IMPACT ASSESSMENT OF NATIONAL SKILLS DEVELOPMENT STRATEGY II

Scarce Skills Information Dissemination: A Study of the SETAs in South Africa

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January 2012

HSRC Human Sciences Research Council

Education & Skills Development Research Programme

Development Policy Research Unit

labour
Department:
Labour
REPUBLIC OF SOUTH AFRICA

Impact Assessment of National Skills Development Strategy II

Research Director: Vijay Reddy

From May 2010 to January 2012, the Human Sciences Research Council, with its partner Development Policy Research Unit (UCT), undertook research to assess and evaluate the progress made in skills development since the implementation of National Skills Development Strategy II in March 2005. The research covered three thematic areas and produced nine research reports:

A. Impact of skills development on placement of learners upon completion of the programme. (Indicator 1.2; 3.1; 4.2)

1. Sumayya Goga and Carlene van der Westhuizen (2012) Scarce Skills Information Dissemination: A Study of the SETAs in South Africa.
2. Renette Du Toit (2012) The NSF as a Mechanism to Address Skills Development of the Unemployed in South Africa.
3. Morne Oosthuizen (2012) The Impact of Work Experience Grants on Learner Placement.

B. Impact of skills development support on large, medium and small firms as well as on Government, BEE firms and BEE co-operatives. (Indicator 2.1; 2.2; 2.5)

4. Pundy Pillay, Andrea Juan and Thembinkosi Twalo (2012) Impact assessment of skills development on service delivery in government departments.
5. Pundy Pillay, Andrea Juan and Thembinkosi Twalo (2012) Impact assessment of skills development on service delivery in government departments: Appendices.

C. Progress evaluation on support to high-level scarce and critical skills for both workers and unemployed learners.(Indicator 2.8 & 4.1)

6. Dean Janse Van Rensburg, Mariette Visser, Angelique Wildschut, Joan Roodt and Glenda Kruss (2012) A Technical Report on Learnership and Apprenticeship Population Databases in South Africa: Patterns and Shifts in Skills Formation.
7. Angelique Wildschut, Glenda Kruss, Dean Janse Van Rensburg, Genevieve Haupt and Mariette Visser (2012) Learnerships and Apprenticeships survey 2010 technical report: Identifying transitions and trajectories through the learnership and apprenticeship systems.
8. Claudia Mummenthey, Angelique Wildschut and Glenda Kruss (2012) Assessing the impact of learnerships and apprenticeships under NSDSII: Three case studies: MERSETA, FASSET & HWSETA
9. Glenda Kruss, Angelique Wildschut, Dean Janse Van Rensburg, Mariette Visser, Genevieve Haupt and Joan Roodt (2012) Developing Skills and Capabilities through the Learnership and Apprenticeship Pathway Systems. Project Synthesis Report. Assessing the Impact of Learnerships and Apprenticeships under NSDSII.

This research was funded by the Department of Labour. The research team acknowledges the support of the Labour Market Policy Unit, especially Ms Tendani Ramulungo for the support provided to undertake this suite of research projects.

Scarce Skills Information Dissemination: A Study of the SETAs in South Africa

(A Sub-project of the Assessment of the National Skills Development Strategy II)

Commissioned by the Department of Labour

Final Report submitted October 2011

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List of SETAs

AGRISETA	Agricultural Sector Education & Training Authority
BANKSETA	Banking Sector Education & Training Authority
CETA	Construction Education and Training Authority
CHIETA	Chemical Industries Education & Training Authority
CTFL SETA	Clothing, Textiles, Footwear and Leather Sector Education & Training Authority
ESETA	Energy Sector Education & Training Authority
ETDP SETA	Education, Training and Development Practices Sector Education & Training Authority
FASSET	Finance, Accounting, Management Consulting and Other Financial Services Sector Education & Training Authority
FIETA	Forest Industries Sector Education & Training Authority
FOODBEV	Food and Beverages manufacturing Sector Sector Education & Training Authority
HWSETA	Health and Welfare Sector Education & Training Authority
INSETA	Insurance Sector Education & Training Authority
ISETT	Information Systems, Electronics and Telecommunications Technologies Sector Education & Training Authority
LGSETA	Local Government Sector Education & Training Authority
MAPPP	Media Advertising Publishing Printing Packaging Sector Education & Training Authority
MERSETA	Manufacturing, Engineering and Related Service Sector Education & Training Authority
MQA	Mining Qualifications Authority
PSETA	Public Sector Education & Training Authority
SASSETA	Safety and Security Sector Education & Training Authority
SERVICES	Services Sector Education & Training Authority
TETA	Transport Sector Education & Training Authority
THETA	Tourism, Hospitality, Sport Sector Education & Training Authority
W&R SETA	Wholesale and Retail Sector Education and Training Authority

Executive Summary

The South African government has identified skills shortages as one of the binding constraints to achieving higher and shared economic growth in the country. Skills development therefore remains one of the priority areas for government intervention.

The Skills Development Act of 1998 (amended in 2003) is the key piece of labour legislation which guides interventions aimed at skills development in the economy. More specifically, the Act continues to provide the institutional framework for the development and implementation of national, sectoral and workplace strategies to develop and improve the skills of the South African workforce. The Act also established the Sector Education and Training Authorities (SETAs) and the National Skills Fund (NSF).

The main functions of SETAs are to develop sector skills plans, develop and register learnership programmes, quality assure qualifications, and disburse national skills development levy funds. In 2001, the National Skills Development Strategy (NSDS) was launched with the aim of transforming education and training in South Africa by improving both the quality and quantity of training. The NSDS consists of a set of performance indicators which define certain levels of training which have to be met by the SETAs. The responsibility for implementing the NSDS thus rests with the SETAs and, to a lesser extent, the NSF.

The first phase of the NSDS (NSDS I) set targets for the SETAs for the period ending March 2005. In 2005, the second phase, NSDS II, was launched, which set targets for the 2005-2010 period. The general objective of NSDS II was to support the South African government's broad goals of reducing unemployment, poverty and inequality, while the more specific objective was to promote skills development. The SETAs and the NSF continued to be the key institutions responsible for implementing the second phase of the NSDS.

One of the SETAs most important functions is the development of sector skills plans (SSPs). Each SETA is responsible for compiling a SSP for its sector. The SSP guides the decisions of the SETA regarding skills development priorities, and provides the background for the activities of the SETA. More specifically, the SSPs contain information on scarce and critical skills shortages in each sector. The scarce skills information from the SSPs, together with other research carried out by the Department of Labour (DOL), is used to inform the National Scarce Skills lists. The National Scarce Skills lists, compiled and published by the DOL, aim to provide a comprehensive overview of scarcities in the economy for various occupations. While SETAs have the responsibility for ascertaining skills shortages, they also bear the responsibility for marketing scarce and critical skills in their relevant sectors to attract students/learners/graduates/employees into scarce skills occupations. The SETAs are therefore the key institutions responsible for the communication of the information in the National Scarce Skills lists to all relevant stakeholders.

The broad aim of this study is to evaluate how information on scarce skills is disseminated by SETAs to various roleplayers in the economy, and (if possible) the impact of this dissemination on study/training choices of students, learners and workers. Section 1 of the study provides an

introduction. Prior to analyzing dissemination strategies, Section 2 considers the magnitudes and types of scarcities reported in the 2007 and 2008 National Scarce Skills lists. We find that changes in absolute numbers of scarce skills between the two lists are primarily the result of changes in occupations included in the two lists. Occupations with high numbers of scarce skills in the most recently published National Scarce Skills list (2008) are engineering and artisan-related occupations, education-related occupations, call centre operators, community and personal service workers (welfare support workers, nurses, security officers, dental assistants, funeral workers) and other science-related occupations. Furthermore, managers across a spectrum of occupations are in short supply according to the list, while certain types of clerical and administrative workers, sales workers, machinery operators and drivers, and technicians and trades workers are also undersupplied. Perceived scarcities are thus widespread across a variety of occupations and industries.

Changes in numbers between the two lists must, however, be viewed with caution since these are primarily a reflection of the data used to compile the lists, including WSPs and sectoral studies. It is possible that the number of firms submitting WSPs might have changed (or the methodologies used in sectoral studies might have changed) between years. It is important therefore not to place too much emphasis on the absolute numbers presented in the lists.

In terms of the resources of SETAs to determine scarce skills numbers, we note firstly that SETAs, by and large, have undertaken the level of Skills Development Facilitator (SDF) training agreed upon in Service Level Agreements (SLAs). Furthermore, most SETAs, have produced scarce skills guides for their respective sectors. Many SETAs, however, noted that scarce skills information dissemination is not simply restricted to the training of SDFs, but that it is carried out much more widely and with many more role-players than just SDFs. These role-players include teachers, life orientation teachers, career guidance counselors, independent SDFs, and employees of companies. Furthermore, many SETAs have been innovative when producing scarce skills guides. The MERSETA, for instance, produced "mini-guides" for each of the top five scarce skills in the sector.

As far as budgets of SETAs to communicate scarce skills are concerned, we firstly find that some SETAs stated in the interviews that they are underfunded (compared to other SETAs) when considering the number of levy-paying organizations they service. The amount of levy income received thus impacts on, among other things, the ability of SETAs to effectively communicate scarce skills. Secondly, though we consider discretionary funding and administration and budget expenditure of SETAs, a few SETAs noted in their interviews that it is not possible to accurately estimate the budget for (and actual expenditure on) marketing and communication of scarce skills since this activity forms a part of a range of other activities undertaken by SETAs. Furthermore, SETAs also indicated that the human resource cost of attending career fairs and exhibitions is high, and not easily quantifiable, but should be taken into account when considering the amount of time and money spent by SETAs to communicate the scarce skills list.

Thirdly, the nature of the sectors within which different SETAs operate impacts on their information dissemination strategies, which in turn has cost implications. Thus, while a SETA servicing mainly professionals may have a less resource-intensive strategy, another SETA servicing

the engineering sector may have to target learners early in their secondary school careers to ensure that they continue with mathematics and science subjects up to matriculation level. For this latter SETA then, the amount of money spent on communication strategies may be much higher.

Finally, in considering activities used to communicate scarce and critical skills, we find that this task is carried out in a variety of direct and indirect ways. Direct activities include, for example, participation in career fairs and exhibitions, while indirect activities include, for example, training employers and training providers. Furthermore, communication of scarce skills is subsumed within various other activities, like the promotion of learnerships and bursaries. It appears then that scarce skills information dissemination is carried out to a variety of stakeholders in a variety of different ways, and importantly, that it is carried out almost continuously. Many of these activities are thus not explicitly reported on, or are reported on as part of other activities. It is difficult then to accurately quantify the activities that SETAs undertake to disseminate scarce skills.

Common activities undertaken by SETAs to directly communicate scarce skills include attendance of career fairs and exhibitions, and roadshows. Some SETAs however directly target learners at schools, while other SETAs have formed important collaborative relationships with, for instance, the National Youth Development Agency (NYDA), Further Education and Training institutions (FETs), Higher Education and Training institutions (HETs) and provincial Departments of Education (DOEs). While many SETAs take part in exhibitions, some SETAs have been much more innovative in terms of the exhibitions they participate in. The MERSETA's "try-a-skill" exhibition is an example of this. Learners and students at this exhibition were encouraged to "experience" trades in a more hand-on approach.

As far as communication via the media is concerned, SETAs have utilised university publications, local, regional and national newspapers, television and radio advertisements/programmes, sector-specific magazines, employment/skills/career magazines, and online media. Furthermore, SETAs such as the MQA have also used other means like a media breakfast to engage with journalists in the sector. Finally, direct communication of scarce skills also occurs through SETA call centres, the SETA websites and when people visit the SETAs.

