaining a good quality of living for the communities, and is also critical for economic development, particularly agriculture, mining and manufacturing. The sector therefore plays an important support role, but will never be a critical driver of the provincial economy (Free State Economic Profile, 2003: 8-1).

Overview of the construction sector in the provincial economy

The Department of Public Works (DPW) has formulated the *White Paper: Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry* (1999), which presents the larger policy environment for the development of the construction industry. The DPW also established the Construction Industry Development Board (CIDB) (2001) to promote growth in the industry and ensure best practice performance. The CIDB is governed by the CIDB Act (Act 38 of 2000), which in essence has as its goal the transformation of the industry to promote BEE and the unlocking of bottlenecks to improve efficiency.

The Council for Built Environment (CBE) was established to promote improved coordination between the various professions (e.g. engineers, architects, quantity surveyors, etc.) and government.

The Emerging Contractor Development Programme (ECDP) was established to provide a database for all contractors, provide advice on procurement and administration, provide basic counselling, categorise contractors, and provide advice and referral services for them to the various sources of possible support such as Ntsika and Khula. Specific emphasis is placed on the promotion of black people, emergent contractors and women contractors. An important piece of legislation is the Preferential Procurement Policy Framework Act (Act 5 of 2000), which governs the allocation of contracts to emergent contractors in support of BEE.

The construction sector generates a marginal and declining contribution towards the provincial economy, with its contribution towards employment creation being less than 1%. The construction sector broadly follows the economic cyclic patterns, and private sector investment is strongly influenced by the level of interest rates. There is normally a lag period of a few months after a decrease in the interest rate, before actual construction takes place. From this perspective, it can be expected that the sector will in the near future increase as a result of the recent drop in the interest rates.

Various government programmes such as housing projects are also important elements in the sector, with particular reference to the promotion of emergent contractors. The sector therefore offers a very effective vehicle to promote BEE.

The sector by nature is not a sustainable driver of an economy over the long term, but it can generate a significant contribution to a local economy for a short period. As such, the sector cannot play a major role as a driver of the provincial economy, but must play a pivotal role in the promotion and implementation of BEE (Free State Economic Profile, 2003:9-3).

Overview of the tourism sector in the provincial economy

The tourism industry has become an important element of the domestic economy, currently employing about 7% of the domestic workforce. The government has realised the significant opportunities offered by tourism mainly because of its strong multiplier effect and potential for BEE. As such, the Department of Environmental Affairs and Tourism (DEAT) has drafted the White Paper on Tourism, which presents the policy framework for the further development of the industry.

On the national level, the Tourism Business Council was established to drive the International Tourism Marketing Scheme (ITMAS), the Welcome Campaign, and the Tourism Enterprise Programme (TEP). The core focus of the TEP is to promote and develop the skills and capacity of PDI to effectively become part of the industry. Linked to this is the Tourism Amendment Bill, which provides for the establishment of a National Registrar of Tour Guides to promote and ensure consistency in service standards, and to promote the development of BEE.

The Free State previously had a Tourism Council, but it was disbanded. At present, there are a number of small local tourism bodies to promote and market specific areas in the province. The tourism and hospitality industries are directly impacted by the spending power of the population. As such, these industries are largely a function of the aggregate economy, which in the case of the Free State grew at a slightly negative rate for the period 1990 to 2002.

The overview of the Free State economy in the national context indicated that a large section of the population lives in poverty, which limits the total amount of disposable income that is available. The major contributor towards this profile is the large populations of people residing in the former Qwa-Qwa, which is one of the poorest regions in South Africa. Based on these figures, it can be concluded that the *per capita* spending power in the Free State is proportionally less than the average for South Africa, thereby limiting the growth opportunities for tourism and hospitality.

The Free State has a number of unique tourism attractions that range from the scenic beauty of the Golden Gate Park to the rustic atmosphere of the eastern highlands. However, these attractions are located far from each other, which to a degree works against the establishment of a critical mass of attractions. As such, the province is one of the areas that is visited least by foreign and domestic tourists.

Although the relative contribution of the tourism industry can improve, it is doubtful that the formal trade sector will ever become a notable driver of the provincial economy. Initiatives such as the development of the conferencing capacities of Mangaung will add to the sector. However, from an employment perspective, the informal sector offers more opportunities than the formal sector. This sector is dominated by the Motheo district, which contributes more than 45%. This can be attributed to the fact that Mangaung serves as the provincial trade centre, and also has a large number of hotels and other tourism facilities (Free State Economic Profile, 2003: 10-3).

Overview of the transport and communication sector in the provincial economy

The Department of Transport has formulated the National Land Transportation Act (Act 22 of 2000), which regulates taxi and bus transport and planning through transport authorities. The document *Moving South Africa (May 1999)* outlines the strategy to improve both passenger and freight transport from a consumer point of view.

The Department of Transport has established four bodies to move certain elements of government's operational activities to commercial agencies. These bodies are the South African National Roads Agency (SANRAL), the South African Maritime Safety Authority (SAMSA), the Cross-border Road Transport Agency (CBRTA), and the South African Civil Aviation Authority (CAA). The safety strategy known as *Road to Safety 2001 – 2005* provides a very detailed set of measures to promote safety in passenger transport.

The minibus taxi plays a critical part in the transport of particularly the black population, which has a low level of private car ownership. However, the industry is plagued with so-called taxi wars, which has prompted government to negotiate an initiative with the umbrella body, the South Africa Taxi Council (SATACO), to replace the aging fleet and progressively absorb the industry into the formal economy. However, it is a highly controversial initiative and has been met with fierce resistance. Transnet Limited is a public company established in 1990 with the purpose of streamlining freight handling in South Africa. The company comprises five components, namely Spoornet (rail transport), Portnet (harbours), Freightdynamics (strategic road freight), Petronet (liquid petroleum transport) and Metrorail (commuter rail transport). The company is in the process of being privatised.

The national government is responsible for the planning and maintenance of national roads, while the provincial government is responsible for provincial roads and the municipalities for the construction and maintenance of local roads and streets.

The Department of Communications is responsible for drafting policies and legislation to govern all elements of communication in South Africa, including postal services, as well as fixed-line and cellular telephone facilities. Fixed-line telephone facilities are managed and provided by Telkom SA Ltd, which is a government-owned enterprise. An initiative to introduce a second fixed-line operator has to date been unsuccessful.

There are three cellular operators in South Africa, namely MTN, Vodacom and Cell C. It is estimated that by the year 2006, there will be about 21 million cellular phones in South Africa.

The province is generally well provided with transport (public, taxi and private) and communication facilities. The sector plays a crucial support role in the economy, particularly in view of the emergence of e-commerce, which makes access to the Internet essential. The province has a

comparative disadvantage in the fact that it is landlocked, which implies high transport costs to harbours for both imports and exports.

The taxi industry is an important source of employment and income for a large number of people. However, the large number of participants and the fact that it is still an informal industry result in it being a highly competitive industry with regular incidents of violence. The formal introduction of the industry into the mainstream economy would enhance the sector's contribution to the provincial economy. However, this may result in job losses in the short term, as not all operators will be able to satisfy the requirements of a formal industry. The contribution of the sector to both the economy and employment is marginal, and although the taxi industry may boost its contribution, the sector will never be a driver to the provincial economy (Free State Economic Profile, 2003: 11-4).

Overview of the finance and real estate sector in the provincial economy

South Africa has a well-developed banking system that involves 60 banks of which 15 are foreign. There has been a considerable increase in the demand for community-based banking, which resulted in the implementation of the Mutual Banks Act (Act 124 of 1993), which aims to provide the broader community with access to sophisticated banking facilities.

The DTI estimates that there are about 30 000 micro-lenders in South Africa. The industry used to be unregulated, which resulted in widespread problems as people landed in debt traps. To address this problem, micro-lenders are now required to register with the Micro-Finance Regulatory Council (MFRC) and will no longer be allowed to hold the bank cards and ID documents of the borrowers. The *stokvel* is a popular method used by some black communities to save. The Land Bank provides a wide range of retail and wholesale financial services to farmers, and gives particular attention to the needs and requirements of the emergent farmers.

Private land ownership is considered one of the key requirements for a successful free market, and it is entrenched in the constitution. However, the racial land policies of the previous government has resulted in a highly skewed land distribution profile with the white population owning more than 80% of all land and properties in South Africa, whereas very few non-white populations, and particularly the black communities, have access to land. As a result, land reform transformation is one of the key programmes of the new government, and a range of policies and legislation has been introduced to govern a process for non-white communities to either reclaim land taken away by the previous government, or to gain access to land. The Department of Land Affairs (DLA) is responsible for managing this process. To date, about 68 800 restitution claims have been submitted nationally to the Commission on Restitution of Land Rights, of which about 4 700 are in the Free State and Northern Cape provinces.

The finance and real estate sector does not generate a meaningful contribution to the provincial economy. The province in general also does not have a buoyant real estate market if compared

with other areas such as Johannesburg, Cape Town, the Garden Route and Durban. It is therefore highly unlikely that the sector will become an important driver of the provincial economy, or any of the local economies (Free State Economic Profile, 2003: 12-3).

Overview of the service sector in the provincial economy

The government system is constituted as national, provincial and local spheres, which are distinctive, interdependent and interrelated. Each of the spheres has got its own specific set of responsibilities, as defined broadly in the constitution. The province includes the former homeland area of Qwa-Qwa, as well as an area of the former Bophuthatswana. These former homelands all had bloated government systems, which presented a particular challenge in the amalgamation process, as all the government officials had to be accommodated. The Department of Provincial and Local Government (DPLG) oversees the planning and operations of the provincial and local spheres of government.

The relative importance of the service sector has increased, both in terms of its contribution to the provincial economy and in terms of employment creation. This sector, however, should not be seen as an economic driver, as salaries account for almost 82% of its contribution. While salaries represent a significant contribution to the available spending power and supporting sectors such as trade, real economic value is not being added.

The broader policy guidelines for the local government sphere are provided by the *White Paper on Local Government*. The most important legislation governing the local government sphere is the *Municipal Structures Act (Act 117 of 1998)*, and the *Municipal Systems Act (Act 32 of 2000)*. The South African Local Government Association (SALGA) was established to represent the interests of local government at national level.

New municipal boundaries were defined by the Demarcation Board to amalgamate the former predominantly white towns with the non-white areas. The immediate priority for the newly established municipalities is to improve the levels of services in the former non-white areas. This process is informed by a number of planning initiatives, most important of which is the Integrated Development Plans (IDP), which should provide clear goals and strategies to inform the Medium-Term Expenditure Framework (MTEF) of the municipalities.

The inclusion of the former non-white areas, and the emphasis on improving the level of municipal services in these areas, place significant strain on the budgets of the municipalities. The situation is worsened by the general low payment levels for services in the non-white areas, largely due to the financial inability of these communities. Some of the municipalities are very dependent on income generated from the sale of electricity. However, this source may in future not be available with the establishment of the Regional Electricity Distributors (RED). In general, the municipalities are very dependent on moneys received from central government in the form of the equitable

share. Without this income stream, most municipalities would not be able to cover their costs with the income generated from rates and taxes.

An important programme in the provision of municipal services is the Consolidated Municipal Infrastructure Programme (CMIP), which focuses on involving the SMME sector and using labour intensive construction methods. The Municipal Infrastructure Investment Unit (MIIU) was established to assist municipalities with alternative options for the operation of their infrastructure, such as the establishment of Public Private Partnerships (PPP).

The DPLG has made funds available for the formulation of Local Economic Development (LED) studies. The purpose of these studies is to identify and develop strategies to improve the local economy, mainly through the retention of existing businesses and the establishment of new enterprises.

Some of the municipalities are finding it very difficult to perform their duties as stipulated in the legislation, mainly due to a lack of skills and capacity. Government has initiated various training programmes to address this problem. A recent initiative is the Consolidated Municipal Transformation Programme (CTMP), which aims to place experts for a certain time period within certain selected municipalities to assist with the technical elements of integrated planning (Free State Economic Profile, 2003: 13-4).

Overview of the informal sector in the provincial economy

The informal sector is difficult to measure and quantify, as none of the activities are registered. However, casual observation indicates that the sector has grown significantly since the beginning of the 1990's, and it involves a wide range of activities such as taxi drivers, curio manufacturers and traders, fruit and vegetable traders, car-park attendants and traditional healers.

The informal sector has developed mainly because of the increase in employment levels and the ease of entry. The entrepreneur does not have to engage in a lengthy and costly process to secure funding or to acquire the necessary permits (apart from certain trading permits). As such, the sector is accessible to those with no formal education and training in business or finance.

The typical informal entrepreneur has a survivalistic existence. Although the sector has virtually no entry barriers, it has specific business risks and challenges such as theft, lack of access to cold storage, and exposure to the elements. Another problem is the perceptions and xenophobia towards foreigners trading in the same area and in the same commodities. This is particularly true in the curio industry.

One of the biggest challenges facing typical informal entrepreneurs, particularly those that trade in food stuffs and curios, is marketing and differentiation. In most cases the traders concentrate in a particular area such as a taxi rank and offer the same range of products, resulting in an

oversupply. The Free State Youth Survey (Botes & Pelser, 2004: 2) showed that black youths make more attempts at starting businesses and express more interest in starting their own business, but are also involved in a larger number of unsuccessful businesses than white youths. A need to empower the youth – and black youths in particular – with the necessary skills and knowledge that are required for successful entrepreneurial ventures, clearly exists.

The informal sector plays a vital role in the South African and provincial economy, as it may offer the only opportunity for those that are unemployed. As such, it is a key element of the household survival strategies of the low-income communities.

The informal sector is a very important component of the aggregate economy; the entry barriers are very low so that it offers opportunity for those that cannot find employment in the formal sector. In view of the increasing rate of unemployment, it can be assumed that the informal sector will continue to grow in its importance to generate income. However, the sector is survivalistic in nature, and usually does not generate sufficient income to sustain a household. In most cases, the income generated from the informal sector represents one of a number of income streams of the household survival strategy, with other possible sources including social grants, migration labour and community gardens.

The informal sector faces particular business risks and challenges such as the need for storage and protection against the elements. It is therefore important that the authorities be made aware of the particular needs of the informal sector and that a purposeful effort be made to address them (Free State Economic Profile, 2003: 14-3).

A strategic perspective on sectors

A summary of the performance of sectors within the Free State economy is presented in Table 3. From this summary, the following conclusions were drawn.

1. The Free State economy is moving away from the primary and secondary sectors towards the tertiary sector, which is indicative of a maturing economy.

2. Although agriculture does not contribute significantly towards the provincial economy, the sector remains an important source of direct employment opportunities. Unfortunately the average salary earned in agriculture is much lower than the provincial average. The sector based on natural resources plays an important role in some of the local economies, and is severely subjected to natural risks and exogenous business factors. The general trend is to replace traditional commodities (grain) with animal, game or mixed farming. The sector offers much potential for BEE and there are various opportunities for niche products. Initiatives based on farm machinery and equipment, floriculture, fruit and vegetables (agro-industry), leather tanning and finishing are discussed in the Free State Province Economic Strategy (2003: 17 - 21).

