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An investigation on the expenditure and number trained by big companies in South Africa

Gavin George Surgey

A dissertation submitted to the Higher Degrees Committee of the School of Economic and Business Sciences, Faculty of Commerce Law and Management, University of Witwatersrand in fulfilment of the requirements for the degree for Master of Commerce (Economics) by research

October 2010
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Declaration

“I hereby declare that this is own unaided work, the substance of or any part of which has not been submitted in the past or will be submitted in the future for a degree in to any university.”

_____ _____

(name of candidate) Signed

Signed this _____ day of _____ 2010 at _____.

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in memory of Professor Anthony Lumby

who guided me throughout my higher education

Abstract

This paper investigates the nature of company investment in training. A survey was undertaken in 2007 of 106 large companies operating in South Africa to examine the size of expenditure on training by these firms, the beneficiaries of the training; and investigate firms' attitudes towards such programmes. Both the level of firm spending, and the proportion of payroll it amounts to are significant. The study reveals that businesses are acutely aware of the risks of skills shortages and their role in mitigating the risks to themselves. It also finds that investment into training and development is directly and largely driven by a need to increase productivity, profitability, and sustainability as companies try to proactively address a lack of skilled labour.

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LISTS OF ABBREVIATIONS, SYMBOLS, FIGURES AND TABLES

ASGISA	Accelerated and Shared Growth Initiative for South Africa
ATR	Annual Training Report
BBWG	Big Business Working Group
BLSA	Business Leadership South Africa
BMI	Business and Marketing Intelligence
BUSA	Business Unity South Africa
CIOB	Chartered Institute of Building
CSI	Corporate Social Investment
DOL	Department of Labour
DTI	Department of Trade and Industry
ETQA	Education and Training Quality Assurance
FET	Further Education and Training
GG	Government Gazette
GN	Government Notice
HET	Higher Education and Training
HR	Human Resource
HRD	Human Resource Development
HSRC	Human Sciences Research Council
JIPSA	Joint Initiative for Priority Skills Acquisition
JTT	Joint Task Team
LFS	Labour Force Survey
MTA	Manpower Training Act
NBI	National Business Initiative
NLRD	National Learner Record Database
NSA	National Skills Authority
NSC	National Senior Certificate
NSF	National Skills Fund
NTSI	National Training Strategy Initiative
NQF	National Qualifications Framework
NSBA	National Small Business Act
NSDS	National Skills Development Strategy
RPL	Recognition of Prior Learning
SAQA	South African Qualifications Authority
SDA	Skills Development Act
SETA	Sector Education and Training Authority
SIC	Standard Industrial Classification
SMME	Small, Medium and Micro Enterprise
SOE	State Owned Enterprise
TSBP	Technical Skills Business Partnership
WSP	Workplace Skills Plan

BANKSETA Bank SETA

CHIETA	Chemical Industries Training Authority
CTFL	Clothing textiles footwear and leather
CETA	Construction Education and Training Authority
DIDTETA	Diplomacy, Intelligence, Defence and Trade Education and Training Authority
ETDPSETA	Education Training and Development Practices SETA
ESETA	Energy SETA
FASSET	Financial and Accounting Services
FOODBEV	Food and beverages
FIETA	Forest Industry SETA
HWSETA	Health and Welfare SETA
ISETT	Information Systems, Electronics and Telecommunications Technologies
INSETA	Insurance Training Authority
LGWSETA	Local Government SETA
MAPPP	Media, Advertising, Publishing, Printing and Packaging SETA
MQA	Mining and Minerals Sector
MERSETA	Manufacturing, Engineering and Related Services
POSLEC	Police, Private Security, Legal, Correctional Services and Justice SETA
PAETA	Primary Agriculture Training Authority
PSETA	Public Service Sector Training Authority
SETASA	Secondary Agriculture Sector Education and Training Authority
THETA	Tourism and Hospitality Training Authority
TETA	Transport Training Authority
W&RSETA	Wholesale and Retail SETA

1 BACKGROUND AND INTRODUCTION TO THE STUDY

1.1 BACKGROUND

South Africa's long-term economic prospects depend heavily on the productivity of its workforce. Productivity is largely dependent on workers possessing appropriate skills. And skills are influenced primarily by education, training, and experience.

Concerns over the shortage of priority skills in the country prompted discussions within the Joint Task Team (JTT) of the Joint Initiative for Priority Skills Acquisition (JIPSA) regarding the role that businesses play with respect to education, training and skills development in South Africa. Following from these discussions and some commercial interest in this area, a survey into the training expenditures and training initiatives within publicly listed and large unlisted firms was commissioned.

The actions of large companies, be it job creation or job losses, have the most significant effect on the economy as a whole. And it is because of the impact of these businesses on the economy, relative to smaller firms, that the study centers on large businesses. Past studies examine companies covering the entire population of firms – small, medium and large, or alternatively focused solely on a specific sector, as did the Ekurhuleni Manufacturing Survey (Machaka *et al.* 2007).

The business survey explores the levels of training; size of expenditure; sectoral volumes; and numbers trained, among other things. It is unique in that no prior research of this nature has been undertaken in South Africa. Before the survey there was little in the way of evidence to demonstrate the extent to which firm expenditure on training diverged from or converged towards the minimum requirement (i.e. the 1 percent skills levy which firms are required to pay). Data from the survey is also valuable in identifying skills gaps in the workforce on a national scale, because the data show the sectors, levels, and trade areas where the firm-sponsored training is concentrated or lacking. This kind of evidence could enable decision-makers in government and business to arrive at how best corporate interests and national needs can be aligned, and how they may derive mutual benefits. If implemented properly,

training initiatives could successfully address South Africa's skills shortage; improve productivity; and contribute to GDP growth.

However, critical to the understanding of the issues outlined about, is the basic question as to what drives corporate investment into training and staff development. Of specific interest are the drivers of private sector investment into education and training within the FET (further education and training) and HET (higher education and training) bands. This begs the question: to what extent does firm-sponsored programmes for the unemployed compare to that provided for their employees, at whom the training is aimed? In addition, what types of programmes are being supported? Is training needs-based or haphazard? Is it based on pressure surrounding government policies? What are firm attitudes to benefits and costs of training? It is questions like these that are at the core of this investigation and will allow us to establish companies role in skills training, and the training activities taking place in the corporate sector.

1.2 INTRODUCTION

The nature of the South African economy has created challenging circumstances for policy makers. Economic growth is critical if the country hopes to diminish the urgent problem of its high unemployment rate. A decrease in unemployment is crucial, as it will naturally have a positive impact on the poverty rate by providing more people with jobs and a sustainable source of income.

South Africa's long-term capacity for growth in the economy rests on its ability to increase the productivity of its people. One of the key determinants of productivity is the level of skills that workers possess. Bhorat and Lundall (2002) found that a 10 percent increase in training expenditure led to a 1.6 percent increase in total output. Similarly, international research finds a statistically and economically significant effect of training on value added per head (Dearden *et al.* 2000, Bartel 1994, Blandy *et al.* 2000).

The increase in training expenditure is associated with higher-level skills; these skills are directly applied to the production process and hence greatly affect the growth of the economy. The attainment of skills necessary to improve productivity is

determined by various factors such as education, training and experience. While experience is exogenously determined, education and training, on the other hand, are amenable to improvement. These factors thus have particular relevance to this study.

Productivity is dependent on a certain level of skills, and by implication, on education level, making education a crucial ingredient for economic success. A central point of interest is the source of this education, and in particular, the question of who is responsible for the training of individuals. Either government or business could be assigned this responsibility, or a combination of the two in partnership. This is a point of some contention raised first by Becker (1964) more than fifty years ago. The complexity arises from the debate of who becomes the ultimate beneficiary of the training, the employer or the employee – or even the country. Employees benefit from higher wages; employers benefit from higher profits (the unemployed, if structurally employed, benefit from the potential of being employed). Ultimately, everyone stands to benefit from increased training, but who takes ownership of the responsibility for it?

The economic literature points to an increase in human capital leading to an increase in productivity. Studies show that training undertaken by firms leads to an increase in productivity. This not only aids firms to increase profits, but also to keep up with the technological progress needed to compete against global players. The impact is not only seen in the increased productivity of staff, but also in their job loyalty. Many South African firms have commented that investing in their workforce has had a major impact on their staff turnover. The costs of replacing staff are so high that it is a cheaper and more beneficial option to train workers and improve the likelihood of retaining staff for longer terms.

Becker (1964) and Mincer (1974) attempt to differentiate between general and specific training in order to assign responsibility (who should bear the cost) to each form of training. In reality, it is not so simple. The majority of training implemented can be categorised as general training, which sees employees receiving the greatest benefit. On Becker and Mincer's model, this would suggest employees should be responsibility for the majority of their own training. However, these employees are not necessarily in the position to invest in their own education and training. This

discrepancy between theory and implementation arises because of imperfect information.

In South Africa, government implicitly forces firms to pay for training – by charging a training levy. Firms have the option of instigating training themselves and then claiming back the levy, or simply paying out the levy directly in the case where no training has been done[1]. In the case of perfect competition and full employment (neo-classical economics), this would distort the market – perfect competition being a market in which all firms produce homogeneous goods, and full employment being an economy in which all persons are willing and able to work (and able to find jobs). In reality, there are market imperfections, as neither of these conditions exists in our current day situation. The conditions experienced are imperfect in the following ways:

- Full employment does not exist and workers are unlikely to leave their jobs in seek of higher paying ones, for fear of unemployment. (South Africa's high unemployment rate only escalates this dilemma.)
- Markets are not truly competitive as big firms have more market power than small firms.

Given that there is a shortage of skills, (skilled) workers have more power in the labour market. They have the flexibility to move around, and be selective in their choice of job. All firms want and need skilled workers, and skilled workers can 'shop' for the best company. Companies attempt to buy an individual's loyalty to the firm by investing in that individual – mutually benefiting both the employer and the employee.

Big firms have more market power than small firms as they have greater buying power. They could offer more incentives along with further career development. Economies of scale come into play, as large firms are able to offer more to an individual than a smaller firm can. Big firms can exploit economies of scale with respect to labour and training costs. This competitiveness held by large firms can also be extended to that for obtaining the 'best labour', suggesting firms would be inclined

[1] Although firms are never fully able to claim back the entire levy paid.

to train their staff to improve the overall skills levels of their employees, while also buying their loyalty to keep them from moving elsewhere.

It is not always a case of companies attempting to buy loyalty; generally, companies claim always to put their staff's interests at heart, and uphold that they care about their people. W.H. Hutt[2] taught that if businesses cared for their people and society the business would succeed (Ackerman 2004). He explained that a division between caring and making profits would not exist because if profit-making became your whole being then you couldn't exist. Ackerman (2004) said that in his experience (within the Pick 'n Pay retail chain) that it was an absolute fact that the more they ploughed into staff benefits, the more they gave to charity, the more their profits rose.

Discussions with companies have exhibited a sense of value for the employee. There is common agreement that a company's strength is based on the employees' strength. It is clearly recognised that there is a need for investment in employees. Of course it is also one of the areas in which spending is likely to be cut back in times of financial difficulty (as experienced with the global recession of 2008/09/10). Some companies however have argued that this is not necessarily the case, and have stressed that now is the time for an even more efficient productive workforce, as it is what would reduce their overall cost.

Some argue that the contribution business makes in education and training cannot be too significant, as this would affect their bottom line. A company's main responsibility is to its shareholders, and shareholders are primarily concerned with bottom line profits – shareholders return. Companies are indeed rational economic agents, and expenditure on training is an expense to a company which should affect its profits. Consequently, if an expenditure on training affects profits negatively then it does not make sense to spend on training; however, if expenditure on training can by some means have a positive effect on profits, then training will most likely be implemented within a company.

[2] English economist (1899 – 1988)

How important is education and training? Chris Humphries (chief executive for the Commission for Employment and Skills in the UK) puts the UK's skills shortage as "costing the country billions of pounds" (Peacock 2008). An increase in training could reasonably be expected to lead to an increase in profits through an increase in productivity (measured by total factor productivity). This increase in profits would be brought about by an increase in efficiency and various other factors that result from training. Humphries (Peacock 2008) "is certain that if the UK improves its skills base by 2020, British productivity will win 100 times over" (Peacock 2008: 1).

This is an indication of other countries feeling the effects of skills shortages, and the response has been to address the problem through training, which has a positive effect on productivity.

Spending on training also ensures a lower turnover rate of staff within companies. A decrease in turnover decreases costs. Germany and Japan were shown to have a high training rate, and a low quitting rate, whereas the United States inversely had a low training rate and a high quit rate (Acemoglu and Pischke 1998; Blinder and Krueger 1996).

Another argument for education and training is the part they play in ensuring sustainability. Given the current skills crisis and given that the average age of qualified artisans is approximately 54 years old (Fauconnier 2005), a dwindling existence of skills could mean that a few years from now companies will be unable to continue operating due to the lack human resources. As Dr Con Fauconnier, chief executive of Kumba Resources and outgoing president of the Chamber of Mines, points out:

> The current average age of a qualified SA artisan is 54 years. What this means, [assuming] a quite generous ongoing 10-year working existence for artisans who are now economically active, is that by 2015 there will be a dangerously short supply of artisans available to ply their trades in the industrial and commercial sectors (Fauconnier 2005).

This effect is not only felt locally; within the UK, a construction skills study has shown that "since the early 1990s the number of older workers – aged 60 and over –

has doubled, whereas the number aged 24 and under has fallen by 27 percent" (Institute of Leadership and Management 2008).

1.3 SKILLS SHORTAGES

There is growing competition in the global market for skills, which has led to skilled people emigrating from South Africa to take up more lucrative positions, and life in 'greener pastures'. The current 'brain drain' or 'skills flight' within South Africa has exacerbated the skills shortage, and the declining immigration numbers have been unable to compensate for this.

Skills shortage is currently a global phenomenon. The reason so many countries have opened their doors to skilled labour is that developed 'first world countries' too, are facing a skills constraint. Competition for skills is being fought on a global playground; South Africans are being 'shopped for' in a global labour market.

Many firms in South Africa see skills shortages as a major constraint on their firm's growth. "In 2006, a report by global information and technology company IDC found that South Africa would be unable to fill almost 114,000 IT jobs by 2009 if there was no urgent intervention to deal with the shortage" (IOL 2008a). Similarly, Robert Wakeling, of the 4G consulting and international technical recruitment agency, said demand for South African engineers in the international market had doubled in the past five years, and he declared that the skills pool in the country shrinking (IOL 2008b).

A 2005 survey of South African businesses by the World Bank questioned domestic and foreign firms about investment climate within the country. Constraints most often mentioned were the lack of skilled labour, labour relations and crime. A survey conducted by the American Chamber of Commerce in South Africa (2005) reinforced these views.

A skills shortage costs money for an economy. Although no figure exists for South Africa, the "Australian Council of Trade Unions calculates that the skills shortage in traditional trades is set to cost the Australian economy up to $735 million a year in

lost output – or in real terms almost $9 billion over the next ten years" (Australian Council for Trade Unions 2004: 3).

The shortage of skilled people within South Africa has been recognised as a huge constraint to achieving the economic growth that is necessary to reduce poverty by means of employment:

> The single greatest impediment is shortage of skills – including professional skills such as engineers and scientists; managers such as financial, personnel and project managers and skilled technical employees such as artisans and IT technicians (Mlambo-Ngcuka 2006).

The government's ASGISA (Accelerated and Shared Growth Initiative for South Africa) also identifies skills shortages as one of six binding constraints limiting economic growth in South Africa.

> **Shortage of suitably skilled labour amplified by the cost effects on labour of apartheid spatial patterns**. Those parts of the legacy of apartheid most difficult to unwind are the deliberately inferior system of education and the irrational patterns of population settlement. In a period of growth it is evident that we lack sufficient skilled professionals, managers and artisans, and that the uneven quality of education remains a contributory factor. In addition the price of labour of the poor is pushed up by the fact that many live a great distance from their places of work (Mlambo-Ngcuka 2006).

Concern about the skills shortage led to the establishment of JIPSA (Joint Initiative for Priority Skills Acquisition). Its former head, the then Deputy President Phumzile Mlambo-Ngcuka, has described the skills shortage as a potentially "fatal constraint" on ASGISA (Mlambo-Ngcuka 2006).

The shortage of skilled workers in South Africa not only impedes growth, but also has an indirect effect on inflation. 'Supply side' inflation is derived from a lack of supply of goods and services in the economy. In South Africa at present, there are simply too many people chasing too few goods and services in the economy. This forces the market into competitive bargaining situations in which people are willing to pay increasingly higher prices in order to acquire goods and services that are less readily

available. Due to the shortage of skilled workers, South Africa is unable to produce sufficient goods or services required to sustain the current needs of the economy.

The term 'skills shortages' consists of multiple facets, but at its heart is the phenomenon whereby the demand for certain skills exceeds supply. Labour supply, in the discourse of labour economics, refers to the individuals who participate in the labour market with given characteristics of human capital. Labour demand, on the other hand, refers to entities that employ individuals. The relationship between these two helps form and shape the nexus between labour demand and supply. The focus of the data within the paper is to examine the supply side – the private sector training providers.

'Skills shortages' is defined differently according to the respective viewpoints of economists and the government. Traditionally, economists view the most important aspect of any discussion of skills is their relationship to productivity in the firm. Government, however, defines skills shortages without accounting for this relationship. Shortages here are defined in both absolute and relative terms, but quite noticeably neither of these concepts is related to productivity (Daniels 2007).

Given this inconsistent definition, it becomes necessary to further clarify the various components of skills shortages. Within the Department of Labour's Organising Framework for Occupations, a 'skill' is defined as the ability to perform competently the roles and tasks associated with an occupation (Foodbev SETA 2006). To that, the following notions are introduced – scarce skills and critical skills.

'Scarce skills' refer to those occupations in which there is either an absolute scarcity of these skills or a relative scarcity. Absolute scarcity implies a total lack of suitably skilled people, due either to the introduction of a new or emerging occupation (e.g. information technology), an insufficient number of workers with specific skills, or insufficient numbers to satisfy replacement demand (Foodbev SETA 2005). Relative scarcity on the other hand refers to the situation in which suitably skilled people are available, but do not meet other employment criteria, such as residing in different geographical areas or not satisfying employment equity criteria (Foodbev SETA 2006).

'Critical skills' refers to specific key or generic skills and specific 'top-up' skills within an occupation. These skills include cognitive skills, language and literacy or numeracy skills, and the ability to work in teams for example. Top-up skills are required for performance within an occupation to fill a 'skills gap' that may have arisen because of changing technology or new forms of work organisation (ibid).

Skills shortages do not however only revolve around scarce and critical skills. One of the central tenets of Andre Kraak's work (2004, 2005) has been that an emphasis on 'high skills' alone is insufficient in a developing economy such as South Africa. Kraak notes that exclusive emphasis on the 'high skills' strategy ignores the tough conditions and constraints that developing economies face in their attempts to move up the value chain (2004). As a result, we should think of 'skills shortages' as comprising everything from advanced qualifications to the most elementary, and 'skills development' as either something that may be needed for different people at different stages of their life cycle, or over the business cycle, or likely both (Daniels 2007)

The growth achieved by the South African economy introduced a labour market mismatch whereby quality and quantity of skills supplied do not match those demanded by employers. Graduate unemployment has grown from 6.6 percent to 9.7 percent between 1996 and 2006 (Paton 2006:24). This implies that tertiary institutions are supplying graduates whose skills are not matched to those demanded by the market and indicates that the country not only suffers from a skills shortage but also a skills deficit (Bhorat 2004; Johnston and Bernstein 2007; Paton 2006:24; Pitsoe 2007:23). The quality of education and the skills of graduates supplied clearly do not meet the labour market needs whilst the country is constituted by a knowledge-based economy constrained by a skills shortage.

To investigate further whether there is real skills crisis, it is necessary to look at the numbers of skills required more closely. Due to the fact that the skills crisis extends over many sectors, the built environment was selected for examination[3] and a short

[3] The data that was considered and methodology can be found in Appendix G.

analysis of this is done in the subsection that follows. The built environment was selected as it is one of the sectors severely affected, and with the increase in demand in the infrastructure requirements in the run up to the world cup, it is seen as a major constraint.

1.3.1 Skills Crisis within the Built Environment

Related to these capacity pressures is the issue of inflation and rising costs; the Construction Industry Development Board (CIDB) notes that the increased pressure on the capacity of the construction sector has had implications on all costs – not only human resources. By the end of 2005, construction costs had increased almost 85 percent compared to the general PPI increase of 40 percent since 2002. The increase in material costs has been significantly higher than other production costs (60 percent as opposed to 40 percent) and human resource costs have attracted a premium of 30 percent to retain people (Sudeo 2007).

The national scarce skills list estimates the magnitude of scarcity to be at 3,875 for general and project managers (including construction managers). Demand for construction projects (which is derived from major infrastructure projects) indicates that there is a demand for 2,452 general managers and a further 6,928 construction managers. Taking into account the current scenarios and applying a growth model, Merrifield (2006) estimates the demand to be at 1,114 for the year 2010.

The CETA SETA has prioritised civil engineering draftspersons and technicians, claiming the shortage to be of an urgent status. The national scarce skills list (DoL 2007) has estimated the magnitude of scarcity to be at 5,360 while the demand required from the major infrastructure projects is at 340. Using a growth model, Merrifield (2006) estimates the demand to be at around 515 for the year 2010.

As has been mentioned earlier, the skills shortage is not only felt locally, but also internationally. A skills survey (held in 2008, the United Kingdom) by the Chartered Institute of Building (CIOB) found that a shortage in skills will continue to be a challenge for the built environment, and one that will worsen as the demand for

construction work increases. Nine out of ten respondents in the UK survey believed the UK construction industry is currently suffering a skills shortage.

1.4 BUSINESSES VOICE ON SKILLS

Various newspaper reports are now examined in order to determine the attitude of the business sector towards the skills situation in South Africa[4].

> "As good as skills development legislation is, we still have a dearth of really good technical training programmes at skilled worker level… Because many of the new learnership systems haven't been properly implemented yet and are still in a transitional phase, the delivery of skills isn't where it should be."
>
> - *Martin Wescott, MD, PE Corporate Services* (*Business Day* 26 May 2006)

> "The shortfall of welders in the country has been estimated at as much as 12 000 by some… In 2004 Kumba resources hired welders in Germany to upgrade furnaces in South Africa because the skills were not available in South Africa… as few as six people obtained internationally recognised welding qualifications in South Africa – compared with 2000 in Germany – in the last five years. Half of the handful who qualified in South Africa are now employed abroad."
>
> - *Jim Guild, executive director, Southern African Institute of Welding,* (Lourens 2006)

> "With the onset of mass retirements due to the age profile of engineers, there would only be a net gain of 20 to 30 engineers a year for the next five to ten years."
>
> - *Alysson Lawless, former president, SA institute of civil engineers,* (Cokayne 2006)

[4] These extracts are primarily taken from *Johnston, S. and Bernstein, A. (2008) Skills, Growth and Migration Policy. CDE In Depth Issue 5 / February 2007.* The Centre for Development Enterprise, Johannesburg.

"South Africa has 37 government departments and 284 municipalities. Government departments, in particular need about five chartered accountants each. They are presently nowhere (near) that number."

- *Patrick Maranya, project director, South African Institute of Chartered Accountants,* (Temkin 2005)

"It is clear that developing countries like South Africa will experience the [age] shift as the existing technical skills base is similar to developed countries. This presents a daunting task, considering we are confronted by a huge scarcity of economy critical technical skills."

- *Dudu Nyamane, human resources director, IBM SA,* (Nyamane 2005)

"We have to address the skills constraint at the low end fairly easily as it only takes a few months to train a bricklayer or a plasterer, but to train a project manager to handle a multi-billion rand project takes many years… once my generation retires, we [will] have a gap. We lost around 60 000 highly skilled people in the 1990s to places like the Middle East and Ireland, as there were not enough jobs here to keep them busy."

- *Mike Lomas, CEO, Group 5 Construction, (*Business Report 21 July 2005).

"Sasol cannot find the mechanics, welders and riggers it needs as it alters its refineries to meet government demands to phase out leaded fuel. We will have to import, for the peak of the workload, about 2000 qualified artisans."

- *Jannie van der Westhuizen, human resources director, Sasol,* (Cohen 2005).

"In every single boardroom I go into, executives always come up with the same, number one obstacle – skills."

- *Iraj Abedian, former chief economist, Standard Bank,* (Haffajee 2002 and Watters 2004)

> "South Africa's financial management and auditing sector is searching in vain for 22,030 qualified accountants… a total vacancy rate of between 7 and 12 is indicative of a skills shortage in financial operations."
>
> - *The South African Institute of Chartered Accountants (SAICA)* (News24.com: 5 November 2008)

The Centre for Development and Enterprise conducted a survey on the skills crisis in 2007. Skills issues were clearly identified by these companies as the "greatest single source of frustration – well ahead of high and fluctuating input costs, competition from imports, compliance with government regulations, and problems in meeting BEE requirements" (Schlemmer 2007:3).

From what industry leaders have to say about skills, it is clear that there is a shortage, either in terms of the numbers of skilled people or in the lack of skills that existing people have in the workforce. This poses a threat to the wellbeing of their business hence it is a problem that needs to be addressed.

This combination of high unemployment and shortage of skills means that education and training are an undeniably fundamental mechanism that could decrease the currently high unemployment figures.

1.5 GOAL OF THE STUDY

From the previous section, it can be concluded that there is a skills shortage clearly preventing business from operating properly. Alongside the skills crisis is a dire need to increase economic growth within the country to deal with issues such as unemployment and poverty. The question of dealing with the skills shortage can only be dealt with once the current situation is fully understood – and what measures are currently in place. Only once this is fully understood can it be addressed, and thenceforth determined whether a new strategy needs to be adopted or if a more unified support system must be established.

Based on the emergent need for research on this point, an attempt to address labour supply questions will begin. A detailed review and understanding of the training and

initiatives by big business within the various sectors is the main focal point of this research paper.

Companies' role in education and training.

This reflects the crux of the research and the difficulty is how the measurement of company investment in education training and skills is reflected. If it is viewed from any one particular angle it can paint a distorting picture. The goal of the study is to reflect, at an angle that is as accurate as possible, companies' role in education and training – of both employees and the unemployed.

Generally, companies all invest at some level or another in training. This is highlighted within annual reports, and often used as a means to attract talent (prospective employees) to the company. Nowhere previously has this information been put together to form a single baseline of the amount, and nature of training undertaken by big businesses within South Africa.

What first must be understood is that this is an issue entirely separate from what a company views as its good corporate social responsibility – giving back to a community. It is an issue of long term sustainability, and driven by profit incentives. If there was no profit incentive, then there would be no rational economic explanation for this behaviour. Companies, owned by share holders, are rational economic agents and behave accordingly.

Toward the end of this paper this hypothesis of the rationale behind spending on education and training is tested by interviewing a small selection of companies but this will not have any reflection on the overall results of the analysis of companies' investment.

To assess companies' role in education and training this is first measured in terms of the amount spent given in ZAR (South African Rands). Following this we measure the number of people trained. Both factors are necessary so as to avoid a case of

where there is high expenditure on few people (expensive long courses), or low expenditure over a large number of people (individual short courses)[5].

If it is companies' priority it would be expected that their role to be great and thus to have a high level of spending as well as training a large number of individuals.

One way of measuring the amount companies spend is against the required 1 percent skills development levy. Hence the question is asked

Are companies spending more than the required 1 percent skills development levy?

This study, with the aid of the survey data, aims to establish the following:

- The extent to which large companies in South Africa are supporting skills development, both for their own employees and for the unemployed/pre-employed
- The kinds of skills development activities that these companies are supporting, including the types of programmes
- The existing costing and funding mechanisms for training within these companies

From the main objective, a number of subordinate objectives can be derived:

- To give an overview of the number of employees that benefit from education and training programmes within further or higher education and training bands
- To give an overview of the number of unemployed (or pre-employed) that benefit from education and training programmes within further or higher education and training bands
- To give an overview of the expenditure by companies on education and training programmes; and finally:
- To understand why all of the above is taking place.

[5] Many training institutions are been scolded for reflecting a high number of individuals trained but only been given short courses which overall aren't of great beneficiary. Much of this is as a result of the NSDS which sets training targets but does not give levels at which individuals need to be trained at.

Finally, drawing back on the original question, it is appropriate to ask: "Is it in companies' best interest to spend on education and training?" The answer to this should ultimately lead to companies' decision on the extent in which to invest in education, training and skills development.

1.6 DELIMITATION OF THE STUDY

The learning pathways that are taken include:

- Learnerships
- Apprenticeships
- Internships
- Skills programmes
- Bursaries for Further Education and Training
- Bursaries for Higher Education
- Bursaries for Schools

Other forms of support include:

- Financial Support for Further Education and Training Institutions
- Financial Support for Higher Education and Training Institutions

The education and training programmes subject to analysis in this study span across all possible programme and sector types. The duration of such programmes range from one day long (skills programmes) to three or four years long (apprenticeships and bursaries for Higher Education). Training can occur in-house or out-house, and anywhere from technikons to universities and other training institutions. The focus of the study is the number of people that are receiving support or training and the amount being spent by companies.

1.7 RESEARCH METHODOLOGY

To answer the research question, a number of issues will be examined prior to the analysis of data. Firstly, economic literature will be reviewed to give a greater insight on productivity and training as well as an overview of the training occurring internationally – both in terms of the levels and types of training that exist. This will serve to explain the necessity of conducting a study on training. The economic theory

points to an increase in training having a positive impact on a company, from an empirical as well as a theoretical perspective. Both international and local studies have reported positive effects of training on productivity, which is one of the reasons for the need to measure the extent of the training being undertaken within South Africa.

To put training into perspective within the South African context, an overview of the national policies that are in place will be presented. A description of the skills development activities that are currently taking place will then be provided. Some key indicators of learners trained will also be given, to begin an assessment of the current training occurring within the public sector. Unfortunately, due to the variation between the nature of the government-funded training taking place (SETAs etc.) and that of the private sector companies (companies in this study), no direct comparisons can be made. Government-funded training is, however, presented in this paper to make the reader aware that training is in fact also taking place outside of the private sector's intervention.

Before the actual data is analysed, it is appropriate to look at other firm surveys of a similar nature that have already been conducted. As mentioned before, no other study has examined the collective contribution that *big business* specifically within South Africa is making to skills development. This is one of the primary reasons for undertaking research of this kind. The other surveys available focus primarily on SMMEs[6] (small medium and micro enterprises) and a few large companies, in which 'large' constitutes around 100 workers. It is, however, imperative to understand fully the contribution that big business makes in the contribution of education training and skills development, as the training implemented by these companies would have the most notable impact on the economy as a whole.

The results of these other firm studies are not questioned as this falls beyond the scope of this paper. The results are presented merely for an indication of what is occurring within companies that are not looked at in this examination. The ways in which the

[6] SMMEs are defined in different ways depending on the Act and the specific sector. The National Small Business Act (NSBA, 1996:2) is based on the number of employees (where maximum 50 employees is small and a maximum of 200 is medium – although in certain sectors a maximum of 100 is medium), as well as annual turnover and asset value of enterprises.

results from previous studies are analysed and interpreted are used to guide the descriptions of data at hand. Key indicators for data analysis are drawn bearing in mind the presentation of the other research findings from South African studies. Although no direct comparisons are made as the contexts (samples) among the various studies are different, one can identify a few trends between sectors and company sizes.

Finally, the research question of this study will be answered in the form of a collective analysis of 106 companies' education and training data, including numbers trained, support given, and amount spent. The results of the data are then tested via a small number of telephonic interviews conducted from a sample of participating companies. The telephonic interviews are also used as a means to gain insight into a few businesses' motivation for participation in training. Here businesses are able to voice their objectives for training individuals.

The economic literature plays an important role in guiding the qualitative interviews. The interviews are also used to relate back to the earlier literature studies that pointed to the positive effects of training, such as productivity. As productivity is not measured within data given, qualitative questions are presented to the respondents to ascertain if the findings of the literature review were applicable within a South African context.

Quantitative data analysis is conducted by means of descriptive statistics incorporating cross tabulation. The results are presented from different perspectives where possible, to avoid expounding a biased or restricted analysis. This aids the reader to make his or her own judgment beyond that which is presented here.

1.7.1 Survey Design

The survey was designed for a report to the then Deputy President in order to demonstrate the size of the expenditure, and nature of training taking place. Prior to this government had no data on the role that large companies played within education and training. An outline of the survey was drawn up by Mr Bobby Godsell and senior business leaders. This was then sent to the team collecting the data (including myself

and a colleague) who developed the instrument further and sent it back to the originating business leaders and Mr Godsell for approval. Once this was approved and finalised it was sent out to approximately 150 companies. The companies were selected by the National Business Institute (NBI) as well as myself. The members of the NBI received the survey via the NBI and further correspondence was directed to myself and a colleague. I further proceeded to select a sample of companies who had not been in the original selection of companies and contacted them directly requesting them to participate.

1.7.2 Survey Participants

Once the survey was finalised it was sent to approximately 150 companies, comprising the following:

- The top 100 listed companies
- The top 25 unlisted companies
- Business Leadership South Africa (BLSA) members
- National Business Institute (NBI) members
- Big Business Working Group (BBWG) members

A copy of the questionnaire (Appendix A), as well as a full list of those companies that responded to the survey (Appendix B), are attached in the annexure. The first survey was sent out on the 15th of May 2007 by the National Business Institute, Business Unity South Africa, other business associates and myself. Companies were requested to complete the survey and submit it within ten days. A number of companies requested an extension, as particularly larger companies had to compile data across a number of subsidiaries. By 7th June 2007, 82 companies had completed and submitted the survey and, in many cases, had also provided further documents that provided greater insight into the skills development activities of the company. In the cases of some of these companies, I made follow-ups to request further data when the survey had a final review. I also made further follow-ups to query possible data errors. This enabled a more accurate view of the data, though it cannot eliminate all errors.

By the beginning of October, a total of 106 companies[7] had completed and submitted the survey. This research integrates all of this information and considers in more depth some of the questions that were raised in reference to the first draft. It deserves to be noted here that the extent to which business responded should be regarded a considerable achievement and speaks to the strong commitment of business to participating in this process.

It is possible that selection bias may have taken place, and that companies who responded did so knowing that they spend on education and training. When companies were analysed individually it could be seen that there was very little correlation between the training taking place between companies, and that results were unique. All companies who were members of BLSA, NBI and BBBW were requested to participate, which they did. In this instance selection bias was avoided as there was a complete sample What could further be argued is that companies who are not members of these business groups are not contributing to education and training – if that is the case then the number of these companies are not significant. It can further be stressed that the focus is only on big businesses within South Africa which makes the number of companies finite. Although this has not been specifically quantified, the vast majority of them are included in the sample.

In the research undertaken, companies were requested to provide data for a period of a year. It was agreed that this period could be either for a financial year (which means that the data would be for the 2006/2007 period) or a calendar year (which means that the data is for 2006), depending on the logistics model used by the company to keep its data. The picture provided thus outlines the skills development activities that take place within one particular year in a company. Restricting the data period for a year serves both to provide an important snapshot of what skills development is taking place and to limit the extent that there will be double counting of individuals receiving skills development, as it is unlikely that a significant number of individuals will participate in a multitude of programmes within the period of a year. It is also further assumed that companies' training programmes are not of a sporadic nature and should

[7] Note that data was captured as they were submitted, in some cases several companies that are subsidiaries of a larger group are therefore captured individually.

remain fairly constant, or have an upward trend to accommodate growing needs within the company.

It is important to note that some companies did not provide data in response to particular questions, when this occurred, that company was excluded from the analysis of that specific question (thus a drop in the sample size). The number of respondents to a particular question is therefore important and this is indicated (sample size) within the relevant tables. Furthermore, when more detailed analysis is undertaken, if a company is excluded from that piece of analysis, all of their data is excluded (i.e. numbers trained *and* amount spent). So, if a company indicates the amount spent on training and does not give the number of learners trained, both would be excluded from the sample. Various methods of analysis are also utilised which allows the information to be presented from different angles in order to avoid adopting a limited one-sided perspective.