Challenges experienced by SETAs in disseminating information include the following: the fact that SETAs may be forced to prioritise spending on stakeholder needs instead of information dissemination activities; the lack of career guidance teachers and counselors at schools, FETs and HETs; difficulty with reaching the unemployed; the fact that some SETAs operate in an environment within which there are insufficient qualifications developed to serve scarce skills needs; and the fact that some SETAs operate in highly-regulated environments thus forcing them to rely on interaction through professional councils.

While our analysis provides a good indication of the activities of SETAs (and the associated budgets) regarding dissemination of scarce skills information, we note that it does not provide a complete picture. Furthermore, it is not possible given the data at our disposal to provide an analysis of whether the marketing and communication activities of SETAs have directly resulted in an increase

in the number of learners enrolling in scarce skills qualifications. Neither the SETAs not any other skills development body collects this type of information. It does appear that while some SETAs are not particularly successful in fulfilling this specific mandate, other SETAs are very innovative and forward-thinking in how they approach the task of critical skills information dissemination. And these innovative interventions can serve as examples to be emulated by other SETAs in updating and improving their marketing and communication activities.

Acknowledgment

This study was commissioned and funded by the Department of Labour.

1. Introduction

The South African economy is characterised by both high levels of unemployment, and severe shortages of certain skills demanded in the economy. Critical shortages exist across the high and semi-skilled spectrum, ranging from managers and professionals to artisans and technically trained workers. The South African government has identified these shortages as one of the binding constraints to achieving higher and shared economic growth in the country. Skills development therefore remains one of the priority areas for government intervention.

The Skills Development Act of 1998 (amended in 2003) is the key piece of labour legislation which guides interventions aimed at skills development in the economy. More specifically, the Act continues to provide the institutional framework for the development and implementation of national, sectoral and workplace strategies to develop and improve the skills of the South African workforce. The Act also established the Sector Education and Training Authorities (SETAs) and the National Skills Fund (NSF).

Under the Skills Development Act, 25 SETAs were initially established in March 2000. In August 2005, the Minister of Labour announced a merger of some of the SETAs, and by the end of 2010, 23 SETAs were operating in the South African economy. The main functions of SETAs are to develop sector skills plans, develop and register learnership programmes, quality assure qualifications, and disburse national skills development levy funds. In 2001, the National Skills Development Strategy (NSDS) was launched with the aim of transforming education and training in South Africa by improving both the quality and quantity of training. The NSDS consists of a set of performance indicators which define certain levels of training which have to be met by the SETAs. The responsibility for implementing the NSDS thus rests with the SETAs and, to a lesser extent, the NSF.

The first phase of the NSDS (NSDS I) set targets for the SETAs for the period ending March 2005. In 2005, the second phase, NSDS II, was launched, which set targets for the 2005-2010 period. The general objective of NSDS II was to support the South African government's broad goals of reducing unemployment, poverty and inequality, while the more specific objective was to promote skills development. The SETAs and the NSF continued to be the key institutions responsible for implementing the second phase of the NSDS.

One of the SETAs most important functions is the development of sector skills plans (SSPs). Each SETA is responsible for compiling a SSP for its sector. The SSP guides the decisions of the SETA regarding skills development priorities, and provides the background for the activities of the SETA. More specifically, the SSPs contain information on scarce and critical skills shortages in each sector. The scarce skills information from the SSPs, together with other research carried out by the Department of Labour (DOL), is used to inform the National Scarce Skills lists. The National Scarce Skills lists, compiled and published by the DOL, aim to provide a comprehensive overview of scarcities in the economy for various occupations. While SETAs have the responsibility for ascertaining skills shortages, they also bear the responsibility for marketing scarce and critical skills in their relevant sectors to attract students/learners/graduates/employees into scarce skills

occupations. The SETAs are therefore the key institutions responsible for the communication of the information in the National Scarce Skills lists to all relevant stakeholders.

The broad aim of this study is to evaluate how information on scarce skills is disseminated by SETAs to various roleplayers in the economy, and (if possible) the impact of this dissemination on study/training choices of students, learners and workers. The methodology utilized to determine how information on scarce skills is disseminated and the impact of this information dissemination is briefly outlined below.

The study is divided into five sections. Section 1 is an introduction to the paper and gives a brief overview of the study and the methodology utilized to determine how scarce skills information is disseminated. Section 2 considers the published National Scarce Skills lists for 2007 and 2008, and provides an analysis of changes in scarce skills occupations and numbers between the lists. In section 3 we undertake an analysis of resources utilised by SETAs to communicate the scarce skills lists. In particular, we consider the budgets of SETAs to undertake this task; whether SETAs have met their NSDS II targets for training of Skills Development Facilitators (SDFs); and whether SETAs have compiled and distributed scarce and critical skills guides. The analysis in this section mainly relied on the annual reports of SETAs, and, where possible, the analysis was supplemented with information from other sources.

In section 4 of the study we consider the manner in which SETAs communicate scarce skills to various roleplayers, including learners, students and graduates. The analysis in this section was undertaken through both an analysis of SETA's annual reports as well as interviews with a sample of SETAs. The methodology is further detailed in section 4. Section 5 considers trends in enrolments in fields of study related to scarce skills. An attempt was made to match scarce skills with the Classification of Educational Subject Material (CESM) categories of major area of specialisation and qualification type. The difficulties with matching the occupations listed in the 2008 National Scarce Skills List with registered qualifications have to be noted at the onset. The matching process as well as the challenges encountered is described in more detail in section 5.1. The final section concludes and briefly provides some recommendations. Challenges encountered for each phase of the analysis are detailed in the summaries at the end of each section.

2. The National Scarce Skills Lists

This section of the report analyses the National Scarce Skills lists published by the Department of Labour for 2007 and 2008. We note that though an indicative list was published in 2006, it did not contain any quantification of the scarce skills. We therefore focus on the lists for 2007 and 2008, which were published with numbers indicating the magnitude of scarcity for each occupation. The aim of the section is to consider changes between the 2007 and 2008 National Scarce Skills Lists as well as to conduct a brief analysis of the match between the SSPs and the National Scarce Skills list.

2.1. Compilation and Purpose of the National Scarce Skills Lists

The National Scarce Skills list is intended to provide a comprehensive overview of the skills in shortage in the South African economy, and therefore serves as a reference point for skills development programmes. The list is based primarily on the Sector Skills Plans (SSPs) of Sector Education and Training Authorities (SETAs), augmented by contributions from several other government departments, including the Department of Home Affairs (DHA), the Department of Trade and Industry (DTI), the Department of Public Enterprises (DPE), and the Department of Science and Technology (DST), as well as information gleaned from commissioned sectoral research studies (DOL, 2007).

In turn, SSPs are compiled using the Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) submitted by enterprises to the relevant SETAs. The WSPs provide the status of a firm's workforce against both an equity profile and an occupational breakdown. The ATR is a report of actual training conducted against the training planned by the firm, submitted at the end of each year. The WSPs in particular identify skills shortages at the firm level and these, together with other sectoral studies, indicate the scarce skills within a specific sector and the economy as a whole (Singizi, 2007).

To date, National Scarce Skills lists have been published for the years 2006, 2007 and 2008. The DOL regarded the first National Scarce Skills list as an indicative list, and updated the list for the 2007 and 2008 periods based on SETAs' SSP revisions. While a list was drawn up for the 2009 period, it was not published since the recession in South Africa – beginning in late 2008 and resulting in large scale job losses – warranted revisions of the 2009 National Scarce Skills list. A National Scarce Skills list for the 2010 period was expected to be published late in 2010.

The National Scarce Skills list was created to serve several purposes, and in particular, to aid the Department of Labour (DOL), the then Department of Education (DOE), the Department of Home Affairs (DHA), as well as the national government in achieving specific objectives. More specifically, the purposes of the list as outlined in the foreword to the first list published in 2006 are as follows (DOL, 2006):

- For the Department of Labour and its statutory skills development intermediaries, the national list provides a set of indicators for skills development interventions.
- For the then Department of Education and public education and training institutions, the national list provides a set of indicators for course development and career guidance that should be provided to learners and communities, including schools, FET colleges, universities, universities of technology and learners across these institutions.
- For the Department of Home Affairs, the national list provides a basis for establishing the Work Permit Quota List and for evaluating employer-sponsored applications for work permits.
- For the national government and national initiatives such as JIPSA, the national list begins to provide a platform for targeted interventions and the development of mechanisms to monitor and evaluate both the success and impact of measures aimed at redressing particular scarcities.

It is clear from the above then, that the lists are intended both as a signaling mechanism as far as skills development interventions are concerned, and as a direct input into course development and career guidance initiatives. Furthermore, the allocation of work permits to foreign workers is guided by the quotas created through the scarce skills lists.

2.2. Analysing Skills Shortages in the National Scarce Skills Lists

Prior to analyzing the skills shortages presented in the National Scarce Skills lists, we consider three issues: Firstly, the definition of scarce skills, secondly, the magnitude of scarcity (or the estimate of the number of skills needed) by occupation presented in the two lists, and thirdly, the Organizing Framework of Occupations (OFO) utilised in the identification of the occupations.

As far as the definition of scarce skills is concerned, the DOL and the SETAs developed provisional definitions which were then negotiated and amended based on the inputs from other government departments. By agreement then, scarce skills refer to an "absolute or relative demand, either current or in the future, for skilled, qualified and experienced people to fill particular roles, professions, occupations or specializations in the labour market" (DOL, 2006).

The definition also differentiates between scarce and critical skills. More specifically, scarce skills are considered relatively easy to identify and are measured in terms of an occupation or qualification, while critical skills refer to specific generic capabilities within occupations, for example management skills, teamwork, and other "soft" skills. Furthermore, the DOL has identified two types of scarcities, namely absolute and relative scarcities. Absolute scarcities refer to the lack of an absolute number of skilled people in the labour market, while relative scarcities point to situations in which people exist in the labour market to fill the position, but they are not 'suitably skilled', for instance, they may not have sufficient project management experience, they may not want to work in rural areas, or they do not fulfill equity considerations (DOL, 2006). We note that the skills lists analysed in this section are the National Scarce Skills lists for the 2007 and 2008 periods; critical skills are therefore not analysed as they were not included in the lists.

It should be noted that the actual numbers presented in the lists are primarily derived through an analysis of the SSPs of the SETAs. These numbers are thus dependent on the number of firms submitting WSPs to each of the SETAs. It follows then that if the number of firms submitting WSPs increased between 2007 and 2008, it is likely that the number of skills deemed to be scarce would also increase. The change in the magnitude of scarce skills between the two years may thus partly be a reflection of changes in the number of firms submitting WSPs rather than actual changes in the levels of scarcity. An analysis of the trends in the submission of WSPs is, however, outside the scope of this study.

In drawing up the scarce skills lists, the DOL adopted the OFO utilised by the SETAs in the compilation of their five-year SSPs. The adoption of this framework for identifying occupations has been an important development in relaying and forecasting skills shortages at a detailed level while maintaining comparability. Thus, the organization of scarcities according to the OFO framework ensures that it is possible to compare scarcities between years, as in the analysis below. The OFO

organises scarce skills according to three levels of disaggregation. The first level of disaggregation identifies eight broad categories within which all occupations fall. These are:

- Managers
- Professionals
- Technicians and Trades Workers
- Community and Personal Service Workers
- Clerical and Administrative Workers
- Sales Workers
- Machinery Operators and Drivers
- Elementary Workers

Each of these broad categories is further disaggregated into several sub-categories. For instance, Managers are disaggregated into a total of six sub-categories in the 2008 National Scarce Skills List, namely[1]:

- Chief Executives General Managers and Legislators
- Specialist Managers
- Construction, Distribution and Production/Operations Managers
- Information and Communication Technology (ICT) Managers
- Miscellaneous Specialist Managers
- Events, Hospitality, Retail and Service Managers

Each of these disaggregated categories is then further divided into occupations. For instance, the Chief Executives, General Managers and Legislators category is divided into three occupations in the 2008 National Scarce Skills List, namely:

- Chief Executives and Managing Directors (including Enterprises/Organizations)
- General Managers
- Senior Government and Local Government Officials

As highlighted earlier, the 2006 National Scarce Skills List does not provide an indication of shortages in numerical terms, while both the 2007 and 2008 National Scarce Skills Lists present numerical skills shortages by occupation. In the analysis below, we therefore compare shortages by occupation categories in the 2007 and 2008 lists.