TABLE 3: Indicators of sectoral performance in the Free State economy[1)]

Sector	Economic contribution (%)		Contribution to provincial employment (2002) and average salary (2002)	Description of major change drivers	Opportunity and growth descriptor
	Nat.	Prov.			
Agriculture	11	9	17% R9 617	Traditional contributor to provincial economy. Has moved into an open market system. Shows growth, but is shedding employment. Highly susceptible to natural risks. Tendency to replace grain with less risky commodities. Opportunities in niche markets.	Stable Niche agricultural areas seems promising. Maximum value adding at farm level and linkages to the tourism sectors.
Mining	9	14	8% R72 912	Used to be a significant economic driver. Significant loss in production and employment levels. Activity decreased by 4% per annum from 1980 to 1991 and 7% from 1990 to 2002. Finite resource base. Appreciation of the Rand. Effects of HIV/AIDS. BEE requirements.	Notable decline. Challenge is to create an alternative economy in the Goldfields while mines are still operational. Window of opportunity estimated at about 10 years.
Manufacturing	4	15	7% R67 001	Intermediate, with the exception of the Northern Free State, which revolves around SASOL. Generally a downward trend affected by lack of competitiveness. Impact of e-commerce on supply chain management.	Slight decline. Jewellery cluster (accredited design school and incorporation of local designs) and value adding to petrochemicals seem promising.
Electricity and Water	7	3	1% R69 824	Marginal contribution. Highly capital intensive. Vital for quality of life and economic development.	Slight decline.
Construction	2	2	3 R34 199	Follows economic cycle and is mainly liked to government infrastructure programmes.	Slight decline.
Trade	4	10	18 R37 038	Function of spending power. Downward trend. Large section of population lives in poverty. Tourism sector is under developed when compared to other provinces.	Slight decline. Domestic tourism development seems promising.
Transport and Communication	4	7	3% R53 734	Well provided and makes a marginal contribution. Taxi industry important vehicle for BEE.	Slight growth.
Finance and Real Estate	2	11	5% R53 734	Does not generate a meaningful contribution.	Notable growth.
Community Service	6	28	22% R83 141	Increase in mainly government activities. Should play a supportive role, and should not be the driver. Economic value lies in the value of salaries paid, which accounts for 82% of the local spending power.	Significant growth.
Informal Sector			Estimated 4% Unknown	Has achieved a high growth rate. Offers economic opportunities. Survivalistic nature. Differentiation, marketing, logistics.	Link to mainstream economy. Determine and satisfy needs of the informal sector.

[1)] Free State Economic Profile (2003: 16-1) and the Free State Provincial Department of Labour Annual Analytical Report (2003/4).

3. The mining sector is facing challenging times brought about by an appreciation in the ZAR, a slowly decreasing resource base, and AIDS. It can be expected that, without purposeful intervention, the sector will continue to decline. It is therefore imperative that intervention strategies be developed to identify opportunities to replace the declining mining sector and

to use the mining infrastructure for alternative purposes (Proposals for the utilisation of redundant mine infrastructure for the benefit of local communities, 2004).

4. The manufacturing sector revolves around the petrochemical plants at Sasolburg and contributes meaningfully towards the provincial economy. While it is not labour intensive, the sector adds much value to the economy. The sector offers much potential for the SMME-scale enterprises. To identify these opportunities will require an in-depth assessment of the total value chain to establish particular niche products.

5. Electricity and water is a highly capital intensive sector, and generally requires high skill levels. The province does not have much potential for the generation of electricity, and as such it is highly unlikely that the sector offers much opportunity to become a driver of the provincial economy.

6. The construction sector is highly impacted by the interest rate, whereas government capital projects also play an important role. The sector has the proven ability to generate much opportunities for BEE and emergent entrepreneurs. However, the sector in itself cannot be a driver of the provincial economy.

7. The trade sector is largely a function of the disposable income levels of the community. Due to the declining economy, the Free State province has experienced a decline in income levels, and the average per capita income is lower than the average for South Africa. However, the informal sector has become a very important element of the aggregate economy, and it offers perhaps the only opportunity for those that cannot find employment in the formal sector. The informal sector has its own particular business risks, and it is important that the authorities understand and, where possible, accommodate these risks to stimulate the sector. Also, the tourism industry has become an important element of the domestic economy. Although the Free State is one of the least-visited provinces in South Africa, the province offers a unique array of attractions, which are important to sustain certain local economies. It is important that the needs and requirements of both the domestic and international tourists be assessed and accommodated in the tourism offerings.

8. The transport and communication sector plays an important support role in the economy, but does not generate a significant number of formal employment opportunities. However, the taxi industry generates a fair amount of employment opportunities in the informal sector. The Free State province in general, or any or the local economies does, not have major transport or storage facilities such as large harbours, and as such, the sector cannot be a driver. The same argument applies to communication.

9. The finance and real estate sector generates a notable contribution to the provincial sector, but is not a major source of employment opportunities. By and large, the sector tends to be a function of the aggregate economy, rather than a driver in itself (unless a city serves as the financial node).

10. Government services has become a very important contributor to the provincial economy, and is also a major source of employment opportunities. However, Table 16.1 shows that about 82% of the GVA generated in the sector is in the form of salaries. As such, the sector adds very little real value to the economy, but plays an important role in increasing the aggregate purchasing power.

Based on the analysis in the preceding sections, it is recommended that the drivers to promote future growth in the provincial economy should be agriculture, manufacturing, tourism and the informal sector. The main elements of each sector should include the following:

- **Agriculture:** A general diversification of existing commodities to decrease the business risk and to produce niche commodities. The opportunities will be determined by the particular local resource base, and typical examples include game farming, aquaculture in existing dams, mushroom farming in disused mineshafts, cashmere production in the drier parts, etc.

- **Manufacturing:** More emphasis should be placed on the SMME-level enterprises to produce niche commodities. This will require a careful analysis of the value chain to identify such opportunities.

- **Tourism:** Although the province is one of the least-visited places in South Africa, the industry offers much potential to some of the local economies, more particularly in the eastern highlands. It is important that the tourism offering be correctly packaged, marketed and presented. A particular opportunity presents itself in a co-operative agreement with Lesotho, which will enrich the tourism offering.

- **Informal sector:** The informal sector has become increasingly important as a source of employment opportunities in the face of an increase in unemployment. The sector is very diverse and includes trade (in various commodities), services (e.g. medical and personal care), repair (e.g. motor repair) and transport (e.g. taxis). Each of the sub-industries has its own type and level of business risk. A concerted effort should be made to identify the needs and requirements associated with this risk profile, and to accommodate it.

A REALITY CHECK

Local Economic Development (LED) has been identified in the Free State Development Plan as one of the key development options available for the Free State province as it streamlines the respective contributions of provincial stakeholders towards the provincial economic development plan.

Successful change strategies are infused by the brutal facts of reality. When organisations start with an honest and diligent effort to determine the truth, the right decisions often become self-evident (Collins, 2001: 69-70). Consequently, the Premier's Economic Advisory Council requested an analysis of the current and potential role of LED to promote its impact on the cities, towns and rural districts of the Free State through appropriate support and encouragement. The evaluation of LED in the Free State province was conducted by Rhodes University, the Human Sciences Research Council and the University of the Free State (2003). More specifically, the report established the current status quo in terms of LED in the province and contextualised the results within the national and international experience of LED interventions. It also identified a series of key policy and strategic considerations to assist the province, local governments and other key stakeholders to enhance the spatial and sectoral impact of LED.

The study revealed that LED at the Free State provincial level, most notably in the provincial Poverty Relief Strategy and the Free State Development Plan, do create a framework for development, which has significant LED ramifications. The report objectively depicted that few, if any, projects have become sustainable; few if any permanent jobs have been created; there are concerns over project mismanagement; and the lack of adequate business and market planning and training inhibit success. In addition, projects seldom seem to involve the private sector and it is apparent that poverty is not really being addressed. While case studies across the province were discussed in detail, attention was be drawn to six key issues:

1. The most successful projects are those driven by the private or community sectors.
2. There is little evidence that municipalities are making a significant contribution to LED and, in many cases, their actions may well be impeding it by deterring investment.
3. Municipalities have poor business skills and management systems. They also experience financial difficulties, while there have been allegations of irregularities and development was politicised through the exclusion of role-players.
4. Contrary to experience elsewhere in South Africa and internationally, there is little evidence of partnership formation, which is regarded as critical to project success internationally. In several cases, major political rifts have developed within towns.

5. The most successful projects are those driven by tourism, those which have linkages to the international markets, and those which are managed according to sound business principles.

6. Many LED projects in the province have either not lived up to expectations or have provided only short-term relief.

The implications of these findings are profound. They suggest that, if local role-players and local government in particular are to make any real contributions to issues of poverty relief, economic growth and job creation, a radical rethink of the entire concept and application of LED in the province is an urgent necessity. Failure to take this bold step may well aggravate local-level poverty, unemployment and suffering.

LED clearly has a critical role to play in terms of considerations of poverty relief, addressing development backlogs and simultaneously promoting sustainable economic growth. In order to achieve this, the document details 11 key recommendations:

1. The need to establish a permanent provincial LED facilitation and support unit. A related need is to undertake realistic research and provide advisory support.

2. The need to properly define what LED is and what its goals are.

3. To align LED with provincial policy and business and market realities.

4. The need for adequate and appropriate training of officials, as well as adequate funding and accountability.

5. The active encouragement of local leaders, local-level forums and partnerships, and close co-operation with beneficiaries.

6. Establishing LED units and development agencies at the local level to drive the LED process.

7. The pursuit of viable, sustainable projects, whether they are led by local governments or non-state actors.

8. To encourage economically viable projects that meet poverty and growth requirements and which can also encourage SMME development.

9. Local government must be businesslike in its approach. Development should be apolitical and accountable.

10. To support learning centres, training and study tours.

11. To acquire monitoring and evaluation principles and processes.

Early in the Second World War, when the Nazis swept across Europe, Winston Churchill wrote: *"I have no need for cheering dreams. Facts are better than dreams."* Given the state of the provincial economy, provincial government clearly needs to assume a key role in this process, given the very real incapacities that exist at ground level and the need for external direction, guidance, support and facilitation.

THE PROVINCIAL GOVERNMENT AS A BUSINESS

In addressing the Free State's economic realities, the provincial government developed the Free State Development Plan (2002/2005) through extensive stakeholder consultation. This strategic document has built onto the existing strategic plans of both provincial and local government.

The vision of the provincial micro-economic reform strategy strives towards *"A unified, prosperous Free State which fulfils the needs of all its people*" while the mission reflects six key performance areas (Free State Economic Profile, 2003: 3-12) namely:

1. Enhancing economic development and job creation
2. Providing and facilitating sustainable infrastructure development
3. Investing in the development of the people of the province
4. Ensuring a safe and secure environment
5. Providing the above by means of good and co-operative governance
6. The sustainable use of resources and the environment.

The Free State Provincial Government has also formulated three specific objectives and intends to ensure that by March 2005:

1. Economic growth rises to 4.5%;
2. Unemployment falls from 34% to 31%;
3. Assistance will be given to create 34 000 new jobs, affecting 5% of households and thereby reducing the percentage of those living in poverty (monthly household expenditure less than R800) from 48% to 43%.

The implementation of the Free State Province Economic Strategy (2003: 27-35) is focused on eight areas:

1. To strengthen the competitive advantage of the Free State so that by March 2005, the Free State's share of the SA GDP has risen from 5.4 % to 6.4% (equivalent to the Free State's population share of SA). This will be achieved by promoting private inward investment in key economic sectors, implementing of sectoral development zones and economic corridors for the Free State, as well as promoting of Free State exports.

2. To promote the creation and expansion of SMME so that by March 2005, 3 400 micro-businesses have been created that will exist beyond 3 years, 2 720 businesses of less than 20 employees have expanded, taking on an average of 5 employees, and 1 360 businesses of greater than 20 employees have expanded, taking on an average of 10 employees. This will be achieved through public-private partnerships, supporting SMME through a local business support infrastructure with 100 micro-business advisors and 60 small business advisors across the province; a central business support infrastructure, including eight specialist business advisors; a market information system and the establishment of an industrial database for the Free State. The provincial government also intends to initiate a project to support local procurement by large public and private sector organisations.

3. To enhance livelihoods, security and self-reliance so that an additional 35 000 households may be supported through livelihoods programmes across the Free State, ultimately by reducing unemployment by 3% and ensuring that current poverty alleviation projects to enhance livelihoods become more business oriented. A fundamental drive is to improve the social safety net through HIV/AIDS care units, prompt payment of social grants, and an increased the uptake of child support grants.

4. To Increase the tourism market share and investment to the economy by ensuring that the Free State's share of the national tourism market has increased by 2% and the Free State tourism GGP has increased by 5%. This will be achieved by developing tourism routes, destinations and activities, increasing participation in events and activity tourism, and improving tourism marketing and business support based on an effective database and website of tourism businesses and their products and services.

5. To increase the export of agricultural products processed in the Free State by 8%. This will be achieved by emphasising on-the-farm agro-processing (research, technical, business, marketing), especially in view of BEE.

6. To increase the GGP contribution of beneficiation of mining and petro-chemicals by 8%, thereby creating 500 jobs. This will be achieved through the research and development of new products in mining and petro-chemicals, as well as develop and implement a strategy for the jewellery manufacturing industry.

7. To sustain a viable mining industry by stabilising the contribution of mining to the GGP of the Free State at 14%. This will be achieved through the development of a strategy for establishment of small–scale mining and, if it appears viable, the development of a support system for small-scale mining and related activities. Consultation with the mining industry

on what measures could improve the sustainability of existing mines and the opening of new mines will be maintained.

8. To develop and expand the transport and distribution industry to increase its contribution to the provincial GGP by 5%. The will be achieved by taking advantage of the Free State's centrality, building a strategy for transport and distribution, including warehousing, and developing a dry port which includes a cargo airport.

The Free State Development Plan also outlines in detail the generic aspects interfacing with the above-mentioned implementation areas. These include reviving the local economy, fostering forward and backward linkages, trade promotion, formation of business consortiums, targeted tourism promotion, co-operation with neighbouring towns and provinces, promoting intergovernmental relations, addressing the challenge of unemployment and poverty, delivering good-quality services at a swift pace, SMME development, rural development and BEE.

THE EDUCATIONAL SYSTEM

The National Qualifications Framework (NQF)

The NQF was established by the Department of Education to facilitate a culture of learning and an appreciation for skills development while aligning South Africa to international education and training standards. The framework provides national guidance on how the skills and abilities of South Africans should be recognised and seeks to promote lifelong learning and RPL.

Comparing qualifications offered by universities and universities of technology (former technikons) is challenging, since the dispensation according to which approved qualifications are offered differ. University qualifications are approved by the internal university authorities concerned and are approved for subsidy purposes, as part of the SAPSE reporting system according to policy document *NATED 02-116*. This document is matched to the SAPSE system in providing a structural framework for university qualifications with a minimum of content specification and no quality parameters at all. Up until 2004, technikon qualifications were approved for provision and subsidy at national level, following the convenor Technikon process according to policy document *Report 150 (95/01)*. Compared to NATED 02-116, this document contains far more explicit outcome specifications and structural requirements, as well as general aspects of content and clear quality assurance measures.