1.7.3 Research Design

The majority of the present analysis will be undertaken around the following sectors: manufacturing, community and personal social services, mining, financial, construction, wholesale and retail, and state owned enterprises (SOE). An analysis will also be done in terms of the sizes of companies, namely those of category 1, category 2 and category 3. Where there is enough data and if there are notable points of interest, a further breakdown will examine a particular sector within a category.

It would not be possible to do a complete analysis of every sector within each category due to the number of companies within that group of sampling being too small to make accurate inferences. Care is also taken not to direct any analysis that distinguishes direct company participation, as all information received was disclosed at a confidential level. The information presented is merely a representation of the existing dynamics among different sized companies and those falling between various sectors. Participants in the analysis (the companies) are potentially able to use this information for their individual needs, allowing them to see where they fit in relation to the norm of their sector. That said, this document is not intended for use as a template for training, it would always be better if companies did more in terms of

their own training. This document does however reveal that companies are in fact playing a part in terms of education and training, and for that businesses in South Africa should be commended.

1.7.3.1 Sample sizes

This section provides an overview of the companies that participated in this process, in terms of staff numbers, race, gender and disability figures. The respondents are then organised into sectors in terms of the SIC (standard industry classification) codes (with the exception of Eskom and Transnet which have been located in a single category – that of State Owned Enterprises). This categorisation is as follows:

- Manufacturing
- Community and Personal Social Services
- Mining
- Financial
- Construction
- Wholesale and Retail
- State Owned Enterprises

This categorisation facilitates the identification of patterns and trends, although it should be noted that in some cases companies may overlap several categories – for example a manufacturing company may also be involved in wholesale and retail activities. In these cases, companies are classified based on their primary activity and in terms of their own description.

The companies are then further analysed according to size, the categorisation of which occurs in the following way:

- Category 1: greater than 10 000 employees
- Category 2: between 2 000 and 10 000 employees
- Category 3: less than 2 000 employees

The table below indicates the total number of companies, as well as the companies that fall into the three category sizes indicated.

Table 1-1: Companies in each category size

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	State -Owned Enterprises	Overall
Total Companies	39	6	20	17	14	8	2	106
Category 1	2	0	5	5	1	6	2	21
Category 2	18	2	7	8	2	0	0	37
Category 3	19	4	8	4	11	2	0	48

These categorisations are not consistent with Department of Trade and Industry classifications pertaining to small, medium and large, as the clustering in this report relates entirely to the number of employees (full time and part time) clustered specifically in the companies that submitted data as part of this survey. If measured according to the National Small Business Act (NSBA), categories 1, 2 and 3 above would classify all the companies in our analysis as large and, in fact, an analysis of these companies indicates that *only nine could not be considered large* (three of these are in Manufacturing Category 3; four are in Construction Category 3; one in Community and Personal Social Services; and one in Wholesale and Retail in Category 3). Thus, these three categories should only be seen as a way of slicing the sample in different ways to establish whether or not there are any trends that relate to sectoral context and/or number of employees. These categories should not be read as an analysis of skills development activities in small and medium enterprises. Rather, it suggests trends within large companies, albeit with a different range of numbers of employees within that category.

1.7.3.2 An Overview of the Companies that Participated in the Survey

The table that follows highlights the number of companies that participated in the survey and the sectors in which they are located for the purposes of this analysis. The table also includes figures from the labour force survey (LFS) using March 2006 figures. This represents the number of people employed in the sector across all category sizes throughout the country. The final row shows the percentage of staff covered by this survey.

Table 1-2: Number of staff from participating sectors

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	State Owned Enterprises	Overall
Total Companies	39	6	20	17	14	8	2	106
Total number of staff	139,729	14,073	262,148	181,338	29,252	192,832	86,948	906,320
Number of Staff in overall sector (LFS Mar. 2006)	1,200,000	1,842,000	442,000	1,551,000	458,000	1,407,000	357,000[8]	7,257,000
Proportion of working staff covered by sample	12%	1%	59%	12%	6%	14%	24%	12%

The overall number of staff covered by the sample were 906,320, this is approximately 12% of the working (employed) population within sectors covered in this survey. The sizes vary between sectors, with the mining sector having the highest number of companies sampled and the highest staff complement overall. This can be explained by the fact that the majority of mining companies are very large due to economies of scale, and as a result a high proportion of those companies participated in this survey. Sectors where companies that are smaller by nature, would have less participants such as the community and personal social services.

The overall proportion of staff captured by this survey is shown to be 12%, although when taking into account the averages of the sector this is 18%. As it is hard to align the LFS sectoral categorisations the proportion of staff covered by sample may be subject to some deviation. Although, from this, it could be conclude with a high degree of certainty is that the number of staff covered in this survey account for between 12% and 18% of the overall formal employment within the sector.

The difference in the size of each sector, i.e. the number of companies per sector, as well as the number of employees that these companies include, should be kept in mind throughout this report. For example, it will not be meaningful to compare the actual number of individuals trained by the companies in construction with the number of individuals trained by the manufacturing companies. However, there will be an

[8] This is made up of both the transport, storage and communication industry as well as the electricity, gas and water supply industry as the LFS does not have a separate category for SOE but both of the companies covered fall into those two sectors.

analysis of the percentage of employees trained, as well as the ratio of staff to unemployed and these percentages will provide some useful and interesting points of comparison.

1.8 DEFINITIONS OF, AND APPROACHES TO, KEY CONCEPTS

Data that would be most utilised from the survey would be that pertaining to:

- Category size
- Sector
- Number of employees
- Type of training programme
- Number of learners participating per programme
- Amount spent on total training
- Amount spent on training per programme

Category size

Each company is placed into one of three category sizes: small, medium and large. These sizes are not necessarily the same sizes as those defined by the National Small Business Act.[9]

Sector

Each company is placed in one of eight sectors, namely: manufacturing; community and personal social services; mining; financial; construction; wholesale and retail; and state-owned enterprises.

Number of employees

This is the number of employees per company; all companies listed the number of employees both part time and full time.

[9] SMMEs are defined in different ways depending on the Act and the specific sector. The National Small Business Act (NSBA, 1996:2) is based on the number of employees (where maximum 50 employees is small and a maximum of 200 is medium – although in certain sectors a maximum of 100 is medium) ,as well as annual turnover and asset value of enterprises

Type of training programme

The type of training programme refers to the learning intervention. Possible programmes include: learnerships, apprenticeships, internships, etc.

Number of learners participating per programme

The numbers of learners that have undertaken programmes within the given financial year are given and the number that is employed and unemployed are differentiated between.

Amount spent on total training

The total amount (ZAR) spent on training is defined. There are times when this also includes sundry costs associated with training, such as accommodation and transportation, which are not direct costs of training; unfortunately, companies did not always differentiate between the direct and indirect costs of training.

Amount spent on training per programme

The amount spent on training per programme (as defined above). This often is simply defined as the direct training cost per programme.

1.9 OUTLINE OF CHAPTERS

1. INTRODUCTION

This chapter formed the introduction of the thesis, providing the background of the study and arguing for the necessity of such a study. An outline of the theoretical perspective selected is laid out with a detailed description of the methodology used and further details regarding the types of companies that were selected to be participants in the study.

The South African government sees the skills shortage among the present and emerging workforce as the single greatest impediment to continued growth. The aim of the research is to investigate what business is doing in terms of skills and training and what their motivation for doing so is. To answer this, a sample of companies was asked to complete a detailed survey on what they spend on training and how many people they have trained. This is further analysed in terms of the various sectors (i.e. manufacturing, mining etc.) as well as company size.

Business has for a long time claimed to have been contributing to the skills development within the economy, but it has never been established what they have done collectively. This paper seeks to fill this epistemological gap and also serves to provide an overview (within chapter 3) of any other training that has occurred within the SETAs.

2. LITERATURE REVIEW

This section takes into account the available economic literature related to various aspects of this study. Firstly, human capital is looked at, as this is a fundamental principle behind the training of people. Secondly, the impact that training has on productivity is established. There have been various econometric studies which have attempted to investigate whether training does in fact have an impact on productivity and if so, what that impact is. Studies show there is a great impact on a company's productivity if they undertake training and, it seems, many countries are now encouraging companies to spend in this area. Other aspects such as training policies are also examined.

The second half of the chapter describes other similar sorts of research that has occurred within South African enterprises regarding the subject of training. The only other research around this topic have had a focus primarily around SMMEs and a few larger companies, with these companies being around 100 workers. The results of these studies are not questioned as this falls beyond this scope of this paper. They are however presented, merely for an indication of what is occurring within other companies, the description of which is used to guide the design of the analysis at hand.

3. NATIONAL POLICIES AND SKILLS DEVELOPMENT ACTIVITIES WITHIN SOUTH AFRICA

This chapter provides a brief review of the current policy framework with a view to understanding the aims and objectives of the skills development system and the institutional arrangements established to achieve these aims and objectives. The National Skills Development Strategies are outlined, followed by an overview of the SETAs.

Various learning activities or routes can be taken to obtain formally accredited training which could or do lead to qualifications. This chapter takes a look at some of the routes that are investigated in this study, such as Skills Programmes, Learnerships and Apprenticeships.

The overall training achievements by the SETAs are presented as a means to give an overview of the public sector participation within training.

4. FUNDING OF TRAINING AND EDUCATION

This section considers the amount that companies are spending on training and where exactly the spending is taking place. This is then reviewed as a percentage of payroll – that is, what companies are spending on training over and above the levy measured in terms of their payroll spend. It then considers the manner in which companies are accessing their levy monies back through the Mandatory and Discretionary Grant Schemes. Finally, there is an analysis of how various sectors allocate training spend and an analysis of how this expenditure can be translated into unit costs.

5. FURTHER EDUCATION AND TRAINING BAND (FET)

This section explores the number of individuals who benefited from education and training provision during a one-year period within the 106 companies that responded to the survey. The data provided in terms of the FET band relates to programmes and support provided for learners within the FET Band (levels 2-4 on the NQF) and analyses this information in terms of:

- Programmes that directly culminate in a qualification
- Short programmes resulting in formal certification but which represent only a partial qualification
- Programmes that do not lead to national certification
- Learning support provided to individuals within the FET band
- Financial support provided to individuals within the FET band

This analysis is intended to enable the reader to ascertain the numbers of individuals participating in these different programme types and the numbers receiving support.

This information is then disaggregated further to provide an understanding of how this differs across sectors and according to the size of companies (in terms of the three defined categories).

6. HIGHER EDUCATION AND TRANING BAND (HET)

This section again explores the number of individuals who benefited from education and training provision during a one-year period, but this time data is provided in terms of the HET band. This relates to programmes and support provided for learners within the HET Band (levels five and upwards on the NQF) and further analyses this information in terms of:

- Learning support provided to individuals within the FET band
- Financial support provided to individuals within the FET band

This analysis is intended to enable the reader to ascertain the numbers of individuals participating in these different programme types and the numbers receiving support. This information is then disaggregated further to provide an understanding of how this differs across sectors and categories of company size.

7. AN OVERARCHING ANALYSIS OF PROVISION

Here the analysis moves on to combine the numbers of the previous two sections to give a greater overall picture. This section explores the percentage of staff that typically benefit from education and training programmes during a one-year period. It also considers the ratio between the numbers of unemployed individuals who benefit from skills development in comparison to the total number of employees within a particular company. It is suggested that this provides a meaningful point of comparison across companies and sectors, given the differences in the numbers of companies and employees covered within each of the sectors. This analysis also evaluates the data in terms of the sectors considered in this survey. This is done with the intention of realising and understanding whether the nature of the sector has a significant impact on the kinds of programmes that are supported. This analysis is also completed in terms of the three categories.

8. CAPACITY AND MOTIVATION FOR TRAINING

A brief overview of companies' capacity for providing internal training is given, looking at the facilities they have and the areas of support that specific companies give.

This section also incorporates the small qualitative section where companies' motivation for providing this sort of training is examined, taking into account the interviews with internal training providers or HR personnel within large companies.

9. DISCUSSION AND CONCLUSION

This final section will provide a synopsis of the key issues emerging from the study. Based on these conclusions, recommendations can be drawn for further study into the Private Sector's contribution to education, training and skills development, especially in relation to JIPSA's targets.

2 LITERATURE REVIEW

2.1 ECONOMIC LITERATURE

Becker set the underlying theory for responsibility of training – whose responsibility it should be for training – companies or individuals. This chapter of the paper examines who provides the training – who pays for it - and then who benefits from it. The benefits are seen in most notably in the effects on productivity. Once all the theory behind training and training policies has been examined, the second half of this chapter goes on to examine a few comparative studies undertaken on training within South Africa.

This section begins by taking a look at human capital, the fundamental concept behind the investment in education skills and training. Becker was one of the pioneers of this concept, but he developed it under the neo-classical perspective which does not necessarily hold to be true. The assumptions of perfect competition and full employment are potential downfalls of the theory. For the understandings of this paper, it is also necessary to define the concepts of education and training, as well as that of general and specific training – all of which branch off from Becker.

One of the primary reasons for training is the direct relation to an individual's productivity, or further, to enable them to perform their job tasks. This study does not measure the effects of training on productivity, but it would be useful to look at some previous studies that have attempted to measure this. If there is a positive correlation between training and productivity then this would show that there is a benefit from the training taking place.

2.1.1 Human Capital

The study of human capital was pioneered by Ted Schultz (1959, 1961, 1982), Jacob Mincer (1958, 1962, 1974), Milton Friedman (1955), Sherwin Rosen (1977), Gary Becker (1964) and several others associated with the University of Chicago. A general definition of capital could be wealth in the form of money or property which can yield income over a period of time. Human capital in a similar sense earns a

person income over a period of time, but this is not by means of physical or financial capital, it is by means of knowledge, skills that are owned by the person. These are resources embodied in people that are capable of generating a form of income. The economic theory underlying human capital shows that the greater the investment in human capital (education or skills), the greater the return (in monetary terms).

The benefits from vocational education and training are obviously more economic than other forms of investment in human capital, as they consist mainly of productive skills which are traded in labour markets. Mincer (1974) examined incentives to invest in skills, including pre-labour market investments in the form of schooling and on-the-job training investments, in the form of training. A person with these sorts of investments are found to earn higher wages on average over a person's working life – they tend to earn a third more than those who do not receive training (Van Wyk 2008).

Becker (1964) formalised human capital theory and gives the dominant perspective for on-the-job training. He shows that education and training are the most important investments in human capital, and that human capital raises expected future productivity, but at a cost. His studies, and many other since then, have shown that high school and college education in the United States greatly raise a person's income, even after netting out direct and indirect costs of schooling and after adjusting for the better family backgrounds and greater abilities of more educated people. This same evidence is also shown across various other countries where studies along the same lines have transpired.

Becker deals with on-the-job training in a detailed fashion because it clearly illustrates the effect of human capital on earnings, employment, and other economic variables. For example, the close connection between indirect and direct costs and the effect of human capital on earnings at different ages are vividly brought out. The extended discussion of on-the-job training paves the way for much briefer discussions of other kinds of investment in human beings (Becker 1964:30).

As suggested by empirical studies, countries that are more endowed with human capital tend to use existing technology better and firms in these countries tend to

innovate more. Dearden *et al.* (2005) and Boddy *et al.* (2005) find a strong association between workforce skills training and productivity at a sector level in the U.K. Similarly, Van Reenen (2005) shows that total factor productivity in the U.S. is about a quarter higher than the U.K. due to human capital. China's advance in the manufacturing and technology sector could be attributed to the high level of investment in human capital geared towards engineers - the country produces around 650 000 engineers per annum.

What is noticeable about theoretical and empirical evidence is that more skills mean better technology, better organisation and higher productivity. Furthermore, there are spillover effects from human capital for the economy as a whole as certain skills make people better at learning new skills. A skilled worker is more productive in a marketplace or work environment with other skilled workers and there are knowledge spillovers from more skilled workers to less skilled ones (Lucas 1988, Azariadis and Drazen 1990).

2.1.1.1 Defining Education and Training

A distinction between education and training should be made as the concepts are closely related but distinct. Education takes place in schools (and universities and technikons?), whereas skills training takes place in the workplace or specialised institutions like FET colleges, and these two sets of institutions operate and are governed differently[10]. In most senses, *education* refers to contexts of situations in which people will use what they learn and cannot be predicted with any certainty, while *training* pertains to contexts specifically involving situations in which people will use what they learn but *can* be predicted with some confidence (Posner, 1995:72). More specifically, training deals with students acquiring knowledge, skills and attitudes that are useful to them immediately to improve performance on the job, while education deals with the acquisition of knowledge, skills and attitudes too, but not necessarily for immediate improvement of performance on the job (Ferreira 2003:28-29). Training is concerned with a specific job while education is concerned with 'improving future job performance or simply promoting personal growth – with less to do with immediate performance (Berge 2001:4-5). Alternatively, training can

[10] Archer (2007) defines this separation of education from training to be an instance of inadequate conceptualisation within the policy arena.

be explained as mainly concerned with developing the skills people use to solve problems within an already existing, well-defined system of knowledge, as opposed to education, which broadens understanding by persons to problem-solving outside existing models, and to ill-defined systems of knowledge (Berge 1998:20)

Education is a general and broad term, while training is aimed at specific vocational outcomes. Tight (1996:18-19) describes education as a general process as distinct from training, which is usually associated with preparing someone for performing a specific task or role, but not necessarily in a work setting. This forms part of the broader fields of development and human resource development.

This study is concerned with the education and training that is paid for by companies. Given the above knowledge, it can be well assumed that companies would direct the majority of their efforts towards training rather than education. Although this may not always be the case when company spending is analysed, companies should be prepared to invest in the individual at a longer term educational level as well as on a short term basis to learn specific tasks. This could have the additional benefits of buying loyalty from the employee who undertakes the said education/training.

A general finding by Blandy *et al.* (2000) as well as by participants in this study is that informal learning and training methods, both on and off the job, were regarded by many of the businesses surveyed as superior to formal classroom learning. Their reason was that business people view that which is learned in informal training as a more 'real' form of knowledge, while formal classroom learning was perceived too often to be mostly about obtaining mere paper qualifications. The training obtained on the job is found to be very specific and more practical to performing actual job functions. Some of the most important skills from businesses' point of view were communication, team-working and leadership skills – not just task-oriented, motor skills which are classroom taught (Blandy *et al.* 2000:68-69).

2.1.1.2 Defining General and Specific Training

Becker (1964) introduced the distinction between general and specific training. General skills are those that have a productive value in various forms. Reading and

writing are general skills, but so are welding and painting in a sense that they are useful to many different employers. Specific skills are only of use to a person employed within a specific firm. This is knowledge to a particular working environment and to specific features in a certain production process.

Becker (1964) defines general training as the type of training which raises productivity by equal amounts in the firm where it is provided as well as in other firms. In contrast, specific training only raises productivity in the firm in which it was provided.

The distinction between general and specific training is important as it affects the nature of the market for these skills, and who would pay for the training of employees. Ultimately, it is *who* would benefit from the investment in the training. For general skills, there are many potential employers making the skilled labour market very competitive, thus the skilled worker's wage is equal to his marginal product hereby capturing the whole of the return to training. On the other hand, specific skills are required by only one potential employer. These specific skills have no value in the general labour market, so the employer does not necessarily have to pay a specifically skilled worker a wage equal to his marginal product. Becker argued informally that the wage rate would lie below the marginal product and above the external market wage, so that the worker and the firm would both share the benefits of specific training.

The wage rates argued by Becker do not hold true in society today, as the conditions of perfect competition do not stand. A skilled worker's wage is equal to his marginal product, but often there is a premium paid which in essence buys that individual's commitment to the job. In times of a skills scarcity, the employee will bid his wage higher in order for the company to retain him. In times of a shortage of skills, the demand for the skilled worker is greater than the supply.

In a similar fashion, the same is true for the converse. South Africa has an abundance of unskilled workers. The number of unemployed exacerbates the supply of unskilled labour. Here the supply of unskilled labour outstrips the demand for such labour,

pushing down the wage rate. In such a situation, a worker would be likely to accept a wage rate below his marginal product.

Under certain conditions, Becker's definitions imply that firms will not pay for general training. There is a disincentive to do so because as an individual's productivity is raised in other firms, alternative wage offers will increase. If the employer who provided the general training is to retain the employee, the alternative wage offers would have to be met and hence no return to the training investment can be captured.

By Becker's definitions, almost all of the training occurring would be of the general nature; even so, if specific training did occur, it could still raise the value of the individual. By showing that an individual has undergone specific training, it is a signal to other employers that the individual is competent and capable of other forms of learning even if this training is not of any use to the next company.

Most training investments are neither completely general nor completely specific in reality. Productivity would rise in other firms as well, although not by as much as in the firm actually providing the training. Becker notes that such investments could be thought of as having two components, one general, and the other firm-specific. For this training, the fraction of costs paid by the firm would be 'inversely related to the importance of the general component, or positively related to the specific component' (Becker 1964:23), the reason being that firms do not pay any portion of the 'general training' costs and only a portion of the 'specific training costs'. A discussion on productivity continues in the next section.

2.1.2 Training and Productivity

The topic under discussion arose from questions such as

- 'What motivates firms to train?'
- 'Is it necessary to train workers in a company?'

If training reduces (staff) turnover, contributes to the bottom line and provides real value, then that should provide motivation for an increase in expenditure on training.

One would assume that training a person is necessary to enable them to do their job or enable them to do their function assigned to them in an organisation. But one would hope that undergoing training would achieve higher returns than just that of one simply empowered to 'sufficiently do their job'.

Productivity is a measure that can assess the impact of training. To define productivity, would describe it as the measure of efficiency or effectiveness of a firm or an economy. An individual firm's productivity contributes to an overall economy's productivity. There are various measures of productivity but they generally relate to the value resulting from the production of goods and services to some measure of input used to generate that value. Value is measured in terms of 'added value' – the value of outputs minus the value of the inputs used. Productivity specifically is then measured by relating the value of this output to the number of workers involved in the production process or to the number of hours of work needed to produce that output (HM Treasury 2005).

The aim of this paper is not to calculate the effect of productivity and hence training impact on South African companies, but if one has previously been able to prove that there ultimately is a positive effect from training, the extent of training taking place could be examined which would conclude that the training occurring would have a positive effect on the micro economics of individual companies and on the macro economics of the South African economy as a whole.

Dearden *et al.* (2000) examined the issue of the impact of private sector training on productivity by aggregating individual level data on training and establishment data on productivity and investment covering the period 1983 - 1996. This data was used to identify a statistically and economically significant effect of training on value added per head in the U.K. As much as an increase of five percent pointing in the proportion of employers trained is associated with a four percent increase in productivity. They argue that the importance of training for modern economies may have been underestimated by economists who do to the existing empirical strategies.

The Congressional Office of Technology Assessment (1990) of the United States wrote in a report that American workers need more training if the United States is to

remain internationally competitive (Bartel 1994). Bartel looked at the link between training and productivity using around 150 firms and she found a positive effect of training on productivity. By means of a labour productivity equation she measured how labour productivity is affected by the implementation of formal employee training programmes. Businesses that were operating below their expected labour productivity levels that then implemented new employee training programmes resulted in significantly larger increases in labour productivity growth in the years to come, while businesses that started at the same level as their competitors sometimes experienced productivity gains that exceeded the competitors' gains. Bartel shows that there is a direct relationship between training and labour productivity, not only at the level of the individual employee but on an organisational level as a whole (Bartel 1994).

Blandy *et al*. (2000) questioned whether it was worth training workers in Australia. Would the cost involved in training workers justify the benefit gained? The studies conducted showed that there is a positive association between firms' profitability and the quantity and quality of training offered by the firm.

> In addition, the more profitable firms are paying above market wage rates and are operating in labour markets where suitable labour is hard to find and keep (suggesting a climate of expanding demand and competition for labour in industries where firms are profitable) (Blandy *et al.* 2000).

Training is profitable to firms for the key reason that it increases the productivity of their employees more than it raises their employees' wages and by a sufficient margin, over a sufficiently long period of time to more than recoup the costs of providing the training. Training (and informal learning) that occurs at entry point to employment where new employees learn the basics of the tasks involved in their jobs is most likely to be paid for by firms, as the time period to recoup the costs would be sufficiently long enough (Blandy *et al*. 2000).

Barrett and O'Connell (2001) attempted to answer the question of whether training generally works, and if so, how to calculate the returns to in-company training. Firm-level data was used to estimate the effect of all training on productivity growth. Enterprises ranging from manufacturing, construction and private services were

surveyed on factors that could influence productivity growth. This was to determine the effect that continuing vocational training had on productivity. The estimation framework used was the same as that used by Bartel (1994). The results showed that training has a positive and significant effect on productivity growth.

The Private Sector Development department of the World Bank conducted a widespread survey in 1993 on enterprise training in Indonesia, Malaysia, Colombia, Mexico and Taiwan, and some of their findings included that training raises firm level productivity by about 32 percent in comparison to firms that do not train (Tan and Batra 1995).

Within South Africa, Productivity South Africa conducted a study in 2007 on the *Impact of Skills Development on Productivity* which confirmed that skilled development does have an impact on productivity. Other South African studies are now looked at in order create a starting point to assess the effects training has.

One of the first attempts on analysing the impact of training using South African data is by Bhorat and Lundall (2002). They attempt to determine the impact of training expenditure by firms by means of value added to the firm. Put differently, they ask in the econometric estimation whether increased expenditure on training within the firm leads to higher levels of benefit at the level of the firm.

In Bhorat and Lundall's (2002) estimation, they begin by modelling a firm's production activity according to the standard Neo-Classical Cobb-Douglas production function. Production within a firm is seen to be a function of the value of the capital stock and the number of employed within the firm, as is the case in most of these formulations of the Cobb-Douglas production function. Placed into this context, they are able to estimate the relationship between output and capital on the one hand and output and employment on the other hand. Their innovation in this instance is to add an additional variable, namely expenditure on training by firms, to try and determine whether it has any significant impact on firm production levels.

The assessment of the World Bank Large Manufacturing Survey (WBLMS) data by Bhorat and Lundall (2002) leads to the following findings: a one percent increase in

employment results in a 0.45 percent increase in output (known as the output-employment elasticity); a one percent increase in capital leads to a 0.33 percent increase in output; and one percent increase in training expenditure leads to a 0.16 percent increase in output. Put differently, a ten percent increase in training spending is associated with a 1.6 percent increase in production levels. Training expenditure clearly has a positive impact on output and is thus good for production and ultimately, firm growth.

The effect of training not only has an effect on productivity, but it is also a necessity to remain internationally competitive. Implementation of new employee training programmes result in significant increases in labour productivity growth. When factoring in costs of the training, it has been shown that the increase profitability from training are far greater than the cost of training. Companies are easily able recoup the initial cost of providing training following which a return on the investment is seen.

Holzer *et al.* (1993) conducted a study by surveying 250 manufacturing companies in Michigan which had applied for grants for the financing of training. Evidence of a direct link between training and productivity was found. This showed that the grants were an indirect means for the government to increase the productivity of a firm (which leads to an increase in GPD). By sponsoring a component of training, firms reaped the benefit of increase in productivity.

Due to the overwhelming evidence that *spending* on training increases productivity, and more importantly, that there is a positive return on the spending, companies should be motivated to increase their spending. At the same time, this should be the evidence which motivates government to make training mandatory within companies, but it is the other side of the coin which is pushing the drive for skills spending – skills shortages. So, ultimately, both problems would be tackled: increasing the skills base as well as increasing the productivity of the workforce.

2.1.3 Carrying the Costs of training

The distinguishing feature of human capital is investment in labour as opposed to an investment in capital which concerns property rights. A machine can be sold, but people cannot. As individuals have the discretion over the deployment of their own human capital, workers and firms need to agree on an exchange in the labour market. How the costs and returns to training are shared between workers and firms is a constant question within on-the-job training literature.

If indeed the firm is investing, how much should it be spending? An individual worker or firm is restricted by the amount they would invest in themselves due to capital (monetary) limitations and time limitations (although this relates to the monetary limitations). Individuals (and companies) do not have an unlimited supply of capital to spend, and once they have completed their chosen qualification (and depleted their money) they set out into the labour market hoping to get a return on their investment. An individual is less likely to invest further in their education as they are now getting a return from their initial investment, and their priorities in terms of spending shifts (from investing in education to investing in tangible capital goods e.g. house, car etc.).

A company's priority, on the other hand, remains profit making. So, effectively, the company should take on the responsibility of training the worker. The individual carries the initial expenditure and once that individual is ready to enter the workforce with those given skills, any further skills acquired to him or her are at a greater advantage to the company rather than the individual (although the individual receives rewards from increased performance). The increased rewards (remuneration) are also a fee for undertaking the training – putting in the effort.

Learning new skills and perfecting old ones while on the job increase workers' productivity. There are costs incurred while improving skills, otherwise there would be an unlimited demand for training. Included in the cost is the value placed on the time (including time off work) and effort of trainees, the 'teaching' provided by the teachers, and the equipment and materials used in the training.

One of the questions confronted by any national system of labour-force training is to solve the problem of who pays for it. Becker (1964) lays down the analytical framework from much subsequent discussion of enterprise-based or on-the-job training fifty years ago, postulating a free market as a baseline. The common belief is that individuals pay all the costs and receive all the benefits from their training. Becker points out that workers who undergo training reap the exclusive benefit that stems from their subsequent higher productivity, then competitive forces in the labour market will ensure that they themselves bear the cost. But this applies only to general skills with multiple uses in various organisations or enterprises.

Becker (1964) and Mincer (1974) provide a systematic explanation of training investments and the associate wages of workers drawing on the distinction between general and firm-specific training. General training increases a worker's productivity in a range of employment opportunities, and therefore translates into higher earnings in a competitive labour market. Thus employees should bear the costs of general training, possibly through a reduced wage during the training period. They claim that the firm should only pay for firm-specific training that does not help the worker receive higher wages elsewhere. The specific training does not necessarily lead to increased productivity and higher wage offers elsewhere, so the firm should be prepared to share the costs of specific training.

Arguably, individuals are not always willing (or able?) or prepared to pay for further training (other than the initial training undertaken prior to receiving employment). Acemoglu and Pischke (1998) offer an alternate theory in which, although skills are completely general in the sense that they can be used as effectively in other firms, the employer bears the costs of the training. This holds more truth under imperfect markets where perfect competition and full employment do not exist.

These labour market imperfections restrict the mobility of workers, and the employers earn rents on trained workers. This adverse selection is further analysed by Waldman (1984), Greenwald (1986) and Gibbons and Katz (1991) among others. When a new worker enters the market, their skills and abilities are generally unknown. Some are more productive than others, each having a certain unique set of qualities which come into play when performing necessary job functions. The early years of the workers'

career constitute the period in which a substantial amount of information is accumulated about their abilities. The information collected is done so by the employer and is never given to outsiders. It is this information which makes the employee more desirable to the employer, or less so. Should they be more desirable the employer may bid up the wage should it be deemed necessary.

A firm is able to obtain part of the marginal product of the worker, and further has an interest in increasing this marginal product by investing in the worker's human capital. Workers themselves may not necessarily be willing to pay for general skills as they realise that a fraction of the returns will be appropriated by the firm; it is the employer who may potentially capture all the wider benefits to investment in training. Furthermore, workers may be unable to invest in training as they are unable to borrow money, and due to the uncertainty about the future value of skills acquired (Stevens 1999). As a result, in stark contrast to the standard Beckerian model of training, a firm that wants to attract workers to its apprenticeship programme may have to pay not only for the training but also offer apprentices a training wage above their initial productivity[11] (Acemoglu 1998).

A further reason for firms investing in employees is that turnover rates are much lower. When comparing the United States and Germany, the U.S. has a low training and high quitting rate, while Germany has a high training and a low quitting rate. Topel and Ward (1992) report that a young worker holds an average of seven jobs within a ten year period. Acemoglu and Pischke (1998) calculate this number to be one or two in Germany. Given this, it appears that turnover should be negatively related to the level of training. Blinder and Krueger (1996) blame the United States' inability to generate as much training as Germany or Japan on the higher turnover in the United States.

A higher training equilibrium could be better for an organisation due to lower turnover rates, though Acemoglu and Pischke (1998) indicate that this margin could

[11] German firms offer apprenticeships voluntarily to workers entering the labour market. Most of the financial burden is borne by the firm even though the general skills are an important component of these programmes.

be somewhat distorted. This is due to the fact that a worse allocation of workers to jobs could exist – workers end up staying in jobs for which they have high disutility. An economy with high turnover should achieve a higher productivity due to better matches but lower productivity due to a lack of investment in general skills. Topel and Ward (1992) find that workers in the U.S. labour market who change jobs get a positive wage premium which is consistent with a better match in the firms to which they move. Acemoglu and Pischke (1998) find that workers in Germany who change jobs straight after the end of their apprenticeship get a wage reduction.

A worker's mobility is restricted by the demand of jobs, which in South Africa is high *and* low dependent on the level. In an unskilled position, the demand for jobs is far greater than the supply, given the high unemployment rates, whereas in a skilled position, the supply of skilled labour is lower than the demand – evoking the evident 'skills crisis'. If high unemployment and the unskilled labour is disregarded, it would seem as if the skilled labour force should be highly mobile within the job market. This would encourage firms to do their best to retain workers, giving the workers greater bargaining power. One of companies' methods of retaining workers is to invest in them, which at times creates a sense of a worker being 'loyal' to their company and preventing them from changing jobs. That investment in employees can be done by means of training. Again, the training benefit is twofold – the company gains in terms of higher productivity and higher profits to the firm and the employee is rewarded by means of higher wages. The incentive here for companies spending on training could be to retain workers.

These explanations for general training financed by firms rely on some market imperfection. If labour markets are imperfect, comparisons of the U.S. and German training systems, which rely on wages to make inferences about productivity, might be misleading (Acemoglu and Pischke 1998:116). When using wage rates as an indicator for human capital Harhoff and Kane (1997) and Heckman (1993) both indicate that there may be no market failures preventing training in the U.S. since wages grow at the same rate over the life-cycle in the two countries, which they interpret as the same rate of human capital accumulation. Acemoglu and Pischke's 1998 model implies that if two economies with different levels of quitting rates have

the same growth rate of wages, the one with more employees quitting must have slower accumulation of skills.

From a theoretical point of view, Becker (1964) shows that within a competitive context, firms are not likely to provide training programmes that improve the market value of their workers: the more transferable the training investment, the more difficult it is to receive a return on it. Competitive firms are the most likely to fund training programmes that increase non-transferable skills and have no impact on the worker's market value and wages.

From a practical perspective, firms provide training where they see it would most benefit the firm and employee – the focus of companies' training efforts would not be to 'steer clear of general training'. Firms are more likely to provide training programmes to upskill the employee to improve their productivity even if it means this improves the market value of the employee. The counteraction of an employee undergoing training is that the firms offer higher wages, but the firm receiving higher profits from the employee justifies this.

2.1.4 Training policy

Vocational training is problematic when it comes to policy making due to the fact that it is questionable who the benefits are greater for. According to the human capital model developed by Becker (1964), the key principle behind such schemes is 'who benefits pays'. There are benefits for both the individual trained and the employer as well as future employers. Although, the cost of completely general training should fall on the employees, employers should share in firm-specific costs. The benefit to the individual is the increase in human capital and thus earnings, and the employer has the benefits of increased returns from productivity from which he pays. The employer only has the benefit from that training while the individual is working for him; when the individual changes jobs those benefits leave and transfer to the next employer. All these features inevitably lead to confusion about whether individuals or firms should be the focus of policy.

Governments can use taxes and incentives to influence the level of training provision in various ways. General revenues can be used to provide training in state-run training centres. Within companies, training can be encouraged by subsidies or tax rebates. Policy makers are confronted with trying to develop training strategies to enhance the efficiency and effectiveness of the country. One of the important issues is that of how to finance the training. An appropriate financing policy should ensure both the stability of funding needed to develop the capacity for policy implementation as well as the level of financing to improve training outcomes (World Bank 1991). The claim on public resources for vocational education and training is lower than that for lower levels of education in most countries. In many developing countries, government budgets constitute vulnerable and unreliable sources of financing for training. Thus, an important objective in the financing of such a system is to increase the contribution of beneficiaries, being both employers and trainees (Whalley and Ziderman 1990 and Dar *et al.* 2003).

Stevens (1999) identifies three possible approaches for the policy maker who wishes to increase vocational training.