This kind of analysis is important in the context of this project for several reasons. Firstly, it allows us to evaluate occupation categories that feature prominently in terms of skills shortages in the South African economy. More importantly, however, the identification of skills shortages by occupation categories serves as the key source of information for SETAs in the development of

[1] While the broad categories remained the same across lists, sub-categories and occupations changed between the 2007 and 2008 National Scarce Skills Lists, as discussed further below.

marketing campaigns aimed at encouraging potential candidates to choose fields of study related to skills shortages.

Secondly, it allows one to analyse how shortages evolve over time, for instance, the numbers published in the list can be utilised to identify an increase or decrease in shortages in a particular occupation. Furthermore, it allows one to identify occupations which were in short supply in 2007, but are no longer deemed to be scarce in 2008, and conversely, occupations which were added to the scarce skills list in 2008, but were not found in the 2007 National Scarce Skills List. This type of information can be utilised by SETAs to evaluate their marketing campaigns and inform decisions about revising these campaigns in response the changes in the levels of skills shortages in the economy.

Finally, the analysis of the lists in this manner should provide an indication of the trajectory of the labour market. One would expect to find that over time, with effective marketing campaigns targeted at the acquisition of scarce skills, the number of workers required in particular scarce skills areas should decline in the absence of major economic, political or industrial developments.[2] Conversely though, large changes in numbers in the list over a fairly short period of time should be viewed with caution since it may be a reflection of a number of external issues, including a lack of accuracy in the numbers presented by firms in their WSPs, and thus the derived numbers in the SSPs. In fact, some stakeholders interviewed as part of this project have expressed the opinion that while the scarce skills list is indicative of the *types* of skills in shortage, it may provide a less than accurate reflection of the actual *number* of shortages.

In comparing the 2007 National Scarce Skills List with the 2008 National Scarce Skills List in Table 1 below, we find firstly that all broad categories of occupations were present in both lists. Put differently, the broad or most aggregated occupation categories used to classify scarce skills remained the same between the two lists. Secondly, a comparison of the unadjusted numbers[3] presented in columns two to six of the table below suggests that the estimated number of workers in short supply in the economy (or scarce skills) declined considerably between 2007 and 2008. While the estimated total shortage of skills stood at 939 000 according to the 2007 National Scarce Skills List, it declined to just over half a million according to the 2008 National Scarce Skills List. The decline can be attributed to a number of factors, including changes in the disaggregated occupations included in the two lists as well as a decrease in the absolute numbers of scarce skills in comparable occupations between the two lists. We return to the possible impact of the changes in the disaggregated occupations included in the two lists after a more detailed discussion of the initial findings.

The unadjusted numbers presented in the table below suggest that the decline in the total number of scarce skills from 939 000 to 509 000 was driven primarily by the decline in the shortages of

[2] The 2010 Soccer World Cup for instance resulted in a large increase in the number of construction projects in the economy, with the result that construction-related skills were in great demand.
[3] The rationale for adjustment, as well as the numbers and findings related to the adjustment, are explained in further detail below.

Managers and Elementary Workers between the two years. More specifically, while 323 000 Managers were considered to be in short supply according to the 2007 list, the corresponding number stood at just 42 000 in the 2008 list. In turn, the numbers of Elementary Workers considered to be scarce stood at 261 000 in 2007 and just 33 000 in 2008. Most other broad occupation categories, aside from Professionals, witnessed an increase in the magnitude of scarcity between 2007 and 2008. Particularly large increases were experienced in the Sales Workers and Machinery Operators and Drivers categories, with the shortage in supply for these two groups increasing by 426 and 122 percent respectively, though from the relative lowest bases. In turn, Professionals is the only other broad category – in addition to the already mentioned Manager and Elementary Workers categories – to show a decrease in the magnitude of scarce skills between the 2007 and 2008 lists, declining marginally from 159 000 to 144 000.

Having considered the sources of the perceived decrease in the (unadjusted) number of workers considered to be in short supply between the 2007 and 2008 National Scarce Skills Lists, we next turn to a brief analysis of the broad categories constituting the largest shares of scarce skills in each of the two lists. Unadjusted figures in Table 1 below indicate that Managers (34 percent) and Elementary workers (28 percent) account for the highest proportions of scarce skills in 2007, together contributing 62 percent to the total number of scarce skills in this year. In turn, Professionals and Technicians and Trades Workers account for 17 and 10 percent of total scarce skills respectively in South Africa in 2007.

The data from the 2008 National Scarce Skills List however presents a very different picture. In this list, Professionals (28 percent) and Technicians and Trades Workers (22 percent) account for the majority of scarce skills, while Managers and Elementary Workers account for a mere 8 and 7 percent of scarce skills respectively. This result is unsurprising given that the decrease in scarce skills between the two lists is driven by the decline in scarcity in the Managerial and Elementary occupation groups. As a result, all other occupations account for a higher share of total scarce skills in 2008, with Community and Personal Services and Clerical and Administrative Workers accounting for 11 percent each, and Sales Workers and Machinery Operators and Drivers accounting for 5 and 8 percent respectively.

Table 1: Initial and Adjusted Skills Shortages, Broad Categories: 2007 & 2008

BROAD CATEGORIES	UNADJUSTED					ADJUSTED				
	2007		2008		% Change	2007		2008		% Change
	No	Prop	No	Prop		No	Prop	No	Prop	
MANAGERS	322,950	34%	41,585	8%	-87%	66,975	15%	34,130	8%	-49%
PROFESSIONALS	159,480	17%	144,050	28%	-10%	145,975	34%	131,780	32%	-10%
TECHNICIANS AND TRADES WORKERS	92,590	10%	113,035	22%	22%	91,635	21%	99,500	24%	9%
COMMUNITY AND PERSONAL SERVICE WORKERS	37,890	4%	54,585	11%	44%	35,765	8%	35,400	8%	-1%
CLERICAL AND ADMINISTRATIVE WORKERS	40,435	4%	53,850	11%	33%	37,905	9%	52,865	13%	39%
SALES WORKERS	4,905	1%	25,780	5%	426%	4,405	1%	6,855	2%	56%
MACHINERY OPERATORS AND DRIVERS	19,170	2%	42,580	8%	122%	16,270	4%	34,255	8%	111%
ELEMENTARY WORKERS	261,215	28%	33,345	7%	-87%	36,055	8%	22,930	5%	-36%
TOTAL	**938,635**	**100%**	**508,810**	**100%**	**-46%**	**434,985**	**100%**	**417,715**	**100%**	**-4%**

Source: 2007 National Scarce Skills List; 2008 National Scarce Skills List; Own Calculations

Overall, the key result from the comparison of the scarce skills included in the 2007 and 2008 National Scarce Skills Lists is the large decline in the total number of scarce skills required by the economy over the period. In an attempt to shed more light on this result, we proceed to examine the changes in the number of scarce skills for comparable occupations. More specifically, we adjust the numbers in both lists to reflect only occupations that are found in both lists. This will allow us to determine how much of the decline at the aggregate has been the result of changes in the occupations included in the two lists, and how much of the decline reflects an actual decline in shortage of occupations found in both lists. To complete the analysis, we also focus more closely on the occupations (and corresponding magnitude of scarcities) that do not appear in both lists.

In considering the adjusted numbers, the data presented in the last five columns in Table 1 suggest a much smaller decline of 4 percent in the estimated number of scarce skills between the 2007 and 2008 lists, compared to 46 percent when using the unadjusted numbers. When comparing occupation groups, we find that the aggregate decrease again stems from declines in shortages in managerial and elementary occupations, although the declines are considerably smaller than in the unadjusted lists. Furthermore, other occupations such as Machinery Operators and Drivers, and Sales Workers experienced large increases in scarce skills in percentage terms from 2007 to 2008, though from small bases.

In summary though, the aggregate numbers of scarce skills presented in the 2007 and 2008 lists are very similar when the lists are adjusted to only include the occupations which appear, and are therefore considered scarce, in both years. While not conclusive, this evidence may suggest that some of the observed decline in the aggregate number of scarce skills between the 2007 and 2008 lists, when utilising the unadjusted numbers, is primarily due to changes in the occupations included in the lists rather than changes in the demand for occupations found in both lists. It may also reflect the fact that some of the scarce skills in 2007 were no longer considered scarce in 2008, hence accounting for the absence of these occupations in the 2008 list. It is however highly unlikely that all the shortages in a specific occupation could have been addressed in a one year period, making this conclusion highly questionable. Below we consider changes in occupations included in the two lists more closely.

Table 2 shows the occupations, and corresponding numbers, which were either included in the 2007 list but no longer appear in the 2008 list, or were introduced in the 2008 list but did not appear in the 2007 list. We only show the figures for those occupations where the magnitude of scarcity is more than 1,000.[4] We also present two relative shares for each occupation in the table, that is, the proportion of each occupation relative to the total number of scarce skills published in that year, as well as each occupation's share in its broad group for that particular year. Given the results from the comparison of the unadjusted and adjusted figures in the table above, we expect to find large numbers of scarce skills in managerial and elementary occupations which were included in the 2007 list only.

[4] For a full list of occupational changes, see Appendix 1.

Not surprisingly then, the results show that Farm Managers (Crop Farmers, Livestock Farmers and Mixed Crop and Livestock Farmers) contributed 27 percent to the 2007 National Scarce Skills list but were absent from the list in 2008. In addition, Elementary Workers, specifically Crop Farm Workers and Livestock Farm Workers, accounted for 23 percent of the list in 2007 and were also absent from the 2008 list. Thus, farmers (or farm managers) and farm workers together accounted for 50 percent of the 2007 scarce skills list, but were not included as a scarce skill in the 2008 list. The absence of these two categories therefore drove much of the perceived decline in the aggregate number of scarce skills between 2007 and 2008. A draft DOL document comparing the two lists states that "AGRISETA has reclassified skills for emerging farmers and land claims beneficiaries to critical skills list" and "AGRISETA moved scarcity to critical skills list of elementary workers [i.e. farmworkers]" (DOL, 2008: 1; 11). It is clear then that the reduction in the number of Managers and Elementary Workers deemed to be scarce between the two lists stems primarily from reclassification of Farm Managers and Farm Workers as critical skills rather than scarce skills by the AGRISETA.