Over time, the inconsistent application of qualification descriptors over the two approval systems gave way to grey qualification areas, for example, the debate on whether a B. Tech. degree (which is a prerequisite to an M. Tech. degree) should be considered the equivalent of a Bachelor's Degree or a Bachelor Honours Degree. The Department of Education aims to overcome these weaknesses through a newly proposed framework consisting of 10 levels with clear qualification descriptors at the HE level (the Higher Education Qualifications Framework – Draft for discussion,

2004: 6-10). Since the revised system will be implemented in January 2006, the results in this report are based on the current 8-level system.

Qualification level descriptors

The current NQF consists of 8 qualification levels, subdivided into three bands. A summary of SAQA band descriptors (Government Gazette Volume 424, Number 21679, 2000: 3-5) follows:

- The GET (General Education and Training) band is characterised by lower-level academic skills, a narrow operational context, and no responsibility towards the learning of others.
- The FET band reflects intermediate academic skills, a limited operational context, and accepting responsibility for own output, as well as the performance of others.
- The HET band represents high-level information processing and problem-solving skills and an exploration of knowledge boundaries. In HET, the operational context is complex and unpredictable with the learner accepting complete accountability for own output, as well as the performance of others.

The increasing complexity of learning from level one to eight are defined by foundational, practical and reflexive competences. For example, progression in academic skills may be demonstrated by introducing a problem-solving ability which did not feature at the previous level. The combinations of competencies over NQF levels are shown in Table 4.

TABLE 4: Level descriptors by NQF Level[1)]

NQF Level	Qualification	Foundational Competence	Practical Competence	Reflexive Competence
GET 1	National Certificates; ABET levels 1-3/4	Demonstrate use of recall and elementary comprehension skills in a narrow range of areas with dependency on ideas of others. Possession of basic skills. Receive and pass on information.	Operate in closely defined contexts under close supervision. Carry out repetitive and predictable procedures. Perform clearly defined tasks.	Perform directed activity. No responsibility for the learning of others.
FET 2	National Certificates	Demonstrate basic comprehension and employ a narrow range of skills. Apply known solutions to familiar problems. Basic processing of readily available information.	Show basic competence in a limited range of established and familiar contexts under general supervision and quality control. Follow established and familiar procedures. Co-operate with others.	Some limited/restricted responsibility for quantity and quality of one's own output. Possibility of responsibility for guiding others.
FET 3	National Certificates	Possession of a well-developed range of skills. Apply relevant knowledge with underpinning comprehension in a number of areas. Demonstrate ability to make comparisons and interpret available information.	Operate in a number of contexts, some of which may be non-routine. Make significant choices from a wide range of procedures. Co-ordinate with others.	Significant responsibility for quantity and quality of one's own output under general supervision and quality checking. Possibility of being responsible for the output of others.

TABLE 4: Level descriptors by NQF Level (continued)

NQF Level	Qualification	Foundational Competence	Practical Competence	Reflexive Competence
FET 4	National Certificates	Possession of wide-ranging scholastic or technical skills. Possession of a broad knowledge base incorporating some basic theoretical concepts. Demonstrate ability to access, analyse and evaluate information independently. Employ a range of responses to well-defined but often unfamiliar or unpredictable problems.	Operate in a variety of familiar and unfamiliar contexts under broad guidance and evaluation. Select from a considerable choice of procedures. Give presentations to an audience.	Complete responsibility for quantity and quality of output. Possible responsibility for the quantity and quality of output of others.
FET 5	Undergraduate diplomas/certificates; work-based qualifications	Possession of wide-ranging, specialised scholastic or technical skills. Possession of a broad knowledge base with substantial depth in other areas.	Operate in a variety of routine and non-routine contexts under general supervision. Select from a wide choice of procedures ranging from standard to non-standard. Plan, select or present information, methods or resources.	Full responsibility for the nature, quantity and quality of output. Possible responsibility for the achievement of group output.
HET 6	First national degrees; some professional, postgraduate and work-based qualifications	Possession of wide-ranging, specialised scholastic, professional or technical skills and basic (applied or theoretical) research across a major discipline. Ability to analyse, evaluate and reformat a wide range of information. Ability to formulate appropriate responses to resolve both concrete and abstract problems. Generate ideas by analysing information and concepts at an abstract level.	Operate in highly variable scholarly, technical, professional contexts within broad parameters for well-defined activities. Select from a wide choice of procedures, standard and non-standard, and often in non-standard combinations in a major discipline. Diagnose problems and create appropriate responses to resolve both concrete and abstract problems in a range of technical, professional or management functions.	Complete accountability for determining and achieving personal and/or group output.
HET 7	Honours degree; B. Tech. degree; some professional, postgraduate and work-based qualifications	Possession of highly specialised, scholastic, professional, technical and advanced research across a major discipline. Demonstrate an ability to critically review, consolidate and extend a systematic and coherent body of knowledge. Demonstrate an ability to analyse, transform and critically evaluate new information, abstract data and concepts including evidence from a range of sources. Ability to create appropriate responses to resolve abstract contextual problems.	Operate in complex, variable, highly specialised and unpredictable contexts within broad parameters and functions. Select from a full range of advanced procedures in a major discipline. Diagnose problems and create appropriate responses to resolve contextual and abstract problems. Ability to transfer and apply diagnostic skills in a range of contexts.	Complete accountability for determining, achieving and evaluating personal and/or group output.
HET 8	Masters degrees (coursework/research)	Display mastery of a complex and specialised area of knowledge and skills. Ability to generate, evaluate and synthesise information and concepts at highly abstract levels. Demonstrate expertise in highly specialised and advanced technical, professional and/or research fields.	Operate in complex, advanced and highly specialised contexts. Select from complex and advanced procedures across a major discipline. Conduct research, or advanced technical or professional activity. Design and apply research methods and communicate research to peers.	Complete accountability for determining, achieving and evaluating personal and group output.

TABLE 4: Level descriptors by NQF Level (continued)

NQF Level	Qualification	Foundational Competence	Practical Competence	Reflexive Competence
HET 8+	All doctorates	Possession of expert, highly specialised and in-depth technical/professional or research skills, both across a major discipline and interdisciplinary. Ability to generate, evaluate and synthesise information and concepts at highly abstract levels. Make a significant and original contribution in a specialised field and engage in critical dialogue. Ability to respond to abstract problems that expand and redefine existing knowledge.	Operate in highly specialised and unpredictable contexts. Select from highly complex, advanced and highly specialised procedures across a major discipline and interdisciplinary. Demonstrate command of methodological issues. Communicate results of research to peers and engage in critical dialogue.	Complete accountability for determining, achieving, evaluating and applying all personal and/or group output.

[1)] The Development of Level Descriptors for the NQF (2000). Government Gazette, Vol. 424, No. 21679. South African Qualifications Authority Office, Waterkloof.

Qualification descriptors

When compared to GET or FET, learning within the HE system is to a lesser extent standardised across institutions with the qualification descriptor reflecting the field of study. Therefore each HE qualification type has a unique descriptor stating its purpose and how it relates to other qualification types. An explanation of the four levels used to describe a qualification follows:

1. ***Qualification type*** is the first name given to a qualification, such as certificate, diploma or degree, and is linked to a specific NQF level, e.g. a Bachelor's degree.
2. The ***designator*** is the next level of description, which indicates the broad area of study, e.g. a Bachelor of Science. When abbreviated, the linking word between the qualification type and the designator ("in" or "of") is dropped, e.g. Bachelor of Social Science is abbreviated to BSocSc.
3. The third and most specific layer of qualification description is called the ***qualifier***. This may reflect an area of specialisation, e.g. a BSc in Geology would imply that the learning demands and specifications laid down for a BSc included specialised learning outcomes related to the field of Geology. When abbreviated, the linking word between the qualification type and the qualifier ("in") is dropped, e.g. Bachelor of Engineering *in Electronics* is abbreviated to BEng *(Electronics)* or a Postgraduate Diploma *in Drama* is abbreviated to PG Dip (Drama).
4. A further area of specialisation for a certificate or diploma may be indicated by adding a colon and a second qualifier. For example, the Postgraduate Diploma in Drama: *Performance* is abbreviated to PG Dip *(Drama: Performance).*

A detailed description of qualification types in the HE band over NQF levels 5 to 8 are shown in Table 5.

TABLE 5: Description of HE qualification types[1)]

Qualification	NQF Level	Description	Progression
Certificate	NQF Level 5 (Minimum total credits: 120; Minimum credits at Level 5: 120)	A Certificate would contribute to the widening of access to higher education by enabling HE institutions to conditionally admit learners who do not fully meet the Level 4 admission requirements for direct entry into particular programmes at Level 5. This qualification can also be used to facilitate RPL.	The qualification meets the minimum entry requirement for admission to a cognate Higher or Advanced Certificate.
Higher Certificate / Advanced Certificate	NQF Level 6 (Minimum total credits: 120; Minimum credits at Level 6: 120)	A Higher/Advanced Certificate typically develops in students a basic level of higher education knowledge and competence in an occupational, vocational role in order to allow them to enter a specific niche in the labour market. The knowledge in this industry-orientated qualification emphasises general principles and application or technology transfer. Key generic skills such as reading and writing academic texts, word processing, basic IT skills, numeracy and study skills, as well as an experiential or simulated work experience component are included in the learning process.	The qualification meets the minimum entry requirement for admission to a cognate Diploma.
Diploma	NQF Level 6 (Minimum credits: 360; Minimum credits at Level 6: 240; Maximum credits at Level 5: 120)	A Diploma aims at developing graduates who can demonstrated focused knowledge and skills in a particular field. The qualification is primarily vocational, occupational or industry specific, and the knowledge emphasises general principles and application. In-depth and specialised knowledge, together with practical skills and experience in the workplace, enable successful learners to enter a number of career paths and to apply their learning to particular employment contexts from the outset.	The qualification meets the minimum entry requirement for admission to an Advanced Diploma.
Advanced Diploma	NQF Level 7	An Advanced Diploma provide an intensive, focused and applied specialisation, which meets the requirements of a specific niche in the labour market. Programmes at this level provide diploma graduates with a deep and systematic understanding of current thinking, practice, theory and methodology in an area of specialisation and is suitable for continued professional development. The qualification also provides entry-level professional preparation for specialisation for Bachelor's Degree graduates, for example, a BSc graduate may register for an Advanced Diploma in Education: Secondary in order to become a science teacher.	The qualification meets the minimum entry requirement for admission to a Bachelor's Degree.

[1)] The Development of Level Descriptors for the NQF (2000). Government Gazette, Vol. 424, No. 21679. South African Qualifications Authority Office, Waterkloof.

THE FREE STATE EDUCATIONAL SYSTEM

The value of being an educated and trained employee in the Free State

In an ideal economic system, organisations absorb well-trained employees who in due course increase their wealth and improve their quality of life. The value of being educated and trained in the Free State economic system was examined by analysing the employable workforce (aged 15 to 65) in terms of educational level, occupation profile and level of urbanisation. These results are presented in Table 6.

TABLE 6: Distribution of the employable workforce by educational level[1)]

Level of education and training (March 2003)	Economically inactive (%)	Unemployed (%)	Employed (%)
No schooling	2.8	0.7	3.6
Primary education	7.2	3.5	9.7
Secondary education	27.5	14.1	22.6
FET (N1 to N6)	0.0	0.1	0.5
HE (Diploma, Degree)	0.8	1.1	5.7
Total (n = 1 800 242)	38.3	19.6	42.1

[1)] Free State Provincial Department of Labour - Annual Analytical Report (2003/04: 13).

Of the total employable workforce in the Free State (1.8 million people), 28% had received no or primary schooling; a further 65% had improved their level of education to the secondary level, while 8% had achieved some form of tertiary education. More than half the individuals who had achieved the level of secondary education were either economically inactive or unemployed. This implied that the majority of jobseekers were young people between the age of 15 to 35 years associated with a lower level of education.

Examination of occupational profiles by level of education indicated that individuals who had received no or primary schooling were absorbed in elementary jobs. Individuals who had at least a secondary education were employed as technical and operational staff. Four out of five individuals who had achieved tertiary education were employed, with three out of five in professional and managerial positions. This generates a strong market signal that having achieved a tertiary qualification would significantly enhance the probability of finding a job with status. While this signal kindles the desire for higher education, it does not communicate what it would take to achieve a higher qualification. Gradually higher education institutions have become flooded with candidates not suited to that level of education and training.

The impact of vocational training on employment in rural and urban areas is presented in Table 7. Of an employable workforce of 1.8 million, about 70% were urbanised, with 7% of these having been trained. Trained urban workers comprised 4.7% of the workforce, whereas trained rural workers accounted for 1.4% of the workforce. Training therefore improved the probability of employment, especially under urban conditions where economic activity is mostly centralised.

TABLE 7: The impact of vocational training on employment in rural and urban areas[1)]

Level of education and training	Location	No Training (%)	Trained (%)
Economically inactive	Rural	10.3	0.2
	Urban	26.6	1.2
Employed	Rural	12.6	1.4
	Urban	23.3	4.7
Unemployed	Rural	4.6	0.4
	Urban	13.1	1.5
Total (n = 1 805 535)	Rural	27.5	2.1
	Urban	63.0	7.4

[1)]Statistics South Africa, Labour Force Survey, March 2003.

These results consistently showed that probability of employability increased with the level of education and training achieved. It is likely that this pattern would appear even more definite under conditions of strong economic growth. The highest level of job security is associated with tertiary education, predicting that most individuals would aspire towards a tertiary qualification.

The FET sector in the Free State

Further Education and Training includes secondary schools, colleges, private providers, NGOs, community organisations and employers (National Quantitative Study of FET Colleges - The New Landscape, 2003: 2). The output of the FET system will be discussed under three separate headings.

Education and training output by the Free State secondary school system

The Grade 12 final examination results of the Free State secondary school system was examined over the period 2000 to 2003 with the following objectives in mind:

1. To establish the biographic profiles of matriculants in terms of mode of study (full or part time) and gender composition.
2. To quantify output in terms of number of matriculants who have written and passed the final Grade 12 exam.
3. To identify quantitative (headcount) system changes that may impact on the Free State's macro-economic strategy.
4. To identify qualitative (interest and competency) system changes that may impact on the Free State's macro-economic strategy. To this purpose, performance over all matric subjects was grouped into six sector-related clusters, namely:

SET Knowledge and Skills: Refers to the number of candidates who have offered any of the subjects: Mathematics HG, Mathematics SG, Biology HG, Biology SG, Physical Science HG, Physical Science SG, Physiology HG, Physiology SG, Agricultural Science HG, Agricultural Science SG, Commercial Mathematics SG, Technical Drawing HG, Technical Drawing SG, Additional Mathematics HG, Functional Mathematics SG, and Functional Physical Science SG.