1. Provide loans for individuals
2. Subsidize vocational training
3. Regulate the training expenditure of firms

French policy has emphasised the formation of clubs of providers and public subsidy for training investment, while British policy has moved towards the encouragement of individual training by the release of credit market constraints on workers and the establishment or improvement of private property rights in skills (Greenhalgh 1999:98).

If training were to be treated as a 'local public good', it could be done so by forming a 'club' of employer providers who pay a levy to provide training as a group and subsequently share the benefits of a more highly trained pool of labour. The possibility of exclusion can arise naturally from skills being specific to a location, occupation or industry. It also requires training provision to exhibit some economies of scale otherwise each firm could do so just as well by doing its training on its own.

The training market is far more complex than the usual analysis of public goods as the investment becomes embodied in workers. These workers can capture rents from their employers by bidding up their wages as they move between employers. It is a contentious issue whether there should be property rights over workers. There are instances in which, if firms pay for an individual's training, they have to sign employment contracts requiring repayment of training costs if the worker resigns within a given period of time. The greater the expenditure on training, the longer the given period becomes.

Stevens (1999) and Greenhalgh (1999) both demonstrate that policies which force firms to increase their spending on training will be beneficial (and Pareto-improving for firms) even when the sources of market failure extend beyond those of inter-firm beneficial externalities.

Given the above externalities, it would be appropriate for government to introduce a general training subsidy financed from general taxation. This hopefully would counter economy-wide positive externalities of investment in new skills. An example would be a situation in which society sees value in upgrading the average skills of its workforce in order to compete on a better international trade and growth level. This would avoid the low-skills, low-quality equilibrium trap. Another example is network externalities, which occur when the value of a skill is increased by the number of other individuals with the same skill.

If government subsidies were routed through firms by tax rebates for training, whether in-house or off-the-job training, the cost will be reduced and thereby the demand for training increased to reach the socially desired level (Greenhalgh 1999:98).

Another policy for employer-based training is to attempt to revive a private investment market in which the workers themselves are the major investors. This policy has first to solve problems of credit, information and risk. Loans to individuals for payment of course fees and to cover forgone wages while training can do away with the credit constraints and enable the individual to invest in their skills. Alongside the credit constraints, there is also the factor of time and effort costs of training for the full-time employee. If the right of the worker is statutory for leave of

training purposes, then these time costs are borne on the employee and not deducted from the employee's annual leave or 'leisure time'.

The difficulty that individuals will face in such a method is the lack of foresight an individual may have with his/her career. He/she may not know the future value of the skills and have other uncertainty regarding employment. There is always hesitation to invest due to the possibility of making insufficient returns on the training. Increased information on the current value of training can be initiated through systems of quality control on providers and on certification and regulation of skills by means of nationally recognised qualifications. These institutional features can enhance the definition of private property rights encompassed in the individual, which can then be marketed by workers who obtain higher wages for their skills (Greenhalgh 1999:99).

2.1.5 Where is training taking place?

There is seen to be a positive relation between organisational size and job training at both the establishment and firm levels (Cohen and Pfeffer 1986:14; Barron *et al.* 1987). Some of the research suggests a curvilinear relation, with the smallest and largest employers providing the most training (Brown and Medoff 1990:54-55).

Goux and Maurin (2000) evaluates the French system of training which provides some insights about where the training is occurring. He discovers:

1 Training is significantly more frequent among workers from large firms and from industries dominated by a few large companies, such as insurance, finance or energy.

2 Training is the least prevalent among workers who have no educational qualifications at all.

Another interesting finding from this study is that firm-provided training lowers the probability of employees switching firms (Goux and Maurin 2000). This is in conflict with Becker's theoretical argument of employees switching firms when they gain skills.

A survey by Eurostat on the European Community shows that participation in firm-provided training is almost four times higher in firms with over one thousand

employees than in those with ten to fifty. The same survey shows that the incidence of firm-provided training in Europe is six times higher in white-collar industries (finance, insurance or energy industries) than in blue-collar industries (consumer-product sector, construction). Knoke and Kallenberg (1994) report that the same results hold true for the United States with large firms providing much more training than small ones. According to Pischke (1996), the German white-collar workers receive a lot more training than German blue-collar workers do. In France and Germany, the probability of being trained depends on the individual's position in the occupational hierarchy as much as on the size of the firms.

Similarly to the findings of international surveys, the greatest amount of training in South Africa occurs within larger firms. The South African National Skills Survey (2007) saw the biggest spenders to be large enterprises (over 150 people) followed by medium enterprises (50-149 people) and lastly, by small enterprises (11-49 people).

What may differ from international training studies is that in terms of training, blue-collar workers may be receiving as much, if not more, training than white-collar industries to make up for the shortfall of skills within these industries. This question will be explored further in this paper.

Various theoretical explanations exist for the relationship between organisational size and training. Labour economists have hypothesised that the costs of gathering information about an employee's job performance at each step of the search, hiring, retention and compensation processes are much higher for large than they are for small establishments (Lazear 1981 and Oi 1983). Stigler (1962) refers explicitly to wage differentials arguing that organisational size serves as a proxy for the costs to employers of gathering information about employees:

> The small employer can directly observe the performance of the new worker and need not resort to expensive and uncertain practices to estimate the worker's performance. It is well-known that wage rates are less in small plants than in large, and the difference reflects at least in part (and perhaps in whole) the lower costs to the small-scale employer of judging quality (pp 102).

The case with wage rates being less in small plants than they are in large may not be the case in more recent times. This is because quite often the operating costs in large

industries are far greater than in small industries. Hence, in smaller industries, companies can afford to pay a higher wage. It is also more likely that small industries are more selective about their staff, so they would be encouraged to pay a premium to keep the 'best staff', these staff being more productive than others. The productivity effort of staff within a large organisation is difficult to monitor so shirking may occur which raises costs.

Archer (2007) agrees that indeed increased size makes managerial monitoring of productive effort by workers more difficult; consequently, it becomes more profitable to pay above-market wage rates matched by investment in training. Job loss then becomes a greater cost to the average worker in such a firm. As a consequence, there is increased diligence, higher work intensity and a higher average skill level to keep pace with the increased scale of operation within a large organisation.

High monitoring costs in large firms lead to development of production methods that increase workforce size proportionately less than their expanding output would demand (Barron *et al.* 1987). Large firms thus substitute capital stocks, search and screen applicants more carefully, and train their employees more extensively. Economies of scale mean that large firms also incur lower marginal costs of training additional employees than small organisations do (Brown and Medoff. 1990:54). Large units are also better able to internalise the positive spillover effects that result from raising skill levels in the workforce so they have an added incentive (Archer 2007).

The Private Sector Development department of the World Bank revealed that private training sources are more important than public ones with 21 – 31 percent of firms in Malaysia and Colombia using either private training institutes, suppliers or industry associations for external training needs. The efficiency of government-provided training was found that public training institutions did not increase firm productivity to the extent that public training did (Tan and Gill 1995).

Further to the efficiency of government-provided training versus private training is the capacity to train. Locally, it is found that the majority of government institutions are already at a close to full capacity which leaves the responsibility to the private sector

to create room for more trainees (Tan and Gill 1995). Many large private organisations have set up their own training facilities which not only train their own staff members, but also outside individuals, adding to the base of those that receive training. This issue is explored later on in the paper.

2.2 OTHER RESEARCH FINDINGS

Until quite recently, there has been limited information available on labour market issues involving firm-level skills development and skills acquisition. Official data/statistics from Statistics South Africa and other national surveys (i.e. Labour Force Survey) has not been used in analysing the amount of training, because no description of the types of training undertaken exists. This is very misleading as there are an extensive number of types of training available, from one-day to year-long courses, and the national surveys do not account for this.

The Labour Force Survey from 2000 to 2005 (September) was specifically analysed by Woolard (2006) to see if any trends could be discerned with regard to the type and levels of training occurring in South Africa; no discernible patterns could be observed however and some of the results were nonsensical.

The main surveys analysed for research on training within enterprises are that of the World Bank's Large Firm Survey (WBLMS), the National Enterprise Survey (NES), the National Skills Survey (NSS) and the Ekurhuleni Firm Survey Report.

These surveys give us a picture of what the education, skills and training programme looks like in the country. They range from focusing on a specific sector to differentiating between firm sizes. Differentials between firm sizes serve to substantiate the economic literature discussed earlier. This will also start to give us an idea about the amount of training taking place – including the number trained and the amount spent.

The World Bank's Large Firm Survey for the Greater Johannesburg Metropolitan Area (WBLMS) was one of the first such surveys to provide information comprehensive enough to be analysed at a detailed level. The WBLMS was conducted under the joint auspices of the City of Greater Johannesburg and the World

Bank. The survey was tasked in 1999 and firms within the manufacturing sector in the Greater Johannesburg region were surveyed. Within the manufacturing sector, the design covered eight manufacturing sub-sectors and was further broken down into three employment sizes, namely small (50-99 workers), medium (100-199 workers) and large (over 200 employers).[12]

The National Enterprise Survey (NES) was government managed, specifically through the Office of the President, which was conducted towards the end of 1998. It was designed to give a nationally representative profile of manufacturing and service enterprises, large and small.

The Ekurhuleni Firm Survey Report was conducted in the year 2006. This is the third time this survey has been conducted. One of the useful features of this survey is that it represents a continuation of two surveys that were carried out in 2003 and 2004. The shortfall is that the studies have different respondents in the different years so it is not always entirely possibly to directly compare results – for example, the lower spend on training in 2006 reflects the fact that many of the larger firms in Ekurhuleni failed to respond to the survey in 2006 but they did respond in the previous surveys. The value of this survey is that one can get a sense of the manufacturing firms in Ekurhuleni as the number of respondents were high enough to make the survey a fair indication of the state of manufacturing in the area. This report was conducted by the Corporate Strategy and Industrial Development Research Programme (CSID) of the University of Witwatersrand at the request of the Ekurhuleni Metropolitan Municipality. The intent of this survey is to understand the local manufacturing industry better, and to develop appropriate policies to support local industry. Although the main intent of the Ekurhuleni Firm Survey is not focused on labour market issues, it does comprise of some information pertaining to skills and training.

The National Skills Survey (NSS) of 2003 commissioned by the Department of Labour asked enterprises about their training practices in that year (Paterson, McGrath and Badroodien 2005). The same survey, again conducted in 2007 using similar

[12] For further details on the survey conducted refer to Bhorat and Lundall 2002.

methodologies, gives an opportunity to consider changes in training exposure among permanent employees in private enterprises (Paterson *et al.* 2008).

Although the survey data embodies a wide range of pertinent information on the economic organisation and performance of firms in South Africa, emphasis is given to data that relates specifically to training within enterprises. These surveys pertain to skills issues in particular and labour market issues in general. The results from these various datasets will be treated as discrete, they are merely presented so that some inference about training within the South African enterprise system can be made thus far.

2.2.1 World Bank's Large Firm Survey

2.2.1.1 Training Incidence

The WBLMS consisted of a sample of 182 firms who responded to the question on how much they had spent in the last year on in-house training. Of the 182 firms, 16 percent (29 firms) answered that they spent nothing on in-house training. Of those in the sample there were 57 firms, representing 27 percent, who indicated that nothing was spent on outside training. Given these figures, it is useful to note that a fair number of firms indicate that no resources were dedicated to internal or outside training. A larger proportion of firms also seem to be dissuaded from investments in external training opportunities.

The figures yield some interesting points when derived according to the size of the firm. The table that follows shows the percentage of firms that are *not* investing in training.

Table 2-3: Percentage of firms not investing in in-house and outside training

Size Class	In-House Training	Outside Training
50 - 99 workers	21.43 %	38.75 %
100 - 199 workers	14.89 %	16.67 %
200 + workers	10.77 %	22.22 %
Total	15.93 %	26.89 %

Source: Bhorat and Lundall 2002

It is apparent that the size of the firm plays a role in determining the extent of training and where the training takes place. Smaller firms, having 50 to 99 workers, have the greatest proportion of those dissuaded from investments in training. The larger firms, of over 200 workers, have a high proportion of firms who invest in in-house training, but less so in outside training. When it comes to differentiation between in-house or outside training, the absolute figures are higher for firms not investing in outside training, but the margin between outside and in-house training is lowest for middle size firms, of 100 to 199 workers. There is less than two percent points difference in this class of firms. The smaller firms, of 50 to 99 workers, have the greatest differential between in-house and outside training. Seventeen percent more firms invest in in-house training rather than outside training. The high proportion of small firms that do not invest in external training as opposed to internal training suggests that there could be difficulties accessing training for such firms.

2.2.1.2 Training Expenditure

Looking now at firms that do undertake training, it is possible to ascertain the relative value of this training expenditure. The figures that follow are in 1998 Rands.

Table 2-4: Average annual expenditure on in-house and outside training, by sub-sector

Sector	In-House Training	Outside Training	Total
Chemical Products	166,055	673,883	839,938
Electrical Machinery	110,844	69,655	180,499
Food processing & beverages	1,237,731	472,067	1,709,798
Iron & steel	105,668	66,484	172,152
Metal products	67,496	71,101	138,597
Paper & furniture	1,374,478	19,252	1,393,730
Textile	141,438	17,243	158,681
Vehicle & auto components	189,548	86,791	276,339
Total (Average Expenditure)	50,000	30,000	80,000

Source: Bhorat and Lundall 2002

The data show that on average R50,000 and R30,000 was spent on in-house and outside training respectively. Again it is apparent that there is greater spending geared towards in-house training. All sectors excluding chemical products spent more on in-house training. The sectors to spend the largest on in-house training were food processing and beverages as well as paper and furniture, both spending in excess of R1 million. These same sectors had a greater overall spending when considering in-house and outside training. When it comes to outside training, the chemical products

sector spent the most on outside training; surprisingly they spent more on outside training than in-house training. The firms in the sample reveal that approximately R1.67 is spent on in-house training for every R1 spent on outside training.

In attempting to analyse training expenditure trends by firm size, the following table estimates the average training expenditure per annum by the three size classes.

Table 2-5: Average annual expenditure on in-house and outside training, by size

Firm size	In-House Training	Outside Training	Total
50 - 99 workers	26,551	16,395	42,946
100 - 199 workers	184,021	290,062	474,083
200+ workers	749,042	236,219	985,261

Source: Bhorat and Lundall 2002

In terms of the size classes, it is clear that large firms spend more than small and medium firms on both in-house and outside training. Overall, large firms spend double that of medium firms, while medium firms spend ten times that of small firms.

The low expenditure on outside training by small manufacturing firms points to the possibility that they could be highly disadvantaged with regard to this form of training. Surprisingly, medium firms appear to have the capability to invest relatively higher in external training. One could further assume that the high differential of in-house training over outside training for large firms could imply that they have a greater capacity for this than medium size firms do.

One of the problems with the above data is that it does not give an indication of relative training expenditure. Hence, one would be unable to say what each firm's contribution to training relative to its overall cost structure is. The table that follows attempt to calculate firms' annual expenditure on total training as a percentage of annual total costs.[13]

[13] Included in the components of firms' total cost function are purchases of material inputs into production, expenditure on utilities, labour costs, goods transport costs, machinery and equipment rental, land and/or building rental, telecommunication and postal services, royalty or licence fees and interest and other financial charges (actual figures).

Table 2-6: Annual training cost as a percentage of annual costs, by sector

Sector	Average
Chemical Products	2.15 %
Electrical Machinery	0.35 %
Food processing & beverages	0.09 %
Iron & steel	0.51 %
Metal products	0.50 %
Paper & furniture	0.84 %
Textile	0.46 %
Vehicle & auto components	0.55 %
Total	0.73 %

Source: Bhorat and Lundall 2002

In terms of the distribution-sensitive average results, the ranking differs with the largest relative investor to annual costs being the chemical products industry. Earlier, the data showed it was the food processing and beverages that had the greatest absolute expenditure on training, whereas here one can see it only forms 0.09 percent of their total expenses. So based on total expenses, food processing and beverages has become the lowest spender on training. In terms of overall expenditure, one could say that manufacturing firms on average spend the equivalent of 0.73 percent of total costs on training every year.

When one starts to look at annual training costs as a percentage of annual costs by firm size, a different picture is seen. The advantage of taking training as a share of total costs is that one is controlling for an important aspect of the ability of firms to train either internally or externally, namely their internal cost structure. One would expect that larger sized firms, in having more manoeuvrability within their total cost structure, would spend more on training.

Table 2-7: Annual training cost as a percentage of annual costs, by size

Firm size	Average
50 – 99 workers	0.48 %
100 – 199 workers	1.37 %
200 + workers	0.55 %
Total	0.73 %

Source: Bhorat and Lundall 2002

The data here indicate that on average firms spend 0.73 percent on annual training as a percentage of annual costs. What is most surprising is that medium sized firms are spending almost double this average, more than that of small or large firms. It is as

expected that small firms are spending the least as a percentage of annual costs, but large firms are only spending 0.07 percent more than small firms on training. The fact that medium sized firms are spending a higher proportion points either to better performance of medium size firms in attempting to include training as part of their productive activities or perhaps reflects on the poor ability of large firms to more effectively utilise their internal resources for expenditure on training. One would expect larger firms to take expenditure on training more seriously than their smaller counterparts, but these results clearly suggest a different picture – that the best performers in terms of training relative to total costs are medium-sized enterprises[14].

When it comes to measuring training expenditure, one of the most useful measurements are those in terms of total labour costs as it is a requirement of the Skills Development Act (SDA) for firms to pay a levy based on their total staff costs. According to the SDA, the skills levy charged to firms is one percent of their total payroll. As the skills levy only came into existence in April 2001 and the data described here is from 1998, firms would have been under no pressure or influence as to how much they spent on training. Since the skills levy came into effect, this could have (and is meant to have) influenced firms' expenditure on training. The figures that follow are useful for comparative purposes, not only between size of companies, but also to the one percent which was set as the levy figure.

Table 2-8: Annual expenditure as percentage of total labour costs

Firm size	Average
50 – 99 workers	1.35%
100 – 199 workers	5.57%
200 + workers	3.3%
Total	3.17%

Source: Bhorat and Lundall 2002

[14] It is arguable that the medium size firms might view this the other way around - the data might lead them to think they are over-spending on training.

Once again, the higher relative expenditure of medium sized firms is evident. Medium sized firms are spending on average 5.57 percent of their total labour costs on training expenditure. Small firms, as it is shown again, spend the least, only marginally higher than the one percent payroll levy.

> What remains a worry however, is the relatively low share of expenditure undertaken by large firms. One would have thought and hoped that the anchor around which a successful national skills development strategy would be built, would be large firms. The advantage from a skills development policy perspective, is that these firms are far more visible and hence would be more easily accessed to ensure that some correction does take place in the level of importance placed on training (Bhorat and Lundall 2002).

2.2.2 National Enterprise Survey

2.2.2.1 Training expenditure

The table that follows indicates the number of firms falling within the given brackets of training expenditure:

Table 2-9: Training expenditure by firms

Expenditure	No. of Firms	Percentage
None	13	0.91%
R1 – R100,000	583	40.71%
R100,001 – R250,000	147	10.27%
R250,001 – R500,000	206	14.39%
R500,001 – R1,000,000	105	7.33%
R1,000,001 – R2,000,000	67	4.68%
Over R2,000,000	311	21.72%
Total	1,432	100%

Source: Bhorat and Lundall 2002

Of the 1,432 firms in the sample, the majority spent by each firm was less than R100,000. The second biggest category in terms of percentage of companies' spending was greater than R2 million. What is a promising from the given data is that there were less than one percent of firms not spending anything on training.

The following table helps us to understand this a bit better in terms of firm size:

Table 2-10: Annual percentage training expenditure by rands and firm size, 1998

Expenditure	Firm Size (%)					
	< 50	50 - 99	100 - 199	200 - 499	500 +	Total
None	0	0.60	0.67	0.34	1.82	0.91
R1 – R100,000	22.81	63.77	57.33	35.81	17.73	40.78
R100,001 – R250,000	3.51	15.87	17.33	8.78	2.95	10.23
R250,001 – R500,000	1.75	14.37	3.00	32.09	12.05	14.44
R500,001 – R1,000,000	70.18	0.30	1.33	3.04	11.36	7.29
R1,000,001 – R2,000,000	0	0.30	1.33	3.04	12.05	4.70
Over R2,000,000	1.75	4.79	19.00	16.89	42.05	21.65

Source: Bhorat and Lundall 2002

It is unsurprising that the companies that spent the most on training were all those that had 500 or more employees. What should have been expected is a trend of an increase in spending as the firm size increases, but this isn't always the case as is shown by the spending category R500,001 to R1,000,000; 70 percent of companies within this spending category have less than 50 employees, indeed a positive commitment towards spending on training. On the other hand, companies with employees between 50 and 200 spend less than R10,000.

2.2.3 Ekurhuleni Manufacturing Firm Survey, 2006

2.2.3.1 Training expenditure

The total amount spent on training by responding firms within the manufacturing sector was R68 million which equates to R2,169 per employee. Of this spending, R33 million was spent on in-house and R35 million was spent on outside training. There was an increase in training expenditure from 2003 to 2004, but a drop of almost a half from 2004 to 2006. In 2004, training expenditures stood at R6,323 per employee and R3,700 in 2003.

Table 2-11: Training expenditure per employee by year

Year	Expenditure (per employee)
2006	R2,169
2004	R6,323
2003	R3,700

Source: Machaka et al. 2007

One of the useful finds from this survey is that there is a strong relationship between money spent on training (internally and externally) and performance. Machaka *et al.* (2007) found firms that spent money on training are 63 percent more likely to have grown employment and 31 percent more likely to have recorded higher turnover

growth. And, firms that invested in 2006 are 57 percent more likely to have spent money on training their employees.

2.2.3.2 Skills Development Levy and Training

The proportion of firms claiming back the skills development levy increased from 42 percent in 2004 to 47 percent in 2006. Of large firms, 94 percent claim back the levy as compared with 67 percent of medium firms and just 31 percent of small and 14 percent of micro firms. This was noted to be an improvement from previous years.

Table 2-12: Sectors claiming levy and spending on training

Sector	No. of firms that claimed levy	Percentage of firms claiming levy	No. of firms that spent money on training	Percentage of firms that spent money on training
Food and beverages products	5	38	10	77
Textiles, leather and clothing	4	67	5	83
Pulp and paper products	4	50	7	88
Chemicals	15	44	27	79
Plastic products	22	65	27	79
Rubber products	1	14	6	86
Glass, cement, brick-making	2	18	7	64
Machinery and equipment	17	40	28	67
Electrical machinery	8	53	12	80
Metal products	43	42	75	74
Motor vehicles and transport	8	47	13	76
Wood and wood products	8	57	10	71
Other	22	37	38	64
Total	159	38	265	63

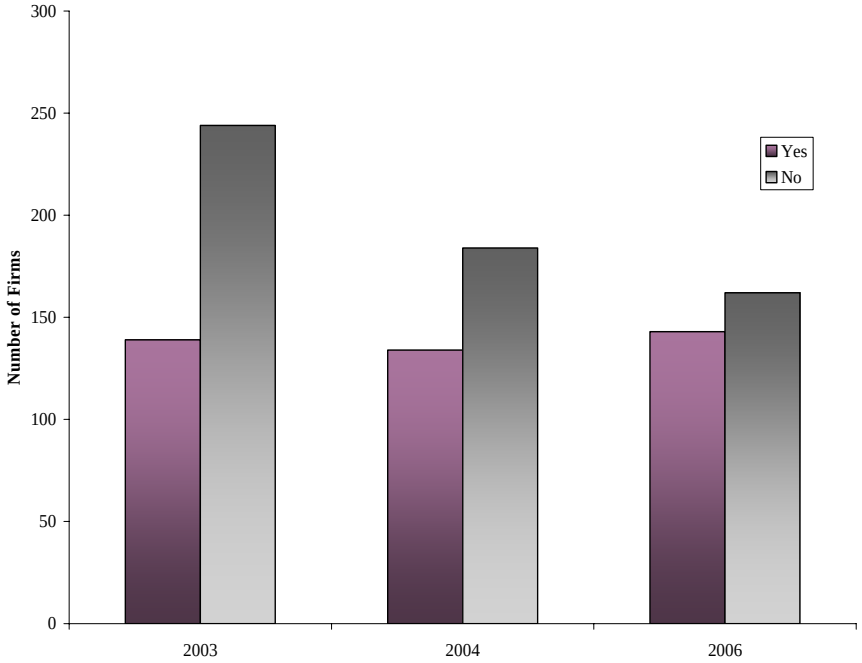
Source: Machaka et al. 2007

The total number of firms that spent money on training was almost double that of firms that claimed back the levy. Firms have not been fully utilising the ability to claim back the amount spent on the levy. This raises questions about the effectiveness of the systems in place whereby firms can claim mandatory and discretionary grants.

Machaka *et al*. (2007) finds the association between firms claiming back the skills development levy and performance to be very mixed. There is a strong link between the levy and other performance indicators such as on training and employment, while the association is very weak between firms claiming back the levy and a high turnover and investment growth. Firms that claimed back the skills development levy were 44 percent more likely to have spent money on training their employees and 22 percent

more likely to have recorded employment growth. Firms that claimed back the levy were 31 percent more likely to have invested in 2006.

Figure 2-1: Firms use of the skills development levy



Source: Machaka et al. 2007

The survey results point to an increase in the number of firms making use of the skills development levy as shown in the chart above. The proportion of firms that claimed back the skills development levy in 2006 was 47 percent, increasing from 36 percent in 2003 and 42 percent in 2004. This is an improvement since 2003 but one should bear in mind that the majority of firms are still not claiming back the skills development levy, despite the fact that they may well be conducting training. The proportion of small firms that claimed back the levy increased from 28 percent in 2004 to 31 percent in 2006, while the proportion of large firms claiming back the levy had declined from 100 percent in 2004 to 94 percent by 2006 (Machaka *et al*. 2007).

2.2.4 National Skills Survey, 2003 and 2007

2.2.4.1 Training Expenditure

The table that follows describes how much firms are spending on training in 2003 (2003 rand figures). The training expenditure per training employee shows the

amount that is spent on training each individual. The training expenditure per employee shows how much is spent taking into account the entire staff compliment. This enables the reader to ascertain the proportion spent on training in relation to the firms' total number of employees. This is useful as it helps differentiate whether there has been an equal spend on training across all workers, or if training is merely isolated amongst a few employees.

Table 2-13: Expenditure on training, 2003

Enterprise size	Training expenditure per trained employee	Training expenditure per employee
Small (11 – 50)	R 2,398	R 1,070
Medium (51 – 100)	R 2,424	R 1,025
Large (100 +)	R 4,247	R 1,864
Average	R 3,691	R 1,613

Source: Paterson and *du Toit 2005a*

A comparison across years reveals some further interesting differences. When taking into account inflation measures (real terms), the data reveal a drop in expenditure in the small and medium enterprise sizes while there is a significant increase in large enterprises. The extent of the increase from large enterprises gives an overall positive increase in training expenditure when taking into consideration all enterprises sizes. Across the entire South African workforce the average expenditure increased by 30 percent over a four year period.

Table 2-14: Increase in expenditure on training

Enterprise size	2002/03 expenditure	2002/03 adjusted expenditure[15]	2006/07 expenditure	difference
Small (11– 49)	R 2,549	R 3,098	R 2,885	-6.9%
Medium (50–149)	R 4,309	R 5,238	R 3,993	-23.8%
Large (150 +)	R 3,681	R 4,474	R 7,269	62.5%
Average	R 3,627	R 4,409	R 5,864	33.0%

Source:Patterson et al.2008

When comparing against payroll, it is encouraging to note that firms of all sizes increased their expenditure over the four year period. Furthermore the South African National Skills Survey of 2007 reveals that training expenditure increased by 42.9 percent between 2003 and 2007 (Patterson *et al.* 2008).

15 2006/07 equivalent of 2003/02 expenditure calculated at 5 percent inflation pa.

Table 2-15: Training expenditure as a percentage of payroll

Enterprise size	2002 / 2003	2006 / 2007
Small enterprises (11 – 49)	1.0	1.6
Medium enterprises (50 – 149)	1.1	1.8
Large enterprises (150 +)	2.8	3.8
Average	2.1	3

Source: Patterson et al.(2008)

The figures above indicate that larger firms tend to spend considerably more on training per worker. This is surprising given that the results from the previous survey revealed that medium firms were outperforming large ones. However, although they are spending more on training per worker, they are not necessarily training more workers. This will be demonstrated more clearly in the next section.

2.2.4.2 Number of Workers Trained

Table 2-16: Percentage of workers undergoing training, 2003

Enterprise size	Percentage of workers undergoing training
Small (11 – 50)	23%
Medium (51 – 100)	24%
Large (100 +)	25%
Average	24%

Source: Paterson and *du Toit 2005a*

The data from the table above indicate that there is not much of a variation between training across the enterprise sizes. On average, firms are training a quarter of their employees. This is markedly higher than the 2001 training rate, which was estimated to be 16 percent (HSRC 2008). The NSS 2007 revealed that on average the training rate was 53 percent. Put differently – in 2003, one in every four workers was exposed to some form of training and by 2007, this had doubled to one in every two workers.

2.2.4.3 Participation in the levy-grant scheme

The first National Skills Development Strategy 2001 – 2005 set targets for enterprises to be registered with SETAs. Those targets set have now been reached, but the figures for enterprises in possession of a WSP and claiming grants for medium and small enterprises are still quite low.

Table 2-17: Enterprise participation in the levy-grant scheme

Enterprise size	Enterprises registered with a SETA	Enterprises in possession of a WSP	Enterprises claiming grants
Small (11 – 50)	55%	38%	27%
Medium (51 – 100)	74%	72%	59%
Large (100 +)	93%	90%	83%
Average	63%	50%	39%

Source: Paterson and *du Toit 2005*

The table above implies that nearly two-thirds of enterprises surveyed knew they were registered with a SETA. Half of all enterprises claimed to have a Workplace Skills Plan (WSP).

The data show that the main challenge is at the small enterprise level; the same pattern is visible in the low proportion of small enterprises claiming back grants. This implies that larger enterprises are getting more of their money back after paying the levy. This could be argued as one of the causes for larger enterprises spending more on training than smaller enterprises (or conversely, that smaller enterprises are spending less than larger enterprises).

2.2.5 Concluding Comments

The training that an individual undertakes serves as part of their human capital. It is this human capital that the person is to earn an investment from, i.e. a wage. The training received is likely to be general and specific. If an individual is funding their own training, it is unlikely to be specific training as this would be the responsibility of the firm to provide that sort of training. Contrary to Becker, a firm would be likely to pay for general training as there are benefits other than making an individual 'more attractive to other firms'. Firms compensate this attractiveness by providing the employee with higher wage returns as a reward for undergoing training. The training undertaken also brings back higher profits to the firm so neither party would feel they are 'losing out'. Becker's theories do not hold has they were made under theoretical market conditions – perfect competition and full employment – neither of which exists under our current day situation. If this were to be the case, there would be no need for companies to provide general training. In the South African economy, general training is required to meet the needs of the individual company and the economy as a whole.

The impact of training has been shown in its effects upon productivity, competitive advantage and retention of staff. It is for these reasons that spending on training should not be seen as an expense but rather as a firm investment. Training is required for firms to remain competitive in the tough global market they now compete in. Training brings about higher profits for the firm, so it would be in their best interests to invest in training.

Generally the data show that the greatest amount of training takes place in large firms. Large firms have the greatest capacity to spend on training and to provide for training internally. International evidence further suggests that the majority of training occurs within white-collar industries, but this is contrary to South African evidence given different circumstances – South Africa has a higher shortage of skills within blue-collar industries.

Up until 2007, there was an increase in the training rates (the number of people receiving training). What is interesting about this finding is that there has been no significant increase in the actual overall expenditure, so this could indicate that training is becoming less expensive, or firms are implementing less expensive training strategies to reach larger numbers of employees – perhaps an increase in learning (how to train) is occurring. Another possible explanation could be that there are increasing returns to investment due to leveraging efficiency from training systems and economies of scale in the delivery of training (Patterson 2008).

The data presented above set the landscape for the education, skills and training programme scheme in the country. All company sizes are looked at – small, medium and large,[16] although the focus is on 'larger firms'.

The theory and empirical results given from other studies were used to aid and refine the empirical approach taken for this study. The manner in which the empirical descriptive data was presented within the literature review will guide the presentation of the data analysed for this study.

[16] Department of Trade and Industry (DTI) classifications pertaining to small, medium and large.

The theory and the comparative studies presented above imply that the greatest quantity of training occurs within very large companies[17]. The research that follows in this paper focuses on these very large companies.[18] If the current training scenario and initiatives are understood, these can be built on and strengthened to address the skills challenges facing the country and companies within the economy. This information up until now has not been available to support decision making. By providing decision makers with this information that indicates the type and scale of skills development taking place in business, it is anticipated that a re-examination of the skills development sector will be possible.

Before the data from this study are examined, a brief overview of the National Policies within South Africa will be presented. This sets the scene for the policy framework under which companies follow.

[17] This is dependent on the angle looked at, but for the majority the greatest proportion is for larger companies.

[18] Here the term 'large' does not follow the DTI classification. Specifically, only 9 companies in the survey cannot be considered large companies by DTI classification.

3 NATIONAL POLICIES AND SKILLS DEVELOPMENT ACTIVITIES WITHIN SOUTH AFRICA.

This section gives an overall analysis of the National Policies that govern skills development – where they relate to business and the requirements on the part of business. This study focuses on what business is specifically doing in terms of education, training and skills development, but is necessary to set the terrain of the education and training system within South Africa before an analysis of companies involvement can be made.

The nature of the education and training system formed has evolved with the enactment of the subsequent legislation. Since 1994 government has introduced a number of policies and initiatives to address the imbalance of the skills demand and supply. The purpose of such was to improve the quality of the education and training and the supply of learners intended to alleviate the skills deficit. The policies implemented include the Skills Development Act (1998), the Skills Development Levies Act (1999), the National Skills Development Strategy (2001), the Human Resources Development Strategy (2001), and the Skills Development Amendment Act (2003). These policies were targeted to specific levels of the skills development process and these are: pre-labour market; labour market entry training; internal labour market training; adjustment training; and flexibility training (Standing, Sender and Weeks, 1996: 450, Pitsoe 2007: 24).

3.1 GOVERNING ACTS

There has been a growing awareness that skills development is crucial in bridging the gap between the imbalances of the past apartheid system and to address the need to grow the economy and create jobs. Reformulations of the pre-election debates let to the publication of a draft Green Paper in March 1997 (Department of Labour 1997a), followed by a final version in July.

The Green Paper stated that there was a need to increase competency levels in the country in order to promote economic and employment growth and social development. The Green Paper further states that workers should be supported to achieve nationally recognised qualifications, so that they can assume increased

independence and responsibility, and so that employers can achieve rising levels of productivity and competitiveness.

These objectives focused on the nature of skills and skills development, and its relationship to social and economic development. To support the achievement of the above objectives, the Green Paper outlined a number of structures and interventions and proposed the introduction of a national levy/grant system so as to increase investment in training and employer involvement as well as the establishment of SETAs to drive implementation and the introduction of learnerships (Grawitzky 2006).

The core of the Green Paper was given legal expression in the Skills Development Act (1998), which was finally promulgated in 1998 following extensive negotiations in the National Development and Labour Council (Nedlac) and a public participation process in parliament.

3.1.1 Skills Development Act, 1998

The Skills Development Act (1998) sought to overcome the problems with the old apartheid training regime. It gave effect to the green paper on skills development by ensuring, amongst others, the following:

- To develop the skills of the South African workforce
- To increase the levels of investment in education and training in the labour market and to improve the return on that investment
- To encourage employers –
    - To use the workplace as an active learning environment;
    - To provide employees with the opportunity to acquire new skills;
    - To provide opportunities for new entrants to the labour market to gain work experience; and
    - To employ persons who find it difficult to be employed
- To encourage workers to participate in learnerships and other training programmes
- To ensure the quality of education and training in and for the workplace.

The Act also sets out the legal establishment of what is now referred to as the Sectoral Education and Training Authorities (SETAs). Furthermore, the act proposes the establishment of other institutional frameworks and strategies to ensure key objectives are met including, amongst others, the National Skills Authority (NSA); the National Skills Fund (NSF); the Skills Development Planning Unit and the National Skills Development Strategy (NSDS).