Table 2: Scarce Skills Occupations Occurring in One List Only, Restricted to above 1000

BROAD CATEGORIES	OCCUPATIONAL GROUPING	NUMBER	PROPORTION OF TOTAL LIST	PROPORTION OF TOTAL
2007				
MANAGERS	Mixed Crop and Livestock Farmers	150,000	16%	30%
	Crop Farmers	102,670	11%	21%
PROFESSIONALS	Teachers of English to Speakers of Other Languages	6,430	1%	1%
	Vocational or Occupational Instructors and Trainers	5,300	1%	1%
	Interior Designers	1,000	0%	0%
COMMUNITY AND PERSONAL SERVICE WORKERS	Waiters and Bartenders	1,285	0%	0%
CLERICAL AND ADMINISTRATIVE WORKERS	Inspectors and Regulatory Officers	2,000	0%	0%
MACHINERY OPERATORS AND DRIVERS	Agricultural, Forestry and Horticultural Plant Operators	2,000	0%	0%
ELEMENTARY WORKERS	Crop Farm Workers	180,000	19%	36%
	Livestock Farm Workers	40,000	4%	8%
	Other Factory Process Workers	2,300	0%	0%
	Food and Drink Factory Workers	1,680	0%	0%
TOTAL		**494,665**	**53%**	**100%**
2008				
MANAGERS	Other Specialist Managers	6,955	1%	9%
PROFESSIONALS	Agricultural and Forestry Scientists	6,175	1%	8%
	Counselors	1,215	0%	2%
	Financial Brokers	1,005	0%	1%
TECHNICIANS AND TRADES WORKERS	Chefs	3,800	1%	5%
	Cabinet Makers	3,100	1%	4%
	Painting Trades Workers	1,360	0%	2%
	Machine Setters and Minders	1,175	0%	2%
COMMUNITY AND PERSONAL SERVICE WORKERS	Enrolled and Mother Craft Nurses	10,110	2%	14%
	Security Officers	6,835	1%	9%
SALES WORKERS	Models and Sales Demonstrators	6,300	1%	9%

	Retail Buyers	5,980	1%	8%
	Retail Supervisors	4,875	1%	7%
	Checkout Operators and Office Cashiers	1,400	0%	2%
MACHINERY OPERATORS AND DRIVERS	Plastics and Rubber Production Machine Operators	2,610	1%	4%
	Store Persons	2,245	0%	3%
ELEMENTARY WORKERS	Forestry and Logging Workers	3,200	1%	4%
	Manufacturing Engineering Process Workers	3,000	1%	4%
	Product Assemblers	1,915	0%	3%
TOTAL		**73,255**	**14%**	**100%**

Source: 2007 National Scarce Skills List; 2008 National Scarce Skills List; Own Calculations

Turning to other occupations in the 2007 list which were not included in the 2008 list, we note that, aside from Farm Managers and Farm Workers, occupations which stand out due to the magnitude of scarcity include Teachers of English to Speakers of Other Languages (6,430), Vocational or Occupational Instructors and Trainers (5,300), Inspectors and Regulatory Officers (2,000), Agricultural, Forestry and Horticultural Plant Operators (2,000), and Other Factory Process Workers (2,300).

The table furthermore shows scarce skills occupations in descending magnitude of scarcity for each year for each disaggregated category. We highlight once more though that this list only presents those occupations in both lists for which scarce skills numbers are greater or equal to a thousand. Importantly, in 2008, a host of occupations were introduced into the National Scarce Skills list, with a magnitude of scarcity of more than 3,000. These include Other Specialist Managers (6,955), Agricultural and Forestry Scientists (6,175), Chefs (3,800), Cabinet Makers (3,100), Enrolled and Mother Craft Nurses (10,110), Security Officers (6,835), Models and Sales Demonstrators (6,300), Retail Buyers (5,980), Retail Supervisors (4,875), Forestry and Logging Workers (3,200), and Manufacturing Engineering Process Workers (3,000). It appears then that SSPs of SETAs and other research identified a range of occupations which were considered to be in scarcity in 2008 but were not included in the 2007 list.

Considering the largest category though – Enrolled and Mother Craft Nurses (10,110) – we note that the 2007 National Skills list has 10,100 Registered Nurses under the broad category Professionals, while the corresponding number in the 2008 List is 400. In turn, Enrolled and Mother Craft Nurses under the broad category Community and Personal Services in the 2008 list stands at 10,110, while this occupation does not appear in the 2007 list. It appears then that a large portion of the scarcity of nurses marked as Professionals in the 2007 list were moved under Community and Personal Service Workers in the 2008 list. The number reflected in the table above is then not a reflection of a huge increase in scarcity, but simply a change of categorisation.

Our analysis now returns to a more detailed analysis of the occupations which are comparable between the two lists. Table 3 below shows the broad categories of occupations which – according to the lists – displayed an increase in scarcity between the two years. In turn, Table 4 presents those occupation categories which showed a decrease in scarcity between the two lists.

Firstly, the increase in scarcity between the two years was dominated by Professionals, accounting for 28 percent or more than a quarter of the increase. In turn, this category of workers was dominated by Engineering Professionals and Human Resource and Training Professionals, accounting for an increase of 9,195 and 9,875 (in terms of absolute numbers) respectively.

Table 3: Occupations Accounting for an Increase in Demand between 2007 and 2008, Adjusted Lists

BROAD CATEGORIES	DISAGGREGATED CATEGORIES	DIFF	SHARE
MANAGERS	Small Business, Office, Programme and Project Managers	1,010	1.0%
PROFESSIONALS	Human Resource and Training Professionals	9,875	27.5%
	Engineering Professionals	9,195	
	Arts and Media Professionals	3,695	
	Architects, Designers, Planners and Surveyors	1,780	
	Information and Organisation Professionals	1,285	
	Health Diagnostic and Promotion Professionals	515	
	Legal Professionals	175	
	Database and Systems Administrators, and ICT Security Specialists	125	
	Other Education and Training Professionals	120	
TECHNICIANS AND TRADES WORKERS	Bricklayers, Carpenters and Joiners	6,460	24.4%
	Mechanical Engineering Trades Workers	4,235	
	Printing Trades Workers	3,450	
	Building and Engineering Technicians	2,480	
	Automotive Electricians and Mechanics	2,310	
	Electricians	1,730	
	Plumbers	1,370	
	Panelbeaters, and Vehicle Body Builders, Trimmers and Painters	1,190	
	Agricultural, Medical and Science Technicians	495	
COMMUNITY AND PERSONAL SERVICE WORKERS	Personal Service and Travel Workers	3,040	3.1%
CLERICAL AND ADMINISTRATIVE WORKERS	Purchasing, Supply, Transport and Despatch Clerks	7,770	16.8%
	Call or Contact Centre Information Clerks	3,365	
	General Clerical Workers	2,290	
	Clerical and Office Support Workers	1,800	
	Financial and Insurance Clerks	795	
	Accounting Clerks and Bookkeepers	340	
SALES WORKERS	Sales Assistants and Salespersons	3,510	3.6%
MACHINERY OPERATORS AND DRIVERS	Truck Drivers	8,100	18.5%
	Mobile Plant Operators	5,490	
	Automobile, Bus and Rail Drivers	2,965	
	Stationary Plant Operators	930	
	Delivery Drivers	395	
	Machine Operators	105	
ELEMENTARY WORKERS	Construction and Mining Workers	4,040	5.1%
	Other Factory Process Workers	405	
	Freight Handlers and Shelf Fillers	360	
	Cleaners and Laundry Workers	115	
TOTAL		97,310	100%

Source: 2007 National Scarce Skills List; 2008 National Scarce Skills List; Own Calculations

Technicians and Trades Workers accounted for a further 24 percent of the increase in scarce skills between the 2007 and 2008 National Scarce Skills Lists, with Bricklayers, Carpenters and Joiners (6,460), Mechanical Engineering Trades Workers (4,235), Printing Trades Workers (3,450), Building and Engineering Technicians (2,480), Automotive Electricians and Mechanics (2,310), Electricians (1,730), Plumbers (1,370), and Panelbeaters, Vehicle Body Builders, Trimmers and Painters (1,190) all accounting for an increase of more than one thousand between the two lists. This comparison appears to suggest then that the scarcity of Professionals, particularly Engineering Professionals, as well as Technicians and Trades Workers may have been underestimated or underreported in the 2007 Nationals Scarce Skills list. The increase in scarcity could, for instance, be due to an increase in the number of firms submitting WSPs between the two years, but such an analysis is beyond the scope of this study.

Other categories to feature prominently are Machinery Operators and Drivers (19 percent) and Clerical and Administrative Workers (17 percent), with Truck Drivers (8,100), Mobile Plant Operators (5,490), and Automobile, Bus and Rail Drivers (2,965) accounting for the largest share of Machinery Operators and Drivers, and Purchasing, Supply, Transport and Dispatch Clerks (7,770), Call or Contact Centre Information Clerks (3,365), General Clerical Workers (2,290), and Clerical and Office Support Workers (1,800) accounting for the largest share of Clerical and Administrative Workers. The category to feature least prominently on the list is Managers, accounting for just 1 percent of the increase in scarce skills between the two lists.

Table 4 below considers the occupations which displayed a decrease in scarcity between the two lists. We first note that the relative decrease in scarcity between the two lists (114,580) is higher than the relative increase in scarcity between the two lists (97,310). Put differently, when considering only the occupations which appear in both of the two lists, we find, an overall decrease in the total number of scarce skills between the 2007 and 2008 National Scarce Skills list of 17,270. It is clear from the table that Professionals (35.7 percent) account for more than a third of the decrease in the total number of scarce skills demanded by the economy, followed by Managers (29.5 percent), Elementary Workers (15.7 percent), and Technicians and Trades Workers (13.8 percent). Within these groups, large decreases were found among Chief Executives, General Managers and Legislators (20,890), 'Other' (Elementary) Workers (18,045), Fabrication Engineering Trades Workers (11,320), School Teachers (10,255), Midwifery and Nursing Professionals (9,700), and Business and Systems Analysts and Programmers (7,870).

Table 4: Occupations Accounting for Decrease in Demand between 2007 and 2008, Adjusted Lists

BROAD CATEGORIES	DISAGGREGATED CATEGORIES	DIFF	SHARE
MANAGERS	Chief Executives, General Managers and Legislators	-20,890	
	Information and Communication Technology (ICT) Managers	-5,790	
	Specialist Managers	-3,390	
	Construction, Distribution and Production / Operations Managers	-2,495	
	Events, Hospitality, Retail and Service Managers	-1,290	29.5%
PROFESSIONALS	School Teachers	-10,255	
	Midwifery and Nursing Professionals	-9,700	
	Business and Systems Analysts, and Programmers	-7,870	
	Higher Education Lecturers	-4,630	
	ICT Network and Support Professionals	-4,455	
	Sales, Marketing and Public Relations Professionals	-1,730	
	Accountants, Auditors and Company Secretaries	-1,575	
	Financial Brokers	-715	
	Natural and Physical Science Professionals	-30	35.7%
TECHNICIANS AND TRADES WORKERS	Fabrication Engineering Trades Workers	-11,320	
	Food Trades Workers	-3,380	
	ICT and Telecommunications Technicians	-720	
	Other Technicians and Trades Workers	-400	
	Electronics and Telecommunications Trades Workers	-35	13.8%
COMMUNITY AND PERSONAL SERVICE WORKERS	Sports and Fitness Workers	-2,200	
	Health and Welfare Support Workers	-1,035	
	Child Carers and Education Aides	-170	3.0%
CLERICAL AND ADMINISTRATIVE WORKERS	Contract, Program, Project and Office Administrators	-1,150	
	Personal Assistants and Secretaries	-175	
	Receptionists	-75	1.2%
SALES WORKERS	Insurance Agents and Sales Representatives	-615	
	Other Sales Support Workers	-290	
	Real Estate Sales Agents	-155	0.9%
ELEMENTARY WORKERS	Other Workers	-18,045	15.7%
TOTAL		-114,580	100 %

Source: 2007 National Scarce Skills List; 2008 National Scarce Skills List; Own Calculations

Other occupations to experience a decrease in scarcity of greater than 2,000 between the two years are Sports and Fitness Workers (2,200), Construction, Distribution and Production/Operations managers (2,495), Food Trades Workers (3,380), Specialist Managers (3,390), ICT Network and Support Professionals (4,455), Higher Education Lecturers (4,630), and Information and Communication Technology (ICT) Managers (5,790).