Practical Skills: Refers to the number of candidates who have offered any of the subjects: Practical Agricultural Science SG, Bricklaying and Plastering SG, Electrician Work SG, Electronics SG, Farm Mechanics SG, Fitting and Turning SG, Metalwork SG, Motor Mechanics SG, Needlework and Clothing SG, Technical: Civil HG, Technical: Electrical HG, Technical: Electrical SG, Technical: Electronics HG, Technical: Electronics SG, Technical: Mechanical HG, Technical: Mechanical SG, Welding and Metalworking SG, Woodwork SG, and Woodworking SG.

Computer Literacy: Refers to the number of candidates who have offered any of the subjects: Computer Studies HG, Computer Studies SG, Typing SG, and Computyping SG.

Tourism and Hospitality Skills: Refers to the number of candidates who have offered any of the subjects: Geography HG, Geography SG, Home Economics HG, Home Economics SG, Hotel Keeping and Catering SG, and Travel and Tourism SG.

Business Skills: Refers to the number of candidates who have offered any of the subjects: Economics HG, Economics SG, Accounting HG, Accounting SG, Business Economics HG, Business Economics SG, Law of Crim Proc and Evidence SG, Mercantile Law SG, South African Criminal Law SG, and Statute Law SG.

Social Skills: Refers to the number of candidates who have offered any of the subjects: History HG, History SG, Afrikaans First Language HG, Afrikaans First Language SG, Afrikaans Second Language HG, English First Language HG, English First Language SG, English Second Language HG, Afrikaans Second Language SG, English Second Language SG, German Third Language HG, Isixhosa First Language HG, Isizulu First Language HG, Sepedi First Language HG, Sesotho First Language HG, Sesotho Third Language HG, Sesotho Third Language SG, Setswana First Language HG, Xitsonga First Language HG, Sesotho Second Language HG, Biblical Studies HG, Biblical Studies SG, Art HG, Art SG, Introduction to Criminology SG, Introduction to Ethnology SG, Music HG, Music SG, Music Performance SG, Painting SG, Speech and Drama HG, UNISA Music GR 6, UNISA Music GR 7, and UNISA Music GR 8.

The results (summarised in Table 8) indicated that an average of 52 377 matriculants registered for the Grade 12 final examination. Minnaar, Gilliard and Thoahlane (2000: 4) stated that 33 004

matriculants were examined in 1999, which either suggests a vast improvement in access to secondary schooling from 1999 to 2003, or the validity of their data is questionable.

On average, 52% of matriculants studied full time and 48% part time. Fifty-six percent were female and 44% male. While the mode of study and gender ratios remained almost unchanged, it is of great concern that the number of matriculants have gradually declined by 21% from 2000 to 2003.

Further analysis indicated that from 2000 to 2003 an average of 47% of matriculants failed and 26% obtained a Senior Certificate. The Free State Youth Survey (Botes & Pelser, 2004: 1) also reported that more than 46% of black youths of 20 years and older have not completed their secondary school training, with serious employment implications.

More than 90% of the white youth compared to less than 40% of the black youth are capable of basic word processing on a computer. Teenage pregnancies are a major reason for young black girls not completing their school education. The burden of early motherhood aggravates their socio-economic position and thus further hinders their opportunities to improve their quality of life.

An average of 27% of matriculants obtained a Senior Certificate with endorsement, compared to the 10% reported for 1999 (Minnaar *et al.*, 2000: 4). Should both reported figures be correct, a major improvement may be noted.

During 2001/2002 a decline in Senior Certificates with endorsement was observed (25%), but the situation seems to have improved in 2003 to the level observed in 2000. Despite this improvement in examination results, it remains disturbing that the number of matriculants with the potential to enter tertiary education has declined by 21%.

From a strategic viewpoint, this significant decline presents a serious threat to Free State tertiary education in the short term, and certainly presents a long-term threat to the Free State economy, which relies heavily on the contribution of its service sector to provincial GDP.

Qualitative changes were examined by interpreting annual variation in cluster proportions as changes in the interest of secondary school learners (Table 9). Analysis of the total matriculant population over the period 2000 to 2003 revealed a shift, with learner interest moving away from SET (-2%) and Social Skills (-2%) towards Business Skills (+4%).

This tendency was pronounced for failed matriculants where a 6% change was revealed. For this group, interest moved away from SET (-3%) and Social Skills (-2%), in favour of Business Skills (+5%). For learners who had achieved a Senior Certificate without endorsement, a 2% shift from Social to Business Skills was observed.

Major interest shifts were also observed among individuals who have achieved a Senior Certificate with endorsement. Here, interest weakened in SET (-1%), Social Skills (-1%) and Tourism and

Hospitality-related skills (-2%), while interest in Computer Literacy (+1%) and especially Business Skills (+5%) increased.

In conclusion, the performance of the secondary school systems in the Free State indicated an improvement. The number of matriculants, however, has decreased by 21% over the period 2000 to 2003. In addition, a drift in subject interest was observed, clearly moving away from SET and Social Skills towards Business Skills.

TABLE 8: Matriculants examined in the Free State secondary school system over the period 2000 to 2003[1)]

Entry Type	Gender	Description	2000	2001	2002	2003
Full Time	Female	Fail	864	592	443	331
Full Time	Female	Endorsement	8257	6043	5986	6654
Full Time	Female	Senior Certificate	7489	7671	7088	5700
Full Time	Male	Fail	521	384	303	203
Full Time	Male	Endorsement	7812	6377	6246	6590
Full Time	Male	Senior Certificate	6013	6579	5992	4888
Part Time	Female	Fail	16038	15099	13550	12169
Part Time	Female	Endorsement	611	356	171	227
Part Time	Female	Senior Certificate	534	453	342	291
Part Time	Male	Fail	9936	10189	9336	9010
Part Time	Male	Endorsement	449	254	171	199
Part Time	Male	Senior Certificate	309	329	277	182
Summary			**2000**	**2001**	**2002**	**2003**
Total			58833	54326	49905	46444
Change (Relative to the number of matriculants, (%) in 2000)			0%	-8%	-15%	-21%
Full Time			30956	27646	26058	24366
Part Time			27877	26680	23847	22078
Female			33793	30214	27580	25372
Male			25040	24112	22325	21072
Fail			27359	26264	23632	21713
Senior Certificate			14345	15032	13699	11061
Senior Certificate with Endorsement			17129	13030	12574	13670

[1)] Data obtained from the Free State Department of Education, R van Heerden, 2004.

TABLE 9: Subject preferences of matriculants examined in the Free State secondary school system over the period 2000 to 2003[1)]

Descriptor	Cluster	2000	2001	2002	2003
TOTAL	SET Skills	30	29	28	28
	Practical Skills	1	1	1	1
	Computer Literacy	1	1	1	1
	Tourism and Hospitality Skills	8	7	7	7
	Business Skills	16	17	19	20
	Social Skills	45	44	44	43
Fail	SET Skills	32	31	30	28
	Practical Skills	1	1	1	1
	Computer Literacy	1	1	1	1
	Tourism and Hospitality Skills	7	6	7	6
	Business Skills	13	15	16	19
	Social Skills	47	46	45	45
Senior Certificate	SET Skills	25	26	24	25
	Practical Skills	2	2	2	2
	Computer Literacy	2	2	2	2
	Tourism and Hospitality Skills	8	8	7	8
	Business Skills	18	17	19	19
	Social Skills	46	46	45	44
Senior Certificate with endorsement	SET Skills	32	31	31	30
	Practical Skills	0	0	0	0
	Computer Literacy	0	0	1	1
	Tourism and Hospitality Skills	9	8	7	7
	Business Skills	18	20	21	23
	Social Skills	40	40	40	39

[1)] Data obtained from the Free State Department of Education, R van Heerden, 2004.

Education and training output by merged colleges in the Free State

The contribution of Free State colleges to provincial education and training was limited to those institutions recently declared public FET colleges. These newly merged colleges consist mainly of the former technical colleges, although colleges of education, manpower and skills centres, and some former community colleges were also merged with technical colleges during the restructuring process to form the newly merged FET colleges, which are summarised in Table 10.

TABLE 10: Profiles of the newly merged colleges in the Free State[1)]

Merged College	FTEs (2000)	Headcounts	Teaching Staff
Goldfields FET College	2 161	5 138	90
Motheo FET College	4 548	13 631	261
Maluti FET College	1 678	4 732	227
Flavius Mareka FET College	1 542	5 210	93
Total	9 929	28 711	671

[1)] Data sourced from the National Quantitative Study of FET Colleges - The New Landscape (2003: 11)

In 2000, a total of 9 929 FTEs were enrolled in the Free State, representing a headcount of 28 711 students. The average pass rate over newly merged colleges (2000) was 57%, with FET being 53% and post-N3 level being 61%. The age distribution of the total teaching staff of 671 was normal and ranged from 21 to 60 years with the mean ranging between 26 and 40 years.

The teaching staff consisted of 517 lecturers and 81 senior lecturers, of whom 14% had a higher degree, 55% a degree or higher diploma and 19% had a diploma, with the remainder either being under-qualified or having unrecognised qualifications.

The 1998 Quantitative Overview of South African Technical Colleges showed that for most provinces almost 100% of learners were between 15 and 35 years of age – the age group defined by the Youth Commission as “youth”. A sharp drop was observed for students beyond 24, when compared to Australian TAFE colleges where 61% are older than 24 years (National Quantitative Study of FET Colleges - The New Landscape, 2003: 14).

The qualifications awarded by the FET sector over the period 2000 to 2002 are presented in Table 11. Over the three-year period in which data was accessible, a total of 15 812 qualifications were awarded, which implies an average contribution of 5 271 qualifications per annum. Of all qualifications awarded during the 2000 to 2002, 46% ranged between NQF levels 2 to 4, while 54% were awarded at NQF level 5.

TABLE 11: Qualifications awarded by the merged colleges over the period 2000 to 2002

Economic Sector	Qualification Descriptor	NQF Levels 2 - 4			NQF Level 5			
		N1	N2	N3	N4	N5	N6	N Dip
Agriculture	No Contribution	0	0	0	0	0	0	0
Mining	Surface Mining Overseas	0	0	1	0	0	0	0
	Mining	9	0	0	0	0	0	0
	Metalliferous Mining	0	7	1	0	0	0	0
Manufacturing	Chemical Process Control	34	24	14	0	0	0	0
	Clothing Production	0	19	11	12	15	16	2
	Engineering	2395	1919	1521	747	578	325	116
Electricity and Water	No Contribution	0	0	0	0	0	0	0
Construction	Multidisciplinary Office Drawing Practice	0	0	0	0	20	0	0
Trade	Business Management	0	0	0	760	479	262	60
	Human Resource Management	0	0	0	633	478	276	59
	Marketing Management	0	0	0	546	338	162	36
	Business Studies	0	203	205	0	0	0	0
Transport and Communication	No Contribution	0	0	0	0	0	0	0
Finance and Real Estate	Financial Management	0	0	0	219	151	90	9
	Acc and Comp Practice	0	0	0	0	1	2	1
	Business Studies / Accounting Admin	0	0	511	0	0	0	0
Services	Hospitality and Catering Services	0	0	0	183	115	85	28
	Food Services	0	24	36	0	0	0	0
	Public Relations	0	0	0	95	66	31	2
	Public Management	0	0	0	546	413	334	52
	Butchers	3	0	0	0	0	0	0
	Meat Examiners	11	0	0	0	0	0	0
	Management Assistant (Secretarial)	0	32	86	666	359	363	117
	Medical Secretarial	0	0	0	3	7	3	1
	Educare	0	3	21	82	83	86	67
	Hair Care	0	90	32	0	0	0	0
	Cosmetology	0	22	10	0	0	0	0
	Art and Design	2	47	54	29	5	10	2
	Pest Control	1	0	0	0	0	0	0

[1)] Data sourced from the National Department of Education, FET, Pretoria. G Jacobsz, July 2004.

Of the total number of college qualifications awarded, 49% were manufacturing related, with 38% being delivered at NQF levels 2 to 4. The merged colleges therefore contributed predominantly to the economy through the supply of elementary manufacturing-related qualifications (NQF levels 2 to 4).

The second largest contribution of the merged colleges (27% of total qualifications awarded) was related to the service sector with the emphasis at NQF level 5 (24% of total qualifications awarded). The third-largest contribution of the merged colleges (17% of total qualifications awarded) was related to the trade sector with the emphasis at NQF level 5 (15% of total qualifications awarded). The impact of other sector contributions was less than 7% of total qualifications awarded and was ignored.

While the availability of the data did not allow for the analysis of patterns over years, it appeared that the college output remained consistent. In 1998, Department of Education business studies and engineering programmes accounted for 86% of the learners being enrolled at South African FET colleges and 7% of the total national FTEs being enrolled for programmes not registered with the Department of Education.

Examination of the FTE enrolments by vocational field for FET colleges in the Free State for 2000 indicated that provincial FTEs where still dominated by business studies (55%) and engineering (27%), when compared to general education (9%), utility studies (4%), educare and social services (3%) and art/music (2%) (National Quantitative Study of FET Colleges - The New Landscape, 2003: 13).

Over the same period, non-Department of Education FTEs (1545) accounted for 16% of provincial FTEs and dominated in the field of engineering. For this study, qualifications awarded over the period 2000 to 2003 indicated that 93% of students exited the college system with either business or engineering-related qualifications, reflecting stability in the core business of the colleges in the Free State.

Education and training output by higher education in the Free State

The products and services associated with higher education, as well as the changes driving the restructuring of the HE qualifications framework were discussed previously. Broadly, the transformation of HE drives towards effective and efficient education and research, institutional flexibility to pursue curriculum goals, compatibility with international frameworks, user-friendliness, adaptability to changing labour market needs, and articulation from FET to HE. The implementation of this strategy is clearly enhanced through the funding formula (The Higher Education Qualifications Framework – Draft for discussion, 2004: 8, 15).

Higher education in the Free State is provided by two universities, namely the University of the Free State (UFS) and the Central University of Technology, Free State (CUT). The UFS was

established in 1904 and is one of South Africa's oldest universities. The UFS consists of six faculties offering a full range of under- and postgraduate programmes to more than 20 000 students on campuses located in Bloemfontein and in the former Qwa-Qwa in the Eastern Free State. The latter campus was incorporated on 1 January 2003 as part of the restructuring of higher education by the Minister of Education and has approximately 1 500 students. The University is an important centre for research and has close ties with a number of universities on the continent as well as around the world. The vision of the UFS is to be an excellent, equitable and innovative university.

The Central University of Technology, Free State (CUT; formerly known as the Technikon Free State) was established in 1981. The CUT is an internationally recognised, leading Science, Engineering and Technology (SET) institution, which is globally well networked through its Science Park. Three faculties provide quality SET education, career-directed qualifications and enhanced experiential training to almost 10 000 students on campuses located in Bloemfontein and in Welkom. The latter campus was incorporated on 1 January 2003 as part of the restructuring of higher education by the Minister of Education. The vision of the CUT is to progress through science, engineering and technology.