3.1.2 Sectoral Education and Training Authorities

Sector Education and Training Authorities (SETAs) were established in terms of the Skills Development Act of 1998 and first launched in March 2000. Currently there are 23 SETAs, from an original 25 SETAs, each representing one sector, or industry cluster. The SETAs are governed by the Department of Labour under the Chief Directorate: SETA Coordination. SETAs responsibilities are highlighted in the Act and it includes the administration of the scheme's funds and management of the skills development process. That is, distribute money that is raised from Skills Levies back to their sector, develop and implement learning programmes that are relevant for its sector and maintain the highest standards of training. Quality Assurance is conducted by the SETA Education and Training Quality Assurance body (ETQA)

The SETAs main training programmes are "Learnership Programmes". Learnerships are pathways to industry related qualifications. The variance from normal training qualifications is that the learnerships incorporate the employer. These are contractual agreements between learner, training provider and employer. In practice, a significant portion of the learning and subsequent assessment is conducted within the workplace.

The funding for a learnership can come either from an employer paying an accredited training provider to deliver the training; or through a SETA project. Employers tend to fund "up-skilling" of current workforce while SETA projects generally tend to target previously unemployed learners (classified as 18.2 learners, while employed are classified as 18.1 learners). The SETAs also at times provide a subsistence allowance during training for the unemployed learners, contributing to travelling and food expenditure.

3.1.3 National Skills Authority (NSA)

The NSA is established in terms of the SDA. Its functions are to advise the Labour Minister on a range of issues such as national skills development policy and NSDS; guidelines on the implementation of the NSDS; the allocation of funds from the NSF. (SDA 1998 Chapter 2).

The NSA is comprised of five constituencies – organised labour, business, government (various government departments), community organisations and education and training providers – who are supposed to reach some form of consensus on key areas of policy such as the NSDS and the future direction of skills development (Grawitzky 2006).

3.1.4 Skills Development Levies Act, 1999

The Skills Development Levies Act 9 of 1999 (SDLA) made provision for levy-financing to fund skills development, and allowed for additional regulations under the SDLA which provide for the allocation of grants by SETAs. These regulations set out how the training grants are disbursed by SETAs to employers, training providers and workers within their sector. The current framework for allocating grants by SETAs is provided by the Grant Regulations, 2005 (GN R713[19] in GG 27801 of 18 July 2005) and states that regarding:

- Mandatory Grants: SETAs are required to allocate mandatory grants to employers who submit workplace skills plans or training reports in accordance with the Grant Regulations, 2005;
- Discretionary Grants: these are paid to employers to cover the cost of learnerships, learnership allowances, skills programmes and apprenticeship training, and;
- Discretionary Grants: paid to education and training providers and institutions and towards other activities that implement a sector skills plan.

The levy-financing introduced by the SDA and the SDLA manages provide incentives for employers to adopt a pro-active approach to skills development within the framework of the SDA.

[19] Sector Education and Training (SETAs) Grant Regulations regarding monies received by a SETA and related matters.

Companies with an annual turnover of R500 000[20] and registered for PAYE are required to pay 1 percent on total company payroll. As of 1 April 2005, of the 1 percent skills levy paid over to the SETA through the SA Revenue Service:

- 20 percent is paid to the NSF
- 10 percent is allocated for the operation of the SETA
- 50 percent may be paid over to employers as mandatory grants
- 20 percent plus unpaid grant money can be paid over to an employer as discretionary grants.

The payroll tax is linked to a disbursement scheme and firms receive grants in proportion to the level of training that their employees undergo. The advantage of this scheme is that the payroll tax proceeds are used to encourage firms to either set up programmes of in-service training or upgrade skills of their workers by purchasing training for them at a training centre.

In this 'levy-grant scheme', grants are paid to firms conditional on the criteria expected to be met once a systematic training approach is adopted. Often the grant is paid according to a system of points earned, which in turn are based on the criteria describing systematic training. Firms are required to submit workplace skills plans (WSP) and annual training reports (ATR) outlining their training plans and interventions. It is upon this, that criteria is matched to in order for companies to receive grants back.

The aims of the grants, according to the Act, is to allow employers the flexibility to drive their own training initiatives and incentivise the companies who train. This allows companies to identify their own skills needs in that it addresses the beginnings of the skills shortages.[21]

[20] Prior to 2005 the threshold was at R250 000.

[21] There have however, been concerns whether the training taking place within companies is addressing actual skills shortage needs.

3.1.5 Skills Development Amendment Act, 2003.

In response to intense criticism of the SETAS – caused by reports of perceived misuse of taxpayers' funds, allegations of mismanagement, and a perceived inability to spend the levies flowing into their funds – the SDA was amended to deal with the issues around performance. The SDA Act 31 of 2003 introduced a number of significant changes to the SDA, with the objective being to strengthen the Minister of Labour's powers to influence the work of and to hold tighter account of the SETAs.[22]

The Amendment Act (Section 12, Skills Development Amendment Act, 2003) introduced a new learnership concept which allowed employers to contract a dedicated agency to perform their functions in the learnership agreement and contract of employment. The Act empowered the Minister to make regulations to this effect and to prescribe the relationship between employers and the dedicated agency.

3.1.6 SAQA and the NQF

This training initiated by the SETAs is certified though the National Qualifications Framework (NQF), which is meant to facilitate access to training as well as award national registered qualifications and unit standards. The qualifications obtained are then registered with the South African Qualifications Authority (SAQA).

The provisions of the SDA are aligned with those of the SAQA Act. The intention of this alignment is to promote the quality of learning in, and for, the labour market to ensure that the training institutions and mechanisms created by the Act, articulate with the National Qualifications Framework (NQF).[23]

- SAQA is an independent statutory body responsible for developing and implementing the NQF. It is formed through the South African Qualifications Authority Act 58 of 1995. SAQA has a mandate to oversee the development and implementation of an integrated national framework of quality assured learning achievements

[22] See paragraph 1, Memorandum on the Object of the Skills Development Amendment Bill, 2003.

[23] See paragraph 1, Memorandum on the Objects of the Skills Development Bill, 1996.

The first objective of the NQF is "to create an integrated national framework for learning achievements" (DoL 2003).

The National Qualifications Framework places all learning on eight levels, level 1 – 8, across three bands.

Level 1: General Education and Training (GET)
Level 2 – 4: Further Education and Training (FET)
Level 5 – 8: Higher Education and Training (HET)

The General Education and Training band is predominately the schooling band, the Further Education and Training band is in the area of FET Colleges, Schools, Trade and Industry training while the Higher Education and Training is in the area of Universities, Higher Level Colleges.

Where workplace learning is concerned, the NQF bands do not resonate so clearly as the learning is organized quite differently. This is partly due to the fact that the NQF bands do not serve the same function within the workplace as they do outside in the learning environment. The NQF is functional merely for pegging standards and qualifications for the workplace which provide a framework for progressions along learning pathways.

3.1.7 The National Strategy for Skills Development (NSDS)

The NSDS, governed by The Skills Development Act (No. 97 of 1998), is a strategy with targets for a coherent and comprehensive approach to skills development. In 2001 the Department of Labour, through a network of Sector Education and Training Authorities (SETAs), initiated the National Skills Development Strategy and the skills training. The first NSDS, entitled 'skills for productive citizenship for all', was built on legislation that was designed to advance the process of skills development in South Africa. What makes the strategy important is that it shifts the focus toward target setting, monitoring and evaluation of the process of skills development in South Africa. It identifies the priorities for skills development and provides the instrument for measuring progress.

The priorities of South Africa's skills development programme and indicators to measure progress in its implementation are set out in the second National Skills Development strategy: 1 April 2005 – 31 March 2010 which replaced the first National Skills Development Strategy which covered the period 2001 – 2005. The NSDS 2 sets out the priorities which are of particular importance in the context of the Skills Development Amendment Act 31 of 2003 which requires that SETAs annual service level agreements with the Director-General: Labour should include a focus of the performance of the SETA in terms of the National Skills Development Strategy. This NSDS moved away from chasing learner intake targets without measuring the impact of the intervention. There is a greater emphasis in NSDS 2 to look more at the quality of training and its impact.

The other significant interventions within NSDS 2 include the broadening of support to learners not only in learnerships but in other skills development programmes such as apprenticeships, internships, bursaries, workplace experiential learning and unit standards based skills programmes.[24] The aim is to refocus attention on broader interventions unlike NSDS 1 which solely focused on internships.

The NSDS also includes a focus on scarce and critical skills; efforts to build relations between SETAs and institutions for occupational excellence which could include FET's or other structure and it attempts to begin to measure the impact of SETA interventions.

The strategy is made up of five strategic objectives, twelve success indicators and three equity targets. The objectives of the current NSDS in relation to those of the first NSDS are set out below:[25]

[24] The analysis further in this paper looks at the support for all these interventions as set by NSDS 2.

[25] For the full NSDS 1 and NSDS 2 consult Appendix E and F

Table 3-18: National Skills Development Strategy objectives (NSDS 2 vs NSDS 1)

NSDS 2 1 April 2005 - 31 March 2010	NSDS 1 1 April 2001 - 31 March 2005
Supporting economic growth for employment creation and poverty eradication	Developing a culture of high quality life long learning.
Promoting productive citizenship for all by aligning skills development with national strategies for growth and development	Fostering skills development in the formal economy for productivity and employability
Accelerating Broad-Based Black Economic Empowerment and Employment Equity (85% Black, 54% women and 4% people with disabilities, including youth in all categories). Learners with disabilities to be provided with reasonable accommodation such as assistive devices and access to learning and training material to enable them to have access to and participate in skills development	Stimulating and supporting skills development in small business
Supporting, monitoring and evaluating the delivery and quality assurance systems necessary for the implementation of the NSDS	Promoting skills development for employability and sustained livelihoods through social development initiatives
Advancing the culture of excellence in skills development and lifelong learning	Assisting new entrants into employment

Source: Singizi 2007

The implementation of the NSDS is the responsibility of the National Skills Fund (NSF), the SETAs and other Department of Labour related institutions whose work on skills development contribute to the implementation of the NSDS.

3.1.7.1 Performance of the NSDS

By examining some of the results when measured against NSDS 2001 – 2005 (indicators 1.2; 5.1; 2.1 and 2.2) one will find that there have been substantial achievements against these targets.

Table 3-19: Training success against selected NSDS objectives and indicators, March 2005

Indicator	Achievements by 31 March 2005
Structured learning	
By March 2005, a minimum of 15 % of workers (1,398,033 workers) to have embarked on a structured learning programme, of whom at least 50 % have completed their programme satisfactorily (699,016 workers).	There were 6,306,557 workers embarking on training and 6,123,937 completing training.
Learnerships	
By March 2005, a minimum of 80,000 unemployed people under the age of 30 have entered learnerships.	88,410 unemployed people entered learnerships and another 21,237 had become apprentices.
Large firms	
By March 2005, at least 75 percent of enterprises with more than 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.	73 percent of enterprises in this category were accessing grants to provide workers with skills training.
Medium firms	
By March 2005, at least 40 percent of enterprises employing between 50 and 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.	39 percent of levy-paying medium-sized firms were accessing grants through developing workplace skills plans.

Source: DoL 2006b

There have been a number of successes from the NSDS, but the overall strategy has a few let-downs that could hopefully be addressed over time. The fact that most of the targets are generalised could cause gaps in addressing the skills problems. Some of the gaps would not be addressed as it is easier chase targets by training at lower level skills rather than higher level skills. Rather, there should be lower targets set for those at higher skill levels, and then higher targets set for those at lower skill levels. In this way there can be more focus at addressing the skills needs.

The above legislation has been put in place for the overseeing of skills development, education and training. Given the skills deficit in South Africa, further incentives and initiatives have been more recently developed to encourage firms to invest in training.

3.1.8 Incentives and Initiatives for Skills development

The latest incentives created by National Treasury for companies, reaffirm government's support for companies to undertake investment in skills development. Two of the most recent changes to the Medium Term Budget Policy Speech (Nov 2008) have been for tax deductions for real fixed investment and for training. A provision of R5,6 billion, over a five year period has been set aside for tax incentives

designed to support the government's industrial policy projects. In terms of training, the maximum additional deduction for training has been capped at R30-million a project (National Treasury 2008b).

Over and above the mandatory skills development levies, companies are required to follow charters that are specific to their sector. The objectives of each charter differ in terms of human resource development, employment equity, procurement and other standards.[26]

3.2 DESCRIPTION OF SKILLS DEVELOPMENT ACTIVITIES

There are various learning activities or routes that can be taken to obtain formally accredited training which could or do lead to qualifications. For the sake of this paper this does not cover the entire spread of occupations operating within the South African labour market. The routes of training which are of primary interest are[27]

- Skills Programmes
- Learnerships
- Apprenticeships (section 13 and section 28)
- Recognition of Prior Learning
- National Certificate (Vocational)

3.2.1 Skills Programmes

A skills programme, as defined by the Skills Development Act 2003,

> *Is occupationally based, when completed, will constitute a credit towards a qualification registered in terms of the NQF as defined in section 1 of the South Africa Qualifications Authority Act.*

Skills programmes are very short training programmes of which a number need to be completed which could quantify as a full learnership. In a sense a skills programme could be seen as a 'module' which would form part of a qualification.

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[26] Some charters do not address training issues but mealy focus on BEE issues. It is not the intention of this study to analyse the individual sector charters.

[27] The four artisan training routes, namely learnerships, apprenticeships, recognition of prior learning and the National Certificate (Vocational), were agreed to by all stakeholders and these training routes were gazetted on 14 December 2007 for public comment.

3.2.2 Learnerships

Kraak (2008) described the 'learnership' as been one of the most important innovations in the intermediate skills development arena in the post-apartheid era. The Skills Development Act of 1998 proposed a very ambitious new framework through the creation of a new institutional regime with strong links forged between learners, employers, government and the new intermediary training bodies, SETAs. This new institutional mechanism for delivering training was termed 'learnerships' (Kraak 2008).

> *Learnerships sought to go beyond the racially restrictive apprenticeship system to extend to all skills levels and sectors. The learnership system was seen as an intervention to redress the old apprenticeship system and its problems and create a high quality dual system of learning. The new system sought to improve the transition between school and work and increase the quantity and quality of workplace learning* (Grawitzky 2006).

It is the SETAs responsibility to broker an agreement between the learner, the employers, and the training providers. All stakeholders have to fulfil certain obligations for the learnership to be completed.

Learnerships range from basic entry level to post professional levels and are developed by the SETAs themselves. Although they are related to apprenticeship agreements, they are entirely different in its content and coverage of learning requirements and it ultimately determined through the exhibition of a specified competence from the learner.

Learnerships are often seen as more appropriate than apprenticeships as they take less time, given the urgent demands for certain skills in the economy. They have proved to be effective in certain sectors where the skill requirements are less technical and hands-on experience of a year or less would suffice for entry-level workers. But in other sectors – especially those requiring 'artisan'-level skills, generally with more technical knowledge and deeper experience, learnerships appear too short-term, and insufficiently rigorous.

Learnerships are NQF qualifications which consist of at least 120 credits. NQF-based training ends with an assessment in which the learner, if successful, is declared competent and the outcome is registered in the National Learner Record Database (NLRD). The thought behind this is that if the correct courses are selected then over time they add up to a full NQF qualification. Furthermore, learners with working experience would have acquired some level of competence in the workplace already. This is incorporated by a process known as the Recognition of Prior Learning (RPL), which gives learners credit for the knowledge and competence that they have gained through their experience.

The Skills Development Act of 1998 defines two types of Learnerships:

- **Section 18.1:** Employed workers
- **Section 18.2:** Unemployed learners

The following table highlights the total number of Learnerships enrolled amongst the employed (18.1) and unemployed (18.2) in the period 1 April 2001 to 31 March 2005.

Table 3-20: Total number of employed (18.1) and unemployed (18.2) persons enrolled on learnerships, April 2001 – March 2005

SETA	18.1 Persons (Employed)	18.2 Persons (Unemployed)	Total Learnerships
FASSET	9,025	4,024	13,049
BANKSETA	3,874	2,044	5,918
CHIETA	1,143	2,873	4,016
CTFL	2,360	2,232	4,592
CETA	873	2,271	3,144
DIDTETA	1,029	102	1,131
ETDPSETA	621	4,987	5,608
ESETA	726	1,417	2,143
FOODBEV	2,426	4,100	6,526
FIETA	844	1,333	2,177
HWSETA	4,495	7,988	12,483
ISETT	414	6,731	7,145
INSETA	1,147	815	1,962
LGWSETA	118	2,442	2,560
MAPPP	257	2,900	3,157
MQA	321	1,575	1,896
MERSETA	3,367	4,333	7,700
POSLEC	27	1,565	1,592
PAETA	1,128	2,329	3,457
PSETA	0	2,623	2,623
SETASA	973	1,068	2,041
SERVICES	2,860	12,792	15,652
THETA	3,422	6,851	10,273
TETA	2,877	3,958	6,835
W&RSETA	1,436	5,057	6,493
Total	45,813	88,410	134,223

Source: DoL, 2006a

Success indicator 5.1 of the *National Skills Development Strategy 2001 – 2005* sets a target of a minimum of 80,000 unemployed people under the age of 30 to have entered learnerships. The total number of unemployed learners to have entered learnerships by 31 March 2005 was 88,410 while the total employed learners have been 45,813 learners.

3.2.3 Apprenticeships

The apprenticeship route is a classic occupational labour market route which combines both the structured arrangements of an external labour market, particularly the regulatory procedures agreed upon for the occupation by the state and employers, as well as key features of an internal labour market, especially the privileged

conditions of employment ceded to experienced artisans on the shop floor (Kraak 2008: 499).[28]

Although there has been a slow phasing out of the apprenticeship system, largely due to cutbacks in apprenticeship training programmes by large private sector employers and the state-owned enterprises over the past two decades, they continue to be governed by the 1981 Manpower Training Act. Apprenticeships are aimed specifically at those wishing to become Artisans. As described below there are two routes in which workers can qualify as Artisans:

- **Section 13** of Chapter 2 of the Manpower Training Act of 1981 refers to (young) persons who have been formally indentured as apprentices, who meet the age criteria, who serve the full time period and who pass the trade test as prescribed by the Act.
- **Section 28** of Chapter 2 of the Manpower Training Act of 1981 refers to (adult) persons not indentured under Section 13 but who satisfy the Registrar of Training that they have gained sufficient work experience over an adequate period of time, and can therefore undergo the trade test, after which (if they pass), they become qualified artisans.

The following table shows the total number of apprentices enrolled in both of these categories between 1 April 2001 and 31 March 2005.

[28] There has been some controversy over the phasing out of the apprenticeship system, largely due to cutbacks in apprenticeship training programmes by large private sector employers and the state-owned enterprises over the past two decades, but they are slowly been phased in by some companies which prefer this method of training. Some of this controversy is related to the old apartheid system of education.

Table 3-21: Total number of apprenticeships (section 13 and section 28) enrolled, April 2001 – March 2005

SETA	Section 13 MTA	Section 28 MTA	Total number of apprentices enrolled Sections 13 and 28
FASSET	0	0	0
BANKSETA	0	0	0
CHIETA	929	929	1,858
CTFL	88	35	123
CETA	351	0	351
DIDTETA	1,529	0	1,529
ETDPSETA	0	0	0
ESETA	568	191	759
FOODBEV	90	0	90
FIETA	586	55	641
HWSETA	0	0	0
ISETT	0	0	0
INSETA	0	0	0
LGWSETA	1,991	619	2,610
MAPPP	1,408	167	1,575
MQA	3,494	402	3,896
MERSETA	6,935	5,642	6,935
POSLEC	0	0	0
PAETA	5	92	97
PSETA	20	5,887	20
SETASA	38	0	38
SERVICES	808	789	1,597
THETA	0	0	0
TETA	2,397	658	3 055
W&RSETA	0	0	0
Total	21,237	15,466	36,703
Average Enrolment per annum	5,309	3,866	9,175

Source: DoL, 2006a

Although the NSDS does not refer directly to apprenticeships, success indicator 5.1 of the *National Skills Development Strategy 2001 – 2005* would be covered by this. The target of a minimum of 80 000 unemployed people was met by the 88,410 learners entering learnerships, over and above this figure, a further 21 237 learners became apprentices (DoL 2006a).

3.3 CONCLUDING COMMENTS

Skills development policies have evolved since the abolishment of the old apartheid era to redress the previous imbalances. Since 1994 active initiatives have been put in place to redress the imbalance in the supply of skills.

The second phase of the National Skills Development Strategy is underway. This is a strategy with targets that are intended to be shared by government departments, employers, workers and communities, and by the organisations and structures that represent them. When measuring the results of the first NSDS strategy to the indicators it is seen that there have been achievements. A major critique of the targets is that they are far too generalised. There are no specifics in the types of training, or the levels of training that is required. Those responsible for training (SETAs) end up 'chasing numbers' as opposed to meaningful outcomes. The result of which is that there are high numbers of people trained at low levels and very few, if any, at high levels. This does not necessarily aid to address the skills shortage – as there is a drastic shortage of highly skilled people.

The levy-grant scheme is used to encourage firms to either set up programmes of in-service training or upgrade skills of their workers by purchasing training for them at a training centre.

The only specific requirement placed on companies by Government is that of the mandatory 1 percent skills development levy (although some sectors are required to follow sector specific charter targets). Some large companies have further willingly come to the table and agreed to train a certain amount of individuals in aid of ASGISA's JIPSA, these companies forming part of the Technical Skills Business Partnership[29] (TSBP).

The second half of the paper draws from the results from the primary research conducted on skills development activities occurring within large companies in South Africa, beginning with the focus on funding of training before moving onto the amount of individuals receiving training and support.

[29] These companies include Goldfields (Mining industry), Sasol (Petrochemical industry), ArcelorMittal (Manufacturing, steel and engineering industry), Transnet (State Owned Enterprise: Transportation), Eskom (State Owned Enterprise: Energy), Anglo Platinum (Platinum industry).

4 FUNDING OF TRAINING AND EDUCATION

This section considers the amount that companies are spending on training and where exactly this spending is taking place. It then reviews what the spending is as a percentage of payroll – that is, what companies are spending on training over and above the levy measured in terms of their payroll spend. It then considers the manner in which companies are accessing their levy monies back through the Mandatory and Discretionary Grant Schemes.

Finally, there is an analysis of the ways in which various sectors allocated training expenditure and an analysis of how it can be translated into unit costs.

Close to R4 billion is spent on education, training and skills development by the companies at hand. Each sector has individual training priorities or preferences in the learning pathway of individuals. A unit cost is also given per individual trained to ascertain the difference between a large quantity of individuals trained (i.e. low spending per individual) versus a large amount spent on individuals (i.e. low amount of individuals trained). The analysis is presented in a manner that would make a more fair judgement on equal grounds – both points of view are presented.

Some methods presented may be biased towards certain sectors due to the sample size or due to the nature of the companies that participated in the evaluation[30], and so various methods of analysis are presented using the given data. With all the types of analysis employed, better conclusions about expenditure on training can be made.

4.1 TRAINING EXPENDITURE

This chapter starts off by observing the total amount spent by the various sectors, followed by what is spent by companies of the three different category sizes. Here the total figure that was provided by companies when asked the question 'what is the total amount you spend on training?' Further on in this chapter, the composition of the training spend is broken down.

[30] Although companies were never selected based on the amount of training they do (the basis for selecting participants was based on company size), it may be found that the companies in the survey do undertake a higher level of training than the norm, but the converse may also be true.

Table 4-22: Total expenditure on training per sector

Sector[31]	Total Amount spent on Training
Manufacturing 31 (out of 39)	R 640,128 287
Community and Personal Social Services 6 (out of 6)	R 67,272,329
Mining 6 (out of 6)	R 1,188,949,987
Financial 6 (out of 6)	R 645,864,129
Construction 13 (out of 14)	R 198,171,693
Wholesale and Retail 13 (out of 14)	R 344,796,453
SOE 2 (out of 2)	R 910,000,000

Out of the 92 companies that gave a response to their 'total spent on training' there was a total amount of R3,995,182,878 spent. Of the given sample, the mining sector had the greatest expenditure on training, followed closely by the two state-owned enterprises.

The table and chart that follow give an indication of the amount that is contributed to the total figure of training expenditure.

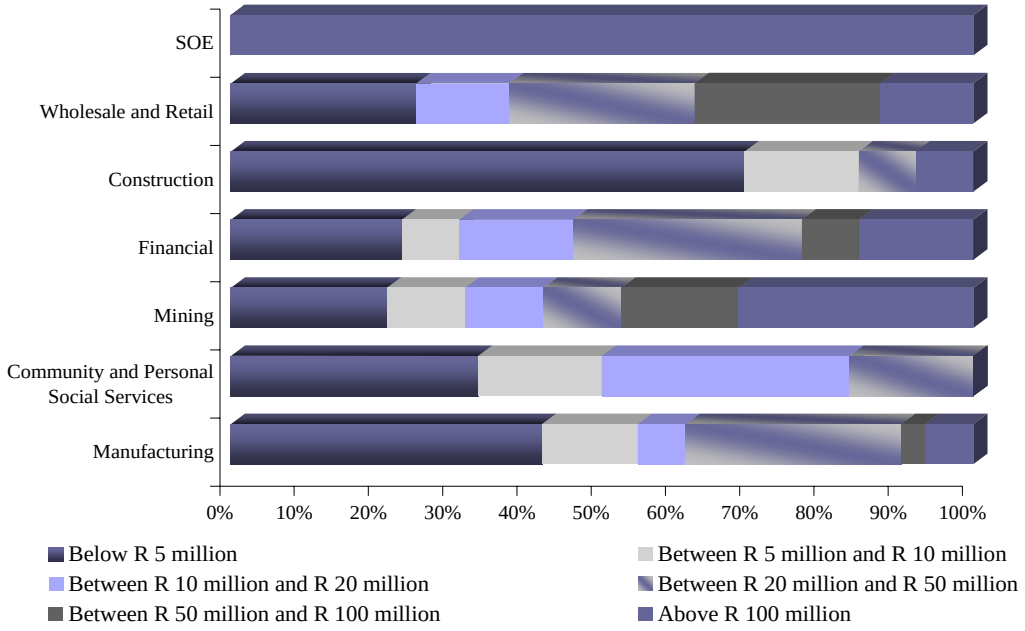
Table 4-23: Expenditure on training per sector

Amount Spent on Training	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
< R5m	13	2	4	3	9	2	0
R5m – R10m	4	1	2	1	2	0	0
R10m – R20m	2	2	2	2	0	1	0
R20m – R50m	9	1	2	4	1	2	0
R50m – R100m	1	0	3	1	0	2	0
R100m +	2	0	6	2	1	1	2

[31] The figure below the sector indicates the number of companies that gave a response for the total amount spent on training. For example, in the manufacturing sector 31 out of a total 39 companies in the sector gave an amount for the total spent on training. For consistency, breakdown figures were not summated to give a total and the calculation is only based on a company's response.

The chart that follows is a graphical representation of the previous table. It illustrates the percentage of companies and the amount spent on training.

Figure 4-2: Expenditure on training per sector



4.1.1 Categorical Spending

In this section, spending broken down amongst the various categories is looked at. This section will not look at the total amount spent by each sector as that was done in the previous section. Due to differing data techniques, the totals given here may not necessarily match the totals given above.

Table 4-24: Expenditure on various categories[32]

Category	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail
Sample Size	36 (out of 39)	6 (out of 6)	18 (out of 20)	13 (out of 17)	12 (out of 14)	6 (out of 8)
Bursaries	**R120,849,307**	R5,362,643	**R226,696,524**	R23,998,440	R6,407,358	R7,883,743
Learnerships	R81,592,773	**R24,938,300**	**R138,274,575**	R38,524,297	R1,769,583	**R117,213,115**
Apprenticeships	**R56,519,339**	R761,536	R23,963,526	R0	R5,946,150	R0
Internships	R17,694,406	R207,400	**R57,038,352**	R7,127,324	R506,104	R458,152
Skills Programmes	**R76,574,804**	R10,873,929	**R95,130,351**	R54,783,453	**R10,383,366**	R18,557,572
Other Support for FET Institutions	R12,963,946	R355,000	R6,742,400	**R86,400,000**	R2,770,000	R600,000
Other Support for HE Institutions	R13,148,918	R6,000	R11,157,598	**R198,217,000**	R31,800	R0
Other	R169,568,883	R872,678	R86,108,439	R93,021,501	R9,170,866	R5,694,936

The figures highlighted indicate where sectors have prioritised expenditure and illustrate the nature of the contribution that each sector is making to expenditure on training. The total amount allocated for the above amounts to R2,149,866,387. The deviation from the earlier figure of R3,995,182,878 can be explained by some companies not providing a breakdown of their expenditure and simply giving their total spend on training.

A further analysis on the manufacturing, mining and financial sector is given.

[32] SOEs were excluded from this section of analysis due to insufficient data.

4.1.1.1 Manufacturing

Table 4-25: Manufacturing sector expenditure on various categories

Manufacturing 36 (out of 39)[33]	
Bursaries	R 120,849,307
Learnerships	R 81,592,773
Apprenticeships	R 56,519,339
Internships	R 17,694,406
Skills Programmes	R 76,574,804
Other Support for FET Institutions	R 12,963,946
Other Support for HE Institutions	R 13,148,918
Other	R 169,568,883

The total expenditure allocated by the manufacturing sector amounts to R548,912,377. This is the second-highest spending sector when broken down as shown above. Over and above that categorised as 'other', it was bursaries that boasted the highest spend of close to R121 million. Learnerships and skills programmes were also prioritised within the manufacturing sector, both being approximately one seventh of the total spend on training. Apprenticeships are also prioritised in the manufacturing sector, having R56.5 million spent in that area of training.

4.1.1.2 Mining

Table 4-26: Mining sector expenditure on various categories

Mining 18 (out of 20)	
Bursaries	R 226,696,524
Learnerships	R 138,274,575
Apprenticeships	R 23,963,526
Internships	R 57,038,352
Skills Programmes	R 95,130,351
Other Support for FET Institutions	R 6,742,400
Other Support for HE Institutions	R 11,157,598
Other	R 86,108,439

[33] 36 manufacturing companies out of a total 39 gave a detailed breakdown of their training expenditure

The mining sector spent the greatest amount overall on training. Bursaries and learnerships were the highest priorities in training, with skills programmes and internships following. The mining sector also spent more in these areas than any other sector. R226.7 million was spent on bursaries and R138 million on learnerships.

4.1.1.3 Financial

Table 4-27: Financial sector expenditure on various categories

Financial 13 (out of 17)	
Bursaries	R 23,998,440
Learnerships	R 38,524,297
Apprenticeships	R 0
Internships	R 7,127,324
Skills Programmes	R 54,783,453
Other Support for FET Institutions	R 86,400,000
Other Support for HE Institutions	R 198,217,000
Other	R 93,021,501

As shown above, the financial sector felt it necessary to provide the majority of support at FET and HE institutions, as this is where their spending was prioritised. This sector possibly felt that learners given support at that level would be better equipped to enter the financial sector once they are finished their FET/HE studying.

4.1.1.4 Overall

These figures are aggregated in the following table to facilitate an understanding about prioritisation regarding the expenditure in different programme types.

Table 4-28: Overall categorical expenditure

Category	Total spend across sectors	Percentage
Learnerships	R 414,312,643	19.27%
Bursaries	R 413,198,015	19.22%
Other	R 410,937,304	19.11%
Skills programmes	R 356,303,474	16.57%
Other support for HE institutions	R 223,061,316	10.38%
Apprenticeships	R 135,190,551	6.29%
Other Support for FET institutions	R 109,831,346	5.11%
Internships	R 87,031,738	4.05%
Total amount indicated	R 2,149,866,387	100.00%

Of the total R2.1 billion indicated in training expenditure, it can be seen that priority is given to learnerships, bursaries, and 'other' training expenditure. Skills programmes were also highly favoured among all the sectors combined.

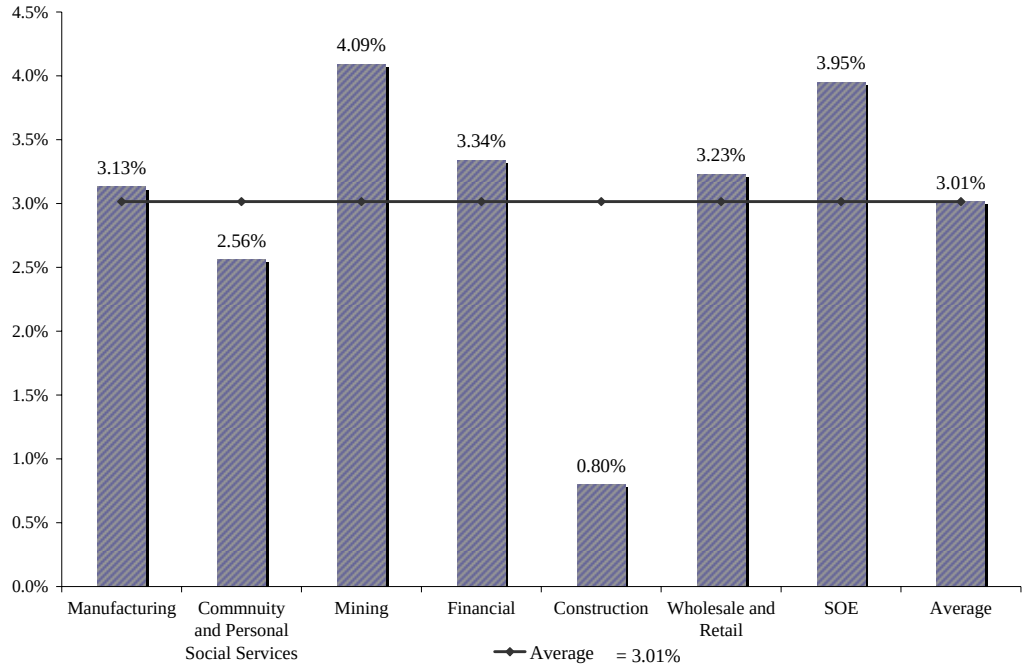
4.2 PERCENTAGE OF PAYROLL SPENT ON TRAINING

A key issue that was probed into is the percentage of payroll that companies are spending over and above the skills levy. The skills levy is a levy based on one percent of the total payroll, so it would also be useful to measure what companies are spending in total training as a percentage of payroll.

The table provided highlights the percentage over and above the levy that companies indicate they are spending on training. However, while these figures are very exciting, it is noted that there may have been data submitted that is inclusive of the one percent levy, due to misinterpretation of the question. While this was discussed with companies in post-survey follow-ups, the confusion around the levy and expenditure for training that was experienced in the study allows some room for doubt. Furthermore, this question was only added after the initial survey was distributed; it was submitted in response to the difficulties that companies indicated they were experiencing in establishing whether the mandatory grant was fed back into training. Many companies simply expensed the skills levy and then credited the mandatory grant, as they felt that this grant money received could in no way meet their training requirements. Thus, the training costs reflected by companies simply

ignore the grants received. It is only when this survey was distributed that companies ever considered the differences between mandatory and discretionary grants and actual training expenditure. This issue is discussed in more detail below.

Figure 4-3: Training expenditure as a percent of payroll over and above the 1 percent levy[34]



The chart above illustrates the various sectors' expenditure in training as a percentage in payroll. The overall percentage for all sectors combined is 3.01 percent. Most sectors are above the average with the exclusion of the community and personal social services and construction sector. The mining sector has the highest expenditure as a percentage of payroll with 4.09 percent. SOEs follow closely behind with 3.95 percent.

This begins to demonstrate that companies are committed to spending far more than the target of one percent as set by government. From this it could be inferred that companies do not see the one percent as being adequate for their training needs, as they are spending more than one percent.

[34] The sample sizes for each of the figures below can be found in Appendix H

4.3 MANDATORY AND DISCRETIONARY GRANTS

Before looking at the data, it would be useful to explain the process of Mandatory and Discretionary Grants. The funds for Mandatory and Discretionary Grants are collected from the one percent skills development levy.

Of the total money collected from the skills levy, seventy percent is distributed to the various SETAs. If the firm is involved in training (in-house or outside), they can claim a proportion of their levy monies back through the Mandatory and Discretionary Grant Schemes. Fifty percent is claimable in Mandatory Grants and twenty percent is available for Discretionary Grants.