Finally, in Table 5 below, we compare the rankings of occupations in each of the two lists, in order to ascertain whether scarce skills occupations are ranked similarly between the 2007 and 2008

National Scarce Skills Lists. The third column titled "Diff (No)" shows the difference in the magnitude of scarce skills between the two lists, while the fourth and fifth columns show the rank of occupations in each of the two lists. In turn, column six shows the difference in rank of occupations between the two lists. We expect occupations in the middle of the distribution, where the difference in number between the two lists is small, to be ranked similarly in each of the two lists. It is clear from the table that the majority of occupations, as highlighted in the table, are ranked similarly in the two lists.[5] These range from Call or Contact Centre Information Clerks where there was an increase of 3,365 in skills shortages to School Teachers where there was a decrease of 10,255 between 2007 and 2008. Unsurprisingly, the majority of occupations with similar rankings lie in the middle of the distribution in the table, where the difference (in numbers) between scarce skills in the two lists is the smallest. An outlier in this regard then, is School Teachers – while School Teachers are ranked as the biggest scarce skill in both the 2007 and 2008 National Scarce Skills lists, the scarcity of teachers was adjusted downwards by a substantial 10,255 between the 2007 and 2008 lists.

Table 5: Rank of Disaggregated Categories of Occupations in 2007 and 2008, Adjusted Lists

BROAD CATEGORIES	DISAGGREGATED CATEGORIES	DIFF (No)	RANK - 2007	RANK - 2008	DIFF (Rank)
PROFESSIONALS	Human Resource and Training	9,875	38	8	30
PROFESSIONALS	Engineering Professionals	9,195	14	3	11
MACHINERY OPERATORS AND	Truck Drivers	8,100	55	15	40
CLERICAL AND	Purchasing, Supply, Transport and	7,770	44	14	30
TECHNICIANS AND TRADES	Bricklayers, Carpenters and Joiners	6,460	45	18	27
MACHINERY OPERATORS AND	Mobile Plant Operators	5,490	30	13	17
TECHNICIANS AND TRADES	Mechanical Engineering Trades	4,235	20	11	9
ELEMENTARY WORKERS	Construction and Mining Workers	4,040	15	7	8
PROFESSIONALS	Arts and Media Professionals	3,695	60	34	26
SALES WORKERS	Sales Assistants and Salespersons	3,510	52	32	20
TECHNICIANS AND TRADES	Printing Trades Workers	3,450	64	39	25
CLERICAL AND	Call or Contact Centre Information	3,365	5	2	3
COMMUNITY AND PERSONAL	Personal Service and Travel Workers	3,040	40	22	18
MACHINERY OPERATORS AND	Automobile, Bus and Rail Drivers	2,965	63	41	22
TECHNICIANS AND TRADES	Building and Engineering Technicians	2,480	13	9	4
TECHNICIANS AND TRADES	Automotive Electricians and Mechanics	2,310	41	28	13
CLERICAL AND	General Clerical Workers	2,290	39	27	12
CLERICAL AND	Clerical and Office Support Workers	1,800	35	25	10
PROFESSIONALS	Architects, Designers, Planners and	1,780	47	40	7
TECHNICIANS AND TRADES	Electricians	1,730	37	29	8
TECHNICIANS AND TRADES	Plumbers	1,370	48	43	5
PROFESSIONALS	Information and Organisation	1,285	51	46	5
TECHNICIANS AND TRADES	Panelbeaters, and Vehicle Body	1,190	62	51	11
MANAGERS	Small Business, Office, Programme and	1,010	28	23	5
MACHINERY OPERATORS AND	Stationary Plant Operators	930	19	16	3
CLERICAL AND	Financial and Insurance Clerks	795	50	47	3

[5] Occupations are highlighted in grey in the table above, if their ranks are similar in both lists. More specifically, we chose to highlight occupations if the difference in rank is greater than 10 for all occupations ranked above 20 in either of the two lists, or above 5 for all occupations ranked below 20 in either of the two lists.

PROFESSIONALS	**Health Diagnostic and Promotion**	515	8	6	2
TECHNICIANS AND TRADES	**Agricultural, Medical and Science**	495	6	5	1
ELEMENTARY WORKERS	**Other Factory Process Workers**	405	61	56	5
MACHINERY OPERATORS AND	**Delivery Drivers**	395	68	63	5
ELEMENTARY WORKERS	**Freight Handlers and Shelf Fillers**	360	70	65	5
CLERICAL AND	**Accounting Clerks and Bookkeepers**	340	65	61	4
PROFESSIONALS	**Legal Professionals**	175	69	70	-1
PROFESSIONALS	**Database and Systems Administrators,**	125	67	69	-2
PROFESSIONALS	**Other Education and Training**	120	66	68	-2
ELEMENTARY WORKERS	**Cleaners and Laundry Workers**	115	26	26	0
MACHINERY OPERATORS AND	**Machine Operators**	105	46	49	-3
PROFESSIONALS	**Social and Welfare Professionals**	0	25	24	1
COMMUNITY AND PERSONAL	**Personal Carers and Assistants**	0	29	31	-2
TECHNICIANS AND TRADES	**Glaziers, Plasterers and Tilers**	0	54	53	1
PROFESSIONALS	**Air and Marine Transport Professionals**	0	58	60	-2
ELEMENTARY WORKERS	**Farm, Forestry and Garden Workers**	0	71	71	0
COMMUNITY AND PERSONAL	**Hospitality Workers**	0	72	72	0
COMMUNITY AND PERSONAL	**Defense Force Members, Fire Fighters**	0	73	73	0
TECHNICIANS AND TRADES	**Manufacturing and Process Technicians**	0	74	74	0
PROFESSIONALS	**Natural and Physical Science**	-30	21	19	2
TECHNICIANS AND TRADES	**Electronics and Telecommunications**	-35	42	44	-2
CLERICAL AND	**Receptionists**	-75	57	59	-2
SALES WORKERS	**Real Estate Sales Agents**	-155	56	57	-1
COMMUNITY AND PERSONAL	**Child Carers and Education Aides**	-170	33	35	-2
CLERICAL AND	**Personal Assistants and Secretaries**	-175	34	36	-2
SALES WORKERS	**Other Sales Support Workers**	-290	59	67	-8
TECHNICIANS AND TRADES	**Other Technicians and Trades Workers**	-400	10	10	0
SALES WORKERS	**Insurance Agents and Sales**	-615	49	54	-5
PROFESSIONALS	**Financial Brokers**	-715	53	62	-9
TECHNICIANS AND TRADES	**ICT and Telecommunications**	-720	36	42	-6
COMMUNITY AND PERSONAL	**Health and Welfare Support Workers**	-1,035	3	4	-1
CLERICAL AND	**Contract, Program, Project and Office**	-1,150	31	38	-7
MANAGERS	**Events, Hospitality, Retail and Service**	-1,290	23	30	-7
PROFESSIONALS	**Accountants, Auditors and Company**	-1,575	32	45	-13
PROFESSIONALS	**Sales, Marketing and Public Relations**	-1,730	18	20	-2
COMMUNITY AND PERSONAL	**Sports and Fitness Workers**	-2,200	43	66	-23
MANAGERS	**Construction, Distribution and**	-2,495	9	12	-3
TECHNICIANS AND TRADES	**Food Trades Workers**	-3,380	16	21	-5
MANAGERS	**Specialist Managers**	-3,390	11	17	-6
PROFESSIONALS	**ICT Network and Support Professionals**	-4,455	24	50	-26
PROFESSIONALS	**Higher Education Lecturers**	-4,630	27	58	-31
MANAGERS	**Information and Communication**	-5,790	22	55	-33
PROFESSIONALS	**Business and Systems Analysts, and**	-7,870	12	37	-25
PROFESSIONALS	**Midwifery and Nursing Professionals**	-9,700	17	64	-47
PROFESSIONALS	**School Teachers**	-10,255	1	1	0
TECHNICIANS AND TRADES	**Fabrication Engineering Trades**	-11,320	7	33	-26
ELEMENTARY WORKERS	**Other Workers**	-18,045	4	52	-48
MANAGERS	**Chief Executives, General Managers**	-20,890	2	48	-46
TOTAL		-17,270			

Source: 2007 National Scarce Skills List; 2008 National Scarce Skills List; Own Calculations

Analogously, the table also shows that the occupations for which scarce skills numbers – and thus ranks – shifted substantially between the two lists are generally found at the top and bottom of the distribution in this table. For instance, the number of Human Resource and Training Professionals considered to be scarce increased by 9,875 between the 2007 and 2008 lists, while the rank for this occupation increased from 38 in the 2007 list to 8 in the 2008 list. By the same token, the number of Chief Executives, General Managers and Legislators considered to be scarce decreased by 20,890 between the 2007 and 2008 lists, while the ranking of this disaggregated occupation dropped from 2 to 48 between the two lists. For the most part, then, the table shows that occupations for which there was a large decrease or increase in the magnitude of scarcity between the two lists, the rankings of these occupations changed substantially between the two lists. We note once more though that School Teachers are somewhat of an anomaly in this regard. While the magnitude of scarcity of School Teachers did change substantially, with a decline in the scarce skills numbers over the period, this occupation's ranking did not change. This is testament to the relative scarcity of workers in this occupation.

While the analysis in the table above considers the ranks of disaggregated occupation categories, we are also interested in scarce skills numbers for actual occupations. Table 6 below thus shows the highest ranked occupations in terms of scarce skills from the latest (2008) National Scarce Skills List in descending order. We note that occupations are the most disaggregated category utilised in the National Scarce Skills List, and furthermore that we have chosen to focus on the 2008 List since as this is the last published list and is thus the most recent indication of scarce skills in the economy in the public domain. Perhaps contrary to expectations, Call or Contact Centre Workers is at the top of the list with an estimated shortage of 20 000 of these workers in 2008. The SETAs responsible for these workers, as outlined in the DOL comparison of the 2007 and 2008 lists, are CHIETA, ISETT SETA, SERVICES SETA and TETA, with the SERVICES SETA in particular accounting for a large increase in demand between the 2007 and 2008 lists.

This occupation is followed by Welfare Support Workers (19,545), and Special Education Teachers (13,885). The SETAs responsible for Welfare Support Workers include the HWSETA, LGSETA, MQA, SASSETA and the ETDP SETA. We note that teaching-related occupations feature prominently on the list, and include, aside from Special Education Teachers, occupations such as Further Education and Training Teachers and Training (9,365), Training and Development Professionals (9,260), Intermediate and Senior Phase School Teachers (7,155), Early Childhood (Pre-primary school) Teachers (6,260), Foundation Phase School Teachers (4,200), and Education Aides (3,540). Most of these occupations fall under the ambit of the ETDP SETA, though the DOL comparison of the 2007 and 2008 lists shows that the BANKSETA, HWSETA, ISETT, MERSETA, MQA and W&R SETA may also bear some responsibility for education professionals.

In turn, aside from Welfare Support Workers, other Community and Personal Service Workers which display severe shortages include Enrolled and Mother Craft Nurses (10,110) [HWSETA],

Security Officers (6,835) [SASSETA], Dental Assistants (5,000) [HWSETA], and Funeral Workers (4,250) [probably SERVICES SETA].