A summary of the qualifications awarded by the UFS and the CUT over the period 2000 to 2003 is presented in Table 12. The following discussion on the contribution per institution to various sectors will be based on the total number of qualifications awarded over 2000 to 2003, with the NQF-level distribution indicated as percentages in parenthesis.

Overall the UFS and the CUT awarded 17 464 qualifications. Of the average of 4 365 qualifications per annum, the UFS awarded 72% of all qualifications.

Of the total qualifications awarded, the UFS contributed 116 qualifications (1%) at NQF level 5; 7 044 qualifications (40%) at NQF level 6, a further 3 794 qualifications (22%) at NQF level 7 and 1 681 qualifications (10%) at NQF level 8. The CUT contributed 75 qualifications (0.4%) at NQF level 5, a further 3 238 qualifications (19%) at NQF level 6; 1 431 (8%) at NQF level 7 and 85 qualifications (0.5%) at NQF level 8.

Core education and training at the CUT revolves predominately around NQF level 6 where for every exit at NQF levels 7 to 8, 2.2 National Diplomas are awarded. As may be expected from a well-established university, qualifications awarded by the UFS weighed stronger towards postgraduate activities where for every exit at NQF levels 7 to 8, 1.3 qualifications were awarded at NQF level 6.

A discussion of the HE qualifications awarded per sector follows.

TABLE 12: Qualifications awarded by the FS higher education sector from 2000 to 2003, by economic sector.[1, 2)]

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
AGRICULTURE						
(Animal Production)	UFS	University Diploma in Agriculture (Animal Production)	0	1	0	0
(Agriculture)	CUT	National Diploma (Agriculture)	0	120	0	0
(Agriculture)	UFS	Bachelor of Agriculture	0	97	0	0
(Agriculture)	UFS	Bachelor of Science in Agriculture	0	111	0	0
(Agriculture)	CUT	Baccalaureus Technologiae Degree (Agriculture)	0	0	111	0
(Agriculture)	UFS	Bachelor of Agriculture Honours	0	0	41	0
(Agriculture)	UFS	Bachelor of Science in Agriculture Honours	0	0	69	0
(Agriculture)	CUT	Magister Technologiae Degree (Agriculture)	0	0	0	15
(Agriculture)	UFS	Master of Agriculture	0	0	0	4
(Agriculture)	UFS	Master of Science in Agriculture	0	0	0	90
(Agriculture)	UFS	Master of Sustainable Agriculture	0	0	0	54
(Agriculture)	CUT	Doctor Technologiae Degree (Agriculture)	0	0	0	3
(Agriculture)	UFS	Doctorate	0	0	0	106
MANUFACTURING						
(Science)	UFS	Bachelor of Consumer Science	0	1	0	0
(Science)	UFS	Bachelor of Science in Home Economics (Educationis)	0	4	0	0
(Science)	UFS	Bachelor of Science Honours in Home Economics	0	0	11	0
(Science)	UFS	Bachelor of Science	0	545	0	0
(Science)	UFS	Bachelor of Science Honours	0	0	332	0
(Science)	UFS	Master of Science	0	0	0	154
(Science)	UFS	Doctorate	0	0	0	15
(Engineering)	CUT	National Diploma (Civil Engineering)	0	126	0	0
(Engineering)	CUT	Baccalaureus Technologiae Degree (Civil Engineering)	0	0	67	0
(Engineering)	CUT	Magister Technologiae Degree (Civil Engineering)	0	0	0	2
(Engineering)	CUT	National Higher Diploma (Electrical Engineering)	0	0	135	0
(Engineering)	CUT	Baccalaureus Technologiae Degree (Electrical Engineering)	0	0	68	0
(Engineering)	CUT	Magister Technologiae Degree (Electrical Engineering)	0	0	0	7
(Engineering)	CUT	Doctor Technologiae Degree (Electrical Engineering)	0	0	0	2

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Engineering)	CUT	National Diploma (Electrical Engineering)	0	128	0	0
(Engineering)	CUT	National Diploma (Mechanical Engineering)	0	62	0	0
(Engineering)	CUT	Baccalaureus Technologiae Degree (Mechanical Engineering)	0	0	30	0
(Engineering)	CUT	Magister Technologiae Degree (Mechanical Engineering)	0	0	0	7
(Engineering)	CUT	Doctor Technologiae Degree (Mechanical Engineering)	0	0	0	2
(IT)	CUT	National Diploma (Computer Systems)	0	38	0	0
(IT)	CUT	National Certificate (Information Technology)	2	0	0	0
(IT)	CUT	National Diploma (Information Technology)	0	169	0	0
(IT)	UFS	Bachelor of Commerce (Information Technology)	0	19	0	0
(IT)	UFS	Bachelor of Science (Information Technology)	0	19	0	0
(IT)	CUT	Baccalaureus Technologiae Degree (Information Technology)	0	0	25	0
(IT)	CUT	Magister Technologiae Degree (Information Technology)	0	0	0	1
ELECTRICITY AND WATER						
(No specific allocations)	N/A	No specific qualifications	0	0	0	0
CONSTRUCTION						
(Architecture)	UFS	Bachelor of Architecture Studiorum	0	96	0	0
(Architecture)	UFS	Bachelor of Architecture	0	92	0	0
(Architecture)	UFS	Master of Architecture	0	0	0	1
(Construction)	CUT	National Diploma (Built Environment)	0	41	0	0
(Construction)	UFS	Bachelor of Science in Construction Management	0	13	0	0
(Construction)	UFS	Diploma in Construction Science and Building Surveying	0	3	0	0
(Construction)	CUT	Baccalaureus Technologiae Degree (Built Environment)	0	0	1	0
(Environmental Mngt.)	UFS	Master of Environmental Management	0	0	0	106
(Property Science)	UFS	Master of Property Science	0	0	0	3
(Quantity Surveying)	UFS	Bachelor of Science in Quantity Surveying	0	75	0	0
(Quantity Surveying)	CUT	Baccalaureus Technologiae Degree (Quantity Surveying)	0	0	18	0
(Quantity Surveying)	UFS	Master of Science (Quantity Surveying)	0	0	0	1
(Urban/Reg. Planning)	UFS	Master of Urban and Regional Planning	0	0	0	45

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
TRADE						
(Admin. and Mngt.)	UFS	Bachelor of Administration	0	129	0	0
(Admin. and Mngt.)	CUT	National Diploma (Business Administration)	0	32	0	0
(Admin. and Mngt.)	UFS	Advanced Diploma in Public Administration	0	0	5	0
(Admin. and Mngt.)	UFS	Bachelor of Administration Honours	0	0	19	0
(Admin. and Mngt.)	UFS	Master of Administration	0	0	0	3
(Admin. and Mngt.)	UFS	Master of Public Administration	0	0	0	31
(Admin. and Mngt.)	CUT	Baccalaureus Technologiae Degree (Business Administration)	0	0	50	0
(Admin. and Mngt.)	CUT	National Diploma (Import /Export Management)	0	49	0	0
(Admin. and Mngt.)	CUT	National Diploma (General Management)	0	36	0	0
(Admin. and Mngt.)	CUT	National Diploma (Management)	0	40	0	0
(Admin. and Mngt.)	UFS	Bachelor of Commerce (General Management)	0	11	0	0
(Admin. and Mngt.)	UFS	Postgraduate Diploma in Hospital Management	0	4	0	0
(Commerce)	UFS	Bachelor of Commerce	0	240	0	0
(Commerce)	UFS	Bachelor of Commerce Honours	0	0	107	0
(Commerce)	UFS	Master of Commerce	0	0	0	23
(Commerce)	UFS	Bachelor of Commerce (Information Technology)	0	19	0	0
(Commerce)	UFS	Bachelor of Commerce (Law)	0	33	0	0
(Commerce)	UFS	Bachelor of Commerce (Risk Management)	0	1	0	0
(Commerce)	UFS	Bachelor of Commerce (Statistics)	0	4	0	0
(Commerce)	UFS	Bachelor of Commerce (Economics)	0	25	0	0
(Commerce)	UFS	Bachelor of Commerce (Agricultural Economics)	0	4	0	0
(Commerce)	UFS	Bachelor of Commerce (Human Resource Management)	0	105	0	0
(Economics)	UFS	Bachelor of Economics	0	50	0	0
(Economics)	UFS	Bachelor of Economics Honours	0	0	11	0
(Economics)	UFS	Master of Economics	0	0	0	7
(HRD)	UFS	Bachelor of Public Management (Human Resource Management)	0	1	0	0
(HRM)	CUT	National Diploma (Human Resource Management)	0	205	0	0
(HRM)	CUT	Baccalaureus Technologiae Degree (Human Resource Management)	0	0	69	0
(HRM)	CUT	Magister Technologiae Degree (Human Resource Management)	0	0	0	3

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(HRM)	CUT	Doctor Technologiae Degree (Human Resource Management)	0	0	0	2
(Leadership)	UFS	Bachelor of Personnel Leadership	0	33	0	0
(Leadership)	UFS	Bachelor of Management Leadership	0	35	0	0
(Leadership)	UFS	Bachelor of Personnel Leadership Honours (Marketing)	0	0	1	0
(Leadership)	UFS	Bachelor of Personnel Leadership Honours	0	0	8	0
(Leadership)	UFS	Master of Personnel Leadership	0	0	0	1
(Leisure and Wellness)	CUT	National Diploma (Sport Management)	0	21	0	0
(Leisure and Wellness)	CUT	National Diploma (Tourism Management)	0	93	0	0
(Leisure and Wellness)	CUT	National Diploma (Hospitality Management)	0	174	0	0
(Leisure and Wellness)	UFS	Diploma of Applied Leisure Science (Exercise and Nutrition)	0	2	0	0
(Leisure and Wellness)	UFS	Bachelor of Sport Development (Exercise, Nutrition and Wellness)	0	17	0	0
(Leisure and Wellness)	UFS	Bachelor of Sport Development (Coaching and High Performance)	0	4	0	0
(Leisure and Wellness)	UFS	Bachelor of Applied Leisure Science (Exercise and Nutrition)	0	1	0	0
(Leisure and Wellness)	UFS	Bachelor of Arts (with Human Movement Science)	0	43	0	0
(Leisure and Wellness)	CUT	Baccalaureus Technologiae Degree (Sport Management)	0	0	9	0
(Leisure and Wellness)	CUT	Baccalaureus Technologiae Degree (Tourism Management)	0	0	18	0
(Leisure and Wellness)	CUT	Baccalaureus Technologiae Degree (Hospitality Management)	0	0	35	0
(Leisure and Wellness)	UFS	Bachelor of Arts Honours (Human Movement Science)	0	0	42	0
(Leisure and Wellness)	CUT	Magister Technologiae Degree (Hospitality Management)	0	0	0	5
(Leisure and Wellness)	UFS	Master of Arts (Human Movement Science)	0	0	0	2
(Leisure and Wellness)	UFS	Bachelor of Commerce (Sport Management)	0	8	0	0
(Marketing)	CUT	National Certificate (Marketing)	1	0	0	0
(Marketing)	CUT	National Diploma (Marketing)	0	158	0	0
(Marketing)	UFS	Bachelor of Commerce (Marketing)	0	53	0	0
(Marketing)	CUT	Baccalaureus Technologiae Degree (Marketing)	0	0	59	0
(Marketing)	UFS	Bachelor of Economics Honours (Marketing)	0	0	4	0
(Marketing)	UFS	Bachelor of Commerce Honours (Marketing)	0	0	12	0
(Marketing)	CUT	Magister Technologiae Degree (Marketing)	0	0	0	2
(Marketing)	CUT	Doctor Technologiae Degree (Marketing)	0	0	0	1
(MBA)	UFS	Master of Business Administration (Health Care Management)	0	0	0	11