1. Companies with an annual total wage bill of less than R500 000 are exempt from paying the levy but are still entitled to claim discretionary grants.
2. Firms who pay the levy are required to submit a workplace skills plan (WSP) and an annual training report (ATR) by June 30th every year to claim mandatory grants and be eligible to claim discretionary grants. In other words, if you do not submit the WSP and ATR a company is unable to claim a grant.
3. The total value of mandatory grants is claimable is equal to fifty percent of the levy paid by the firm. Some SETAs undertake an audit of mandatory grant claims and if that ATR does not meet a sixty percent or greater coverage of the previous year's WSP, then only a proportion of the mandatory grant is reimbursed. Other SETAs insist that the WSP and ATR are required to reflect equity (based on industry scorecards) and/or scarce skill targets in order to be eligible for mandatory grant payouts.
4. Discretionary grants are available for apprenticeships, learnerships and skills programmes and for other sector priorities which are determined by various stakeholders. The total value of discretionary grants for the sector is equal to a maximum of twenty percent of the total sector levy income,
5. Of the remaining levy amounts available, twenty percent goes to the National Skills Fund (NSF) and ten percent goes to SETA administration. Additional discretionary monies are leveraged from unclaimed mandatory grants and surplus funds rolled over from the previous year.

A skills development facilitator employed by the firm is responsible for the development and planning of a company's skills development strategy. This includes the development and implementation of an annual workplace skills plan (WSP) and the submission of an annual training report (ATR).

As indicated earlier, it was hoped that an indication of the percentage of training that was funded by monies received from the mandatory grant and from the discretionary grant could be provided, as well as – but distinct from – the percentage that was funded by additional monies allocated by the company. However, in the case of many of these funding-related questions, there was some confusion. Upon approaching companies to clarify this matter due to the unlikelihood of the percentages submitted, it was found that because of the manner in which the accounting systems of many of these companies operate, there is what appears to be a disconnect between the levy paid and the grant received back and the actual training budget and expenditure. Respondents explained that when the grant was paid, this happened in more than one tranche and in arrears, which made it impossible for the companies to plan training against this amount. The amounts which companies receive back from the SETAs goes to a different financial stream and the budget and training expenditure take place separately from this. This money is then not ring-fenced for training.

This is not necessarily a problem, as the companies have checks and balances to ensure that the Annual Training Report (ATR) they submit is able to reflect expenditure for training against the levy. As they are training more than the levy, this is not an issue. It also appears to mean that companies are planning training in terms of need, and not in terms of the levy grant, and are moving to higher levels of expenditure based on company priorities.

This point is particularly important as individuals submitting the survey are very unsure about what percentage of the grant is received, that is, the amount of money coming back in. The tables below highlight the fact that the vast majority of these companies receive the full mandatory grant, and in most cases also access discretionary grants.

Table 4-29: Number of companies receiving mandatory and discretionary grant's

Funding Arrangements	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Sample size	n = 36	n = 5	n = 18	n = 14	n = 10	n = 7	n = 2
Number of companies who receive 50% back through mandatory grant	34	5	17	14	8	6	2
Sample size	n = 38	n = 6	n = 19	n = 16	n = 14	n = 6	n = 2
Number of companies who receive discretionary grants	28	3	15	12	3	6	2

The table above shows that 86 indicated that they received their mandatory grant back in full out of the 92 companies that responded to this question and 69 indicated that they received discretionary grants out of the 101 that answered.

The amount of money that is represented by discretionary grants is provided below[35]:

Table 4-30: Total amount received from discretionary grant's

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Sample size	n = 28	n = 3	n = 15	n = 12	n = 3	n = 6	n = 2
Total amount	R28,015,664	R8,462,422	R37,979,754	R32,246,537	R1,203,838	R8,590,510	R13,500,000

In terms of the number of companies that responded to this question as indicated above, the following table indicates the number of companies that are receiving below R700,000, between R700,000 and R1.4 million, and above R1.4 million.

35 It should be noted that more companies indicated that they received Discretionary Grants than the number that provided the actual value of this grant. This is why the number of companies reflected in the sample size next to the question of monetary value of the Discretionary Grants is less than the number in the previous table in which companies indicated that they received a grant.

Table 4-31: Categorical amount received from discretionary grant's

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
< R 700,000	11	1	4	1	2	3	0
R 700,000 – R 1.4 million	6	0	1	7	1	1	0
R 1.4 million +	11	2	10	4	0	2	2

4.4 COST OF TRAINING VS. NUMBER OF PEOPLE TRAINED

This section attempts to give an indication of the cost of training per individual trained. Due to the complexity of this type of information, very specific comments about this data cannot be made or justified to a large extent. What can be inferred is the type of courses being offered due to their cost. A short training course would more likely be less expensive than a longer training course; similarly, a lower-level course would be less expensive than a higher-level training course. Also, if there are other forms of equipment used in the training, this would likely increase the cost of the course even further - this can be one possible explanation in the deviance of the cost between sectors.

Due to the nature of the question in the survey, one would be unable to determine whether these costs include other miscellaneous costs incurred[36], for example transportation, accommodation and food. When discussing this with the interviewees, some had indicated that these other miscellaneous costs incurred often do fall under training costs. When respondents were asked to give a breakdown of training costs, very often the miscellaneous costs were excluded from particular training types (e.g. learnerships) but they were included under total training costs[37]. This means that a summation of the breakdown of the total costs does not equate to the total cost of training described by companies. Also, in the sections that follow, the 'other' spending category was excluded. The survey that was given to companies had a category for 'other', where spending did not fall into any of the given categories.

[36] Various companies had different interpretations of the question even when guidance was given, this was due to different financial reporting methods utilised.

[37] For details on the questions asked refer to the survey instrument in Appendix A

Subsequently, this section examines the breakdown of costs in isolation from the total costs – the total costs not simply being the total of the breakdown of training expenditure. In this section, when one looks at the unit cost, any reference to total cost is slightly different to that of the previous sections in the sense that the total cost is made up of the summation of the breakdown. This was done so some form of 'comparable unit costs' could be established among different types of training within the different sectors and categories. Hopefully providing all the different types of analysis should enable the reader to make his or her own conclusions about spending in whichever form he or she finds fitting.

So, including the miscellaneous costs of training, can be seen to inflate the actual costs of training – although these costs are incurred by the company in sending staff for training. Furthermore, there is no differentiation between employed and unemployed learners. The expenditure provided by companies is the total cost of training (employed learners and unemployed learners). The numbers below quantity trained must not be confused with the figures given earlier, as the numbers represented here are only given if a company gave a breakdown of their expenditure on training. This was done in order to attain a more accurate estimation of unit costs of training per individual. If a company gave no breakdown of their training costs, the the number of learners that they had indicated to have trained excluded. This also provides a more stable basis on which the figures can be compared to the *allocation of training expenditure*, as the expenditure amounts will be equal.

Table 4-32: Total spend on training per sector

	Total Cost	Learners Trained	Unit Cost
Manufacturing	R261,812,930	12,125	R21,593
Community and Personal Social Services	R11,063,776	6,116	R1,809
Mining	R385,322,226	24,553	R15,693
Financial	R357,826,698	21,305	R16,795
Construction	R22 351,953	1,209	R18,488
Wholesale and Retail	R144,326,116	27,115	R5,323
SOE	R167,000,000	12,700	R13,150

Once again the total spend on training will match our previous tables, but this time the average spend was per learner given training was analysed, or better put, unit cost per learner trained.

The manufacturing sector had the highest average training costs of R21,593. This is not too far off from our earlier analysis of the allocation of training expenditure where they had the second highest average spending per staff complement. Manufacturing was second to the financial sector in that instance.

The mining, financial and construction sectors all had an average spend in the region of R15,500 to R18,500. Although the construction sector had the lowest number of learners trained – 1,209 learners[38] – they had a higher spend per learner of R18,488 per learner trained.

The mining and financial sectors had comparable unit costs in terms of the total cost of training and the total number trained. The financial sector spent slightly more per learner trained, although they trained fewer learners than the mining sector did. The mining sector however had almost a double staff complement when one looks at the number of staff in the sector. So, in this instance, it appears that the financial sector is the greater contributor when it comes to training.

Other sectors had lower costs per training of individuals – wholesale and retail had quite a low cost per learner but had the highest number of learners that were trained. The community and personal social services sector had the lowest unit cost and the least amount of overall spending.

The spending from the perspective of company size is now examined.

Table 4-33: Unit cost on total training spend

	Total Cost	Learners Trained	Unit Cost
Category 1	R881,278,661	72,375	R 12,177
Category 2	R395,771,815	30,097	R 13,150
Category 3	R72,653,223	2,651	R 27,406
Overall	R1,349,703,700	105,123	R 12,839

The analysis of the unit cost of total training spend per category draws the same conclusions that were established earlier in the *allocation of training spend*. Again, it is apparent that the smallest companies are spending the greatest amount per learner

[38] The low number of learners trained can easily be justified by the number of staff (as shown in the previous table) in this sector; they only had a staff complement of 29 252.

trained. It should however be noted that these small companies[39] are only training a fraction of the number that the largest companies train. All companies falling within Category 3 have cumulatively trained 2,651 learners, while those in Category 1 have trained 72,375. When it comes to the amount spent per learner trained however, it can be found that companies within Category 3 have spent more than double than those in Category 1.

So, companies within Category 1 have trained 27 times more learners than Category 3 companies, but Category 3 companies have spent more than double on the training per learner. This would indicate that training within Category 3 is directed more towards longer or higher-level courses than it is within Category 1.

When one starts to analyse the breakdown of expenditure, there is a better indication of where money is being spent. The total spend on training does not merely give an overall picture of what the expenditure is for different sectors, it also intuitively shows us what each sector's commitment to training may be – whether it is spending a lot on a few or spending a little on many, and whether prioritisation is on training the higher or lower skilled individuals. Further on, it will be possible to see what types of training is preferred among the various sectors and categories. The analysis of sectors begins with the manufacturing sector.

Table 4-34: Manufacturing sector unit cost

Manufacturing (n=36)		Qty Trained	Cost	Unit Cost
Total		12,125	R 261,812,930	R 21,593
Bursaries	FET	401	R 15,096,806	R 37,648
	HET	2,599	R 38,905,450	R 14,969
	Schools	561	R 9,575,162	R 17,068
Learnerships		4,685	R 80,741,097	R 17,234
Apprenticeships		1,209	R 56,519,339	R 46,749
Internships		98	R 10,240,836	R 104,498
Skills Programmes		1,220	R 29,569,688	R 24,237
Other support for FET Institutions		1,127	R 8,051,946	R 7,145
Other support for HE Institutions		225	R 13,112,606	R 58,278

[39] Not necessary 'small' in terms of official categorisation, only small in terms of those that fall within Category 3.

The manufacturing sector has a sample size of 39 companies of which there were three which gave insufficient information for more detailed analysis. As was established earlier, there are a total of 12,125 learners that are receiving training in this sector. The majority are undertaking learnerships: 4,685 learners have completed or are currently undertaking a learnership. The bulk of the R262 million spent by the manufacturing sector is spent on learnerships – R81 million. This is justifiable due to the large number of people undertaking this form of training. Another large proportion of training exists in the form of bursaries offered. In total there were 4,711 bursaries offered to learners and this was mainly made up of HET bursaries, of which there were 2,599 offered, amounting to a cost of R39 million. A much smaller proportion of bursaries were given for FET and Schooling. What is noticeable is that the unit cost spending for FET bursaries exceeded the unit cost spending for HET bursaries. FET unit costs were two and a half times greater than HET unit costs. One would expect the cost of a FET course to be lower than a HET course, but it is also quite likely that companies only contribute a proportion of the total cost of training. As our investigation into sectoral spending continues, it will soon be found that the only other sector also to have a noticeably greater unit cost in FET bursaries is the wholesale and retail sector.

One form of training that had a remarkably high unit cost was internships. The unit cost was R104,498 per learner trained. This notably high unit cost may perhaps then have been the disincentive that results in so few learners in this area of training; only 98 of the 12,125 trained undertook internships.

Table 4-35: Community and personal social services sector unit cost

Community and Personal Social Services (n=6)		Qty Trained	Cost	Unit Cost
Total		6,116	R 11,063,776	R 1,809
Bursaries	FET			
	HET	376	R 5,121,104	R 13,620
	Schools			
Learnerships		122	R 3,092,300	R 25,347
Apprenticeships		120	R 761,536	R 6,346
Internships		12	R 57,400	R 4,783
Skills Programmes		235	R 1,670,436	R 7,108
Other support for FET Institutions		5,130	R 355,000	R 69
Other support for HE Institutions		121	R 6,000	R 50

The community and personal social services sector has a sample size of six companies so here no conclusive arguments about the sector could be made as the sample size is too small. It could be the case that there are not as many 'large'[40] companies of this nature that fit into this survey. [41]

In comparison to the other sectors, the community and personal social services trained very few people and spent the least on training. This however can be attributed to the smaller sample size. Analysing spending in terms of unit cost would thus be more relevant here.

In terms of unit cost spending per learner trained, companies within the community and personal social services spent by far the least per learner. This would indicate to us a lack of commitment to training. There could also have been a difficulty with access to training required in this sector.

The greatest proportion of spending arose from learnerships. This amounts to a mediocre unit cost of R25,374 per learner trained. The amount spent was R3,092,300 and there were 122 learners who undertook learnerships.

The bulk of training was in the form of other support for FET institutions. Here, there were 5,130 people that were supported, amounting to 83 percent of the total trained. Only R355,000 was spent, which gives a unit cost of R69 per learner. Companies within this sector have seemingly opted to give many people a small amount of support.

Due to the small number of companies analysed, it was felt necessary to look at companies individually to see if there were any noteworthy points.[42]

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[40] In this case, 'large' refers to companies that fall into Categories 1 to 3. As discussed in the beginning of this paper, the majority of companies that were chosen were done so because they were large and thus play a significant role in South Africa's economy.

[41] Where blanks exist in the tables this is due to no information been provided in those categories - companies in the sample may have not spent in those categories.

[42] It is reiterated at this point that no specific company names can be mentioned due to confidentially.

It was found that the support given for FET institutions was all derived from one specific company. This company had a much higher training total spend on training, of which more than half was not broken down in detail. From the information that was given, their highest spends occurred in the form of bursaries for HET and learnerships. In terms of numbers trained, the greatest number came from other support for FET institutions.

Table 4-36: Mining sector unit cost

Mining (n=17)		Qty Trained	Cost	Unit Cost
Total		24,553	R 385,322,226	R 15,693
Bursaries	FET	251	R 418,951	R 1,669
	HET	1,682	R 143,023,289	R 85,032
	Schools	198	R 226,252	R 1,143
Learnerships		2,623	R 138,274,575	R 52,716
Apprenticeships		36	R 1,210,890	R 33,636
Internships		143	R 29,969,000	R 209,573
Skills Programmes		8,743	R 56,748,671	R 6,491
Other support for FET Institutions		10,680	R 4,293,000	R 402
Other support for HE Institutions		197	R 11,157,598	R 56,638

The mining sector had a larger sample size, which helps us to make more substantive claims than the smaller sectors allow. Another aspect that one should bear in mind is the fact that the mining sector in general consists of only a limited number of companies, the majority of which are included in this sample – 17 out of a total of 20 companies are included.

The mining sector had the largest expenditure on training. This is impressive not just due to its magnitude, but also because of the number of firms in this type of industry.

The biggest proportion of spending arose from bursaries in HET. An amount of R143 million was spent on the support for 1,682 learners, which equates to a unit cost of R85,032. From this, one can infer that the support is given to learners for the entire duration of the course (in the instance of it being more than a year long) and that there is support for accommodation and other miscellaneous expenses.

The form of training that was the most costly for the mining sector was internships. There were 143 learners in internships, each of which had a unit cost of R209,573. This is a far higher cost than any of the other forms of training.

The mining sector also seems very committed to training by means of skills programmes. Here there were 8,743 learners trained, each having a unit cost of around R6,491. This is quite a high number of learners to support, and the support given per learner is quite modest given the number trained.

Surprisingly, there were very few apprentices supported, perhaps due to the phasing out of apprenticeships over the past few years. But the apprentices that were given training were allocated quite a sizable expenditure each; although there were only 36 apprenticeships, each one had a unit cost of R33,636. This amounted to a total spend of just over R1 million, but given the small number of apprenticeships, this is understandable.

There were also a large number of FET institutions supported, although the unit cost per institution was quite low at a mere R402 per institution. In total, this amounted to just over R4 million.

Table 4-37: Financial sector unit cost

Financial (n=11)		Qty Trained	Cost	Unit Cost
Total		21,305	R 357,826,698	R 16,795
Bursaries	FET	252	R 2,100,000	R 8,333
	HET	1,580	R 19,143,369	R 12,116
	Schools	11	R 123,805	R 11,255
Learnerships		707	R 26 033,761	R 36 823
Apprenticeships				
Internships		59	R 758,400	R 12,854
Skills Programmes		2,412	R 25,267,363	R 10,476
Other support for FET Institutions		16,031	R 86,400,000	R 5,390
Other support for HE Institutions		253	R 198,000,000	R 782,609

The financial sector had a smaller sample size of eleven companies (out of a total of 17), but again this consisted of the major key players in this sector.

The financial sector was also a very high spender in terms of overall training; training spend that could be accounted for amounted to almost R358 million.

A quick overview of all the unit costs shows that every form of training had a modest unit cost expenditure. The lowest cost was the support for FET institutions amounting to R5,390. There were an exceedingly high number of FET institutions supported, with 16,031 receiving support.

On the flip side, support for HE institutions was the highest unit cost expenditure with each institution receiving R782,609. There were of course fewer institutions supported but this is still quite sizeable given the fact that they are HE institutions. There were 253 HE institutions supported.

It can be seen that the financial sector's priority is to support FET and HE institutions, both in the amount they contribute as well as in the number of institutions they support.

The financial sector also spends a notable amount on bursaries for FET and HET, this time with more HET learners supported than FET learners. Within the sample examined, 1,580 HET learners and 252 FET learners were awarded bursaries.

The lowest expenditure was for school bursaries and internships, both of which were under R1 million. It is understandable that there are no apprenticeships here, due to the nature of the sector.

Another noteworthy area of expenditure is in skills programmes. There were 2,412 learners trained with each one having a unit cost of R10,476.

Table 4-38: Construction sector unit cost

Construction (n=11)		Qty Trained	Cost	Unit Cost
Total		1,209	R 22,351,953	R 18,488
Bursaries	FET	33	R 711,564	R 21,563
	HET	188	R 4,083,665	R 21,722
	Schools			
Learnerships		125	R 1,769,583	R 14,157
Apprenticeships		223	R 5 946,150	R 26,664
Internships		22	R 475,000	R 21,591
Skills Programmes		614	R 7,895,990	R 12,860
Other support for FET Institutions		4	R 1,470,000	R 367,500
Other support for HE Institutions				

The construction sector did the least in terms of numbers trained. This can be attributed to the smaller size of the sector – the construction sector having a small base of employees along with the community and personal social services sector. It could also be attributed to the fact that the construction sector has a high proportion of part-time employees and the aforementioned disincentive to train these workers could be from the ability to leave the company at any given time. At the time of the survey, 39 percent of workers within the construction sector were employed part time. The only other sector with a rate as high as this was the wholesale and retail sector, which consisted of 46 percent part-time employees.

The low number trained reflected could also be due to the fact that a lot of the training undertaken in the construction sector is not accredited, and thus those numbers are not taken into account.

In terms of prioritisation, the construction sector favours skills programmes. The highest number of learners trained and the largest expenditure arises from those undertaking skills programmes – there were 614 learners trained, with a total that reached close to R8 million spent, which equates to 35 percent of the total spend on training. This had a modest unit cost of R12,860 per learner trained.

Table 4-39: Wholesale and Retail sector unit cost

Wholesale and Retail (n=5)		Qty Trained	Cost	Unit Cost
Total		27,115	R 144,326,116	R 5,323
Bursaries	FET	41	R 5,338,610	R 130,210
	HET	848	R 2,111,853	R 2,490
	Schools	399	R 157,280	R 394
Learnerships		1,996	R 117,213,115	R 58,724
Apprenticeships				
Internships		21	R 458,152	R 21,817
Skills Programmes		13,910	R 18,447,106	R 1,326
Other support for FET Institutions		9,900	R 600,000	R 61
Other support for HE Institutions				

The wholesale and retail sector also trained minimally in comparison to other sectors. The prioritisation lay in learnerships, accounting for 81 percent of their training expenditure. There were 1,996 learners trained, giving a high unit cost of R58,724 per learner. Half of the learners trained, 13,910 out of 27,115, were in skills programmes.

The wholesale and retail sector had five companies included in the sample above out of a total of seven.

Table 4-40: SOE unit cost

SOE (n=1)		Qty Trained	Cost	Unit Cost
Total		12,700	R 167,000,000	R 13,150
Bursaries	FET			
	HET	873	R 17,000,000	R 19,473
	Schools			
Learnerships		640	R 12,000,000	R 18,750
Apprenticeships		1,187	R 48,000,000	R 40,438
Internships				
Skills Programmes		10,000	R 90,000,000	R 9,000
Other support for FET Institutions				
Other support for HE Institutions				

Of the two state-owned entities, only one gave a detailed breakdown in training. Therefore no statements about the sector as a whole can be made. The breakdown is merely provided for comparative/illustrative purposes.

The next set of tables that follow give a breakdown of unit costs per variant company size. An analysis will follow after all the categorical unit cost tables.

Table 4-41: Category 1 unit cost

Category 1 (n = 16)		Qty Trained	Cost	Unit Cost
Total		72,375	R 881,278,661	R 12,177
Bursaries	FET	600	R 9,087,956	R 15,147
	HET	3,532	R 76,006,161	R 21,519
	Schools	579	R 337,280	R 583
Learnerships		6,396	R 252,407,303	R 39,463
Apprenticeships		1,399	R 54,042,000	R 38,629
Internships		183	R 30,765,152	R 168,116
Skills Programmes		31,859	R 168,182,809	R 5,279
Other support for FET Institutions		27,469	R 87,500,000	R 3,185
Other support for HE Institutions		358	R 202,950,000	R 566,899

The number of companies included in each sample is greater due to the type of categorisation. Category 1, being the largest of the companies in our sample, trained the largest number of learners (72,375) and had the highest expenditure of R881 million. What is interesting to note when looking at the total amount, is that the unit cost spent per learner is the lowest in comparison to the other categories, which would indicate that economies of scale come into play.

Table 4-42: Category 2 unit cost

Category 2 (n = 31)		Qty Trained	Cost	Unit Cost
Total		30,097	R 395,771,815	R 13,150
Bursaries	FET	330	R 13,111,694	R 39,732
	HET	3,614	R 125,084,626	R 34,611
	Schools	433	R 9,484,373	R 21,904
Learnerships		4,073	R 113,901,205	R 27,965
Apprenticeships		1,104	R 48,602,090	R 44,024
Internships		105	R 3,869,636	R 36,854
Skills Programmes		4,651	R 51,805,424	R 11,139
Other support for FET Institutions		15,398	R 11,526,161	R 749
Other support for HE Institutions		389	R 18,386,606	R 47,266

Table 4-43: Category 3 unit cost

Category 3 (n = 40)		Qty Trained	Cost	Unit Cost
Total		2,651	R 72,653,223	R 27,406
Bursaries	FET	48	R 1,466,281	R 30,548
	HET	1,000	R 28,297,943	R 28,298
	Schools	157	R 260,846	R 1,661
Learnerships		429	R 12,815,923	R 29,874
Apprenticeships		272	R 9,793,825	R 36,007
Internships		67	R 7,324,000	R 109,313
Skills Programmes		624	R 9,611,021	R 15,402
Other support for FET Institutions		5	R 2,143,785	R 428,757
Other support for HE Institutions		49	R 939,598	R 19,175

The following table combines the results of the above 3 tables. It gives us an indication of the total number of individuals trained as well as the related cost. Overall the number trained accounted for is 105,123 and the total associated cost is R1,3 million giving a unit cost of R12,839 per person trained.

Table 4-44: Overall Sector unit cost

Overall (n = 87)		Qty Trained	Cost	Unit Cost
Total		105,123	R 1,349,703,700	R 12,839
Bursaries	FET	978	R 23,665,931	R 24,198
	HET	8,146	R 229,388,731	R 28,160
	Schools	1,169	R 10,082,499	R 8,625
Learnerships		10,898	R 379,124,431	R 34,788
Apprenticeships		2,775	R 112,437,915	R 40,518
Internships		355	R 41,958,788	R 118,194
Skills Programmes		37,134	R 229,599,254	R 6,183
Other support for FET Institutions		42,872	R 101,169,946	R 2,360
Other support for HE Institutions		796	R 222,276,204	R 279,241

The table that follows gives a comparison of unit costs per category. Here one can clearly identify the standard deviation between the various categories. The main purpose is to identify where the various categories have focused their training expenditure.

Table 4-45: Comparison of unit cost per category

		Category 1	Category 2	Category 3	Overall
Bursaries	FET	R 3,849	R 39,732	R 30,548	R 8,640
	HET	R 21,519	R 34,611	R 28,298	R 28,160
	Schools	R 583	R 21,904	R 1,661	R 8,625
Learnerships		R 39,463	R 27,965	R 29,874	R 34,788
Apprenticeships		R 38,629	R 44,024	R 36,007	R 40,518
Internships		R 168,116	R 36,854	R 109,313	R 118,194
Skills Programmes		R 5,279	R 11,139	R 15,402	R 6,183
Other support for FET Institutions		R 3,185	R 749	R 428,757	R 2,360
Other support for HE Institutions		R 566,899	R 47,266	R 19,175	R 279,241

Overall, the highest unit cost was for the support of HE institutions, and this was due to the expenditure by Category 1 firms. The other high unit cost was for internships, due to both Category 1 and Category 3 firms. All other forms of training had a substantially lower unit cost per learner trained.

When looking at the costs, it is apparent that the highest value for money (in terms of cost and value) training is in learnerships and apprenticeships (excluding bursaries). Skills programmes have a low cost, but given that they are very short in nature this would explain the low cost. Apprenticeships and learnerships are longer in nature, and generally apprenticeships are longer than learnerships making them the most cost effective.

Internships have a high cost, but these are people that are closest to being fully employed (although still regarded as been pre-employed). These individuals are on the job, and would most likely be able to contribute to a company's productivity levels.

4.5 ALLOCATION OF EXPENDITURE ON TOTAL TRAINING

This section takes a look at how different sectors allocate their spending in training. A question raised is: 'How equally is training expenditure allocated to workers in the sector?'

One of the flaws of the Unit Cost analysis is the possibility that while there may have been a high expenditure in terms of money spent, there were very few people trained. In other words, few people had a lot of money spent on them.

For example: If a company's expenditure amounted to R1 million, this could have consisted of ten people undertaking an MBA course costing R100,000 each. Alternatively, spending could still have been R1 million, but this time it could have paid for one hundred people to take a one-month learnership.

Table 4-46: Allocation of expenditure per sector

	Total Spent on Training	Number of staff in Sample	Avg. Spending per Staff Compliment
Manufacturing	R 261,812,930	139,729	R 1,874
Community and Personal Social Services	R 11,063,776	14,073	R 786
Mining	R 385,322,226	262,148	R 1,470
Financial	R 357,826,698	181,338	R 1,973
Construction	R 22,351,953	29,252	R 764
Wholesale and Retail	R 144,326,116	192,832	R 748
SOE	R 167,000,000	86,948	R 1,921

The table above shows that although the mining sector cumulatively spent the most on training, the financial sector allocated the most per person, although this was only marginally more than the SOEs. What is not taken into account how many people were actually trained in the sector as yet, but one is able to establish that, given the amount of staff in the sector, if each person were to receive a slice of the entire training spend[43], those within the wholesale and retail sector would receive the least.

If a person thinks about the spending within the financial sector (as the sector that spends the most per person), the skills required would more likely be of a higher level. So, to train individual workers in the financial sector should be more costly than it is to train workers in, say, the construction sector.

Next the allocation of spending per company size is examined.

[43] It is reminded that the training expenditure given is the total spent on employees as well as the unemployed.

Table 4-47: Allocation of expenditure per category

	Total Spent on Training	Number of staff in Sample	Average Spending per Staff Compliment
Category 1	R 881,278,661	689,771	R 1,278
Category 2	R 395,771,815	185,167	R 2,137
Category 3	R 72,653,223	31,382	R 2,315
Overall	R 1,349,703,700	906,320	R 1,489

It is conventional that the largest companies spend the most on training and also have the greatest number of staff in the sample.[44] The overall amount spent on training accounted for here is R1.3 billion.[45] As it is implicit that bigger companies spend more in training, the total amount spent on training by companies within Category 1 naturally forms the bulk of the overall total spend of training. But when one looks at the total spent on training against the number of staff in the sample, one can see that it is the smallest companies that are allocating the most expenditure given the number of staff members in that category. The amount spent by smaller companies is almost double that which the large companies within Category 1 are allocating. Companies within Category 2 are also spending a considerably greater amount than those in Category 1. It is quite surprising that companies within Category 1 have the lowest average spend allocated per staff member.

This section has highlighted the expenditure on training relative to the number employed in each sector. This helps us understand the spending in relation to the size of the sector, and thus rank each sector more accurately in accordance to their expenditure. In terms of actual figures, the number of rands given for average spending per staff complement does not specifically represent the company's expenditure within the company as the total spent on training includes that which goes towards the unemployed.[46] Put more simply, the total spend on training includes employed *and* unemployed learners, while total staff only accounts for employed

[44] This assumption can be made because company categorisation is based on staff sizes as earlier discussed.

[45] Although the actual total amount spent on training is closer to R4 billion, for this analysis we thought it only fair to take into account only those companies that provided data for both spending and the number of staff. If data were missing from training expenditure or staff size, both were excluded to enhance the accuracy of our analysis. The figures used here are also explainable in terms of categorical spending so it does not necessarily reflect the total amount spent. In some cases, companies provided a breakdown, but this was inconsistent with the categories that are referred to, and so it was felt that it would be misleading to simply allocate these numbers. The total expenditure on training here is calculated from a summation of the breakdown of the spending.

[46] Once again, the term unemployed is used interchangeably with pre-employed.

learners. For a more accurate representation, one must then consider the ratio of employed to unemployed learners trained. The actual average spend per staff compliment given here would therefore decrease (as the total spent on employed would decrease the overall figure that includes both employed and unemployed individuals).

In light of this discovery, a fundamental corollary of this analysis is to examine the amount spent on employed learners only. This information can only be inferred, as the survey did not incorporate the differentiation of spending between employed and unemployed learners.

4.6 ACCESS TO TRAINING BY EMPLOYEES

By separating the training expenditure on employed learners, a more accurate calculation on the average expenditure on training effective per worker can be made[47]. By then comparing the training expenditure per trained employee to the training expenditure per total employees, it can be seen where the training is concentrated – demonstrating whether the training expenditure is spread evenly across employees, or if only a few people are receiving training.[48]

Table 4-48: Average expenditure on training effective per worker, by sector

	A	B	C
	Training Expenditure per Trained Employee	Training Expenditure per Employee	Percentage of Employees Trained
Manufacturing	R 7, 345	R 1,227	17%
Community and Personal Social Services	R 1,947	R 746	38%
Mining	R 5,072	R 1,313	26%
Financial	R 18,026	R 1,870	10%
Construction	R 5,079	R 353	7%
Wholesale and Retail	R 2,438	R 639	26%
SOE	R 7,752	R 1,012	13%

[47] This is done using the unit cost of training per sector: the cost of training unemployed workers was subtracted from the total expenditure to give a cost for training employees only.

[48] One of the big assumptions made is that there is no large variation in the expenditure on programmes for employed and unemployed learners.

From the table above it can be seen that some sectors appear to concentrate their training expenditure on only part of their workforce rather than focusing on upskilling everyone.

Column A indicates the average training expenditure per employee that receives training. The financial sector spends the most per employee trained and the community and personal social services sector spends the least.
Column B takes the expenditure in relation to the entire staff compliment, now the rankings change. It is still the financial sector which allocates the most per employee, but the construction sector now allocates the least, followed by wholesale and retail.

The final column indicates the ratio of training expenditure per trained employee to training expenditure per total employees. The most uneven expenditure occurs in the construction sector, the average effective per worker expenditure on training calculated for that sector was seven percent of the actual expenditure on employees who had access to training.

Despite having spent less in the sector, the community and personal social services gave its employees a more balanced access to training, followed equally by the mining sector and wholesale and retail. What is noticeable furthermore between the mining sector and wholesale and retail is that although they provided equal access to training, the mining sector had a greater expenditure per employee.

Table 4-49: Average expenditure on training effective per worker, by category

	A	B	C
	Training Expenditure per Trained Employee	Training Expenditure per Employee	Ratio of B/A
Category 1	R 5,138	R 1,057	21%
Category 2	R 9,615	R 1,769	18%
Category 3	R 12,050	R 1,312	11%
Overall	R 6,176	R 1,222	20%

The table above allows us to determine some more trends when it comes to expenditure of various company sizes. The amount of expenditure per trained employee increases as the size of the company decreases, with the largest category of company spending the least and the smallest category spending the most. The variance on training expenditure per employee is less, with the average expenditure

being R1,222. The final ratio column indicates that the smallest companies are providing the least access to training amongst employees – the expenditure on trained employees is high in comparison to the number of employees in the company. Category 3 therefore gives access to training to only an effective 11 percent of employees.

Although Category 1 companies are spending less on their expenditure per trained employee, more of them have access to training. Effectively, 21 percent of employees within Category 1 have access to training.

4.7 GOVERNMENT EXPENDITURE

Government spending on training prior to the implementation of the SDA was very low. Direct spending funded through the fiscus was estimated to be less than R100 million in 1992/1993 (National Training Board, 1994). The State, however, made an indirect contribution to enterprise-initiated training through tax concessions, which was greater than the direct expenditure on training. There are no accurate figures for these concessions but estimates range from R110 million to R500 million (*ibid*).

No authoritative figures for employer expenditure on training exist prior to the implementation of the SDA. Business and Marketing Intelligence (BMI) put the figure for 1990 at about R3.5 billion per year. Using this as a base figure, the National Training Initiative (*ibid*) estimated employer investment in training to be roughly around R5 billion. From this, it was derived that South Africa was spending approximately one percent of total wage bill on training (Singizi 2007). In comparison to other countries (including South Africa's major trading partners), this compares badly with spending in the range of five to ten percent. Using the figures above, the National Training Strategy Initiative (NTSI) determined that South Africa was spending four times more on formal education than on training. In some countries, these amounts are equal (*ibid*).

Expenditures by SETAs over the past few years have grown from R3.9 billion in 2005/06 to R4.2billion in 2006/07 and R5 billion in 2007/08. During 2007/08, SETAs received R5.4 billion of a total skills levy income for the year, of which R2 billion (37 percent) was allocated to mandatory grants. By March 2007, total discretionary reserves held by SETAs amounted to R3.7 billion, with R2.4 billion

contractually committed to skills development projects and R1.3 billion in liquid reserves (Singizi 2007, National Treasury 2009, National Treasury 2008b, National Treasury 2008c).

4.8 CONCLUDING COMMENTS

This section has given us an indication of the amounts that companies are spending on training. The figure amounts to close to R4 billion – astronomical given that this only takes into account the 106 companies surveyed (although data for 92 was only given to make up that figure). This figure of R4 billion amounts to more than the expenditure by all of the SETAs in the 2002/2003 financial year, as well as in the 2003/2004 financial year. Only in 2004/2005 does the amount spent by SETAs almost meet this amount – but this is still for all companies in the country (rather than the sample of 92 which responded to this question).

The pertinent question becomes, is enough being spent by business and government? When comparisons are made to international expenditure on skills and training, it appears that South Africa is trailing behind. If one of the critical problems of employment is that the youth who are educated to a matric level are not finding employment, and there are claims of companies having skills shortages, then those who are completing school simply are not skilled enough. In this case, it would suffice to say that an increase in expenditure on training post-school education system is necessary.

Regarding the figures quoted for government expenditure on training, these moneys are collected and spent based on money raised from the skills levy. So, it is not an 'everflowing well' of cash; this money is limited based on what is collected. Further areas of research to investigate thus include the efficiency of government training. If government can successfully be shown to be an efficient provider of training, then it would suffice to say that the skills levy should increase to raise more money, or that there should be a transfer of funds from other areas of revenue collected (allowing more money to be spent). On the other hand, if government is not seen to be efficient and there is wastage occurring, then it would make sense to shift that responsibility of training onto companies.