Table 6: Scarce Skills Occupations from the 2008 List Ranked in Descending Order

BROAD CATEGORIES	OCCUPATIONS	NO
CLERICAL AND ADMINISTRATIVE WORKERS	Call or Contact Centre Workers	20,185
COMMUNITY AND PERSONAL SERVICE WORKERS	Welfare Support Workers (inc Community and	19,545
PROFESSIONALS	Special Education Teachers	13,885
PROFESSIONALS	Industrial, Mechanical and Production Engineer	12,665
MACHINERY OPERATORS AND DRIVERS	Earthmoving Plant Operators	10,355
COMMUNITY AND PERSONAL SERVICE WORKERS	Enrolled and Mother Craft Nurses	10,110
PROFESSIONALS	Pharmacists (inc Pharmacist Assistants)	10,030
TECHNICIANS AND TRADES WORKERS	Medical Technicians (inc Laboratory Technicians)	10,000
TECHNICIANS AND TRADES WORKERS	Optical Laboratory Assistants	10,000
PROFESSIONALS	Further Education and Training Teachers and	9,365
PROFESSIONALS	Training and Development Professionals (incl.	9,260
CLERICAL AND ADMINISTRATIVE WORKERS	Purchasing and Supply Logistics Clerks	9,235
MACHINERY OPERATORS AND DRIVERS	Truck Drivers	9,125
TECHNICIANS AND TRADES WORKERS	Metal Fitters and Machinists (inc Mechanics)	8,340
TECHNICIANS AND TRADES WORKERS	Bricklayers and Stonemasons	7,225
PROFESSIONALS	Intermediate and Senior Phase School Teacher:	7,155
MANAGERS	Other Specialist Managers (Includes	6,955
MACHINERY OPERATORS AND DRIVERS	Engineering Production Systems Workers (inc	6,860
COMMUNITY AND PERSONAL SERVICE WORKERS	Security Officers	6,835
ELEMENTARY WORKERS	Concreters (inc Shutterhands)	6,685
SALES WORKERS	Models and Sales Demonstrators	6,300
PROFESSIONALS	Early Childhood (Pre-primary School) Teachers	6,260
PROFESSIONALS	Agricultural and Forestry Scientists	6,175
TECHNICIANS AND TRADES WORKERS	Chemistry, Food and Beverage Technicians	6,145
SALES WORKERS	Retail Buyers	5,980
CLERICAL AND ADMINISTRATIVE WORKERS	General Clerks	5,625
TECHNICIANS AND TRADES WORKERS	Electricians (inc Armature Winders)	5,315
TECHNICIANS AND TRADES WORKERS	Electrical Engineering Draftspersons and	5,145
PROFESSIONALS	Medical and Laboratory scientists	5,000
PROFESSIONALS	Medical Imaging Professionals	5,000
PROFESSIONALS	Social Workers	5,000
COMMUNITY AND PERSONAL SERVICE WORKERS	Dental Assistants	5,000
SALES WORKERS	Retail Supervisors	4,875
MANAGERS	Retail Managers (inc Post Office Managers)	4,830
SALES WORKERS	Sales Assistants (General)	4,575
TECHNICIANS AND TRADES WORKERS	Bakers and Pastrycooks	4,490
COMMUNITY AND PERSONAL SERVICE WORKERS	Funeral Workers (inc Funeral Directors)	4,250
TECHNICIANS AND TRADES WORKERS	Motor Mechanics	4,205
PROFESSIONALS	Foundation Phase School Teachers	4,200
MANAGERS	Advertising, Marketing and Sales Managers	4,045

TECHNICIANS AND TRADES WORKERS	Structural Steel and Welding Trades Workers (inc	4,045
TECHNICIANS AND TRADES WORKERS	Civil Engineering Draftspersons and Technicians	3,960
PROFESSIONALS	Human Resource Professionals	3,885
ELEMENTARY WORKERS	Commercial Cleaners	3,815
TECHNICIANS AND TRADES WORKERS	Chefs	3,800
COMMUNITY AND PERSONAL SERVICE WORKERS	Education Aides	3,540
MANAGERS	Call or Contact Centre Managers	3,390
ELEMENTARY WORKERS	Structural Steel Construction Workers	3,355
CLERICAL AND ADMINISTRATIVE WORKERS	Personal Assistants	3,260
ELEMENTARY WORKERS	Forestry and Logging Workers	3,200
MACHINERY OPERATORS AND DRIVERS	Bus and Coach Drivers	3,190
CLERICAL AND ADMINISTRATIVE WORKERS	Contract, Program and Project Administrators	3,150
MANAGERS	Production / Operations Managers (inc Mine	3,130
TECHNICIANS AND TRADES WORKERS	Cabinet Makers	3,100
PROFESSIONALS	Advertising and Marketing Professionals	3,095
CLERICAL AND ADMINISTRATIVE WORKERS	Survey Interviewers	3,020
TECHNICIANS AND TRADES WORKERS	Printers	3,000
ELEMENTARY WORKERS	Manufacturing Engineering Process Workers	3,000
MANAGERS	Supply and Distribution Managers (inc Logistics	2,950
PROFESSIONALS	Civil Engineering Professionals	2,940
TECHNICIANS AND TRADES WORKERS	Plumbers	2,930
PROFESSIONALS	Software and Applications Programmers	2,890
MANAGERS	Contract, Programme and Project Managers	2,860
MANAGERS	Engineering Managers and Engineering Project	2,770
ELEMENTARY WORKERS	Other Construction, Mining and Metal Workers	2,750
TECHNICIANS AND TRADES WORKERS	Architectural, Building and Surveying Technicians	2,705
MACHINERY OPERATORS AND DRIVERS	Plastics and Rubber Production Machine	2,610
MANAGERS	Finance Managers Inc Municipal Finance	2,530
PROFESSIONALS	Electrical Engineer	2,485
PROFESSIONALS	Accountants	2,455
TECHNICIANS AND TRADES WORKERS	Butchers and Smallgoods Makers	2,385
CLERICAL AND ADMINISTRATIVE WORKERS	Credit and Loans Officers	2,325
MACHINERY OPERATORS AND DRIVERS	Store Persons	2,245
PROFESSIONALS	Technical Sales Representatives	2,060
CLERICAL AND ADMINISTRATIVE WORKERS	Couriers and Postal Deliverers	2,000
ELEMENTARY WORKERS	Textile Cleaners	2,000

Source: 2008 National Scarce Skills List; Own Calculations

The list is however dominated by a large number of engineering and artisan-related occupations, namely: Industrial, Mechanical and Production Engineers (12,665), Earthmoving Plant Operators (10,355), Metal Fitters and Machinists (8,340), Bricklayers and Stonemasons (7,225), Engineering Production Systems Workers (6,860), Concreters (6,685), Electricians (5,315), Electrical Engineering Draftspersons and Technicians (5,145), Motor Mechanics (4,205), Structural Steel and Welding Trades Workers (4,045), Civil Engineering Draftspersons and Technicians (3,960), Structural Steel

Construction Workers (3,355), Manufacturing Engineering Process Workers (3,000), Civil Engineering Professionals (2.940), Plumbers (2,930), Engineering Managers and Engineering Project Managers (2,770), Other Construction, Mining and Metal Workers (2,750), Architectural, Building and Surveying Technicians (2,705), and Electrical Engineers (2,485). These occupations fall under a number of SETAs including CETA, MQA, CHIETA, FIETA, TETA, MERSETA, AGRISETA, SERVICES SETA, LGSETA, ESETA, FOODBEV, ISETT, PSETA and CTFL SETA.

Aside from engineering professionals, other science-related occupations also feature prominently at the top of the list, with, for example, 10,030 Pharmacists [HWSETA] in short supply in 2008. Though not commonly-known occupations, Medical Technicians (10,000) [probably HWSETA] and Optical Laboratory Assistants (10,000) [probably HWSETA] were also in short supply, while 6,175 Agricultural and Forestry Scientists [probably AGRISETA and FIETA] and 6,145 Chemistry, Food, and Beverage Technicians [probably FOODBEV] were in short supply in the economy in 2008. In turn, a shortage of 5,000 workers each was estimated in 2008 for Medical and Laboratory Scientists [probably HWSETA], Medical Imaging Professionals [probably HWSETA], and Dental Assistants [HWSETA].

While managerial occupations do not dominate the list, it is clear from the list that there was a shortage of Managers across a variety of occupation categories including Other Specialist Managers (6,955), Retail Mangers (4,830), Call of Contact Centre Managers (3,390), Production/Operations Managers (3,130), Supply and Distribution Managers (2,950), Contract, Programme and Project Managers (2,860), Engineering Managers and Engineering Project Managers (2,770), and Finance Managers (2,530).

When considering scarce skills in the economy, Clerical and Administrative Workers may not readily come to mind. The 2008 National Scarce Skills List however indicates that a range of clerical workers were deemed to be in shortage in 2008 with the need for Purchasing and Supply Logistics Clerks (9,235), particularly severe. Other clerical workers in scarcity included General Clerks (5,625), Personal Assistants (3,260), Contract, Program and Project Administrators (3,125), and Survey Interviewers (3,020). In turn, in the Sales Worker category 6,300 Models and Sales Demonstrators, 5,980 Retail Buyers, 4,875 Retail Supervisors and 4,575 Sales Assistants were also considered to be in short supply in 2008, and the majority probably fall under the W&R SETA and SETAs such as INSETA and ISETT.

Finally, turning to Machinery Operators and Drivers and Technicians and Trades Workers, the table above indicates that almost 10,000 Truck Drivers [mainly TETA] were in scarcity in 2008. Furthermore, catering-related occupations such as Bakers and Pastrycooks (4,490) and Chefs (3,800) were also in short supply in the economy in 2008; the FOODBEV, THETA, and W&R SETA are responsible for these occupations. It is clear then from the table above that scarcity, or perceived scarcity, appears across a variety of occupations and industries, though the shortages in engineering-related occupations do appear to be most critical.

2.3. Sector Skills Plans and the National Scarce Skills Lists

In addition to comparing the occupations identified as scarce skills and corresponding numbers between the 2007 and 2008 scarce skills lists, we also attempt a brief analysis of the consistency between occupations included in the SSP and the National Scarce Skills lists. Specifically, we attempt to evaluate how well the National Scarce Skills lists reflect the occupations and scarce skills numbers presented in the SSPs, since the SSPs are one of the main sources of information utilised in the compilation of the National Scarce Skills lists.

A comprehensive analysis of how well the national lists reflect the information presented in all the SSPs falls outside the ambit of this report, and we only focus on a select number of occupations from five SETAs, as presented in Table 7 below. Specifically, we consider occupations (and the associated estimates of shortages) from the AGRISETA, FASSET, INSETA, MQA and SERVICES SETAs. We choose to focus on occupations from these five SETAs which are, at best, unique to the relevant SETA, or alternatively, unique to only a few SETAs. Many occupations, such as General Managers, are generic to a number of SETAs and it is therefore not possible to ascertain whether the number in the National Scarce Skills list is correct without undertaking a comprehensive review of all the SETA SSPs. Before proceeding to a discussion of the results, it should be noted that all SSPs utilised in the analysis below were downloaded from SETA websites, and for ease of reference, the name of the downloaded document is presented in the column titled 'NAME OF SSP' in the table below.