Table 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(MBA)	UFS	Master of Business Administration (General Management)	0	0	0	17
(MBA)	UFS	Master of Business Administration (Entrepreneurship)	0	0	0	4
(MBA)	UFS	Master of Business Administration	0	0	0	96
(Pub. & Soc. Syst. Mngt.)	CUT	National Diploma (Public Management)	0	310	0	0
(Pub. & Soc. Syst. Mngt.)	UFS	Bachelor of Public Management Honours	0	0	3	0
(Pub. & Soc. Syst. Mngt.)	UFS	Bachelor of Public Management Honours	0	0	2	0
(Pub. & Soc. Syst. Mngt.)	CUT	Baccalaureus Technologiae Degree (Public Management)	0	0	189	0
(Pub. & Soc. Syst. Mngt.)	UFS	Master in Public Management	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	CUT	Magister Technologiae Degree (Public Management)	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	CUT	Doctor Technologiae Degree (Public Management)	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	UFS	Master of Development Studies	0	0	0	35
(Pub. & Soc. Syst. Mngt.)	CUT	National Diploma (Public Management)	0	310	0	0
(Pub. & Soc. Syst. Mngt.)	UFS	Bachelor of Public Management Honours	0	0	3	0
(Pub. & Soc. Syst. Mngt.)	UFS	Bachelor of Public Management Honours	0	0	2	0
(Pub. & Soc. Syst. Mngt.)	CUT	Baccalaureus Technologiae Degree (Public Management)	0	0	189	0
(Pub. & Soc. Syst. Mngt.)	UFS	Master of Public Management	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	CUT	Magister Technologiae Degree (Public Management)	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	CUT	Doctor Technologiae Degree (Public Management)	0	0	0	1
(Pub. & Soc. Syst. Mngt.)	UFS	Master of Development Studies	0	0	0	35
(Doctorate)	UFS	Doctorate	0	0	0	8
TRANSPORT AND COMMUNICATION						
(No specific allocations)	N/A	No specific qualifications	0	0	0	0
FINANCE AND REAL ESTATE						
(Acc. and Internal Audit.)	UFS	Bachelor of Commerce (Accounting)	0	72	0	0
(Acc. and Internal Audit.)	UFS	Bachelor of Accounting Science	0	202	0	0
(Acc. and Internal Audit.)	UFS	Bachelor of Accounting	0	169	0	0
(Acc. and Internal Audit.)	UFS	Bachelor of Commerce (Actuarial Science)	0	1	0	0
(Acc. and Internal Audit.)	UFS	Bachelor of Commerce Honours (Accounting)	0	0	67	0
(Acc. and Internal Audit.)	UFS	Bachelor of Accounting Honours	0	0	111	0
(Acc. and Internal Audit.)	UFS	Bachelor of Accounting Honours	0	0	62	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Acc. and Internal Audit.)	UFS	Master of Accounting Science	0	0	0	2
(Acc. and Internal Audit.)	CUT	National Diploma (Cost and Management Accounting)	0	160	0	0
(Acc. and Internal Audit.)	UFS	Bachelor of Commerce (Management Accounting)	0	7	0	0
(Acc. and Internal Audit.)	CUT	Baccalaureus Technologiae Degree (Cost and Management Accounting)	0	0	28	0
(Acc. and Internal Audit.)	CUT	Magister Technologiae Degree (Cost and Management Accounting)	0	0	0	1
(Banking)	CUT	National Diploma (Banking)	0	13	0	0
(Banking)	UFS	Bachelor of Commerce (Banking)	0	13	0	0
(Banking)	UFS	Bachelor of Commerce Honours (Money and Banking)	0	0	12	0
(Fin. Planning and Mngt.)	UFS	Postgraduate Diploma in Financial Planning	0	0	916	0
(Fin. Planning and Mngt.)	CUT	National Diploma (Financial Information Systems)	0	15	0	0
(Fin. Planning and Mngt.)	CUT	Baccalaureus Technologiae Degree (Financial Information Systems)	0	0	4	0
(Fin. Planning and Mngt.)	UFS	Bachelor of Commerce (Financial Management)	0	31	0	0
(Fin. Planning and Mngt.)	UFS	Advanced Postgraduate Diploma in Financial Planning	0	0	142	0
(Fin. Planning and Mngt.)	CUT	National Diploma (Internal Auditing)	0	120	0	0
(Fin. Planning and Mngt.)	CUT	Baccalaureus Technologiae Degree (Internal Auditing)	0	0	35	0
(Fin. Planning and Mngt.)	UFS	Bachelor of Commerce Honours (Investment Management)	0	0	8	0
(Taxation)	CUT	National Diploma (Taxation)	0	13	0	0
(Taxation)	CUT	Baccalaureus Technologiae Degree (Taxation)	0	0	24	0
SERVICES						
(Appl. Health Professions)	CUT	National Certificate (Dental Assisting)	66	0	0	0
(Appl. Health Professions)	CUT	National Diploma (Biomedical Technology)	0	52	0	0
(Appl. Health Professions)	CUT	National Diploma (Clinical Technology)	0	96	0	0
(Appl. Health Professions)	CUT	National Diploma (Radiography)	0	91	0	0
(Appl. Health Professions)	CUT	National Diploma (Somatology)	0	79	0	0
(Appl. Health Professions)	CUT	National Diploma (Environmental Health)	0	82	0	0
(Appl. Health Professions)	UFS	Tertiary Education Diploma in Physiotherapy	0	2	0	0
(Appl. Health Professions)	UFS	Bachelor of Science in Physiotherapy	0	105	0	0
(Appl. Health Professions)	UFS	Bachelor of Science in Dietetics	0	66	0	0
(Appl. Health Professions)	UFS	Bachelor of Occupational Therapy	0	123	0	0
(Appl. Health Professions)	CUT	Baccalaureus Technologiae Degree (Biomedical Technology)	0	0	25	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Appl. Health Professions)	CUT	Baccalaureus Technologiae Degree (Clinical Technology)	0	0	75	0
(Appl. Health Professions)	CUT	Baccalaureus Technologiae Degree (Radiography)	0	0	12	0
(Appl. Health Professions)	CUT	Baccalaureus Technologiae Degree (Somatology)	0	0	13	0
(Appl. Health Professions)	CUT	Baccalaureus Technologiae Degree (Environmental Health)	0	0	49	0
(Appl. Health Professions)	CUT	Magister Technologiae Degree (Biomedical Technology)	0	0	0	7
(Appl. Health Professions)	CUT	Magister Technologiae Degree (Clinical Technology)	0	0	0	2
(Appl. Health Professions)	CUT	Magister Technologiae Degree (Environmental Health)	0	0	0	16
(Appl. Health Professions)	UFS	Master of Science in Physiotherapy	0	0	0	3
(Appl. Health Professions)	UFS	Master of Science in Dietetics	0	0	0	6
(Appl. Health Professions)	UFS	Master of Occupational Therapy	0	0	0	2
(Appl. Health Professions)	CUT	Doctor Technologiae Degree (Environmental Health)	0	0	0	3
(Applied Arts)	CUT	National Diploma (Fine Art)	0	31	0	0
(Applied Arts)	UFS	Bachelor of Arts (Fine Arts)	0	13	0	0
(Applied Arts)	CUT	National Diploma (Graphic Design)	0	120	0	0
(Applied Arts)	CUT	National Diploma (Photography)	0	35	0	0
(Applied Arts)	CUT	National Higher Diploma (Clothing and Fashion)	0	0	11	0
(Applied Arts)	CUT	Baccalaureus Technologiae Degree (Graphic Design)	0	0	7	0
(Applied Arts)	CUT	Baccalaureus Technologiae Degree (Photography)	0	0	7	0
(Applied Arts)	UFS	Master of Arts (Fine Arts)	0	0	0	1
(Applied Arts)	CUT	National Diploma (Clothing and Fashion)	0	41	0	0
(Applied Arts)	CUT	Baccalaureus Technologiae Degree (Fine Art)	0	0	15	0
(Arts)	UFS	Bachelor of Arts (Geography and Environmental Management)	0	1	0	0
(Arts)	UFS	Bachelor of Arts	0	283	0	0
(Arts)	UFS	Bachelor of Arts Honours	0	0	193	0
(Arts)	UFS	Master of Arts (Near-Eastern studies)	0	0	0	7
(Arts)	UFS	Master of Arts (History)	0	0	0	1
(Arts)	UFS	Master of Arts (Gender Studies)	0	0	0	1
(Arts)	UFS	Master of Arts	0	0	0	57
(Arts)	UFS	Master of Arts	0	0	0	5
(Arts)	UFS	Doctorate	0	0	0	85

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Communication)	UFS	Bachelor of Arts (Media Studies)	0	12	0	0
(Communication)	UFS	Bachelor of Arts (Integrated Marketing Communication)	0	9	0	0
(Communication)	UFS	Bachelor of Arts (Corporate Communication)	0	20	0	0
(Communication)	UFS	Bachelor of Arts (Communication)	0	59	0	0
(Communication)	UFS	Bachelor of Arts (Communication Science)	0	144	0	0
(Communication)	UFS	Bachelor of Arts Honours (Media Studies)	0	0	2	0
(Communication)	UFS	Bachelor of Arts Honours (Integrated Marketing Communication)	0	0	2	0
(Communication)	UFS	Bachelor of Arts Honours (Corporate Communication)	0	0	9	0
(Communication)	UFS	Bachelor of Arts Honours (Communication Science)	0	0	27	0
(Communication)	UFS	Master of Arts (Media Studies)	0	0	0	4
(Communication)	UFS	Master of Arts (Integrated Marketing Communication)	0	0	0	5
(Communication)	UFS	Master of Arts (Corporate Communication)	0	0	0	7
(Communication)	UFS	Master of Arts (Communication Science)	0	0	0	12
(Drama and Theatre)	UFS	Diploma in Drama and Theatre Arts	0	1	0	0
(Drama and Theatre)	UFS	Bachelor of Arts (Drama and Theatre Arts)	0	32	0	0
(Drama and Theatre)	UFS	Bachelor of Arts Honours (Drama and Theatre Arts)	0	0	1	0
(Drama and Theatre)	UFS	Master of Arts (Drama and Theatre Arts)	0	0	0	2
(Drama and Theatre)	UFS	Certificate in Technical Aspects of the Theatre	5	0	0	0
(Education)	CUT	National Diploma (Education)	0	143	0	0
(Education)	UFS	Adv. Education Certificate (Psych. of Education - Support Teaching)	0	5	0	0
(Education)	UFS	Advanced Education Certificate (Natural Sciences:-Physical Science)	0	2	0	0
(Education)	UFS	Advanced Education Certificate (Natural Sciences: Geography)	0	1	0	0
(Education)	UFS	Advanced Education Certificate (Mathematics Education)	0	4	0	0
(Education)	UFS	Advanced Education Certificate (Language in Education)	0	1	0	0
(Education)	UFS	Advanced Education Certificate (Education Management)	0	112	0	0
(Education)	UFS	Advanced Education Certificate (Curriculum Studies)	0	8	0	0
(Education)	UFS	Adv. Educ. Cert. (Curriculum Sci.-Pre-School and Foundation Phase)	0	8	0	0
(Education)	UFS	Advanced Education Certificate (Curriculum Science: Senior Phase)	0	83	0	0
(Education)	UFS	Advanced Education Certificate (Art Education)	0	11	0	0
(Education)	UFS	Advanced Education Certificate (Agricultural)	0	24	0	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Education)	UFS	Postgraduate Education Certificate (Senior Phase)	0	5	0	0
(Education)	UFS	Postgraduate Educ. Cert. (Further Education and Training Phase)	0	67	0	0
(Education)	UFS	Pregraduate Diploma in Education	0	151	0	0
(Education)	UFS	Nat. Prof. Dip. in Educ. (Senior Phase) Math., Nat. Sci. and Technology	0	2	0	0
(Education)	UFS	National Prof. Diploma in Education (Senior Phase) Languages	0	3	0	0
(Education)	UFS	Higher Education Diploma (Pre-Primary)	0	25	0	0
(Education)	UFS	Higher Education Diploma (Natural Sciences)	0	7	0	0
(Education)	UFS	Higher Education Diploma (Home Economics)	0	8	0	0
(Education)	UFS	Higher Education Diploma (General)	0	33	0	0
(Education)	UFS	Higher Education Diploma (Didactics Help Granting)	0	16	0	0
(Education)	UFS	Education Diploma for the Senior Primary Phase	0	52	0	0
(Education)	UFS	Education Diploma for the Junior Primary Phase	0	32	0	0
(Education)	UFS	Education Diploma (Technical)	0	10	0	0
(Education)	UFS	Education Diploma (Secondary)	0	65	0	0
(Education)	UFS	Diploma in Specialised Education (Remedial Education)	0	6	0	0
(Education)	UFS	Diploma in Education (System)	0	11	0	0
(Education)	UFS	Diploma in Education (Pre- and Junior Primary)	0	32	0	0
(Education)	UFS	Diploma in Education (Junior Primary Phase)	0	64	0	0
(Education)	UFS	Postgraduate Diploma in Education (Psychology of Education)	0	35	0	0
(Education)	UFS	Postgraduate Diploma in Education (Philosophy of Education)	0	3	0	0
(Education)	UFS	Postgraduate Diploma in Education (Higher and Further Education)	0	1	0	0
(Education)	UFS	Postgraduate Dip. in Educ. (Educ. Policy Studies and Governance)	0	94	0	0
(Education)	UFS	Postgraduate Diploma in Education (Education Management)	0	76	0	0
(Education)	UFS	Postgraduate Diploma in Education (Curriculation Studies)	0	13	0	0
(Education)	UFS	Higher Education Diploma (Postgraduate)	0	76	0	0
(Education)	UFS	Higher Education Diploma (Natural Sciences)	0	1	0	0
(Education)	UFS	Higher Education Diploma (Art Education)	0	1	0	0
(Education)	UFS	Higher Education Diploma	0	23	0	0
(Education)	UFS	Diploma in Tertiary Education	0	6	0	0
(Education)	UFS	Bachelor of Secondary Education	0	12	0	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Education)	UFS	Bachelor of Primary Education	0	108	0	0
(Education)	UFS	Bachelor of Education (Technical)	0	3	0	0
(Education)	UFS	Bachelor of Education (Subject Didactics)	0	8	0	0
(Education)	UFS	Bachelor of Education (Psychology of Education)	0	11	0	0
(Education)	UFS	Bachelor of Education (General)	0	33	0	0
(Education)	UFS	Bachelor of Education (Further Education and Training Phase)	0	1	0	0
(Education)	UFS	Bachelor of Education (Education Management and Leadership)	0	371	0	0
(Education)	UFS	Bachelor of Commerce (Education)	0	2	0	0
(Education)	UFS	Bachelor of Arts (Education) with Languages	0	4	0	0
(Education)	UFS	Bachelor of Arts (Education)	0	45	0	0
(Education)	UFS	Further Diploma in Education (Remedial Education)	0	0	20	0
(Education)	UFS	Advanced Education Certificate (Support Education)	0	13	0	0
(Education)	CUT	Baccalaureus Technologiae Degree (Education)	0	0	144	0
(Education)	UFS	Further Diploma in Education (Mathematics)	0	0	5	0
(Education)	UFS	Further Diploma in Education (Educational Management)	0	0	266	0
(Education)	UFS	Further Diploma in Education (Agriculture)	0	0	17	0
(Education)	UFS	Further Diploma in Education	0	0	247	0
(Education)	UFS	Bachelor of Educ. Hons. (Prof. Psych. of Educ. in Therap. Guidance)	0	0	10	0
(Education)	UFS	Bachelor of Educ. Honours (Prof. Educ./Psychology in Educ. Support	0	0	55	0
(Education)	UFS	Bachelor of Education Honours (Prof. Educ. Mngt. and Leadership)	0	0	7	0
(Education)	UFS	Bachelor of Education Honours (Professional Curriculum Study)	0	0	4	0
(Education)	UFS	Bachelor of Education Honours (Professional Curriculum Studies)	0	0	10	0
(Education)	UFS	Bachelor of Education Honours (Policy Studies and Gov. in Education)	0	0	2	0
(Education)	UFS	Bachelor of Educ. Honours (Policy Studies and Authority Relationships)	0	0	30	0
(Education)	UFS	Bachelor of Education Honours (Education/Psych. in Educ. Support)	0	0	11	0
(Education)	UFS	Bachelor of Education Honours (Education Mngt. and Leadership)	0	0	355	0
(Education)	UFS	Bachelor of Education Honours (Curriculum Study of Technology)	0	0	31	0
(Education)	UFS	Bachelor of Education Honours (Curriculum Study in Art)	0	0	1	0
(Education)	UFS	Bachelor of Education Honours	0	0	34	0
(Education)	UFS	Further Diploma in Education (Fine Arts)	0	0	35	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Education)	UFS	Master of Education (Policy Studies and Rel. of Authority Educ.)	0	0	0	5
(Education)	UFS	Master of Education (Philosophy of Education)	0	0	0	3
(Education)	UFS	Master of Education (Educational Management)	0	0	0	4
(Education)	UFS	Master of Education (Curriculation Studies)	0	0	0	2
(Education)	UFS	Master of Education	0	0	0	96
(Education)	UFS	Master of Arts (Higher and Further Education)	0	0	0	24
(Fire Technology)	CUT	National Diploma (Fire Technology)	0	19	0	0
(Governance)	UFS	Master of Governance and Political Transformation	0	0	0	28
(Health Sciences)	UFS	Diploma in Industrial Medicine	0	24	0	0
(Health Sciences)	UFS	Postgraduate Diploma in Geriatric Medicine	0	0	1	0
(Health Sciences)	UFS	Advanced University Diploma in Occupational Health	0	0	40	0
(Health Sciences)	UFS	Bachelor of Medicine and Bachelor of Surgery	0	0	417	0
(Health Sciences)	UFS	Bachelor of Medical Science Honours	0	0	43	0
(Health Sciences)	UFS	Master of Medicine	0	0	0	135
(Health Sciences)	UFS	Master of Medical Sciences	0	0	0	19
(Health Sciences)	UFS	Master of Health Professions Education	0	0	0	3
(Health Sciences)	UFS	Master of Family Medicine	0	0	0	71
(Health Sciences)	UFS	Doctorate	0	0	0	17
(Health Sciences)	UFS	Bachelor of Science in Home Economics (Educationis)	0	4	0	0
(Language Practice)	CUT	National Diploma (Language Practice)	0	57	0	0
(Language Practice)	CUT	Baccalaureus Technologiae Degree (Language Practice)	0	0	41	0
(Language Practice)	CUT	Magister Technologiae Degree (Language Practice)	0	0	0	1
(Language Studies)	UFS	Postgraduate Diploma in Language Practice (Translation)	0	1	0	0
(Language Studies)	UFS	Postgraduate Diploma in Language Practice (Language Management)	0	1	0	0
(Language Studies)	UFS	Postgraduate Diploma in Language Practice (Interpreting)	0	1	0	0
(Language Studies)	UFS	Diploma in Language Practice (Legal Interpreting)	0	2	0	0
(Language Studies)	UFS	Bachelor of Arts (Languages)	0	4	0	0
(Language Studies)	UFS	Advanced Diploma in Translation	0	0	2	0
(Language Studies)	UFS	Advanced Diploma in Interpreting	0	0	26	0
(Language Studies)	UFS	Bachelor of Arts Honours (Languages)	0	0	8	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Language Studies)	UFS	Bachelor of Arts Honours (Language studies)	0	0	4	0
(Law)	UFS	Bachelor of Laws	0	161	0	0
(Law)	UFS	Baccalaureus Procurationis	0	109	0	0
(Law)	UFS	Baccalaureus Iuris	0	28	0	0
(Law)	UFS	Bachelor of Arts (with Law Subjects)	0	5	0	0
(Law)	UFS	Bachelor of Laws (Postgraduate)	0	0	3	0
(Law)	UFS	Bachelor of Laws (Advanced)	0	0	87	0
(Law)	UFS	Master of Laws	0	0	0	63
(Law)	UFS	Doctorate	0	0	0	4
(Library Science)	UFS	Bachelor of Library Science	0	4	0	0
(Music)	UFS	Diploma in Music	0	3	0	0
(Music)	UFS	Bachelor of Music (Three-year Degree)	0	13	0	0
(Music)	UFS	Bachelor of Music (Four-year Degree)	0	4	0	0
(Music)	UFS	Bachelor of Music (Educationis)	0	2	0	0
(Music)	UFS	Bachelor of Music	0	10	0	0
(Music)	UFS	Bachelor of Arts (Music)	0	15	0	0
(Music)	UFS	Bachelor of Music Honours	0	0	8	0
(Music)	UFS	Master of Music	0	0	0	5
(Nursing)	UFS	University Certificate of Pharmacology for Primary Health Care	87	0	0	0
(Nursing)	UFS	University Certificate in Injury Care	9	0	0	0
(Nursing)	UFS	University Certificate in HIV/AIDS Care	12	0	0	0
(Nursing)	UFS	Baccalaureus of Social Science in Nursing	0	229	0	0
(Nursing)	UFS	Baccalaureus of Advanced Nursing	0	244	0	0
(Nursing)	UFS	Advanced University Diploma in Psychiatric Nursing	0	0	6	0
(Nursing)	UFS	Advanced University Diploma in Primary Clinical Health Care	0	0	46	0
(Nursing)	UFS	Advanced University Diploma in Paediatric Psychiatric Nursing	0	0	4	0
(Nursing)	UFS	Advanced University Diploma in Paediatric Nursing	0	0	1	0
(Nursing)	UFS	Advanced University Diploma in Orthopedic Nursing	0	0	1	0
(Nursing)	UFS	Advanced University Diploma in Operational Ward Nursing	0	0	6	0
(Nursing)	UFS	Advanced University Diploma in Occupational Health Nursing	0	0	2	0