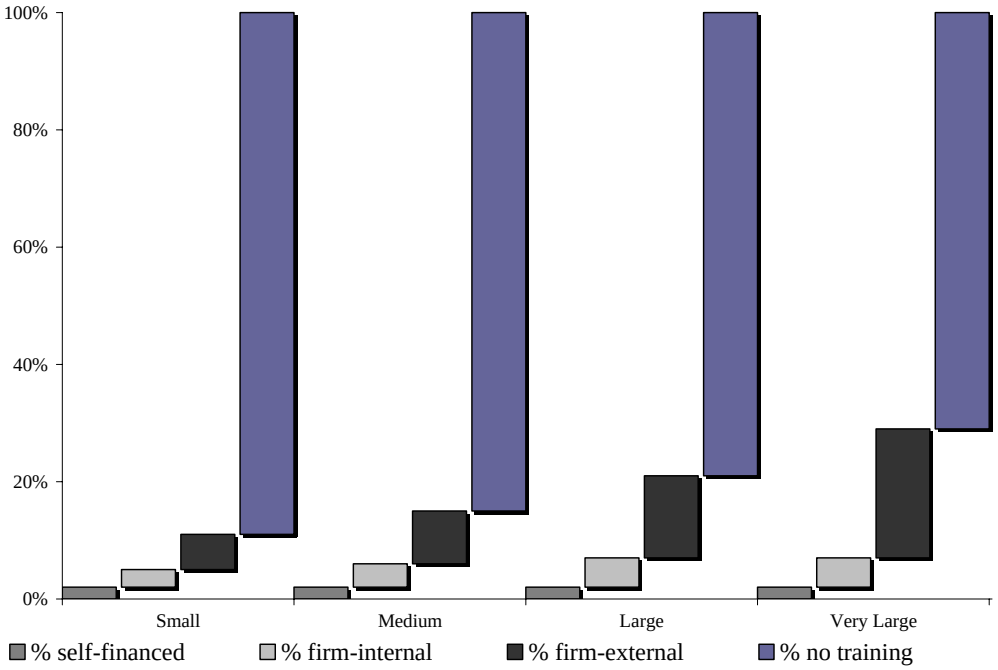
The one percent set for the skills development levy should not be mistaken for an amount that companies are required to spend on training, it is merely the amount that companies are taxed. Government and companies recognise that one percent should by no means be the ceiling for expenditure on training. The King Commission's recommendations on corporate governance in South Africa suggested that companies invest four percent of payroll expenditure on training (Daniels 2007). The skills development levy could in fact be considered as crowding out enterprise's own training initiatives – public provision of these services are necessary to correct the market failures associated with historically low levels of investment by companies in employee training.

Given that the average expenditure on training, over and above the one percent levy, is only three percent, it is below the optimum agreed figure. In business and government agreeing that five percent is the optimum expenditure on training, the spend by large companies of four percent is close to the target they have set.

The figure that follows gives an indication of the percentage of financing made up from on-the-job training. This emphasises the point that companies are doing a lot when it comes to the financing of this kind of training. Here a comparison is made against those that are self-financed and those with no training infrastructure. As is evident, there are still a staggering number of employees that do not receive any form of training during employment. The firms themselves fund the majority of employees that do receive on-the-job training, either externally or internally. The data used here is taken from the South African Investment Climate Assessment 2004 so it is not necessarily made up of the same companies that were used in this analysis.[49]

[49] But we can assume that some companies were included in both samples. Furthermore, the investment climate assessment covers a larger number of firms – there were 800 firms surveyed.

Figure 4-4: Financing on-the-job training



Source: South Africa Investment Climate Assessment, 2004

All the tables shown in this section give some indication as to where the money for training is being spent, and what the prioritisation has been for companies of different sectors and sizes. What has been highlighted by the amount of spending taking place is the commitment that is being made towards formal learning in the FET and HET bands.

5 FURTHER EDUCATION AND TRAINING BAND

This section explores the numbers of individuals who benefited from education and training provision during a one-year period within the 106 companies that responded to the survey. The data provided in terms of the FET band relates to programmes and support provided for learners within the FET Band (levels 2-4 on the NQF) and analyses this information in terms of:

- Programmes that directly culminate in a qualification
- Short programmes resulting in formal certification but that represent only a partial qualification
- Programmes that do not lead to national certification
- Learning support provided to individuals within the FET band
- Financial support provided to individuals within the FET band

This analysis is intended to enable the reader to ascertain the numbers of individuals participating in these different programme types and the numbers receiving support. This information is then disaggregated further to provide an understanding of how this differs across sectors and the size of companies (specified according to the categories one to three).

In the previous chapter there was a detailed analysis of the direction in which the expenditure on education, training and skills development was going. This chapter deals with a more detailed analysis of the programme type individuals undertake. One of the most notable differences is the learning pathway taken between the employed and unemployed/pre-employed. It must be reminded that the term unemployed is used collectively for unemployed and pre-employed individuals.

5.1 NUMBER PARTICIPATING PER PROGRAMME TYPE

The following table indicates the number of individuals who received the benefit of different programme types within the FET Band:

Table 5-50: Individuals participating in programme types within the FET (NQF 2 – 4) culminating in a qualification

	Employed	Unemployed
Individuals in Programmes in the FET band (NQF 2-4) culminating in a qualification	9,391	11,542
Number of people in Learnerships	7,018	7,861
Number of people in National Senior Certificate (NSC) Vocational	0	1,019
Number of people in N programmes (Nated)[50]	1,318	89
Number of people in Apprenticeships	1,055	2,573

As explained earlier, an individual has many alternative routes available to acquire a qualification. Of the four categories listed above, 9,391 employees and 11,542 unemployed benefited from education and training provision made by companies. The high number of unemployed that benefited, in comparison to the employed that gained qualifications, shows companies' commitment to supporting the economy and the government's targets of helping the unemployed.

It can also be seen that there is a definite emphasis on learnerships as approximately two thirds of the training has been dedicated to learnerships rather than other forms of learning.

Table 5-51: Number of Individuals in Programmes that are credit bearing but do not directly culminate in a qualification

	Employed	Unemployed
Individuals in Programmes that are credit bearing but do not directly culminate in a qualification	94,953	4,288
Number of people in other programmes that are formally certificated[51]	14,357	1,714
Number of people in Skills Programmes	80,596	2,574

Credit-bearing qualifications include those obtained through skills programmes as well as other components that could lead to a qualification, but which on their own do not culminate in one (i.e. one particular subject that is part of a course).

The focus of those undertaking credit-bearing qualifications is that the employed that far outweigh the unemployed. There were 94,953 total employees and 4,288 unemployed who partook in programmes of these sorts. More individuals also partook in skills programmes, which shows great success in the implementation of government's skills programmes earlier in the decade.

[50] excluding those in apprenticeships

[51] It is noted that some of these programmes may in fact lead to qualifications but as this was not defined it is assumed for the purposes of this analysis that the majority of these programmes do not lead to qualifications and it is therefore counted within this component.

Table 5-52: Number of individuals in training programmes that are not credit bearing

	Employed	Unemployed
Individuals in Training Programmes that are not credit bearing[52]	75,013	3,012
Number of FET Internships	N/A	696
Other (non-accredited)	75,013	2,316

Emerging from the above tables it can be seen that:

- Of the employees accessing FET level provision: **104,344** are participating in certificated programmes and **75,013** are participating in programmes that are not certificated.
- Of the unemployed learners accessing FET level provision: **15,830** are participating in certificated programmes and **3,012** are participating in non-certificate programmes.

Of those individuals undertaking credit-bearing programmes the following trends emerge:

- There are **9,391** employed learners completing programmes that culminate in qualifications as compared to the **94,953** employed learners that are undertaking shorter programmes that lead to national certificates.
- There are **11,542** unemployed learners undertaking programmes that culminate in a qualification and there are **4,288** unemployed learners that are undertaking shorter programmes that lead to national certificates.

These figures suggest a preference amongst companies for providing programmes that lead to credits on the NQF, though this bias is greater concerning unemployed learners. This issue will be explored further in the analysis of programme types per sector as this provides further insights into these trends.

The figures also suggest that regarding unemployed learners, companies prefer to provide programmes that culminate in qualifications. This may be explained by the context of the need for unemployed learners to access work-preparedness and broader occupational development. It may also be a result of the fact that unemployed learners can complete institutional training without disrupting the workplace and the longer programmes provide companies with an opportunity to observe the learners,

[52] i.e. programmes that are not accredited and do not lead in a national qualification

which can then assist with selection and recruitment. It is additionally possible that this choice is linked to the incentives being offered to train unemployed individuals against qualifications. However, the training costs provided in the previous chapter suggest that companies in any event incur costs themselves for these programmes that exceed any grant funding they may receive, suggesting that incentives cannot be the sole motivation for this preference.

By contrast, with employees, the bias is with the delivery of short courses. This may be because these programmes can be delivered in a more flexible manner and do not require that employees leave the workplace for any extended time. It is also likely that these programmes can be tailored more directly to specific workplace requirements. These short programmes are more likely to constitute specific than general training, as this former kind is more relevant to the current employer than it would be to future employers. These programmes, particularly if they are not accredited, are also likely to account for new products and technologies introduced as they can be quickly designed and delivered to ensure that employees are swiftly competent to perform in accordance with any of these new requirements.

5.1.1 Sectoral Analysis

The following table indicates the number of individuals who received the benefit of different programme types within the FET Band broken down by sector:

Table 5-53: Number of individuals who received the benefit of different programme types within the FET Band by sector

Employed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals who receive training in the FET band culminating in a qualification	4,173	0	2,962	398	420	1,183	255
Learnerships	2,910	0	2,346	398	179	1,180	5
N Programmes	639	0	426	0	0	3	250
Apprenticeships	624	0	190	0	241	0	0

This table indicates the type of training preference that is occurring within each sector. It is clear that learnerships are very popular amongst the majority of the sectors. It is only the construction sector that has a preference for apprenticeships and

the SOEs which have a preference for N programmes (nated). Due to the nature of the work done in the construction sector, it is understandable that there is a preference towards apprenticeships. One could assume the majority of these employees undertaking training to be artisans. As mentioned earlier, companies show a preference for apprenticeships when it comes to training artisans.

Table 5-54: Number of employed individuals receiving accredited short programmes in FET Band

Employed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals receiving accredited short programmes in FET Band	2,213	1,973	55,075	2,628	1,559	20,405	11,100
Other (formally certificated)	792	1,710	4,320	221	31	5,183	2,100
Skills Programmes	1,421	263	50,755	2,407	1,528	15,222	9,000

The manufacturing sector was the only sector that trained less people in accredited short programmes than those culminating in qualifications – all other sectors had more employees doing accredited short programmes. There is also a strong preference for skills programmes as opposed to other formally certificated programmes. It was only the community and personal social services sector that had less employees undertaking skills programmes than other formally certificated forms of training.

Table 5-55: Number of employed individuals receiving non-accredited programmes in FET Band

Employed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals receiving other non-accredited programmes in FET Band	16,959	3,420	9,815	15,787	56	28,976	0

FET internships are omitted from the above table as they are not applicable to the category of employed individuals, as interns are not classified as being employed.

Although the training is non-accredited, there are still a sizable number of employees receiving that form of training. It is most likely very job-specific training.

The next sets of tables relate to the unemployed who have undertaken training.

Table 5-56: Number of unemployed individuals who receive training in the FET band culminating in a qualification

Unemployed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals who receive training in the FET band culminating in a qualification	3,829	267	1,618	792	120	1,660	3,256
Learnerships	2,238	122	1,405	704	49	1,386	1,957
NSC	403	25	169	88	60	274	0
N Programmes	28	0	0	0	0	0	61
Apprenticeships	1,160	120	44	0	11	0	1,238

As mentioned earlier, there is a strong preference for training unemployed individuals in a manner which will result in a form of qualification. All sectors have taken learnerships as the preferential route, although the manufacturing and SOE sector have had a large number of unemployed individuals doing apprenticeships.

Table 5-57: Number of unemployed individuals receiving accredited short programmes

Unemployed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals receiving accredited short programmes	178	34	808	249	465	65	2,489
Other (formally certificated)	63	0	307	244	0	0	1,100
Skills Programmes	115	34	501	5	465	65	1,389

Here one can see that fewer individuals undertake short programmes than those resulting in formal qualifications. Nonetheless, these programmes are still accredited.

Table 5-58: Number of unemployed individuals receiving non-accredited programmes in FET Band

Unemployed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Individuals receiving non-accredited programmes in FET Band	177	12	196	73	65	2,228	261
FET Internships	103	12	164	59	44	53	261
Other (non-accredited)	74	0	32	14	21	2,175	0

As is would expected, there are very few unemployed individuals receiving non-accredited training in the FET band. Conversely, it is surprising to observe such a high number of unemployed within the wholesale and retail sector doing other non-accredited training programmes.

From the above sets of tables the following is revealed with regard to employees:

- A total of 179,357 employed individuals received some form of FET training (including accredited and non-accredited training).
- The wholesale and retail sector trained a vast number of employees; 50,564 employed learners received some form of FET of which just over half (28,976 or 57 percent) received non-accredited training. Of the accredited training, the bulk of the training (40 percent) was in accredited short programmes (20 405 employees). That is, only 3 percent of the employees received accredited training directly culminating in a qualification within the FET band.
- In the manufacturing sector, 23,345 employed individuals received some form of FET, the majority of which received non-accredited training (16,959 individuals which represents 84 percent of the individuals who received training within the FET band).
- The financial sector trained fewer individuals; this sector trained 18,813 employed individuals and of those that received FET, 15,878 (84 percent) received non-accredited training.
- The mining sector focuses on the provision of accredited short programmes; 55,075 employees received accredited training (representing 81 percent of the individuals that received training within the FET band). The majority of these programmes were skills programmes.

- These figures suggest different patterns regarding the selection of programme types within the FET band. This may suggest different needs within the sector perhaps relating to legislative requirements; for example, health and safety requirements in the mining sector, which is a far less regulated environment in the finance sector. This is not rigid however, as future amendments in regulations in the banking sector could arise.

From the above sets of tables following about the unemployed is understood:

- A total of 18,842 learners received some form of training within the FET band.
- SOEs make the greatest impact when it comes to training the unemployed, training 32 percent (6,006 learners) of all unemployed that receive FET. This is also evident if one compares this figure to the number of staff within the SOE sector. SOEs have the highest number of learners in relation to the number of existing employees, which translates into a ratio of 1:28 – that is, for every 28 employees, one unemployed individual receives training. Furthermore, just over half of the learners receiving training within this band are receiving accredited training that culminates in a qualification (3,256 individuals or 54 percent). A further 41 percent (2,489 individuals) underwent accredited short courses. That is, only 5 percent of the unemployed learners receiving training partook in non-accredited training.
- This trend towards accredited training which culminates in a qualification is also consistent across the other sectors and only in wholesale and retail are there more learners in non-accredited programmes than there are in accredited ones.

5.2 PROGRAMME PREFERENCE

5.2.1 Sectoral Preference

The next sets of graphs[53] graphically illustrate the way in which **sectors approach these different programmes types.** This is represented as a percentage within each sector.

[53] The actual numbers can be found in Annexure J

Figure 5-5: Sectoral preferences - employed training

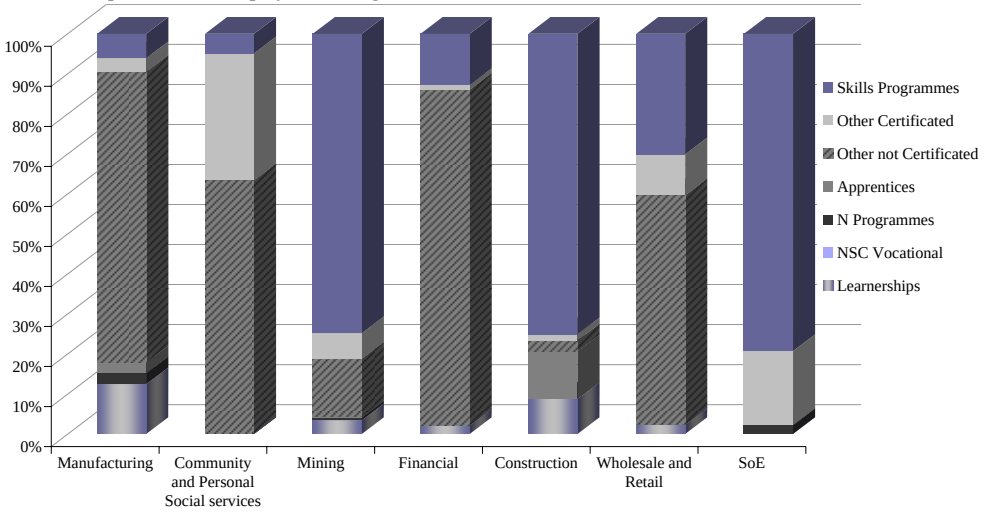
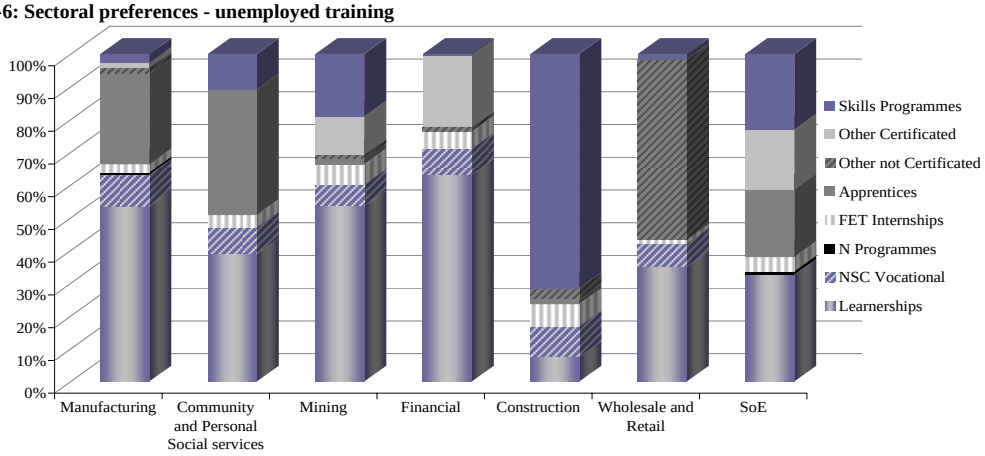


Figure 5-6: Sectoral preferences - unemployed training



The graphs provided begin to suggest distinct trends in terms of what type of programmes different sectors prefer, and whether or not these programmes are offered to employees or to the unemployed. Some initial observations include:

Regarding employees, the graphs highlight that mining, construction, and SOE sectors prefer skills programmes. Interestingly, manufacturing offers the highest percentage of learnerships for their employees, although there is a bias towards non-certificated programmes. Community, personal, and social services favour both skills programmes and non-certificated programmes. Finance favours non-certificated programmes within the FET band (though this pattern shifts when higher education programmes are taken into account). Community, SOE, and wholesale also have a

large percentage of programmes that are certificated but which are not skills programmes or learnerships. This highlights the importance placed on short flexible programmes across the sectors; however, the nature of these programmes appears to differ in accordance with sector specific contexts. Interestingly, mining appears to provide only a limited number of non-certificated programmes, and instead offers a very large number of skills programmes (which are short programmes offered by accredited providers that enable learners to attain credits on the NQF). This trend may reflect the health and safety requirements of the industry, which demands certain levels of certification. By contrast, both the wholesale and retail and finance sectors (though active in learnerships) appear to rely heavily on non-certificated programmes. Apropos the legislative point made about mining, it will be interesting to see if future changes in legislation in the financial sector will result in a shift from non-accredited training to skills programmes (i.e. short programmes that are accredited). Incidentally, the finance sector has begun to explore strategies for recognition of prior learning in response to various pieces of legislation that have been promulgated. This suggests that the choice to offer accredited or non-accredited programmes may relate more to the external environment than to an imperative for this type of quality assurance arrangement. This point is, of course, untested but nonetheless raises a number of questions, like whether companies feel that current quality assurance arrangements impact on provision, or whether the choice between programmes that are accredited or not relates more to one type of compliance or another.

In terms of unemployed learners, the pattern shifts: learnerships dominate the programme mix with the exception of construction, which has focused on skills programmes. Apprenticeships are also high in the manufacturing, community and SOE sectors. Interestingly, and contrary to expectations, this form of training is not as high in mining or construction. This highlights the emphasis placed on the attainment of qualifications for individuals that may be entering the sector, which could relate to a number of factors. It could for example include the ease at which companies can release unemployed individuals to attend learning in comparison to existing employees with allocated responsibilities. It may also relate to the varied incentives in place and the way in which they encourage certain programmes for the unemployed more actively than they do for employees. This warrants some review.

The FET programmes being offered are relatively negligible and this may indicate that companies do not feel that these programmes are relevant, or it may be because of the confusion that exists because of the fundamental changes taking place in FET College programmes. This uncertainty emerged sharply in the process of this survey, as a large number of companies engaged with the research team to ascertain what these categories were. It will be interesting to monitor whether this trend changes as the programme types within the FET Colleges are clarified.

5.2.2 Categorical Preference

The tables that follow indicate **which programme types are the focus of each of the three categories**.

Table 5-59: Employees who received training in the FET band culminating in a qualification

	Category 1	Category 2	Category 3	Total
Learnerships	4,781	1,958	279	7,018
N Programmes	570	469	279	1,318
Apprenticeships	212	635	208	1,055

Category 1 companies have a considerable preference for learnerships when it comes to training that culminates in a qualification, while smaller companies (Category 3) seem to have an equal preference across all three training categories.

Table 5-60: Employees who received accredited short programmes in the FET band

	Category 1	Category 2	Category 3	Total
Other (formally certificated)	11,394	2,530	433	14,357
Skills Programmes	73,753	6,171	672	80,596

Here one can see that a high number of employees received training in accredited short programmes, predominately in skills programmes.

Table 5-61: Employees who received non-accredited training the FET band

	Category 1	Category 2	Category 3	Total
Other (non-accredited)	51,156	22,312	1,545	75,013

The tables above highlight that Category 1 employees have a varied mix of programmes, although skills programmes (52 percent of Category 1 training) and other non-certificated programmes (36 percent of Category 1 training) clearly

dominate. By contrast, Category 2 and Category 3 have a fraction of skills programmes (18 percent and 20 percent, respectively). For Category 2, there is a preference for non-accredited training (65 percent of Category 2 training). This preference is also reflected in companies within Category 3 (45 percent of Category 3 training).

Overall, the majority of training employees are in skills programmes (80,596 learners – 45 percent overall), followed by non-accredited programmes (75,013 learners – 42 percent overall).

The following table considers this from the perspective of unemployed learners receiving training in each of the three categories:

Table 5-62: Unemployed individuals who received training in the FET band culminating in a qualification

	Category 1	Category 2	Category 3	Total
Learnerships	5,017	2,625	219	7,861
NSC	149	186	684	1,019
N Programmes	61	28	0	89
Apprenticeships	1,456	1,024	93	2,573

Companies within Category 1 and 2 prefer learnerships while Category 3 companies have a greater preference for NSC.

Table 5-63: Unemployed individuals who received accredited short programmes in the FET band

	Category 1	Category 2	Category 3	Total
Other (formally certificated)	1,644	58	12	1,714
Skills Programmes	1,533	987	54	2,574

When it comes to short programmes, Category 1 has an almost equal preference for skills programmes and other formally certificated programmes. Companies within Category 1 and 2 have a greater preference for skills programmes over other certificated programmes.

Table 5-64: Unemployed individuals who received non-accredited training in the FET band

	Category 1	Category 2	Category 3	Total
FET Internships	476	144	76	696
Other (non-accredited)	2,175	130	11	2,316

Surprisingly, there are fewer FET internships among the largest Category 1 companies. There is a considerable amount of other non-accredited training occurring within Category 1 companies. Category 2 and 3 companies show favour towards internships, although Category 2 does not show a strong bias for this.

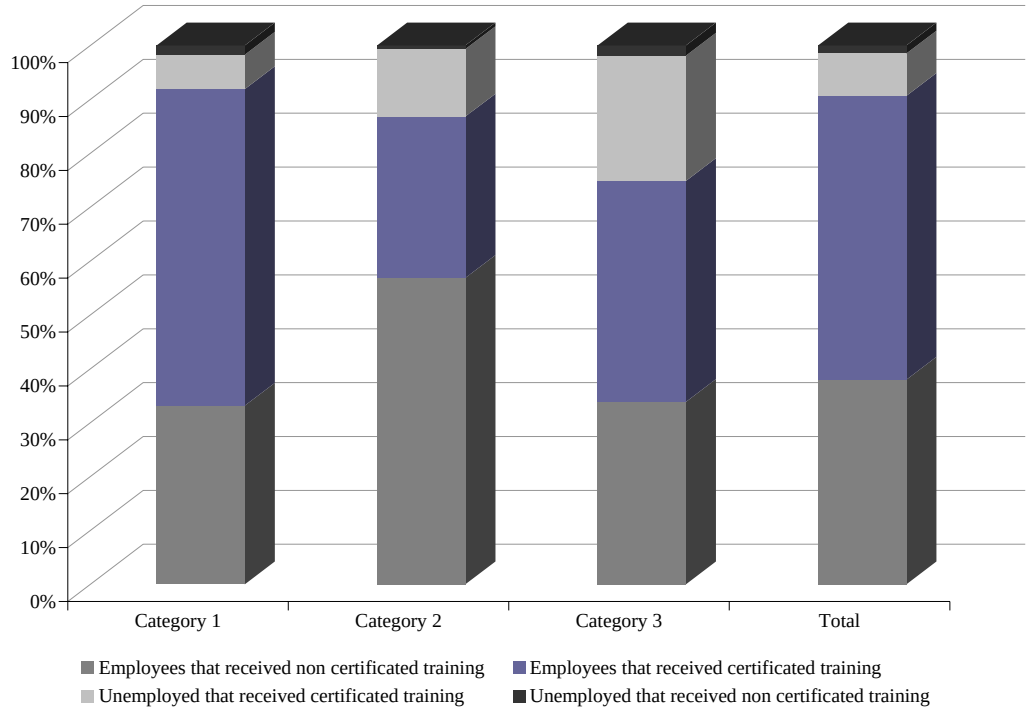
In terms of the unemployed, Category 1 offers a mix of programmes but with a clear bias towards learnerships. The total number of unemployed learners that Category 1 trains amounts to 12,511 and of that, 5,017 (40 percent) undertake learnerships. A similar trend emerges in Category 2, in which 2,625 out of 5,182 unemployed learners (51 percent) participate in learnerships. However, with Category 3, this trend shifts slightly with the focus on NSC Programmes. Of 1,149 unemployed learners, 684 (60 percent) participated in NSC Programmes. Most surprising is that despite the fact that Category 3 contributes the least learners in terms of overall training, they successfully manage to have the greatest contribution to the overall pool of NSC learners. In comparison, Category 1 directs only one percent (149 learners) of overall training towards NSC learners and Category 2, only 3.5 percent (186 learners).

Beyond the vast number of unemployed learners in the field of learnerships, there is a relatively even spread of other training within Category 1. These are in the areas of apprenticeships (1,456 learners, or 11.5 percent), skills programmes (1,533 learners or 12.25 percent), other formally certified programmes (1,644 learners or 13 percent) and other non-accredited programmes (2,175 learners or 17.38 percent). Although non-accredited training amounts to 2,651 learners (21 percent of Category 1), this is still lower than all the other combined certificated training that takes places within Category 1, demonstrating a notable preference for certificated training amongst the unemployed. Training of unemployed individuals within non-accredited programmes in the FET band in Category 2 and 3 is minimal, with a combined figure of 361 learners out of a total of 3,012 unemployed learners that received non-certificated training, which only makes up 16 percent of training. This again shows a definite overall preference to the training of unemployed learners in the programme areas that lead to certification. This is further illustrated in the graph below.

Overall the strongest emphasis is on unemployed learners in learnerships (7,861 learners – 41.5 percent overall), which is followed by an even spread of learners in

apprenticeships (2,573 learners – 13 percent overall), skills programmes (2,573 learners – 13 percent overall) and other non-accredited programmes (2,315 learners – 12 percent overall). The least significant programmes are N Programmes (89 learners – 0.5 percent overall) and FET Internships (696 learners – 4 percent).

Figure 5-7: FET Training Programmes



The previous graph illustrates this picture and highlights the preferences within the three categories' programmes for the different programmes types.

What is depicted above is that Category 1 companies favour certificated training for employees and non-employees (unemployed), Category 2 favours non-certificated for employees but certificated for non-employees and Category 3 has a fairly equal spread but marginally favours training in the certificated programme area when it comes to employees. All three categories have a very strong preference for certificated training for unemployed individuals.

5.3 OTHER FORMS OF SUPPORT WITHIN THE FET BAND

This section focuses on the number of individuals that received other forms of support to facilitate learning within the FET Band. While these are not training programmes, they are an important part of the learning process, and the individuals who receive this support are therefore included with those who receive further education and training. However, the likelihood that many of the individuals listed in this section are also undertaking other programmes is noted, indicating that this is one area that may lead to double counting. To minimise this, the study has counted those individuals receiving coaching, mentoring and bursaries as additional numbers, but has excluded those receiving financial support for learnerships (stipends) and employees receiving financial study aid, as these numbers are likely to be already covered within the learnership figures. This caution should be noted and a more conservative figure could exclude the numbers derived from these support activities. However, it is suggested that these numbers do not shift the overall picture emerging; although – as will be shown – within specific sectors and categories, the possible double counting is apparent and reiterates the point made here.

The tables that follow indicate the type of support individuals are receiving as part of facilitating and supporting learning in the workplace:

Table 5-65: Total number of employed who receive other forms of support for FET

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE	Manufacturing
FET Bursaries	281	0	363	0	11	64	0	719
Coaching	16,233	127	2,347	1,523	311	6,379	7,380	34,300
Mentorship	2,005	31	1 039	738	313	984	0	5 110
Financial Study Aid	2,499	127	1 613	1,222	312	200	11,355	17,328

Table 5-66: Total number of unemployed who receive other forms of support for FET

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE	Manufacturing
FET Bursaries	166	0	248	252	44	5	1,738	2,453
Coaching	2,123	292	577	411	148	199	3,560	7,310
Mentorship	668	103	523	263	36	5	1,738	3,336
Stipends	2,017	349	920	465	130	392	3,560	7,833

This section indicates trends in terms of the type of support offered, and the following points are observed:

- There are a negligible number of bursaries offered for the institutional learning component of FET programmes for employees although there are a higher number of unemployed learners accessing this type of support. This variation may relate to who is accessing these programmes and resonates with the previous findings that suggest that unemployed learners are primarily accessing these programmes. It will be important to monitor whether this changes in the future as the NCV gains more acceptance and possibly is offered in a more flexible manner.
- What is marked is the contribution that state owned enterprises make to the number of employees receiving financial aid. SOEs as well as manufacturing companies also appear to be providing stipends to a large number of unemployed learners.
- A final point that can be made about the above is to note the large numbers of employees that are benefiting from coaching in manufacturing, SOEs and wholesale and retail, suggesting a real emphasis on developing the capacity of existing employees. SOEs also indicate that they are providing coaching to unemployed learners.

5.4 CONCLUDING COMMENTS

This section highlights the substantial amount of training that is taking place for learners in the FET band. The following broad trends are noticed concerning this training (taking into account the issues raised pertaining to the danger of generalising the findings and the difference in sector sizes within this sample):

- The numbers of staff receiving training during a one-year period seems significant. While this is analysed in more detail in subsequent sections, it is worth highlighting the following:
  - The number of individuals who have undertaken skills programmes during this one-year period is **83,170** learners. This can be compared to the total number of *196,970* (www.saqa.org.za accessed 8th August 2006 & communication with Yvonne Shapiro[54], 6th November 2006) learners that have been awarded credits against one or more of 986 unit standards over the past eight years.
  - The numbers of learners in programmes culminating in qualifications (including learnerships, NSC vocational, N programmes and apprenticeships) represents a total figure of **20,933**. This is a staggering figure if one considers that over the past eight years only *18,786*[55] learners have been awarded a qualification against new qualifications registered on the NQF (this also excludes the apprenticeship figures as these were not against new qualifications on the NQF). This suggests that even taking into account throughput issues, there seems to be a significant increase in uptake of these occupational qualifications.

- With regard to employees, the data suggest a company preference for programmes that workplaces can directly determine (that is, short courses – both certificated and non-certificated). However, a point that should be made in this analysis is that it appears occasionally that companies do not record or monitor their non-accredited training. This suggests that in certain cases, even within those companies that have reported here, the number of individuals participating in non-certificated programmes is higher than the figure provided in this report. However, if this is a reality and these programmes are not tracked, it does raise the question regarding the way companies ensure these programmes are having the desired impact.
- The emphasis on accredited or non-accredited programmes shifts dramatically across the sectors and an analysis of these trends suggests that this may be

54 Director of SAQA's National Learner Record Database
55 ibid.

linked to the requirements of the sector both in terms of speed of product development as well as regulations framing the sector.

- With regards to unemployed individuals, the data suggests a bias towards programmes that culminate in a qualification. As indicated, this may relate to a number of factors, including: the need for these learners to gain skills that are more comprehensive, the increased willingness of companies to release these learners for institutional training, as well as possibly the incentives that are in place to support these programmes for the unemployed.
- Related to this, there is also a great emphasis on supporting learning-on-the-job, as evidenced by the high numbers of learners reported to be benefiting from mentoring and coaching. As indicated previously, this is a critical point in terms of the capacity of companies to provide workplace learning.

Once again, it appears that larger companies (Category 1) make a major contribution to certificated training, as was discovered previously in Chapter Four on Funding. In subsequent sections of this paper, it is likely that same thing will be discovered.

6 HIGHER EDUCATION AND TRAINING BAND

This section focuses on the numbers that are being supported to participate in higher education programmes. The paper then considers this in terms of the different sectors. What one will find is that there are similar training patterns to those within the FET band.

6.1 NUMBERS PARTICIPATING IN EDUCATION AND TRAINING PROGRAMMES BEING DELIVERED WITHIN THE HET BAND

These tables highlight the number of employees who receive support to enable their participation in programmes that fall within the Higher Education and Training Band. These primarily include bursaries for formal programmes and the support for internships aimed both at individuals currently in a learning programme as well as for those learners who have graduated from a programme and require further experience in the field.

The following table shows the **total number of individuals participating in higher education programmes** during this one-year period. The tables that follow provide the figures for the sector as a whole.

Table 6-67: Number of individuals participating in HET programmes

	Employed	Pre-employed[56]
Individuals who receive training in the HET band culminating in a qualification		
Bursaries	8,527	5,474
Individuals receiving workplace experience (non-accredited) in the HET Band		
Internships	N/A	2,694
Graduate Internships	N/A	2,219

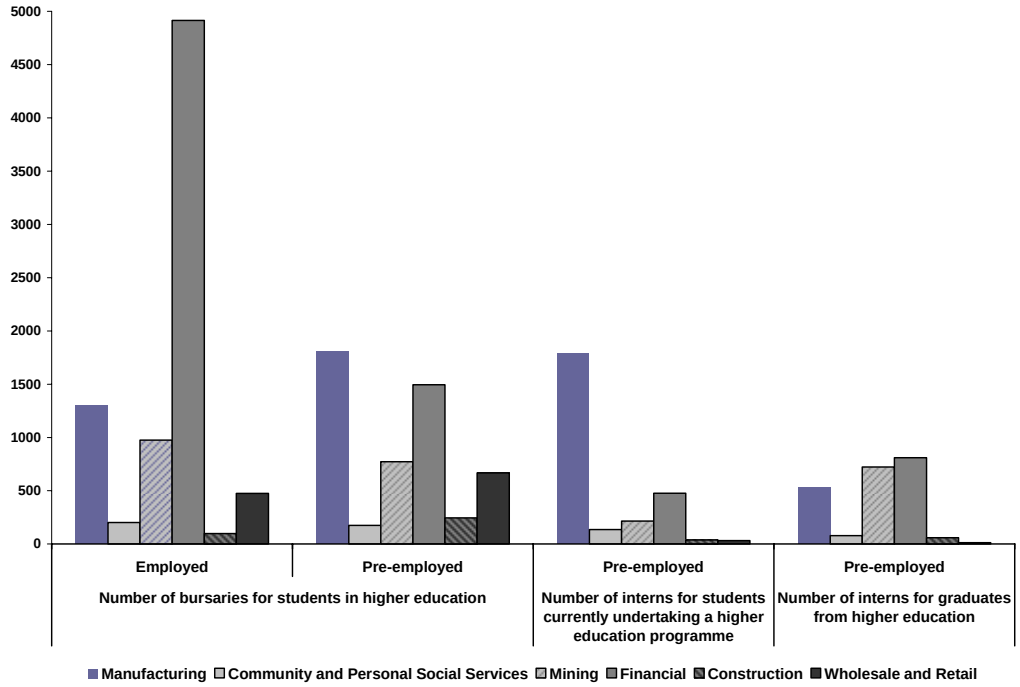
No employed individuals receive workplace experience such as that obtained in the form of internships, as these individuals are not considered to be formally employed by the company; hence, they are referred to as 'pre-employed'.