Table 7: Matching Occupations from SSPs to the National Scarce Skills Lists

SCARCE SKILLS LIST				SECTOR SKILLS PLANS				
BROAD CATEGORY	**OCCUPATION**	**YR**	**NUMBER**	**SETA**	**FILE NAME OF SSP ON SETA WEBSITE**	**OCCUPATION**	**NUMBER**	
Managers	Farm Managers: Crop Farmers	2008	**Does not appear**	AGRISETA	s_c_skills_2008_06_june_2008.xls	Crop farmer	**102,660 (not scarce skill, critical skill)**	
Technicians and Trades Workers	Agricultural, Medical and Science Technicians: Agricultural Technicians	2008	**200**	AGRISETA	s_c_skills_2008_06_june_2008.xls	Agricultural Technician: Installation and maintenance	50	**200**
						Agricultural Technician: Farm Infrastructure	150	
All Relevant Occupations		2008	**Checked all occupations found in the SSP of FASSET against the Scarce Skills List, but since occupations from FASSET SSP are quite generic, we were not able to isolate specific occupations in the Scarce Skills List. We did find however that all scarce skills numbers in SSP were below the - corresponding number in the Scarce Skills List.**	FASSET	Fasset_final_ssp_2008_09_update_30_april_2008_final.pdf	**Checked all occupations found in the SSP of FASSET against the Scarce Skills List, but since occupations from FASSET SSP are quite generic, we were not able to isolate specific occupations in the Scarce Skills List. We did find however that all scarce skills numbers in SSP were below the corresponding number in the Scarce Skills List.**		
Sales Workers	Insurance Agents and Sales Representatives: Insurance Agents	2008	**565**	INSETA	inseta_ssp_2008.pdf	Insurance Agents	**567**	
Professionals: Financial Brokers and Dealers and	Financial Brokers	2008	**1005**	INSETA	inseta_ssp_2008.pdf	Financial Broker: Investment Broker	**851**	

Investment Advisors	Financial Investment Advisers and Managers		**485**			Financial Investment Advisers and Managers	**457**	
Professionals: Engineering Professionals	Mining Engineers and Technologists	2008	**295**	MQA	MQA Scarce Skills List - 18 August 2008 (2).pdf	Mining Engineer (excluding Petroleum)	197	**278**
						Mining Engineering Technologist	40	
						Metallurgical Engineer	31	
Professionals: Natural and Physical Science Professionals	Geologists, Geophysicists and Earth Science Technologists	2008	**335**	MQA	MQA Scarce Skills List - 18 August 2008 (2).pdf	Geologists	245	**259**
						Geophysicists	14	
Machinery Operators and Drivers	Drillers, Miners and Shot Firers	2008	**170**	MQA	MQA Scarce Skills List - 18 August 2008 (2).pdf	Driller	1029	**1376**
						Miner	345	
						Shot Firer	3	
Manager: Small Business, Office, Programme and Project Managers	Call or Contact Centre Managers: Call or Contact Centre and Customer Service Managers	2007	**3025**	SERVICES	SERVICES SETA SS SSP Nov06.pdf	Call or Contact Centre Manager	2450	**2950**
						Customer Service Manager	500	
Sales Workers	Real Estate Sales Agents	2007	**910**	SERVICES	SERVICES SETA SS SSP Nov06.pdf	Real Estate Sales Agents	**700**	
Elementary Workers	Cleaners and Laundry Workers:	2007	**3700**	SERVICES	SERVICES SETA SS SSP Nov06.pdf	Commercial Cleaners	**3300**	

	Commercial Cleaners						

Source: Various SSPSs obtained from the SETA websites (document names as indicated in the column "**FILE NAME OF SSP ON SETA WEBSITE**"); 2007 National Scarce Skills List; 2008 National Scarce Skills List

The results from the table indicate the following. Firstly, for the occupations presented in the table above, the scarce skills numbers obtained from the SSPs compare well with the numbers presented in the National Scarce Skills List for the majority of the occupations. More specifically, some occupations show exact matches between the SSP and the scarce list; an example of this would be Agricultural Technicians – the scarcity for this occupation as recorded in the 2008 National Scarce Skills list is 200, while the SSP of the AGRISETA also indicates a scarcity of 200. In turn, other occupations such as Insurance Agents and Call or Contact Centre and Service Mangers show a very close but not exact match.

The scarce skills numbers for more generic occupations such as Financial Brokers, Financial Investment Advisers and Managers, Mining Engineers and Technologists, Geologists, Geophysicists and Earth Science Technologists, Real Estate Sales Agents, and Commercial Cleaners are less consistent between the SSPs and the national list, but are still quite similar. For these occupations, we assumed that the selected SETAs are primarily responsible for generating the scarce skills numbers for the National Scarce Skills list, and the data from the table appears to corroborate this. In general then, for most occupations the numbers reflected in the National Scarce Skills list is the same or similar to the number recorded in the SSP of the SETA assumed to bear the greatest responsibility for that occupation, with one exception, as discussed below. Furthermore, where the numbers differ, as expected, the SSP analysed yields a smaller number than the corresponding National Scarce Skills list, allowing for the possibility that other SETAs contribute to scarce skills numbers for these occupations.

Finally, for one occupation – Drillers, Miners, and Shotfirers, the number in the 2008 National Scarce Skills (170) is vastly smaller than the number recorded (1376) in the SSP downloaded from the MQA's website. It is not clear why this result is obtained, but we highlight two possibilities. Firstly, a recording error in either of the two documents analysed could have resulted in this outcome; and secondly, the occupation and corresponding number from the MQA SSP could have been recorded under a different occupation in the 2008 National Scarce Skills list. While the first scenario is problematic, the second scenario speaks to the need for better comparability between the lists in order to allow for an easy and simple analysis of actual scarce skills numbers. In the absence of analysing occupations across all SETAs, we note that it is a possibility that this problem extends to other occupations as well. [6]

[6] An attempt was also made to compare the information from the 2008 SSPs of SETAs in the financial sector with the information presented in the 2008 National Scarce Skills List. It was initially expected that the SETAs in the financial sector (i.e. FASSET, BANKSETA and INSETA) may experience scarcities in similar occupations and that an aggregation of the estimated shortages in 2008 may yield a close approximation of the magnitude of the scarcities for relevant occupations n the 2008 National Scarce Skills List. We did not however obtain the expected results. We encountered a number of obstacles. For example, some of the occupations included in the INSETA scarce skills list for 2008 were not included in the 2008 National Scarce Skills List. In addition, some of the occupations specific to the BANKSETA (such as Bank Workers) were included in the 2008 National Scarce Skills List, but did not appear in the BANKSETA's scarce skills list published in that same year. Due to the challenges encountered, the analysis was abandoned. While the lack of consistency between the SSPS and the National Scarce Skills lists is a concern, it should again be highlighted here that the National Scarce Skills List is a product of a number of inputs, including SSPs, sectoral research, and research from government departments.

While the SSPs are an integral part of identifying scarce skills, there are some concerns regarding both the conflicting objectives of the SSPs and the NSDS as well as the manner in which SSPs are drawn up. As far as the tension between the SSPs and the NSDS is concerned, Singizi (2007) points out that while the focus of the NSDS is on redress and equity, the focus of the SSPs is on sectoral growth and that these differing objectives perhaps requiring different types of interventions. Furthermore, the report also points out that the SSPs are devised using an endless variety of techniques, methodologies and data sources and that the SSPs may therefore differ in terms of voracity, validity and reliability.

As far as the latter point is concerned, the framework document for the NSDS 2011/12 – 2015/16 interestingly emphasizes the importance of the SSPs. In particular, the framework document for this NSDS indicates a renewed focus on the need for better and more detailed and accurate SSPs in determining scarce skills numbers. Within the framework document, the SSPs are seen as "an exercise in economic planning which informs human resource development planning in the form of sectoral skills projections". Four important focal areas of this NSDS in terms of SSPs are: i) that the NSDS will rest firmly on SSPs; ii) that there will be high level engagement between leadership of government departments and senior leaderships of its social partners in drawing up SSPs; iii) that some areas will require cross collaboration before sectoral plans are submitted; and iv) that the draft SSPs will be reviewed by the Technical Working Group of the HRDSA Council.[7]

2.4. Summary

The analysis of the National Scarce Skills Lists for the 2007 and 2008 periods in this section of the report raises a number of important points for consideration. Firstly, it is clear from the analysis comparing the adjusted and unadjusted numbers that changes in the occupations included in the lists in the two years impacted substantially on the changes in the magnitude of scarcity presented in the lists. Most importantly, the reclassification of Farm Managers and Farm Workers from scarce to critical skills between the 2007 and 2008 lists resulted in a large decrease in the number of skills considered to be scarce in the economy in 2008. In turn, a whole host of occupations were added to the National Scarce Skills List in 2008, which did not appear in the 2007 National Scarce Skills List. Changes in absolute numbers of scarce skills between the two lists were thus shown to be a result primarily of changes in the occupations included in the scarce skills lists, and, to a lesser extent, changes in the magnitude of scarcity of comparable occupations in the two lists.

We note though that changes in the numbers between comparable occupations should be viewed with caution since these are based primarily on the data used to collate scarce skills numbers, including WSPs and sectoral studies. It is likely then that changes in scarce skills numbers for comparable occupations between the lists may be both a reflection of scarcities reported as well as a change in, for instance, the number of firms submitting WSPs, or the sectoral studies used to

[7] The HRD-SA (2009) for the 2010-2030 period also recognizes the critical importance of well-researched numbers in the National Scarce Skills lists. In particular, it says "… the SETA SSP(s), the HE and FET enrolment policy and immigration quota list(s) are [currently] not informed by a common, credible and consistent modeling of skills supply and demand projections. These problems militate against integration, and confound responsiveness of education and training provision to the demands of the labour market".

augment scarce skills numbers obtained from SETAs. Generally then, the scarce skills numbers published in the Nationals Scarce Skills lists are 'perceived' scarcities rather than actual scarcities, with implications for the manner in which SETAs disseminate scarce skills information. The numbers in the scarce skills list are intended to form the basis from which SETAs design and implement marketing campaigns to encourage enrolment and training in scarce skills areas. Since the numbers are 'perceived' rather than actual scarcities, SETAs may have to consider alternative or supplementary sources of information when designing their campaigns. This is particularly relevant if a relatively low proportion of firms in the sector submit WPSs.

The figures from the latest (2008) National Scarce Skills List suggest that scarce skills are dominated by Professionals (32 percent) and Technicians and Trades (24 percent) workers, followed by Clerical and Administrative Workers (13 percent). Looking more closely at individual occupations, we found that Call or Contact Centre Workers and Welfare Support Workers dominated the list in 2008 with 20,185 and 19,545 of these workers perceived to be in short supply in 2008. Aside from these two occupations the list was dominated by engineering-related occupations, and teachers of different types, while approximately 10,000 Nurses, Pharmacists, Medical Technicians, Optical Laboratory Assistants, and Truck Drivers were also in short supply. In turn, certain types of Managers, Clerical and Administrative Workers as well Sales Workers also featured prominently on the list. Thus, shortages, though dominated by certain types of workers, are widespread across a range of occupation categories.

Finally, an attempt was also made to analyse the consistency between occupations, and corresponding estimates of scarcity, included in the SSPs and the relevant National Scarce Skills list for selected SETAs and occupations. We chose to focus on occupations from five SETAs which are unique to one relevant SETA, or, alternatively, unique to only a few SETAs. While a more detailed analysis of all the SSPs, sectoral research and research of government departments utilised in the compilation of a single list, would have been preferred, such an analysis falls outside the ambit of the study due to both scope and data constraints. The aim of our preliminary analysis was thus simply to provide a brief overview of the comparability between the information included in the SSPs and the national list. For the small sample of occupations analysed, the scarce skills numbers obtained from the SSPs compared relatively well with the numbers presented in the relevant National Scarce Skills List, with only a few notable exceptions.

3. An Analysis of SETA's Ability to Communicate Scarce Skills

3.1. The Mandate of SETAs: Communicating Scarce Skills

The Skills Development Act of 1998 (amended in 2003) provides the institutional framework for the development and implementation of national, sectoral and workplace strategies to develop and improve the skills of the South African workforce. In terms of the Act, a number bodies and schemes were established, including SETAs. SETAs are mainly funded through the skills

development levies collected within its sector as well transfers from the National Skills Fund (NSF). The main functions of SETAs are to:

- Develop sector skills plans
- Develop and register learnership programmes (Learnerships have to be registered with the relevant SETA).
- Quality assure qualifications and standards of programmes
- Disburse national skills development levy funds

In developing and registering learnerships and other skills programmes, SETAs also bear the responsibility of communicating scarce skills in the sectors. In order to clarify the mandate of SETAs in communicating the scarce skills list, we first review the two key strategies which govern skills development policy in South Africa. These are the National Skills Development Strategy and the Human Resource Development Strategy of South Africa (HRD-SA). The NSDS was launched in 2001 with the aim of transforming education and training in South Africa by improving both the quality and quantity of training. The NSDS consists of a set of performance indicators which define certain levels of training that have to be met within the term of the strategy. The initial targets of the strategy were set for March 2005, with NSDS II introduced in 2005 for the 2005/06 to 2009/10 period. The NSDS enters its third phase in 2011, with a revised strategy governing skills development for the 2011/2012 – 2015/16 period.

We focus mainly on NSDS II for the period 2005/06 to 2009/10, since our analysis of SETA performance falls within this period. NSDS II contained an indicator, Indicator 1.2, for measuring dissemination of information on critical skills and the impact of dissemination. More specifically, Indicator 1.2 states:

"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."