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Nursing)	UFS	Advanced University Diploma in Nursing Education	0	0	10	0
(Nursing)	UFS	Advanced University Diploma in Nursing Administration	0	0	1	0
(Nursing)	UFS	Advanced University Diploma in Industrial Health Nursing	0	0	2	0
(Nursing)	UFS	Advanced University Diploma in Health Care Management	0	0	69	0
(Nursing)	UFS	Advanced University Diploma in Forensic Nursing	0	0	2	0
(Nursing)	UFS	Advanced University Diploma in Critical Nursing	0	0	16	0
(Nursing)	UFS	Advanced University Diploma in Critical Care Nursing	0	0	5	0
(Nursing)	UFS	Advanced University Diploma in Community Nursing	0	0	6	0
(Nursing)	UFS	Advanced University Diploma in Clinical Nursing	0	0	1	0
(Nursing)	UFS	Advanced University Diploma in Advanced Midwifery and Neonatology	0	0	3	0
(Nursing)	UFS	Master of Social Science in Nursing	0	0	0	31
(Office Mngt and Tech)	CUT	National Certificate (Office Management and Technology)	6	0	0	0
(Office Mngt and Tech)	CUT	National Diploma (Office Management and Technology)	0	269	0	0
(Office Mngt and Tech)	CUT	Baccalaureus Technologiae Degree (Office Management and Technology)	0	0	57	0
(Office Mngt and Tech)	CUT	Magister Technologiae Degree (Office Management and Technology)	0	0	0	1
(Psychology)	UFS	Master of Social Science (Counselling Psychology)	0	0	0	9
(Psychology)	UFS	Master of Arts (Counselling Psychology)	0	0	0	8
(Psychology)	UFS	Master of Science (Clinical Psychology)	0	0	0	5
(Psychology)	UFS	Master of Science (Counselling Psychology)	0	0	0	5
(Psychology)	UFS	Master of Arts (Clinical Psychology)	0	0	0	9
(Psychology)	UFS	Master of Social Science (Clinical Psychology)	0	0	0	7
(Social Services)	UFS	Bachelor of Social Science in Social Work	0	100	0	0
(Social Services)	UFS	Bachelor of Social Science (Human and Societal Dynamics)	0	2	0	0
(Social Services)	UFS	Bachelor of Social Science	0	384	0	0
(Social Services)	UFS	Postgraduate Diploma in Social Services	0	0	7	0
(Social Services)	UFS	Bachelor of Social Science Honours in Social Work	0	0	5	0
(Social Services)	UFS	Bachelor of Social Science Honours (Human and Societal Dynamics)	0	0	1	0
(Social Services)	UFS	Bachelor of Social Science Honours	0	0	176	0
(Social Services)	UFS	Master of Social Science in Social Work	0	0	0	34
(Social Services)	UFS	Master of Social Science	0	0	0	14

TABLE 12: Qualifications awarded by the FS higher education sector... (continued)

SECTOR (Subfield description)	HE Institution	Qualification Descriptor	NQF Level			
			5	6	7	8
(Theology)	UFS	Certificate in Theology	3	0	0	0
(Theology)	UFS	University Diploma in Theology	0	7	0	0
(Theology)	UFS	Bachelor of Theology	0	14	0	0
(Theology)	UFS	Bachelor of Arts (with Theology)	0	8	0	0
(Theology)	UFS	Advanced University Diploma in Theology	0	0	12	0
(Theology)	UFS	Bachelor of Arts Honours (Theology)	0	0	47	0
(Theology)	UFS	Master of Arts (Theology)	0	0	0	5
(Theology)	UFS	Master in Theology	0	0	0	27
(Theology)	UFS	Magister Divinitatis	0	0	0	4
(Theology)	UFS	Doctorate	0	0	0	26

1) Statistics at a glance (2000 to 2003). Dr Cay van der Merwe, Central University of Technology, Free State.

2) Graduation and Diploma Ceremonies 2000 to 2003. University of the Free State.

Contribution of provincial HET towards agriculture

From 2000 to 2003 the UFS and the CUT awarded 882 agriculture-related qualifications of which the UFS contributed 70%. This figure represents 5% of all local university qualifications awarded and implies an average of 206 qualified individuals per annum.

The UFS contributed 209 qualifications (25%) at NQF level 6, a further 110 qualifications (13%) at NQF level 7 and 254 qualifications (31%) at NQF level 8. The CUT contributed 120 qualifications (15%) at NQF level 6; 111 at NQF level 7 (14%) and 18 qualifications at NQF level 8 (2%).

At the CUT, education and training in agriculture predominantly revolved around NQF level 6 where for every exit at NQF level 7 to 8, about 0.9 National Diplomas were awarded. The UFS emphasised postgraduate output, where 0.6 qualifications at NQF level 6 were awarded for every exit at NQF level 7 to 8.

Contribution of provincial HET towards manufacturing (engineering, information technology and the natural sciences)

During 2000 and 2003 the UFS and the CUT awarded 1 952 qualifications related to the natural sciences, engineering and IT. This figure represents 11% of all local university qualifications awarded and implies an average provision of 488 qualifications per annum. Of these, the UFS contributed 55%.

The UFS awarded all qualifications in the natural sciences (1 062). This figure accounted for 6% of all local university qualifications awarded and implies the provision of 266 qualifications per annum. Over 2000 to 2003, the UFS awarded 550 qualifications at NQF level 6 (52%), a further 343 qualifications at NQF level 7 (32%) and 169 qualifications at the masters and doctoral level (16%).

The CUT delivered all engineering-related qualifications at an average of 160 qualifications per annum, which accounted for 4% of all qualifications awarded. Over 2000 to 2003, the CUT awarded 316 engineering qualifications at NQF level 6 (50%), a further 300 at NQF level 7 (47%) and 20 qualifications at NQF level 8 (3%).

The CUT awarded 93% of all IT-related qualifications at an average of 64 qualifications per annum. IT-related qualifications accounted for 1% of all qualifications awarded. Over 2000 to 2003, the CUT awarded 2 IT-related qualifications at NQF level 5 (1%), a further 207 at NQF level 6 (81%); 25 qualifications at NQF level 7 (10%), and a single IT-qualification at NQF level 8 (1%). The UFS awarded 19 of all IT-related qualifications at NQF level 6 (7%).

Contribution of provincial HET towards architecture, construction and the built environment

From 2000 to 2003 the UFS and the CUT awarded 492 qualifications related to architecture, construction and the built environment. This represents 3% of all local university qualifications awarded and implies an average of 124 qualifications per annum. Of these, the UFS contributed 88%.

The UFS contributed 279 qualifications (56%) at NQF level 6, and 156 qualifications (32%) at NQF level 8. The CUT contributed 41 qualifications (8%) at NQF level 6 and 19 qualifications (4%) at NQF level 7.

Contribution of provincial HET towards trade

From 2000 to 2003 the UFS and the CUT awarded 2 838 qualifications related to trade and commerce (excluding finance-related qualifications). This figure represents 16% of all local university qualifications awarded and indicated the provision of about 710 qualifications per annum. Of these, the CUT contributed 55%.

At the CUT, education and training for the trade sector revolved around NQF level 6 where approximately 75 National Diplomas were awarded for every exit at NQF levels 7 to 8. In comparison, the UFS emphasised advanced higher level qualifications and awarded about two qualifications at NQF level 6 for every postgraduate exit.

Qualifications emphasising leadership and awarded by the UFS accounted for 0.4% of all qualifications awarded at a rate of 20 qualifications per annum. Over 2000 to 2003, the UFS provided 68 qualifications (87%) at NQF level 6, a further 9 qualifications (12%) at NQF level 7; and a single qualification (1%) at NQF level 8.

An average of 17 economics-related qualifications per annum were awarded by the UFS which accounted for 0.4% of all qualifications awarded. Over 2000 to 2003, the UFS provided 50 qualifications (74%) at NQF level 6; a further 11 qualifications (16%) at NQF level 7 and 7 qualifications (10%) at NQF level 8.

The UFS is the only Free State university offering an MBA programme. Output accounted for 1% of all qualifications. The first qualifications were awarded in 2002, and throughput is estimated at an average of 64 qualifications per annum.

Marketing qualifications accounted for 2% of all qualifications awarded and provided an average of 73 qualifications per annum. The CUT awarded 76% of these qualifications. Over 2000 to 2003, the CUT awarded 158 qualifications (54%) at NQF level 6; a further 59 qualifications (20%) at NQF level 7; and 3 qualifications (1%) at NQF level 8. The UFS awarded 53 qualifications (18%) at NQF level 6; and 16 qualifications (6%) at NQF level 7.

The CUT awarded 72% of qualifications related to human resource management. Here, the average of 96 qualifications per annum accounted for 2% of all qualifications awarded by the local universities. Over 2000 to 2003, the CUT awarded 205 qualifications (53%) at NQF level 6; 69 qualifications (18%) at NQF level 7; and 5 qualifications (1%) at NQF level 8. The UFS awarded 106 qualifications (28%) at NQF level 6.

Commerce-related qualifications awarded by the UFS accounted for 3% of all qualifications awarded and an average of 114 qualifications per annum. Over 2000 to 2003, the UFS provided 326 qualifications (71%) at NQF level 6; a further 107 qualifications (23%) at NQF level 7; and 23 qualifications (5%) at NQF level 8.

Qualifications related to general management, administration and social systems development accounted for 5% of all qualifications awarded. This implies an average throughput of 240 qualifications per annum of which the CUT contributed 74%. Over 2000 to 2003, the CUT awarded 467 qualifications (49%) at NQF level 6; 239 qualifications (25%) at NQF level 7 and two qualifications at NQF level 8. The UFS awarded 144 qualifications at NQF level 6 (15%), a further 29 qualifications (3%) at NQF level 7 and 78 qualifications (8%) at NQF level 8. Education and training in this field at the CUT appeared to have revolved around NQF level 6, while the UFS maintained a more balanced approach between lower and higher level qualifications.

Qualifications in the field of leisure, sport, tourism, hospitality and wellness accounted for 5% of all qualifications delivered by local universities at a rate of 119 qualifications per annum. The CUT awarded 75% of all these qualifications. Over 2000 to 2003, the CUT awarded 288 qualifications (61%) at NQF level 6; a further 62 qualifications (13%) at NQF level 7; and 5 qualifications (1%) at NQF level 8. The UFS awarded 75 qualifications (16%) at NQF level 6; 42 qualifications (9%) at NQF level 7; and 2 qualifications (0.4%) at NQF level 8.

Contribution of provincial HET towards the financial sector

From 2000 to 2003 the UFS and the CUT awarded 2228 finance-related qualifications, which represents 13% of all local university qualifications awarded. Of the average output of 557 qualifications per annum, the UFS contributed 81%. The predominant qualifications awarded were the 916 Postgraduate Diplomas in Financial Planning, which represented 41% of all finance-related qualifications.

The UFS awarded 66% of all banking-related qualifications. This accounted for 0.2% of all qualifications awarded by local universities and an average of 19 qualifications per annum. Over 2000 to 2003, the CUT awarded 13 qualifications (34%) at NQF level 6, while the UFS awarded 13 qualifications (34%) at NQF level 6; and 12 qualifications (32%) at NQF level 7.

The UFS also awarded 79% of all qualifications related to accounting and internal auditing. This accounted for 5% of all qualifications awarded by universities and an average of 221 qualifications per annum. Over 2000 to 2003, the CUT awarded 160 qualifications (18%) at NQF level 6; a further 28 qualifications (3%) at NQF level 7; and a single qualification (1%) at NQF level 8. The UFS awarded 451 qualifications (51%) at NQF level 6; a further 240 qualifications (27%) at NQF level 7; and 2 qualifications (1%) at NQF level 8.