[56] Individuals in this category are specifically referred to as 'pre-employed' as they are most likely to be employed by the sponsoring company at the end of their training

6.2 NUMBERS PARTICIPATING IN EDUCATION AND TRAINING PROGRAMMES BEING DELIVERED WITHIN THE HET BAND

A breakdown of the sectors that participated in higher education and training programmes can be seen in the following graph:

Figure 6-8: Numbers who participated in Higher Education and Training Programmes



Some of the issues emerging from this graph are highlighted:

- The graph shows that certain sectors (and this is not surprising given the nature of the sectors) prioritise formal qualifications within the HET Band. For example, the finance sector supports a very large segment of learning at this level on the NQF. This emphasis is in contrast to the programmes being offered in the FET band, which are primarily non-certificated, and reflects the priorities within the sector. The implications of this in terms of the total number of individuals who can participate in programmes (given the often longer duration of higher education programmes and in many cases the increased costs) were explored earlier in the funding section.
- The other issue worth noting is the number of individuals being afforded the opportunity to undertake internships, both learners who require an internship as part of their qualification and those who require it once their programme

has been completed. While there is no clear benchmark to measure these numbers against, it is encouraging given the concern that this practice almost does not exist at all.

A further set of tables illustrates the trends in terms of company size:

Table 6-68: Total number of individuals who receive training in the HET band, by category

Employed Individuals	Category 1	Category 2	Category 3	Total
Individuals who receive training in the HET band culminating in a qualification				
Bursaries	5,547	2,433	547	8,527
Pre-employed Individuals				
Individuals who receive training in the HET band culminating in a qualification				
Bursaries	2,374	2,463	637	5,474
Individuals receiving non-accredited programmes in the HET Band				
Internships	1,722	853	119	2,694
Graduate Internships	614	1,079	526	2,219

Here, one can see that it is not the largest companies (Category 1) that are always the greatest contributors to training. When it comes to the pre-employed (unemployed), Category 2 is contributing a slightly larger number of bursaries; they contribute 2,463, while Category 1 contributes 2,374 bursaries (amounting to 43 percent and 45 percent of total number of pre-employed bursaries, respectively).

When looking at employed and pre-employed individuals, there is a general preference for firms to support employed individuals by means of bursaries.

6.3 CONCLUDING COMMENTS

This section highlights the following:

- As with FET, there are significant numbers of learners receiving bursaries and support in the HET band.
- While there is a huge concern about the inability of learners to access internships, companies do appear to be supporting this programme type, although outside of a year-on-year trend analysis, it is not possible to say whether or not this figure is increasing.

- As with FET programmes, sectoral patterns can be seen, with certain sectors clearly paying a significant amount of attention to higher education programmes for their sector.
- The data also suggests that while Category 1 is supporting the largest number of learners to access higher education, Categories 1 and 2 are both contributing significantly to pre-employed learners.

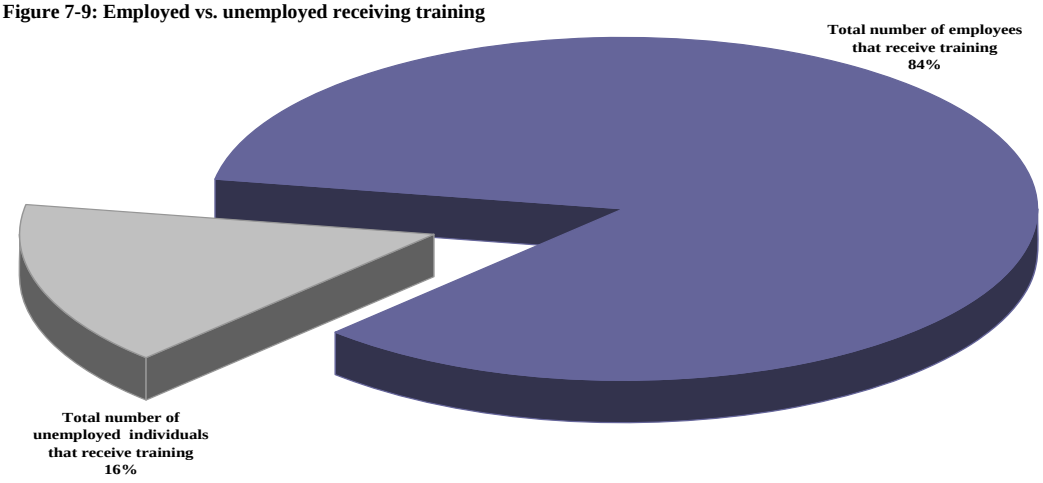
7 AN OVERARCHING ANALYSIS OF PROVISION

This section explores the percentage of staff that typically benefit from education and training programmes during a one-year period, pulling together the conclusions from the previous two chapters on further and higher education and training. It also considers the ratio between the numbers of unemployed individuals who benefit from skills development in comparison to the total number of employees within a particular company. As indicated previously, it is suggested that this provides a meaningful point of comparison across companies and sectors, given the differences in the number of companies and the number of employees covered within each sector. The current analysis also considers this data in terms of the sectors examined in this survey, with the intention of discovering whether the nature of the sector impacts significantly on the kinds of programmes that are supported. The analysis also extends to take into account distinctions that may be made in terms of the three categories at hand.

7.1 OVERALL NUMBER TRAINED

The graph below depicts the balance between the FET and HET training supported within the companies participating in the survey:

Figure 7-9: Employed vs. unemployed receiving training



Of the total individuals receiving training 84 percent were employees of the company while 16 percent were unemployed individuals.

The following table represents a comparative analysis of the training that is being offered in the FET band and the HET band:

Table 7-69: Number of individuals receiving training in the FET and HET band

	Employed	Unemployed
Individuals who receive training in the FET band culminating in a qualification	9,391	11,542
Individuals receiving non-accredited programmes in FET Band	75,013	3,012
Individuals receiving accredited short programmes	94,953	4,288
Employees who receive other forms of support for FET	40,129	13,099
Individuals who receive training in the HET band culminating in a qualification	8,527	5,474
Individuals receiving non-accredited programmes in HET Band	0	4,913
Individuals receiving some form of training or support within the FET/HET band	228,013	42,328

The companies within the survey represent a total staff of 906,320 employees. As is indicated above, 228,013 employees received some form of training or support within the FET and HET band. This translates into 25 percent of employed staff receiving training. While this is positive, it does not compare well with international examples which suggest that *more than 80 percent of all workers receive firm-based training in Poland; 68 percent of unskilled workers in Brazil and 63 percent in China* (Clarke *et al*. 2007). While these differences may stem from varied definitions of what is strictly classified as training, and this needs to be addressed in future, it does nonetheless suggest that there may be room to increase the numbers that receive training within the workforce.

The ratio of unemployed individuals receiving training to employees is 21:1; i.e, for every 21 employees, 1 unemployed person receives some form of training. These ratios are considered in more depth in relation to each of the sectors and are important in terms of the capacity of the companies to supervise and support unemployed learners.

7.2 NUMBER TRAINED PER SECTOR

The next set of tables reviews this data in terms of the different sectors. It should be noted that this analysis includes those individuals participating in structured training programmes as well as those benefiting from coaching and mentoring. As commented on previously in this report, it is acknowledged that this could contribute to double counting of individuals and in this way increase the percentages of individuals receiving support. Nevertheless, it was felt that this is a more accurate representation of the total numbers benefiting from learning in the workplace, although a more conservative number could also be calculated from the figures provided in this report if required.

Table 7-70: Number of employed individuals receiving training, by sector

Employed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Total number of staff (full-time & part-time)	139,729	14,073	262,148	181,338	29,252	192,832	86,948
Total number of staff (full-time only)	122,773	13,922	251,257	173,523	17,877	104,061	79,306
Employees who receive training in the FET band culminating in a qualification	4,173	0	2,962	398	420	1,183	255
Employees receiving non-accredited programmes in FET Band	16,959	3,420	9,815	15,787	56	28,976	0
Employees receiving accredited short programmes	2,213	1,973	55,075	2,628	1,559	20,405	11,100
Employees who receive other forms of support for FET[57]	18,519	158	3,749	2,261	635	7 427	7,380
Employees who receive training in the HET band culminating in a qualification	1,302	202	975	4,915	98	475	560
Total number of employees receiving training	43,166	5,753	72,576	25,989	2,768	58,466	19,295
Percentage of employed individuals receiving training (based on full-time & part-time staff)	31%	41%	28%	14%	9%	30%	22%
Percentage of employed individuals receiving training (based on full-time staff only)	35%	41%	29%	15%	15%	56%	24%

The table above indicates that certain sectors are enabling a higher percentage of staff to access training. The data also distinguishes between full-time and part-time staff as it is assumed that the majority of individuals that access training are full-time.

[57] As mentioned in the previous section, this excludes individuals receiving financial aid.

Table 7-71: Number of unemployed individuals receiving training, by sector

Unemployed Individuals	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	SOE
Total individuals (full-time & part-time staff)	139,729	14,073	262,148	181,338	29,252	192,832	86,948
Total number of staff (full-time only)	122,773	13,922	251,257	173,523	17,877	104,061	79,306
Individuals who receive training in the FET band culminating in a qualification	3,829	267	1,618	792	120	1,660	3,256
Individuals receiving non-accredited programmes in FET band	177	12	196	73	65	2,228	261
Individuals receiving accredited short programmes	178	34	808	249	465	65	2,489
Individuals receiving other forms of support for FET[58]	2,957	395	1,348	926	228	209	7,036
Individuals receiving training in the HET band culminating in a qualification	1,804	175	773	1,496	245	668	313
Individuals receiving non-accredited programmes in HET Band	2,328	214	940	1,287	98	46	0
Total number of individuals receiving training	11,273	1,097	5,683	4,823	1,221	4,876	13,355
Ratio of unemployed individuals receiving training to employees (full-time & part-time)	12:1	13:1	46:1	38:1	24:1	40:1	7:1
Ratio of unemployed individuals receiving training to employees (full-time only)	11:1	13:1	44:1	36:1	15:1	21:1	6:1

Again, the table above paints an interesting picture in terms of the ratio of employees to unemployed individuals. This is an important figure as many learning programmes suggest maximum ratios to ensure that learners are safe, and in fact, an inability to supervise properly leads to serious unforeseen consequences. However, from the above, it is difficult to discern a pattern in terms of danger levels or types of technology being used, and this issue still requires further exploration to understand the capacity that companies may have in order to absorb higher numbers of learners.

When looking at all the training that sectors have contributed to, the following points can be made:

- The financial sector makes the greatest overall contribution to the pool of HET particularly in terms of existing employees: there were 4,915 employed individuals in the finance sector that received training in the HET band. Of

[58] As mentioned in the previous section, this excludes individuals receiving stipends.

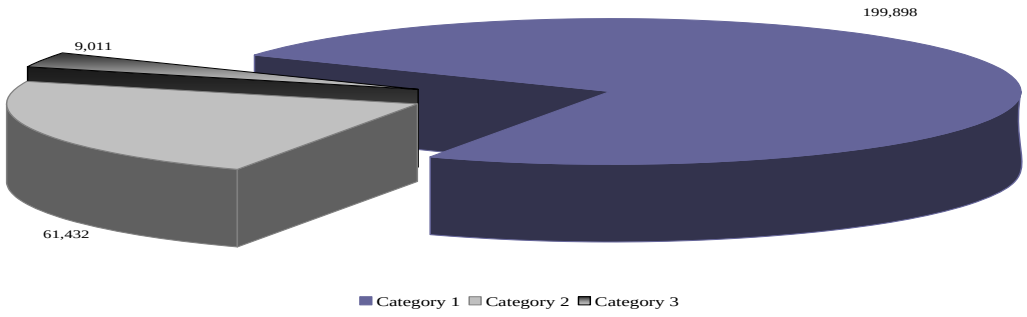
the total number of individuals (employed) who are receiving HET training culminating in a qualification, the financial sector contributes just over half (8,527 or 58 percent) of all learners receiving HET.

- SOEs make the largest contribution to the number of unemployed learners that access training within the FET band.

7.3 NUMBER TRAINED PER CATEGORY

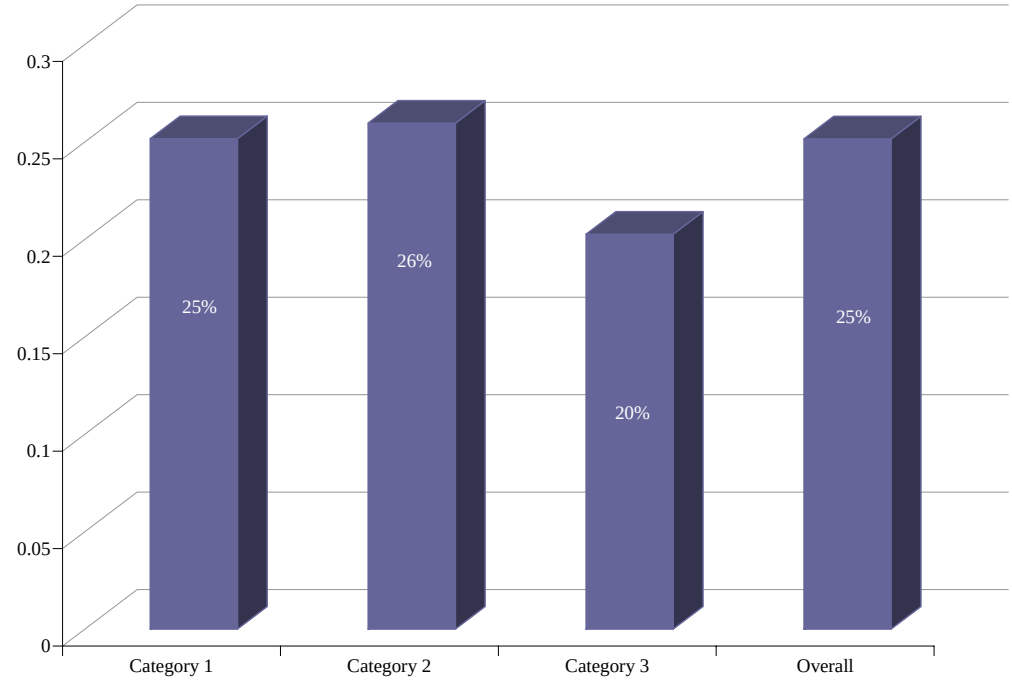
The graphs that follow show the number of individuals trained per category and then consider the percentage of individuals trained by companies in the different categories.

Figure 7-10: Number of individuals receiving training, by category



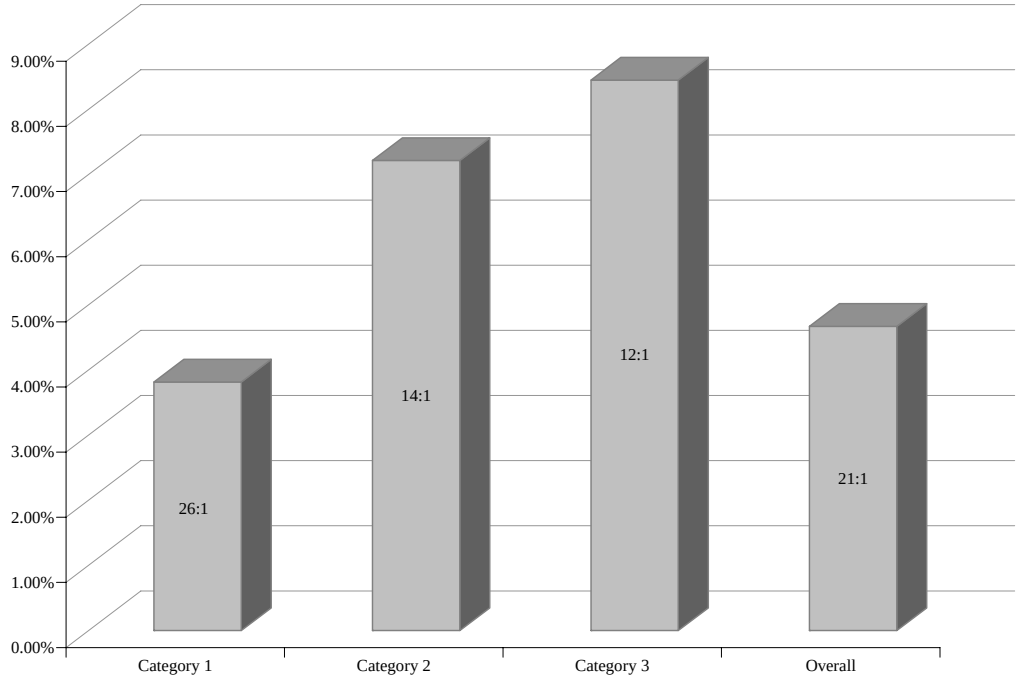
This graph highlights that Category 1 companies are the greatest (absolute) contributors to the overall numbers receiving training. The following graphs consider these numbers in terms of the percentage of employees that these figures represent.

Figure 7-11: Percentage of employees trained to number of staff



This graph highlights that while Category 1 enables the largest number of individuals to access education and training, in reality Category 2 has a higher percentage of employees receiving training.

Figure 7-12: Ratio of unemployed individuals trained to number of staff



The graph on the previous page suggests that Category 3 companies train the largest number of unemployed individuals in comparison to the total number of employees. This may indicate that there is room to increase the number of unemployed learners in the other categories. This could further be extended if all the companies were able to fully access the mandatory and discretionary grants available to them.

7.4 CONCLUDING COMMENTS

The tables above highlight the percentage of staff that receives training in a period of one year. This ranges from **9 to 41 percent** across the sectors if one considers both full-time and part-time staff. When part-time staff are excluded from these calculations, the range changes to **15 to 56 percent.** There is no discernable trend regarding the staff/learner ratio.

However, reviewing these figures is complex; that is, a sector may reach a large number of employees, but may primarily be offering short courses. Another sector may offer short courses within the FET band but concentrate on programmes within the HET band. This highlights the need carefully to consider target setting and to ensure that these are developed in a manner that takes the distinct requirements of the sector into account.

Significantly, it is worth noting that regardless of the above, a comparison with the percentage of staff benefiting from training directly supported by SETAs ***(on average 2 percent)*** shows that the percentage of employees reached by training directly supported in the workplace (allowing for the possibility of double counting and taking into account the different programmes types) is very significant.

Considering the ratio between staff and unemployed, the tables highlight that no clear patterns emerge from this report. However, this is nonetheless an important ratio, as a detailed analysis of it will assist to establish whether it is possible for a company to extend the number of unemployed learners it can absorb and still offer supervision (including mentoring and coaching). Interestingly, mining and manufacturing have much lower ratios than finance and wholesale and retail, which appears at first glance to be counterintuitive, as these workplaces have increased health and safety issues. This may instead then reflect the importance that these sectors are placing on the training of unemployed individuals.

The other important point that the graphs highlight is the extent to which large companies contribute to the numbers receiving training. This phenomenon should be taken into account when formulating a strategy to increase these numbers, as it raises the possibilities of the large business initiative that is being driven by business as part of the JIPSA process. Critically, it offers the opportunity to shift the debate from how to ensure everyone trains, to how to develop the system in a manner that ensures that the requisite number of people are trained in the necessary skills and competencies required by the workplace.

The data from 92 companies (not all of the 106 companies provided this data in a form that could be used) indicate that training expenditure is as much as **R3,995,182,878**. What is highlighted is that these figures appear not even to cover all other forms of training and support, suggesting that the actual amount spent may be even higher than this.

The amount spent proposes that companies spend close to three percent of the salary bill over and above the one percent skills levy on training and education. This is a promising indication to the five percent target that was originally set for skills development and it would be useful to discover if this trend will continue in the future.

Over the last year, it appears that **25 percent** of employees benefited from training. When part-time employees are excluded this amounts to **30 percent** of employees receiving training out of the 762,719 full-time staff. In addition to this, a further **42,328** unemployed people are also benefiting from such training. This translates into a ratio of 21:1. That is, for every 21 employees, one unemployed individual receives training. When excluding part-time employees from this ratio, it becomes 18:1. That is for every 18 employees, one unemployed individual receives training.

The average breakdown of the kinds of programmes that are being supported (within the FET band) and in which learners are being enrolled is described as follows:

- For employees: five percent of the programmes that they undertake are intended to culminate in a qualification, 53 percent in a shorter programme

that is nationally accredited[59] and 42 percent in programmes that are not nationally accredited.

- For the unemployed: 61 percent of the programmes that they undertake are intended to culminate in a qualification, 23 percent in a shorter programme that is nationally accredited and 16 percent in programmes that are not nationally accredited. The unemployed receiving accredited training helps them gain further work opportunities as this would be recognised by other employees. This helping to address the high unemployment rate

The data indicate that 9,391 employees (1,055 of which are in apprenticeships) and 11,542 unemployed learners (2,573 of which are in apprenticeships) are undertaking FET programmes that culminate in the award of a formal qualification. These formal qualifications help individuals further their skill sets, by giving them access to possible higher qualifications at a later stage, improving the country's state of skills.

The increase in learnership uptake[60] suggests that even taking into account throughput issues, there seems to be an increase in the uptake of these occupational qualifications. In the absence of time series data however, it is difficult to establish whether this training represents a trend. Critically, this increased uptake of NQF qualifications is important in the context of the proposal for four routes to becoming an artisan – that learners who complete a learnership will be able to undertake trade assessments.

The JIPSA target requires a doubling of what are estimated to be current enrolments to 7,500 and then a doubling again in Year 2 to 15,000. The figures from this survey – of just over 3,500 enrolled apprenticeships – suggest that these 106 companies are meeting just less than 50 percent of this target. This figure improves if one assumes that a percentage of learners in learnerships and the NCV programme will complete their programmes as well as the additional requirements of the trade schedule and then undertake a trade test.

[59] This includes a few other programmes that are formally certified.

[60] as demonstrated by the figure provided by SAQA that over the past eight years, only 18 786 learners (SAQA 2006) have been awarded a qualification on the NQF, excluding apprenticeship figures

In addition to these longer qualifications, it is evident that companies differ depending on the specific requirements of the sector. Different programmes meet the varied requirements of companies and it is suggested that the system should recognise this diversity and focus on gaining a better understanding of the length and depth of these skills training programmes and the kinds of quality assurance mechanisms in place. This does not suggest that all FET programmes should fall within the ETQA quality assurance framework, but it would be important to understand how individuals and companies perceive the training that is being provided and how these quality assurance processes can be applied more widely.

This research also highlights the capacity of particularly large companies to support training. The figures, which indicate that 39,410 employed and 10,646 unemployed are supported by coaches and mentors, suggest that there are significant opportunities being created for workplace learning. This extra capacity is an important advantage that larger companies are able to provide over and above small companies. The next chapter goes on to take a closer examination of the capacity of large companies.

8 CAPACITY AND MOTIVATION FOR TRAINING

While it is impossible to measure every aspect of training expenditure, there is overwhelming evidence indicating that money being invested in training is producing direct, tangible results. Certain aspects of training expenditure is obviously questionable in terms of how exactly the money is being spent; it is debatable whether all of it is spent productively and if outputs add any real value to the company. Indirect costs that occur during training courses for example are arguably wasteful, specifically expenses incurred on accommodation, travel and entertainment. A large number of companies however can verify a real output of actual learners who, at the end of training courses, are coming out with accredited qualifications, qualifications that are assisting in the current skills shortage experienced in South Africa[61].

A number of large companies have their own in-house facilities for training. This chapter takes a brief look at those that participated in the study that have training facilities as well as additional capacity for training. The specific trades that companies are supporting are also given. A more in-depth account of three selected companies' individual training involvement is looked at.

The results of the data are tested by conducting a few telephonic interviews with a sample of participating companies. The qualitative data acquired from the interviews is used as a means to understand businesses' motivation for participation in training and will help to understand the quantitative data better. The companies' motivations can then be linked to the economic theory analysed at the beginning of the paper.

8.1 TRAINING FACILITIES

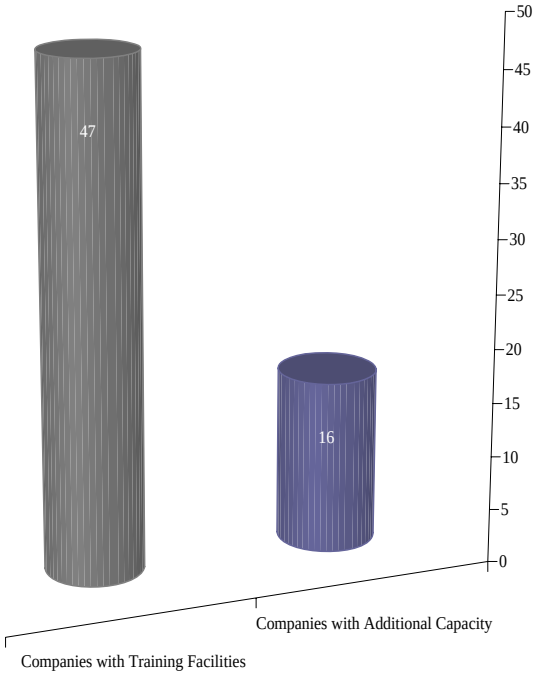
Some of the companies surveyed indicated that they have their own self-funded training facilities. Of the 106 companies, 47 reported this and a further 27 responded that they had additional capacity for training over and above their own needs[62]. This additional capacity can be used to assist in training unemployed or pre-employed

[61] We assume here that the qualifications translate directly into more skills.

[62] Of the companies that responded to having additional capacity, 10 of them had omitted to answer the question of whether they had their own training facilities, suggesting there is a possibility of more than 47 companies having their own training facilities.

learners who could be duly employed elsewhere upon completion. This additional capacity aids the already over-capacitated public and private institutions that cannot meet the required demand for training on their own.

Figure 8-13: Companies with training facilities and additional capacity



In terms of accreditation, 60 companies assessed learners against unit standards, and 47 companies offered trade testing (out of the total 106 companies surveyed).

8.1.1 Trades Supported

Companies are providing support in key scarce skills areas. This support includes providing bursaries for the institutional learning component, workplace supervision, in-house training, assessment, stipends and providing workplace mentors. The trades given support by the companies looked at include:

- Automotive Electrician
- Boilermaker
- Carpenter and Joiner
- Diesel Mechanic
- Earth moving equipment mechanic
- Electrician (light)
- Electrician (heavy)
- Fitter
- Fitter and Turner
- Instrument Mechanician
- Millwright
- Motor mechanic
- Sheetmetal trades workers
- Shutterhands and Steel fixers
- Toolmakers and Patternmakers
- Welders

If the above list is compared to that which identified the scarce artisanal skills earlier in the paper, one will see a correlation between the skills that are notably lacking and the areas in which support for training is taking place.

8.1.2 A look at specific Companies[63]

8.1.2.1 Eskom

Eskom spends approximately R800 million per year running its own tertiary institution, Eskom Corporate University, which serves to train their staff in the hope of reducing its skills shortage. This corporate university is an extension of the existing Eskom Learning Institution (ELI). The lack of skills at the utility has partly been blamed as a source of South Africa's electricity crisis. The Eskom Learning Institution offers certificated courses in a range of relevant disciplines, which are designed primarily for Eskom's existing staff, but learnerships and artisan training is open to the public (South Africa Good News 2008). Other facilities include the Technical Training Centre, which houses all training interventions, excluding Management and Leadership training and the Leadership Development Centre (Eskom 2006).

8.1.2.2 Transnet

The company's current Growth Strategy (Transnet 2008) in the short and longer term required it to focus on capacity building in the development of the appropriate commercial and technical skills.

Transnet has established skills pipelines for its priority skills requirements. These pipelines include feeder channels (schools, colleges and tertiary institutions), recruitment and selection of graduates, role profiles/career paths, incentives, core curricula and programmes, strategic delivery partners, delivery capability and assessment modalities (Transnet 2008).

The rollout of a talent development project has been developed to execute the Company's Growth Strategy. The focus of this project was to 'build capacity and to ensure organisational readiness in embracing talent management'.

During 2007/08, a Navigator Leadership Development Programme was introduced with the aim of raising the level of leadership competencies for managers. In the next

[63] The sources analysed in this section are done so independently of the data collected from the business survey.

financial year, a return on investment (ROI) methodology will be implemented to assess the impact and contribution of the programme.

8.1.2.3 ArcelorMittal

ArcelorMittal has several education initiates which include bursary schemes, upskilling of employees, artisan to technician conversion and the production NQF 4, science centres and long term partnerships with the Department of Education.

The intention of the bursary scheme is to supply the company with high quality engineering graduates, artisans and technicians and to contribute to the national skills building initiative.

Existing employees are given the opportunity to further their skills through leadership development education and a programme facilitating the conversion of artisanship to a National Diploma in Engineering. The company facilitates graduates' in-training, technicians, artisan to technician conversions, production learners and operational maintainers (ArcelorMittal 2008).

8.2 MOTIVATIONS FOR TRAINING – DISCUSSIONS WITH COMPANIES

Given that companies have their own training facilities and even occasionally capacity for additional training, it became necessary for us to question this capacity along with the motivations given for providing training.

Generally, it has been found that there is a united spirit underlying the training undertaken within companies. Companies are unanimously prepared to undertake some degree of training and budgets for this are allocated every year. What differs between companies and sectors is the amount of investment in training that takes place. Research within JIPSA and the Technical Skills Business Partnership has shown that around 12 to 14 employers are responsible for 80 percent of the artisans in the country (C. Louw 2008, pers. comm., 9 Dec 2008).

The nature and size of the company does have an effect on whether it has its own training institution and whether it trains over and above its own needs. This is most

easily understood by economies of scale; bigger companies need to train vastly more than small companies do, and they have very specific needs when it comes to training. Having an internal training facility eliminates the necessity to find external capacity for training, so it becomes part of one's businesses – as put by one company, 'the business to train'.

Companies with their own training institutions appear more likely to train over an above their own needs, for the reason that 'they had the capacity to do so'. Companies that form part of the Technical Skills Business Partnership[64] are required, and have committed, to train over and above their own needs. This is upon recognition that there is indeed a dire skills shortage, and the only way to rectify this is by making provision by training extra individuals. This also has the secondary spin-off that trained workers are less likely to be poached, as competition between companies for skilled workers are reduced.

The Technical Skills Business Partnership (TSBP) was created to jointly address the skills shortage of workers as companies in this working group are all in competition for workers of similar skills. It is driven by JIPSA targets to double the number of artisans qualifying to about 20,000 a year, with 50,000 additional artisans having qualified by the year 2009. Another motivation cited for companies to form this partnership was to prevent one company training a certain type of worker, and another company poaching it. The idea behind it is that there is a shared agreement of who is training in what area, and what the entire pool of skills supply has available. Transparency is meant to exist in terms of training so that other companies can 'learn' from training techniques.

[64] These companies include Goldfields (Mining industry), Sasol (Petrochemical industry), ArcelorMittal (Manufacturing, steel and engineering industry), Transnet (State Owned Enterprise: Transportation), Eskom (State Owned Enterprise: Energy), Anglo Platinum (Platinum industry).

Companies with large in-house training institutions felt that they were better equipped to train workers at the level that they personally required. This was not only to address current skills shortages, but also to address the issue of ongoing sustainability; '[F]or us to exist we need to train for our own needs' (C. Louw 2008, pers. comm., 9 Dec 2008).

Once large companies establish their own training institutions, the marginal cost to train extra learners is minimal. 'We have the capacity to train more learners, so why shouldn't we, it's not much extra effort on our part' (I. Boninelli 2008, pers. comm., 8 Dec). This extra training outside of the company's particular needs is not always a case of Corporate Social Responsibility. A large segment of the 'extra' learners trained were paid for by government (although, it must be noted that at times the cost charged for outside learners to be trained was done below the cost to company – this they felt was part of their 'giving back' to society). Hence, it appears government is also making use of private training facilities run by companies.

Some large companies claim to have always implemented training schemes. The extent to which they train is based on their own needs as part of their business philosophy, but, according to AngloGold, '[I]n the case of a skills shortage we would just train more learners' (G. Brokenshire 2008, pers. Comm., 9 Dec 2008). Graham Brokenshire, a manager in skills development at AngloGold, explains:

> AngloGold has historically spent a huge amount of money on training on artisans together with the training of miners, with blasting certificates. We've trained to meet our own needs, plus 40-50 percent extra learners over and above that. This training done over and above is done as a service back to the community. It is embodied into our philosophy to undertake training

Some companies have shifted the responsibility of training to their contractors, while others have realised that if they do not train (on behalf of some of their smaller contractors), they themselves (the large company) will suffer at a later stage. For example, Sappi makes use of many outside contractors for the work that they do, which essentially shifts the responsibility of staff. But if the contractors lack the skilled staff, the client (Sappi) suffers the most. So, the client (in this instance Sappi)

takes the responsibility for training staff as they also have a better capacity to do so, in comparison to the smaller contractor to whom work is outsourced.

When it comes to running big projects, companies do not discontinue the job in the case of a lack of supply: 'We're not going to stop producing due to shortage of skills, we'll simply pay more for them and then pass on the cost to the consumer' (C. Louw 2008, pers. comm., 9 Dec 2008). Price wars commence which only escalates the price of the skills in demand and the cost of the project to the client. So, as Cobus Louw from Sasol explains, '[T]raining… prevents us from competing for skills and helps us to maintain our costs to clients' (C. Louw 2008, pers. comm., 9 Dec 2008).

Competition among companies for skilled labour does not only exist within South Africa, it also extends to the international market. There is a global skills shortage and many of South Africa's skilled workers are emigrating for prospects that are more lucrative. This compounds the problem of skills shortages within the country. Sasol sees a solution for this in increased training: 'By us training for ourselves as well as over and above for the national pool, we can help attempt to wipe out the imbalance in skills demand' (ibid).

Generally, there is a strong emphasis on skills training within the manufacturing and mining sectors – sectors in which there is a need for artisans. These sectors all emphasised that skills training is a fundamental necessity for a company to operate, irrespective of whether a skills shortage exists. Other sectors (i.e. the Financial Sector) expressed that budgets are limited and training only occurs where it is needed, on very specific skills. In these instances, training is undertaken to address issues of productivity and competitiveness – to keep up with technological advancements occurring within business.

Training is also seen to have a high effect on staff morale. When staff members are not trained, they tend to look for other employment options where they are liable to receive training. In effect therefore, training also reduces staff turnover, which is very costly to a company. According to Francois Cloete from Nedbank: 'If you're not going to invest in people how long are you going to survive? We're part of a global

community. Competitiveness is a big thing. If you're not going to invest in training you're not going to get a return' (F. Cloete 2008, pers. comm., 9 Dec 2008).

Given the current economic crisis, some sort of effect on training was to be anticipated. Most companies involved in the survey were of the opinion that they could 'weather the storm', and said that training budgets had been allocated in the previous financial year so it was not possible to cut them back. Those companies that trained artisans (manufacturing and mining) were not going to reduce the number of learners trained because it takes years for them to graduate, 'so you can't just stop the training'. Given the cutback in funds however, there will be tighter measures in place to ensure less wastage. More time will be spent trying to make greater efficiency from funds spent. There will be a sharing of information between firms on how to 'more cost effectively train'. In addition, some companies expressed that training needs to commence now, in order to meet the demand when the financial crisis is over. Cobus Louw from Sasol forewarns, 'You need to remember that it takes more than three years to train someone, and when we want to expand in the future when the economy is good, if there are no skills around then we will have a problem' (C. Louw 2008, pers. comm., 9 Dec 2008).

8.3 CONCLUDING COMMENTS

The major issue highlighted here is that various companies are undertaking training independently. What has been seen is that companies are finding skills an issue and in response to this, they have formed training schemes. It needs to be understood that companies should be recognised as training institutions and proper engagement with Government, JIPSA and the likes needs to take place. If further support is given to companies by government then we could potentially produce a greater number of trained graduates.

Large companies are those that have a capacity for training, not simply having the money to spend on it, but having the resources for in-house training facilities. These in-house training facilities are being used for companies' individual needs, as well as the needs of others.

The current economic crisis is undoubtedly having its effects on training expenditure; companies are compelled to think twice before spending on anything. It was generally stated that training must become more cost effective in order to continue and a decrease in the number of learners trained is not an option, but rather a decrease in the amount spent needs to occur. Previous surveys conducted show that up until 2007 there was an increase in the training rates but no increase in the overall expenditure. This indicates that even a few years back there have been attempts to make training more cost effective.

Companies are attempting to make training more cost effective which is imperative during the current economic slowdown - the current climate has put pressure on budgets forcing them revaluate their expenditure on training. Although the training budgets are not been stopped, as they realise that they need to start preparing for what will most likely be a boom in 3 to 5 years time, and it takes 3 to 5 years to train a highly skilled artisan.

Companies appear to feel strongly that the training expenditure is not a case of corporate social responsibility but is more fundamental to the dire need to survive in a competitive area. While they recognise the importance of corporate social responsibility, this is but one aspect of the work they do towards training. The education, training and skills development undertaken is predominantly for the businesses own needs.

The amount of expenditure by companies in comparison to that by government is sizeable. Where public and private partnerships between government and business have formed, they seem to be in the areas where commitment is increasing the supply of skilled labour. And yet, there is still a lot of necessary work to be done. Companies and government could be spending more *and* training more. This crucial development needs to happen if the huge imbalance between demand and supply of skilled labour is ever going to be even potentially rectified.

9 DISCUSSION AND CONCLUSION

9.1 DISCUSSION

Central to this paper is a business survey, which is the first attempt of its kind to understand the key driver(s) of firm investment into skills training and staff development among large firms. This investigation measures the initiatives of firm-sponsored training programmes. The study analyses firm behaviour in the area of skills training, and key to the discussion are the area's of expenditure (short programmes vs. long programmes, internships vs. qualifications etc.).

To determine the baseline position it was necessary to:

- measure the expenditure on training, by large private sector firms;
- explore the nature of the training;
- compare the expenditure with the skills levy.

Further to this the following was undertaken to provide a broader picture, which would begin to substantiate the behaviour described above:

- investigate firm's attitudes towards training.
- consider the chance of firms' survival without investment in training

And to these ends the investigation focuses on data from the large company survey.

First, are firms spending on skills training and development, and to what extent? 92 of the companies in the survey are spending a combined R3.9 billion on education, training and skills development activities in South Africa. This is a sizable figure when compared to national (government) spending which has ranged from R3.9 billion to R5 billion from the years 2005 and 2008.

Secondly, does this amount reflect primarily firm-based or role-based training. In other words, is it answering specific business needs or does it represent a large proportion of community-based initiatives? The data suggest that training is largely firm specific and in response to specific gaps in employee skills. Companies invest in community based training programs by virtue of paying the levy and also, out of separate budgets held specifically for investment into social capital. While many of

the firms in the survey publicly demonstrate strong commitments towards social programmes, the nature of the training, rules out the possibility that it is largely a product of corporate responsibility on the part of firms. In terms of financial reporting, companies differentiate between expenditure on social expenditure and skills and training. Though it must be acknowledged that training to improve the internal skills pool and training geared at individuals outside the firm as not mutually exclusive in the benefit they could yield for a firm.

Thirdly, we consider the size of expenditure on training in relation to the mandatory 1 percent skills development levy. The data reveal that they are spending on average 3 percent in excess of the 1 percent levy, or 4 percent of the payroll. Although each sector spends varying amounts on education and training, all firms, without exception, are spending more than the 1 percent levy. This is the first indication that companies are committed to spending over and above the stipulated percentage of payroll on training. Their expenditure is in fact closer to the optimum 5 percent that was agreed upon by government and business. In taking the initiative to implement further training at their own cost it is apparent that companies prioritising the investment in skills training. In light of the fact that spending is above the government benchmark, and given the nature of the training, it is reasonable to assume that this spending is not driven by legislative pressure.

This research then explores the sentiment among businesses towards employee training. Discussions with companies reveal that they feel that in order to remain competitive, they need to train, as many are large companies, which operate on a global scale. In addition firms perceive training to yield a notably positive effect on productivity, ultimately leading to an increase in baseline profits. Firms also perceive training to be critical selling point in gaining employee loyalty. If a company invests in an individual, the individual is less likely than an untrained one to leave in search of other employment prospects. On a large scale this contributes to reducing a company's staff turnover, and thereby avoiding unnecessary spending on recruitment. This would ultimately have a notable affect on their profits by maintaining a low staff turnover.

The national problem of 'brain-drain' has forced companies to realise that adding to the local pool of skills reduces the competition for (and invariably the cost of acquiring) them. The logic being: that if companies trained to support their own needs, collectively it would reduce the national skills shortage. Furthermore that trained individuals earn more as untrained employees in firms would, if anything, be a disincentive for firms to invest heavily in training, and contradict the rational profit-centric behaviour of firms so central to economic theory (this being that the increase in earnings outweighs the increase in productivity).

An interesting question is whether companies are spending enough. Although the advantages of training have been shown, it is a highly consistent finding that South African firms in general under-invest. In the World Bank Large Manufacturing Survey, less than half of the firms surveyed provided training programmes (Chandrea *et al*. 2001: 44). In-house training was provided by approximately 36 percent of firms for high and low skilled workers.

In Poland, more than 80 percent of all workers receive firm-based training. In Brazil, firm-based training is provided to 68 percent of unskilled workers and to 63 percent in China. In South Africa on the other hand, less than half of skilled and unskilled workers have access to firm-based training. With the exception of unskilled workers in India, this is the *lowest level of training* provided among the comparator countries.

Table 9-72: Comparison of skilled and unskilled workers

Country	% Skilled Workers	% Unskilled Workers
Brazil	77.3	68.3
China	69.1	63.0
India	55.0	33.0
Poland	79.9	86.2
South Africa	44.6	45.8

The companies looked at within this research paper are predictably spending above the average within South Africa. Hopefully other companies will follow suit and increase their training spend due to the overwhelming effects it has on an individual company and the economy as a whole. The legislation put into place to bind spending

on training would not have any direct affect on the companies in the survey as they already are spending more than 1 percent. This could suggest that a broad-based target set for all companies may not be the most effective means of legislation to target expenditure on training. A more effective solution should be different brackets for different firm sizes, but at the same time tax breaks for the training undertaken. This will further encourage spending on training, and stimulate investment.

At the same time, new 'smaller' start-up companies may find the 1 percent levy to be a burden and may feel the money is needed elsewhere in the business. One would not expect a company operating for less than two or three years to have any expenditure on skills development or training, and the administration work required around claiming back money can also be burdensome.

The lessons learnt from the companies analysed should be used in developing a more effective skills development levy. Targeting the levy where it is used more, and reducing the burden where clear investment is taking place. If companies are encouraged to train more, with the right incentives there should be greater willingness to participate in skills development and training.

Furthermore, training of employees, and the unemployed should not be regarded as the same type of training. As we saw earlier, companies recognised this by offering different types of training, and at different expenditure levels. Guidelines, or targets should be introduced for the various individuals receiving the training.

An investment in training is not a 'quick fix' to the skills shortage in South Africa. Given the current economic crisis, many people are worried about losing their jobs and so they are not mentoring or sharing information to secure their own position, which is causing the workplace to become less productive. An unexpected side effect of the economic crisis is thus that teamwork has become a casualty (van Wyk 2008).

There is no doubt that trained staff are more valuable and are more likely to be poached in a skills-starved nation. To counter this, it is imperative that training needs are kept up. The only way to get through this economic storm is to retain the best staff and train them to become even stronger and to work harder and more efficiently

to maximise returns. Furthermore, planning to train to the correct levels will prepare a company even better for future growth.

Companies have the most critical role to play in addressing the skills shortage, but to properly address that responsibility, collaboration between government, employers and individuals needs to take place to gradually increase the national level of skills.

Companies are first to feel the extent of the skills shortage. The value of skills and a commitment to invest in human capital needs to be made in the same way an investment in physical capital occurs. This expenditure on skills needs to be recognised as an investment for the company and not an expense, because of the way in which it reaps long-term rewards.

South Africa is in the unique position of having an overwhelming number of unemployed people in the country, many of whom are structurally employed and lack basic employability skills. Their training should not be the sole responsibility of companies to fix the past failures of the education and training system, but employers need to work with government and co-operate by providing time and support for those to get onto the pathway towards appropriate qualifications that will give them long-term work opportunities. This is no longer an issue of corporate social responsibility but an issue of long term sustainability of a nation's enterprise. The investment in training should be driven by private corporate interests under the guidance of the public sector.

Investing in a company's workforce is a constructive venture with a positive returns, hence companies should be willing to invest in their workforce by developing their skills over time and to keep up with the pace of growing technological changes in order to compete successfully on a global playing field. Not only does training contribute to these changes, but one of the public policy responses to the problems of rising inequality, increased long-term unemployment and permanent job loss is to invest more in education and training, reaffirming its overwhelming significance to a nation like South Africa.

9.2 CONCLUSION

South Africa has escaped the full impact of the recent global financial crisis and economic recession, compared to the rest of the industrial world. The country ranks 45th out of 135 countries in the World Economic Forum's 2009/10 Global Competitiveness Index[65] while its banking system ranks 5th in the world. South Africa is expected to have the effects of the recession dampened and this may be helped to some extent, by the recent boom in investment and infrastructural development – as a result of the 2010 Soccer World Cup.

But despite stimuli and growth prospects, many South African businesses find it difficult to obtain the skills necessary to allow them participate in this development. Skilled workers are relatively scarce and as such, command high compensation; and businesses are increasingly relying on immigrant workers to fill the remaining gaps in skills supply. With the shortage in skills forcing businesses to recruit on a large scale outside the domestic pool of labour, the country's ability to realise the scale of growth needed to stabilise the local economy is called into question, as is the ability of South African businesses to stay competitive and relevant to the market.

A survey of 106 companies operating in South Africa reveals that businesses are acutely aware of this reality and their role in mitigating the risks to themselves. The survey also shows that local businesses have assumed a great level of social responsibility in respect of the wider socio-economic problems of unskilled labour force and chronic unemployment. However the analysis of data on these firms

[65] The Global Competitiveness Index is based on 12 indicators which include: higher education and training; labour market efficiency; financial market sophistication and macroeconomic stability.

indicates that the main drivers of investment into training and development are: short-term survival and long-term sustainability.

Both the level of firm spending, and the proportion of payroll it amounts to are significant. In 2005/06 ninety-two companies within the given sample in the survey spent around R3.9 billion on education, training and skills development activities. Compared to national spending which has ranged from R3.9 billion to R5 billion (between 2005 – 2008), this is sizable. The overall expenditure of the surveyed firms on training translates to 3 percent (on average) *more* than the mandatory 1 percent development levy; that is, 4 percent of the payroll. Despite some sectoral variations, all companies are spending over and above the compulsory 1 percent levy target.

Based on company interviews, most companies see training as a key investment in remaining competitive. For many multinationals the competitiveness both on a local and global level are not two mutually exclusive states. In addition, companies realise that adding to the labour pool will reduce the competition for skills, and in turn lower hiring costs. Firms feel that training pays off in employee-loyalty, which means lower staff turnover, and reduced recruitment costs. All these, considered with the fact that trained employees are more productive and as a result tend to earn approximately three percent more for every ten percent increase in training (Dearden et. al 2005) present a case for the overarching profit motive on the part of South African businesses in their attitudes towards staff training and development.

The responsiveness of firms in the survey is itself an indicator of the commitment and priority that they place on training. This investment will probably be more beneficial to all if companies' training plans; government initiatives; and national needs are all aligned. However it is evident from the current levels and nature of training; company attitudes; and broader economic context that firms invest in training primarily to survive and compete in domestic and global markets.

APPENDIX A: SURVEY INSTRUMENT

Report to the Deputy President
Company Contributions to Supporting Skills Development in South Africa

As indicated in the covering letter, we request that you complete the attached questionnaire so that we have accurate information about the kind of role that you, as a leading business, are playing to support skills development in South Africa. We would request that you complete this questionnaire as comprehensively as possible.

We have also included an annexure to this questionnaire. The annexure aims to elicit more detailed information about the profile of the beneficiaries of the skills development activities that your business is supporting. If you are able to complete this as well it would be appreciated, however if this is not possible given the time frame can we request that you complete only the questionnaire and submit this so that we can ensure that your information is included in the overarching picture that we develop based on an analysis of this information.

Please could we request that all figures are in respect of South African operations, and please provide all costs in South African Rands.

Also note that where you already have any of this information in another format please feel free to submit the relevant data to us in which ever format suits you and then complete the other aspects of the form.

Please complete this questionnaire (as well as the annexure where possible) and send to one of the following by **25th May**

[contact information removed]

Biographical Data

1	Name of company				
2	Date of completion				
3	Name of individual completing questionnaire				
4	Role/position in company				
5	Which SETA does the company pay levies to?				
6	Is the company an accredited education & training provider?	Yes		No	
7	What is the name of the structure (unit/department) coordinates training in your company?				
8	How many employees did you have at the end of 2006? (Including both full time and part time)	Total full time		Total part time	
9	Please indicate the percentage of employees as per the following categories:	% White	% Black	% Women	% People with disabilities

Further Education and Training Support

10	The numbers of students that your company is supporting in programmes in the FET Band (NQF 2-4)?					
	Total number of people in learnerships		Total number of people in National Senior Certificate (NSC) Vocational		Total number of people in N programmes (Nated) (excluding those in an apprenticeship)	
	Total number of Employed		Total number of Employed		Total number of Employed	
	Total number of Unemployed		Total number of Unemployed		Total number of Unemployed	
	Total number of FET Internships		Total number of people in apprenticeships		Total number of people in skills programmes	
	Total number of Employed		Total number of Employed		Total number of Employed	
	Total number of Unemployed		Total number of Unemployed		Total number of Unemployed	
	Other (formally certificated)		Other (not formally certificated)			
	Total number of Employed		Total number of Employed			
	Total number of unemployed		Total number of unemployed			

11	What kinds of support are given to students within the FET band?					
	Total Number of FET bursaries for students for the institutional learning component		Total number of people receiving coaching (active support to develop new knowledge and skills related to individuals occupation while in the workplace)		Total number of people receiving mentoring (individuals assigned who assist learners to plan their learning and workplace activities)	
	Total number of Employed		Total number of Employed		Total number of Employed	
	Total number of unemployed		Total number of unemployed		Total number of unemployed	
	Total number of employed people receiving financial study aid		Total number of unemployed people receiving stipends (learner allowances)		Number of students being supported in high school	
	Total number of Employed		Total number of unemployed		Total number of Employed	
	Is your company providing other kinds of support to FET institutions (either public or private)? (please tick the relevant box)					
	Allowing providers access to equipment	Yes	No	Seconding staff to lecture	Yes	No
13	Do you provide structured training towards FET qualifications? (this includes any qualification that falls on NQF level 2, 3 or 4 - please tick the relevant boxes)					
	Theory	Yes	No	Practical Training (in the workplace)	Yes	No
	Practical Training (not in the workplace)	Yes	No			

14	Do you have training facilities? If yes, please indicate the following below		Yes	No
	Training Fields (title)	Accredited (state yes or no)	Accrediting ETQA	
15	Do you have lecturing staff? If yes, please indicate which fields by number of lecturing staff		Yes	No
	Lecturing Staff Number	Fields		
16	Do you have any additional training capacity (over and above the capacity you have to train for your own needs)? Please explain.		Yes	No

17	Do you assist with assessments towards nationally recognised qualifications? (please tick the relevant box)					
	Trade Test	Yes	No	Against Unit Standards	Yes	No

18	Is the training/assessment and/or support in any of the trades mentioned below? Please note that these trades are specifically highlighted, as they are the trades that have been identified as key skills for growth. Please complete where relevant by ticking those boxes that apply to your company:						
		Bursaries for the institutional learning component	Work place supervision	Training	Assessment	Stipends	Workplace mentor
	Automotive Electrician						
	Boilermaker						
	Carpenter and Joiner						
	Diesel mechanic						
	Earth moving equipment mechanic						
	Electrician (light)						
	Electrician (heavy)						
	Fitter						
	Fitter and Turner						
	Instrument Mechanician						
	Millwright						
	Motor mechanic						
	Sheetmetal trades workers						
	Shutterhands and Steel fixers						
	Toolmakers and Patternmakers						
	Welder						
	Other Trades (Please specify)						

Higher Education

19	Is your company supporting students in higher education through any of the following?					
	Total number of bursaries for students in higher education		Total number of interns for students currently undertaking a higher education programme		Total number of interns for graduates from higher education	
	Number of Employed		Number of Employed		Number of Employed	
	Number of Unemployed		Number of Unemployed		Number of Unemployed	
	Bursary Fields?		Fields that interns are in?		Fields that interns are in?	

20	Is your company providing other kinds of support to higher education institutions? (please tick the relevant box)?					
	Secondment of staff to lecture		Support with equipment	Financial support (please define)		Other (please specify)

Funding Arrangements

New	What percentage of payroll do you spend on training over and above the 1% levy as part of the levy grant system?		
21	Does your company claim back levies from your SETA for training?	Yes	No
22	What percentage of your levy do you get back through the mandatory grant?		
23	If you do not receive the full amount for the mandatory grant please explain why not?		
24	Do you receive any Discretionary Grants from the SETA? (Please tick the relevant box)	Yes	No
25	Please indicate the monetary value of this support		
26	Which programmes does this money support? Please specify below		
27	Please indicate the financial costs that the company itself incurred for training, over and above the 1% levy that the company pays (where possible please indicate amounts per categories)		
	Total amount spent on training:		
	Where possible please provide a breakdown in terms of the following:		
	Bursaries	FET	
		HET	
		ABET	
		Schools	
	Learnerships		
	Apprenticeships		
	Internships		
	Skills Programmes		
	Other support for FET Institutions		
	Other support for HE Institutions		
	Other (please specify if possible)		
28	As a rough indicator, what was the percentage split of your training spend across the following groups?		
``	% White	% Black	% Women	% People with disabilities

29	As a rough indicator, how much of the training would you say is funded by returned skills development levies (in terms of the categories below) or how much from other company resources?				
	% Mandatory Grant	% Discretionary Grants	% NSF funding through the SETA	% Company funds	Other (Please specify in lines below)

Role of the SETA

30	Do you feel that your SETA is supporting the skills priorities in your company?			
	Not at all	Somewhat	Supporting skills priorities	Significantly supporting skills priorities
31	Please explain how the SETA is/is not supporting skills priorities in your company			
32	Do you have any recommendations on how SETAs could improve their support to companies? If yes, please explain below		Yes	No
33				
	What are the key challenges that you face in implementing skills development?			
34	What recommendations do you have to address these challenges?			

Corporate Social Investment (CSI)

35	In 2006, what was your total CSI spend on skills development?			
36	What was the percentage split of this investment in the following areas:			
	Primary and secondary schooling	Further Education and Training	Tertiary education	Adult basic education and training
37	Could you indicate how you currently report on skills development? (please tick the relevant box)			
	Annual Report		Employment Equity Reports	
	Financial Statements		BBBEE Scorecards (linked to the Charters)	
	WSP		Other reports (please indicate which)	
	Annual Training Report			
38	What do you believe would be the most effective way of reporting on what skills training your company is supporting?			

Annexure: Demographics of Beneficiaries of Training

Further Education and Training

1	The numbers of students that your company is supporting in programmes in the FET Band (NQF 2-4)?									
	Number of people in learnerships					Number of people in National Senior Certificate (NSC) Vocational				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Number of people in N programmes (Nated) (excluding those in apprenticeships)					Number of people in apprenticeships				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Number of FET Internships					Number of people in skills programmes				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Other (formally certificated)					Other (not formally certificated)				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
2	What kinds of support are given to students within the FET band?									
	Number of FET bursaries for students for the institutional learning component					Number of people receiving coaching (that is people that are being actively supported to develop new knowledge and skills related to their occupation while they are in the workplace)				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Number of people receiving mentoring (that is people who have individuals assigned to them to assist them to plan their learning and workplace activities)					Number of unemployed people receiving stipends (learner allowances)				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Number of employed people receiving financial study aid					Number of students being supported in high school				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled

	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled

Higher Education

3	Is your company supporting students in higher education through any of the following?									
	Number of bursaries for students in higher education					Number of interns for students currently undertaking a higher education programme				
	Employed	White	Black	Women	Disabled	Employed	White	Black	Women	Disabled
	Unemployed	White	Black	Women	Disabled	Unemployed	White	Black	Women	Disabled
	Bursary Fields?					Fields that interns are in?				
	Number of interns for graduates from higher education									
	Employed	White	Black	Women	Disabled					
	Unemployed	White	Black	Women	Disabled					
	Fields that interns are in?									

APPENDIX B: LIST OF COMPANIES THAT RESPONDED TO QUESTIONAIRE

This Appendix has been removed. Respondents were told that they would not be identified individually within the paper. The necessary information has been made available to the examiners of the dissertation.

APPENDIX C: LIST OF COMPANIES THAT WERE INTERVIEWED TELEPHONICALLY

Anglo Gold Ashanti
British American Tobacco (South Africa)
Goldfields
Nedbank
Sasol
Sappi

APPENDIX D: DEMOGRAPHICS

A BREAKDOWN OF THESE COMPANIES IN TERMS OF GENDER, RACE, AND DISABILITY[1]

Overall, of the total number of staff represented in the respondent companies, the majority is black, although in both finance and community and personal social services it is almost equal, reflecting the nature of these sectors. With regards to gender, the majority of staff is male, again with the exception of the community and personal social services and the wholesale and retail sectors, both of which have higher percentages of women.

Sectoral Analysis: Race, Gender and Disability[2]

	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	State Owned Enterprises	Overall
Number of companies who responded	39	6	20	15	14	7	2	103
% White	29.81%	48.98%	23.93%	46.94%	21.09%	17.25%	29.10%	31.02%
% Black	66.97%	51.02%	73.75%	52.91%	77.69%	74.14%	64.75%	65.89%
% Women	21.53%	61.25%	13.87%	47.91%	12.09%	52.78%	21.25%	32.95%
% Disabled	3.86%	0.15%	0.55%	1.43%	0.37%	0.02%	1.80%	1.17%

A BREAKDOWN OF COMPANIES INTO CATEGORIES IN TERMS OF NUMBER OF STAFF

These sectors are further disaggregated into the three broad size categories defined previously. These categories are based on the numbers of staff employed within this sample, and are provided as a way of penetrating the data to understand whether or not the size of a company impacts on the extent and type of skills development that a company may undertake. The number of staff per category is reiterated in the tables to assist with analysis. The tables below indicate the staff breakdown in terms of number of employees, sector, race, gender, and disability.

[1] Some companies excluded the demographics of their part time employees as they did not keep that type of information.

[2] Note that three companies did not provide a demographic breakdown and are therefore left out of this analysis. This includes two financial companies and one from W&R. Also note that some cases do not add up to 100% as companies excluded foreign nationals from these figures.

Category 1: Greater than 10,000 employees[3]

Category 1 > 10 000 employees	Manufacturing	Mining	Financial	Construction	Wholesale and Retail	SOE	Overall
Number of companies who responded to this question	n = 2	n = 5	n = 5	n =1	n = 6	n = 2	n = 21
% White	30.20%	7.00%	40.00%	17.00%	14.10%	29.10%	22.20%
% Black	69.80%	90.80%	59.80%	83.00%	75.80%	64.80%	74.30%
% Women	23.60%	6.00%	60.80%	8.00%	64.30%	21.30%	38.90%
% Disabled	0.20%	1.50%	0.60%	0.10%	0.00%	1.80%	1.00%
Total number of staff	43,949	206,127	144,533	15,833	192,381	86,948	689,771

Category 2: Between 2,000 and 10,000 employees[4]

Category 2 2,000 – 10,000 employees	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Overall
Number of companies who responded to this question	n = 18	n = 2	n = 7	n = 8	2	37
% White	25.91%	48.00%	21.23%	51.75%	12.00%	31.78%
% Black	71.91%	52.00%	76.02%	48.12%	88.00%	67.21%
% Women	14.90%	51.50%	12.15%	50.59%	7.50%	27.33%
% Disabled	6.81%	0.36%	0.14%	2.55%	0.50%	2.07%
Total number of staff	80,082	11,958	48,490	34,796	9,841	185,167

[3] Note that no Community and Personal Social Services Companies fall within this category (in this sample) and are therefore not reflected here.

[4] Note that no State Owned Enterprises or Wholesale & Retail Companies fall within this category (in this sample) and are therefore not reflected here.

Category 3: Less than 2000 employees[5]

Category 3 < 2 000 employees	Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail	Overall
Number of companies who responded to this question	19	4	8	2	11	1	45
% White	33.47%	49.48%	35.51%	45.02%	23.11%	35.90%	37.08%
% Black	61.99%	50.53%	61.09%	54.87%	75.33%	64.10%	61.32%
% Women	27.59%	66.13%	20.30%	52.85%	13.30%	36.20%	36.06%
% Disabled	1.04%	0.05%	0.25%	0.49%	0.37%	0.00%	0.36%
Total number of staff	15,698	2,115	7,531	2,009	3,578	451	31,382

[5] Note that there are no State Owned Enterprises that fall within this category (in this sample) and they are therefore not reflected above.

APPENDIX E: NSDS 1: 2001 – 2005

Objective 1:	**Developing a culture of high quality lifelong learning.**
1.1	By March 2005, 70 % of workers will have at least a level one qualification on the National Qualification Framework.
1.2	By March 2005, a minimum of 15 % of workers to have embarked on a structured learning programme, of whom at least 50 % have completed their programme satisfactorily.
	By March 2005, an average of 20 enterprises per sector, (to include large, medium and small enterprises), and at least five national government departments, to be committed to, or have achieved, an agreed national standard for enterprise-based people development.
Objective 2:	**Fostering skills development in the formal economy for productivity and employment growth.**
2.1	By March 2005, at least 75 % of enterprises with more than 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.
2.2	March 2005, at least 40 % of enterprises employing between 50 and 150 workers are receiving skills development grants and the contributions towards productivity and employer and employee benefits are measured.
2.3	By March 2005, learnerships are available to workers in every sector. Precise targets will be agreed with each Sector Education and Training Authority.
2.4	By March 2005, all government departments assess and report on budgeted expenditure for skills development relevant to Public Service, sector and departmental priorities.
Objective 3:	**Stimulating and supporting skills development in small businesses.**
3.1	By March 2005, at least 20 % of new and existing registered small businesses to be supported in skills development initiatives and the impact of such support to be measured.
Objective 4:	**Promoting skills development for employability and sustainable livelihoods through social development initiatives.**
4.1	By March 2003, 100% of the National Skills Fund apportionment to social development is spent on viable development projects.
4.2	By March 2005, the impact of the National Skills Fund is measured by project type and duration, including details of placement rates, which shall be at least 70%.
Objective 5:	**Assisting new entrants into employment.**
5.1	By March 2005, a minimum of 80,000 people under the age of 30 have entered learnerships.
5.2	By March 2005, a minimum of 50% of those who have completed learnerships, within six months of completion are employed (e.g. have a job or are self-employed), in full-time study or further training, or are in a social development programme.

Source: DoL, 2000

APPENDIX F: NSDS 2: 2006 – 2010

Objective 1:	Prioritising and communicating critical skills for sustainable growth, development and equity
1.1	Skills development supports national & sectoral growth, development and equity priorities.
1.2	Information on critical skills is widely available to learners. Impact of information dissemination researched, measured and communicated in terms of rising entry, completion and placement of learners.
Objective 2:	Promoting and accelerating quality training for all in the workplace
2.1	80% of large firms and at least 60% of medium firms employment equity targets are supported by skills development. Impact on overall equity profile assessed.
2.2	Skills development in at least 40% of small levy paying firms supported and the impact of the support measured.
2.3	80% of government departments spend at least 1% of personnel budget on training and impact of training on service delivery measured and reported.
2.4	At least 500 enterprises achieve a national standard of good practise in skills development approved by Minister of Labour.
2.5	Annually increasing number of small BEE firms & BEE co-operatives supported by skills development. Progress measured through an annual survey of BEE firms & BEE co-operatives within the sector from the second year onwards. Impact of support measured.
2.6	There is an annually increasing number of people who benefit from incentivised training for employment or re-employment in new investments and expansion initiatives. Training equity targets achieved. Of number trained, 100% to be SA citizens.
2.7	At least 700,000 workers have achieved at least ABET level 4.
2.8	At least 125,000 workers assisted to enter and at least 50% successfully complete programmes, including learnerships & apprenticeships, leading to basic entry, intermediate & high level scarce skills. Impact of assistance measured.
Objective 3:	Promoting employability and sustainable livelihoods through skills development
3.1	At least 450,000 unemployed people are trained. Training quality assured. No less than 25% of people trained undergo accredited training. Of those trained at least 70% should be placed in employment, self employment or social development programmes including (EPWP), or should be engaged in further studies. Placement categories each to be defined, measured, reported and sustainability assessed.
3.2	At least 2,000 non-levy paying enterprises, Non-governmental Organisations (NGOs), Community Based Organisations (CBOs) and community-based co-operatives supported by skills development. Impact of support on sustainability measured with a targeted 75% success rate.
3.3	At least 100,000 unemployed people have participated in ABET level programmes of which at least 70% have achieved ABET Level 4.

Objective 4:	Assisting designated groups, including new entrants to participate in accredited work - integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment
4.1	At least 125,000 unemployed people assisted to enter and at least 50% successfully complete programmes, including learnerships and apprenticeships, leading to basic entry, intermediate and high level scarce skills. Impact of assistance measured.
4.2	At least 100% of learners in critical skills programmes covered by sector agreements from Further Education and Training (FET) and Higher Education and Training (HET) institutions assisted to gain work experience locally or abroad, of whom at least 70% find placement in employment or self-employment.
4.3	10,000 young people trained and mentored to form sustainable new ventures and at least 70% of new ventures in operation 12 months after completion of programme.
Objective 5:	Improving the quality and relevance of provision
5.1	Each SETA recongises and supports at least 5 Institutes of Sectoral or Occupational Excellence (ISOE) within public or private institutions and through the Public Private Partnerships (PPPs) where appropriate, spread as widely as possible geographically for the development of people to attain identified critical occupational skills, whose excellence is measured in the number of learners successfully placed in the sector and employer satisfaction ratings of their training.
5.2	Each province has at least two provider institutions accredited to manage the delivery of the new venture creation qualification. 70% of new ventures still operating after 12 months will be used as a measure of the institutions success.
5.3	There are measurable improvements in the quality of the services delivered by skills development institutions and those institutions responsible for the implementation of the National Qualifications Framework (NQF) in support of the NSDS.
5.4	There is an NSA constituency based assessment of an improvement in stakeholder capacity and commitment to the National Skills Development Strategy.

Source: DoL, 2005b

APPENDIX G: METHODOLOGY WHEN CONSIDERING DATA FOR SKILLS CRISIS

The data that was considered includes (but is not limited to):

- The national Scarce Skills list of 2007 published by the Department of Labour and agreed upon within the national Skills Focus Group. It represents the figures drawn from SETA Sector Skills Plans and relevant other departments.[6] The Skills Focus Group has representatives from the Departments of Education, Labour, Trade and Industry, Home Affairs, Environment and Tourism, Science and Technology, Provincial and Local Government, Minerals and Energy and Public Enterprise. In publishing the national Scarce Skills list, the Ministry of Labour attempts to give an account of the skills that lie at the heart of the 'binding constraint' on economic growth and development.[7] The list reflects the skills that are most needed in South Africa and where efforts need to be focused on acquiring and developing skills.
- Indications of the prioritization process that was followed by the Construction SETA (Qualifications have been prioritized as urgent or moderate based on when implementation should begin: an urgent priority is targeted by CETA for the first quarter of 2008, while those that are of a moderate priority are targeted by CETA for implementation in the 3rd and 4th quarter of 2008, others are understood to be for implementation 2009[8]). Of the occupations identified as been of scarcity, 7 were of a moderate priority and 11 were of an urgent priority.
- Data generated through the process facilitated by the Presidency. This report captures the skills that are going to be required to complete the major infrastructure projects[9] up until 2016.
- Data generated through a process facilitated by the CIDB which conducted an investigation of the skills requirements for various infrastructure project types using a growth model (an annual growth in the sector of 10% was assumed)[10]. A projected demand for 2010 was then derived.

There are three important provisos that need to be made before the actual numbers can be examined. The different research processes define occupations differently thus in certain processes one category is subsumed by another while in others they are reflected as discreet occupations. This makes comparability more complex. Secondly, these processes have used slightly different time frames for the calculations. In some cases even within a single process data is used which is calculated based on varied planning horizons. This suggests that the numbers, where given, should be considered as an indicator of the magnitude and areas of demand, but should not be considered as absolute numbers. Thirdly occupations that are not mentioned do not necessarily imply that there is not a shortage of skills within the occupation.

[6] Contributions were received from several other government departments, including Home Affairs and the Departments of Trade and Industry, Public Enterprises and Science and Technology. Additional data obtained from other government departments was used largely to validate the scarcities identified in the SETA Sector Skills Plans
[7] Deputy President at launch of the JIPSA initiative, March 2006.as cited in the National Scarce Skills list 2007 by DoL
[8] CETA Circular No: Q8/01/02
[9] These projects include: Eskom, Gautrain, Sanral, ACSA, Fifa and DoH houses & flats.
[10] A different method of demand was used for the calculation of skills in Roads and Earthmoving. For a detailed analysis see Merrifield, A. 2006

APPENDIX H: PERCENTAGE OF PAYROLL

	Number of companies	% of payroll over and above the 1% levy
Manufacturing	n = 27	3.13%
Community and Personal Social Services	n = 3	2.56%
Mining	n = 14	4.09%
Financial	n = 13	3.34%
Construction	n = 2	0.80%
Wholesale and Retail	n = 7	3.23%
SOE	n = 2	3.95%
Overall	n = 68	3.01%

APPENDIX I: SECTORAL PREFERENCES

Employed individuals	Manufacturing	Community and Personal Social services	Mining	Financial	Construction	Wholesale and Retail	SoE
Number of employees covered by the sample	123,773	13,922	251,257	173,523	17,877	104,061	79,306
Learnerships	2,910	0	2,346	398	179	1,180	5
NSC Vocational	0	0	0	0	0	0	0
N Programmes	639	0	426	0	0	3	250
FET Internships	0	0	0	0	0	0	0
Apprentices	624	0	190	0	241	0	0
Skills Programmes	1,421	263	50,755	2,407	1,528	15,222	9,000
Other Certificated	792	1,710	4,320	221	31	5,183	2,100

Unemployed Individuals	Manufacturing	Community and Personal Social services	Mining	Financial	Construction	Wholesale and Retail	SoE
Learnerships	2,238	122	1,405	704	49	1,386	1,957
NSC Vocational	403	25	169	88	60	274	0
N Programmes	28	0	0	0	0	0	61
FET Internships	103	12	164	59	44	53	261
Apprentices	1,160	120	44	0	11	0	1,238
Skills Programmes	115	34	501	5	465	65	1,389
Other Certificated	63	0	307	244	0	0	1,100
Other not Certificated	74	0	32	14	21	2,175	0
Non-accredited Programmes	74	0	32	14	21	2,175	0

APPENDIX J: NUMBERS WHO PARTICIPATED IN HIGHER EDUCATION AND TRAINING PROGRAMMES

		Manufacturing	Community and Personal Social Services	Mining	Financial	Construction	Wholesale and Retail
Bursaries for students in higher education	Employed	1,302	202	975	4,915	98	475
	Pre-employed	1,804	175	773	1,496	245	668
Interns currently undertaking a higher education programme	Pre-employed	1,793	136	216	477	39	33
Interns for graduates from higher education	Pre-employed	535	78	724	810	59	13

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