Qualifications related to financial planning and management constituted the bulk of the qualifications in the financial sector and represented 7% of all qualifications awarded by universities at an output of 327 qualifications per annum. Of these the UFS awarded 84%. Over 2000 to 2003, the CUT awarded 148 qualifications (11%) at NQF level 6; and 63 qualifications (5%) at NQF level 7. The UFS awarded 947 qualifications (72%) at NQF level 6; and 150 qualifications (11%) at NQF level 7.

Contribution of provincial HET towards the service sector

From 2000 to 2003 the UFS and the CUT awarded 9422 qualifications related to the service sector. This figure represented 54% of all local university qualifications awarded at an average output of 2 360 qualifications per annum. Of these, the UFS contributed 79%. Within the service sector, qualifications related to medical and other health services accounted for almost 20% of all qualifications awarded by universities; education qualifications accounted for about 19%, while all other subfields represented 5% or less of total qualifications awarded.

Of all service-related qualifications, the UFS awarded 116 (1%) at NQF level 5, 4 033 qualifications (43%) at NQF level 6; a further 2 442 qualifications (26%) at NQF level 7; and 861 qualifications (9%) at NQF level 8. The CUT contributed 72 qualifications (1%) at NQF level 5, 1 411 qualifications (15%) at NQF level 6, a further 457 qualifications (5%) at NQF level 7, and 30 qualifications (0.3%) at NQF level 8.

At the CUT, education and training for the service sector predominantly revolved around NQF level 6 where three National Diplomas were awarded for every for exit at NQF levels 7 to 8. A much higher research focus was observed for the UFS where 1.3 qualifications were awarded at NQF level 6 for every exit at NQF levels 7 to 8.

The UFS awarded all specialised psychology qualifications, which accounted for 0.2% of all qualifications awarded by universities, and an average of 11 specialists per annum. Over 2000 to 2003, the UFS awarded 43 qualifications (100%) at NQF level 8.

The UFS also awarded all social service-related qualifications. These accounted for 4% of all qualifications awarded by universities at an average output of 181 qualifications per annum. Over 2000 to 2003, the UFS awarded 486 qualifications (67%) at NQF level 6; a further 189 qualifications (26%) at NQF level 6; and 48 qualifications (7%) at NQF level 8.

Qualifications related to the health sciences were only awarded by the UFS and accounted for 4% of all qualifications. Of the average throughput of 205 qualifications per annum, the UFS awarded 28 qualifications (3%) at NQF level 6, a further 501 qualifications (65%) at NQF level 7 and 245 qualifications (32%) at NQF level 8.

Nursing qualifications accounted for 5% of all qualifications, with the UFS awarding an average of 198 qualifications per annum. Over 2000 to 2003, the UFS awarded 108 qualifications (13%) at NQF level 5, a further 473 qualifications (60%) at NQF level 6; 181 qualifications (23%) at NQF level 7 and 31 qualifications (4%) at NQF level 8.

Applied health profession-related qualifications accounted for 6% of all qualifications at an average output of 244 qualifications per annum. Of these, the CUT awarded 69%. Over 2000 to 2003 the CUT awarded 66 (7%) qualifications at NQF level 5, a further 400 (41%) qualifications at NQF level 6, 174 (18%) qualifications at NQF level 6 and 28 (3%) qualifications at NQF level 8. The UFS awarded 296 (30%) qualifications at NQF level 6 and 11 (1%) qualifications at NQF level NQF level 8.

The drama- and theatre-related qualifications awarded by the UFS accounted for 0.2% of all qualifications awarded by universities at an average output of 10 qualifications per annum. Over 2000 to 2003, the UFS awarded 5 qualifications (12%) at NQF level 5, a further 33 qualifications (80%) at NQF level 6, a single qualification at NQF level 7 (2%) and 2 qualifications (5%) at NQF level 8.

The UFS also awarded all music-related qualifications which represented 0.3% of all qualifications awarded by universities at an average output of 15 qualifications per annum. Over 2000 to 2003, the UFS awarded 47 qualifications (78%) at NQF level 6, a further 8 qualifications (13%) at NQF level 7 and 5 qualifications (8%) at NQF level 8.

The UFS awarded all theological qualifications. These represented 0.9% of all qualifications awarded by universities at an average rate of 38 qualifications per annum. Over 2000 to 2003, the UFS awarded 3 qualifications (2%) at NQF level 5, a further 29 qualifications (19%) at NQF level 6, 59 qualifications (39%) at NQF level 7 and 62 qualifications (41%) at NQF level 8.

The CUT awarded most (67%) of the language-study-related qualifications. These accounted for 1% of all qualifications awarded by universities at an average of 37 qualifications per annum. Over 2000 to 2003, the CUT awarded 57 qualifications (39%) at NQF level 6, 41 qualifications (28%) at NQF level 7 and 1 qualification (1%) at NQF level 8. The UFS awarded 9 qualifications (6%) at NQF level 6 and 40 qualifications (27%) at NQF level 7.

Qualifications related to the applied arts accounted for 2% of all qualifications and an average output of 70 qualifications per annum. Of these, the CUT awarded 95%. Over 2000 to 2003, the CUT awarded 227 qualifications (81%) at NQF level 6 and 40 qualifications (14%) at NQF level 7. The UFS awarded 13 qualifications (5%) at NQF level 6 and 1 qualifications (0.4%) at NQF level 8.

The CUT awarded all office management qualifications. These accounted for 2% of all qualifications awarded by universities at an average output of 83 qualifications per annum. Over 2000 to 2003, the CUT awarded 6 qualifications (2%) at NQF level 5, a further 269 qualifications at NQF level 6 (81%); 57 qualifications at NQF level 7 (17%) and a single (0.2%) qualification at NQF level 8.

The UFS awarded all law-related qualifications representing 3% of all qualifications awarded by universities at an average output of 115 qualifications per annum. Over 2000 to 2003, the UFS awarded 303 qualifications (66%) at NQF level 6, a further 90 qualifications (20%) at NQF level 7 and 67 qualifications (15%) at NQF level 8.

Qualifications in the general arts by the UFS totalled at 633 representing 4% of all qualifications awarded by universities at an average output of 158 qualifications per annum. Over 2000 to 2003, the UFS awarded 284 qualifications (45%) at NQF level 6, a further 193 qualifications (30%) at NQF level 6, and 156 qualifications (25%) at NQF level 8.

The UFS awarded 312 qualifications related to communication. These accounted for 4% of all qualifications awarded by universities at an average output of 78 qualifications per annum. Over 2000 to 2003, the UFS awarded 244 qualifications (78%) at NQF level 6, a further 40 qualifications (13%) at NQF level 7 and 28 qualifications (9%) at NQF level 8.

Qualifications related to the field of education represented 19% of all qualifications awarded by universities at a rate of 837 qualifications per annum. Of these qualifications, the UFS awarded 93%. Over 2000 to 2003, the CUT awarded 143 qualifications (4%) at NQF level 6 and144 qualifications (4%) at NQF level 7. The UFS awarded 1 788 qualifications (53%) at NQF level 6; 1 440 qualifications (34%) at NQF level 7 and 134 qualifications (4%) at NQF level 8.

THE MATCH BETWEEN FREE STATE MACRO-ECONOMIC DEVELOPMENT POLICIES AND THE FREE STATE EDUCATIONAL SYSTEM

In the field of educational planning, sector analysis is considered as the first step in strategic planning. This approach narrows the gap between the desired goals and objectives and the *status quo* at the least cost (Kemmerer, 1994: 56).

In the first phase of this report, the Free State province's macro-economic drivers and key growth and development areas were examined. Secondly, the composition and output of the Free State provincial educational system was analysed. The objective of this section is to determine whether demand (macro-economic objectives) was matched by supply (the educational system). The results derived from the analyses in the first two phases were combined and are presented in Table 13.

Based on aggregate results over 2000 to 2003, the magnitude of the Free State educational system is estimated at 22 485 individuals who have either passed Grade 12 with endorsement or successfully exited a college or university.

Of all qualifications, the secondary school sector contributed 60%, the merged college sector 23% and the university sector 17%. The college sector awarded 1.3 qualifications for every university qualification. This ratio reflected that the role and contribution of the merged college sector in the province's educational system is not yet fully realised. It may even be that the higher education sector has accommodated students who could have been more successful in the FET sector. With the emphasis on access, success and research in the new HE funding framework, it is likely that such practice will cease as early as January 2005.

At least 70% of individuals in the Free State provincial educational system were qualified up to NQF level 4 and exited with a senior certificate with endorsement. A further 12% were qualified up to NQF level 5. Ten percent of individuals were qualified at NQF level 6, while 5% exited at NQF level 7 and 2% at NQF level 8.

While the sharp drop in the provision of NQF level 5 qualifications is concerning, it presents an opportunity for the Free State FET sector to provide NQF level 5 qualifications aligned to macro-economic initiatives, especially in the field of SET.

Although agriculture does not contribute significantly towards the Free State economy, the sector remains an important source of direct employment opportunities. Within this sector a general diversification of existing commodities to decrease the business risk and to produce niche commodities was advised, for example, game farming, aquaculture in existing dams, etc. The educational system responded by delivering 2% of all qualifications awarded by Free State educational systems. These qualifications were mostly delivered at NQF level 6 and higher levels.

TABLE 13: Contribution of the FS educational system to the FS economic strategy

Sector	Opportunity and growth descriptor	Educational System Output (estimated number of qualifications per annum)							
		FET (Sec. Schools)	**FET**	**FET**	**HET**	**HET**	**HET**	**HET**	**Sector Con-tribu-tion (%)**
		NQF 2–4	**NQF 2-4**	**NQF 5**	**NQF 5**	**NQF 6**	**NQF 7**	**NQF 8**	
Agriculture	Stable. Niche agricultural areas seem promising. Max value adding at farm level; linkages to tourism.	Failed Total = 21 713 Senior Certificate SET Skills: 2 765 Pract. Skills: 221 IT Skills: 221 Tourism: 888 Bus. Skills: 2 102 Social Skills: 4 867 Total: 11061 Senior Certificate with endorsement SET Skills: 4 101 Pract. Skills: 0 IT Skills: 138 Tourism: 547 Bus. Skills: 3 144 Social Skills: 5 331 Total: 13 670	0	0	0	83	56	69	2
Mining	Notable decline. Challenge to create an alternative economy in the Goldfields while mines are still operational. Window estimated at 10 years.		6	0	0	0	0	0	0
Manufacturing	Slight decline. Jewellery cluster (accredited design school and incorporation of local designs) and value adding to petrochemicals seems promising		1979	604	1	269	167	49	33
Electricity and Water	Slight decline.		0	0	0	0	0	0	0
Construction	Slight decline.		0	7	0	80	44	0	1
Trade	Slight decline. Domestic tourism development seems promising.		136	782	0	451	161	98	18
Transport and Communication	Slight growth.		0	0	0	0	0	0	0
Finance and Real Estate	Notable growth.		170	158	0	430	124	2	10
Services	Significant growth.		158	1 278	29	1 008	610	215	36
Informal Sector	Link to mainstream economy. Determine and satisfy needs.		-	-		-	-	-	-
	TOTAL	13 670	2 249	2 829	30	2 321	1 162	433	100
	NQF Level contribution (%)	70		12		10	5	2	100
	System contribution	Secondary Schools: 60%	Merged College Sector: 23%		FS University Sector 17%				100

The mining sector is declining and will likely continue to do so. Intervention strategies are being developed to identify opportunities to replace the declining mining sector and to use the mining infrastructure for alternative purposes. Almost no mining-related qualifications were awarded.

The manufacturing sector revolves around the petrochemical plants at Sasolburg and contributes meaningfully towards the provincial economy. While it is not labour intensive, the sector adds much value to the economy. The manufacturing sector is largely based on SET-related expertise.

A third of all qualifications awarded by the Free State educational system were SET-related. The merged college sector responded well by awarding 5.3 qualifications for each university graduate.

It is unlikely that the electricity and water sector will become a driver of the provincial economy, and the provincial educational systems responded as such.

The construction sector has the proven ability to generate much opportunity for BEE and emergent entrepreneurs. However, the sector in itself cannot be a driver of the provincial economy. Approximately 1% of all qualifications awarded were related to the construction sector. All qualifications were awarded at the higher education level.

The trade sector is mostly a function of the disposable income levels of the community. Notable growth occurs in the informal sector and in tourism-related activities. Moreover, local government is stimulating this sector through various tangible initiatives. Trade-related qualifications accounted for 18% of all qualifications delivered by the Free State educational system, mostly at NQF level 6 and higher. The merged college sector awarded 0.8 qualifications for every university graduate.

The transport and communication sector plays an important support role in the economy, but is not seen a major economic driver. Almost no qualifications were provided in support of this sector.

The finance and real estate sector generates a notable contribution to the provincial sector and tends to be a function of the aggregate economy, rather than a driver in itself. Finance-related qualifications accounted for 10% of all equalisations delivered by the Free State educational system. These qualifications were predominantly delivered at the higher levels of learning. The college awarded 0.6 equalisations for every university graduate.

Government service has become a significant contributor to the provincial economy, and a major employer. While this sector adds very little real value to the economy, it plays an important role in increasing the aggregate purchasing power. Qualifications related to the service sector accounted for 36% of all qualifications delivered by the Free State educational system. These qualifications were predominantly delivered at NQF level 6 and higher. The college sector awarded 0.7 qualifications for every university graduate. Noteworthy is the synergy between the provision of health-related qualifications and the health and medical sub-sector. The possibility of an oversupply of teaching-related qualifications may require a more thorough analysis.

CONCLUSION

The demand for human resources in the Free State province is defined by its macro-economic strategy. The supply of human resources is defined by the output of the Free State education and training system. The objective of this report was to determine whether demand and supply were matched.

The evidence presented in this report suggests that the output by the provincial education and training system, especially HET, was aligned to macro- and sectoral economic strategies. Opportunities for growth exist within the FET sector, where more students may be absorbed in NQF level 5 qualifications. While current legislation restricts FET activities to NQF levels 2 to 4, the productivity of the educational system may be enhanced through regional partnership models facilitating NQF level 5 education and training aligned to regional macro-economic strategy. While education and training at NQF level 5 is certainly not the core business of HE, partnership models in defined areas would benefit HE success strategies. In addition, quality of education and training within the FET sectors could be positively stretched though interaction with the provincial HE sector.

Of great concern is that the number of matriculants have declined by 21% over the period 2000 to 2003. The impact of HIV/AIDS, teenage pregnancies and the lack of available jobs were suggested as possible explanations. Also of interest is that if it were not for teenage pregnancies, more than 56% of matriculants would have been female, which raises the question: Where have all the young men gone?

In addition, most individuals leaving the secondary school system with a senior certificate with endorsement have little hope of finding employment. This poses a provincial threat and emphasises the role of the provincial FET sector.

Unfortunately, the number of people qualified at NQF level 5 or higher, exceed the number of jobs by far. These individuals are not absorbed into the provincial economy and the province's educational system has become a means to find a job beyond the provincial borders.

The highest priority therefore remains the stimulation of economic growth in the Free State. The educational system will respond accordingly.

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