It would seem then that this indicator therefore requires every SETA to report on three key outcomes: Firstly, that information on critical skills is widely available to learners; secondly, that the impact of information dissemination is researched and measured; and thirdly, that the impact of information dissemination is communicated or reported. As far as the third requirement is concerned, SETAs have to show that there has been rising entry of workers into scarce and critical skills training, and that there has been an impact on completion and placement of learners on these training programmes.

For this section of the report, we are specifically interested in the first outcome, that is, that information on critical skills is widely available to learners. In terms of this outcome, SETAs are required in terms of their Service Level Agreements (SLA) to report on the number of skills development facilitators (SDFs) or sector specialists trained. They also have to report on whether an annual guide on scarce and critical skills for the sector has been developed and whether it is available to SDFs and learners.

The NSDS III framework document for the 2011/2012 – 2015/16 period identifies four types of programmes that SETAs should reference in their SSPs, with the first being programmes to facilitate access, success, and progression.[8] Part of programmes to facilitate access, success and progression is Information and Career Guidance. The success indicators for this are as follows:

1. *SETAs must submit a comprehensive occupational profile of their sector and guide to employment opportunities in their sector in the format prepared by DHET by March 2013. Such a profile and guide is to be updated by March 2016.*
2. *SETAs must provide information on the steps taken to expose prospective learners to work in their sector.*

It is clear then that NSDS III places emphasis on the dissemination of information, though the success indicators do not appear to specifically measure the dissemination of information on scarce and critical skills.

In turn, South Africa's first Human Resource Development Strategy (HRD) was identified as one of the five key programmes of the Reconstruction and Development Programme (RDP), and served as an overarching human resource strategy for the country. Its objective was to provide a plan to ensure that South Africans are equipped to participate fully in society and find or create work, and benefit from it. The HRD contained a number of indicators and objectives. Objective 2 (*"Improving the supply of high-quality skills (particularly scarce skills) which are more responsive to societal and economic need")* focused specifically on the need for action on scarce skills acquisition. More specifically, Indicator 6 under Objective 2 underlined the importance of "*learning in areas of scarce skills at both higher and further education and training level, especially in the fields of Science, Engineering and Technology".* Thus, there was an explicit focus in the initial HRD on both scarce skills identification through SETAs, provinces, the Department of Trade and Industry, and the Department of Culture, Science and Technology, as well as allocations from the National Skills Fund for scarce skills bursaries, particularly in the fields of science, engineering and technology. The HRD did not however focus specifically on the communication of scarce skills, though this was probably implicit in the focus on scarce skills bursaries.

The new Human Resource Development Strategy for South Africa (HRD-SA) for the 2010-2030 period was recently launched. While part of the HRD-SA commitments focus on scarce skills training, particularly: *Commitment One: We will urgently overcome the shortages in the supply of people with the priority skills needed for the successful implementation of current strategies to achieve accelerated economic growth;* and *Commitment Two: We will increase the number of appropriately skilled people to meet the demands of our current and emerging economic and social development priorities,* the HRD-SA does not specifically focus on the dissemination of information on scarce skills.

3.2. Resources of SETAs to Communicate Scarce Skills

This section of the report focuses on the resources available to SETAs to communicate the scarce skills information in the National Scarce Skills List. We specifically consider three resources, namely,

[8] The others are: a) PIVOTAL programmes, b) skills programmes and other non-accredited short courses, and c) programmes that build the academic profession and engender innovation.

the budgets available to SETAs to communicate scarce skills, the number of SDFs or sector specialists trained by SETAs, and the availability of a scarce skills guide for the sector. SDFs or sector specialists are assigned by firms and trained by relevant SETAs in a number of areas including completion of WSPs and ATRs as well as the magnitude and types of scarce skills in the sector.

3.2.1. Budgets

While Indicator 1.2 of the NSDS (2005/06 – 2009/10) requires SETAs to report on whether information on critical skills is widely available to learners, there has been criticism of the ability of SETAs to report substantively on this indicator as well as other indicators (see for instance, Singizi, 2007). It is also difficult to determine the resources of SETAs to communicate the scarce skills list, since this is not specifically reported in the annual reports of SETAs. The SETAs do however report, in the Notes to their Financial Statements on an expense item called "Advertising, Marketing and Promotions, Communication". While it is not entirely clear what activities this line item refers to, we can reasonably assume that the budget of SETAs, or at least a portion of the budget, to communicate the scarce skills list is covered under this expense. All information on this expenditure is gleaned from the financial statements of SETAs as contained in their annual reports.

Looking first at SETA's expenditure on Advertising, Marketing and Promotions and Communications, we note – considering the 2009/10 figures in Table 8 below – that expenditure varies greatly between SETAs, with the CTFL SETA spending just R3 000 on this item while the SERVICES SETA spent an incredible R7 788 000 in the year in question. Since SETAs represent different industries though, it would be prudent to weight expenditure by, for example, the sectoral contribution of the SETA to overall GDP or employment. For instance, we would expect SETAs with a larger relative share in employment or GDP to spend relatively more money on advertising activities. Furthermore, we may also expect SETAs which account for a relatively larger share of total scarce skills to spend more on advertising, though of course the mandate of SETAs incorporates much more than just the communication of scarce skills. In the absence of such nuanced data however, we simply note that the expenditure of SETAs on advertising varies greatly.

More specifically, the 2009/10 data shows that only five SETAs spent more than R2 500 000 on advertising expenses. These are the SERVICES SETA, MERSETA, SASSETA, LGSETA and BANKSETA. In turn, SETAs which spent less than R1 000 000 in 2009/10 on advertising activities include the CTFL SETA, MAPPP SETA, ESETA, AGRISETA, THETA, ISETT INSETA and FASSET. Intermediate spenders then were CHIETA, CETA, ETDP SETA, FOODBEV, HWSETA, MQA, TETA and W&R SETA. Finally, we do not have data for FIETA and PSETA for 2009/10, though FIETA data from previous years shows very low expenditure on this line item.

Table 8: Advertising, Marketing and Promotions, Communication Expenses of SETAs

	2005\06	2006\07	2007\08	2008\09	2009\10	05/06 - 09/10
	R'000					% change
AGRISETA	323	299	74	103	579	79%
BANKSETA	681	1 057	1 391	2 137	2 801	311%
CETA	531	732	1 864	1 250	1 247	135%
CHIETA				903	1040	n/a
CTFL SETA	41	42	40	21	3	-93%
ESETA	167	447	578	321	534	220%
ETDPSETA			4 004	3 974	2 289	-43%
FASSET	641	418	723	949	840	31%
FIETA		8	37		*	n/a
FOODBEV			1 040	1 378	1 288	24%
HWSETA	1 635	991	721	1 700	1 083	-34%
INSETA	147	305	736	657	844	474%
ISETT	354	1 356	1 105	678	627	77%
LGSETA	2 145	2 790	3 767	2 991	3 101	45%
MAPPP				360	272	n/a
MERSETA	988	2 015	5 558	3 492	5 730	480%
MQA	2 675	1 958	2 355	3 077	1 414	-47%
PSETA	*	*	*	*	*	n/a
SASSETA			3 763	5 056	5 226	39%
SERVICES				5 265	7 788	n/a
TETA			2 411	2 112	2 128	-12%
THETA	724	368	627	749	581	-20%
W&RSETA		1 155	1 434	698	2 202	91%

Source: Various Annual Reports of SETAs; Own Calculations

Notes:
1. Changes were only calculated for those SETAs for which we had more than two years of data.
2. * - PSETA did not report on specific expenditure on advertising, marketing, promotions and communication in any of its financial statements, while FIETA did not report on expenditure on advertising, marketing, promotions and communication in its 2009/10 financial statement.
3. In order to calculate the change in expenditure, for the following SETAs, data from 2007/08 to 2009/10 was used: TETA, SASSETA, FOODBEV SETA, ETDP SETA.
4. In order to calculate the change in expenditure for the W&RSETA, data from 2006/07 to 2009/10 was used.

Looking next at the trends in the data presented in the table above, we note firstly that there are five SETAs for which we could not find more than two annual reports – these are CHIETA, FIETA, MAPPP, PSETA and the SERVICES SETA. We are therefore unable to provide further analysis on the trends in expenditure on Advertising, Marketing and Promotions and Communication activities for these SETAs. Of the remaining SETAs, advertising expenditure increased over the 2005/06 – 2009/10 periods for most SETAs with the exception of the CTFL SETA, ETDP SETA, HWSETA,

MQA, THETA and TETA. These SETAs experienced a decline in advertising expenditure over the period, though we note that the spending of the CTFL was low to begin with.

SETAs showing particularly large increases (in percentage terms) in advertising expenditure over the period are the MERSETA, INSETA, BANKSETA, ESETA and CETA, while FASSET, the FOODBEV SETA and SASSETA experienced more gradual increases. In turn, the W&R SETA, AGRISETA, LGSETA and ISETT SETA experienced somewhat erratic changes in advertising expenditure, though they did experience an overall increase in expenditure between 2005/06 and 2009/10 of less than a hundred percent.

The analysis of the expenditure on advertising for SETAs thus provides very mixed results, with no data available for some SETAs; decreasing expenditure patterns for the CTFL SETA, ETDP SETA, HWSETA, MQA, THETA and TETA; somewhat erratic expenditure patterns for the W&R SETA, AGRISETA, LGSETA, ISETT SETA; fairly stable and increasing expenditure patterns for the FOODBEV SETA and FASSET; and finally large increases in expenditure over the period for the MERSETA, INSETA, BANKSETA, ESETA, and CETA. Finally, the amount of spending on advertising expenses varies greatly between SETAs.

Aside from the advertising expenditure data published in the annual reports of SETAs, additional information on SETA's income and expenditure is reported in the National Treasury Estimates of Public Expenditure. The problem with using this source of data is twofold: firstly, the data provided is not disaggregated by SETA – it shows consolidated figures for all SETAs; and secondly, it is not possible from the data presented to determine specific SETA budget allocations for the communication of the scarce skills list. Nonetheless, Table 9 shows that the skills development levies of SETAs account for almost all of the SETAs revenue, and that this revenue source has been increasing since 2005/06.

Table 9: Revenue of SETAs, Table from Estimates of Public Expenditure 2009

R thousand	Audited outcome			Revised estimate	Medium-term estimate		
Statement of financial performance	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**
Revenue							
Non-tax Revenue	339 913	316 269	491 687	451 107	400 899	387 553	409 080
Skills development levies	4 333 686	4 471 390	5 157 272	5 867 735	6 264 013	6 797 621	7 380 409
Total revenue	**4 673 599**	**4 787 659**	**5 648 959**	**6 318 842**	**6 664 912**	**7 185 174**	**7 789 489**

Source: National Treasury (2009)

In terms of aggregate expenditure on projects, shown in Table 10 below, projects related to skills development and research account for the second largest proportion in this category of expenditure in all the years from 2005/06 to 2008/09. Though expenditure on skills development and research declined from 2005/06 to 2007/08, there was a particularly large increase between 2007/08 and 2008/09.

Table 10: Expenditure on Projects, table from Estimates of Public Expenditure 2009

	Audited outcome			Revised estimate	Medium-term estimate		
R thousand	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Skills Development and Research	1 610 694	1 494 170	1 480 015	2 006 566	2 189 647	2 178 266	2 265 678
Standards Generating Body	12 493	11 590	11 480	15 564	16 984	16 120	16 022
Learning Programmes	2 815 351	2 611 677	2 586 935	3 507 299	3 827 310	4 132 625	4 210 624
ETQA	109 558	101 632	100 669	136 485	148 938	141 362	140 506
Other	257 077	238 479	236 220	320 262	349 482	331 705	329 696
Total Expense	**4 805 173**	**4 457 548**	**4 415 319**	**5 986 176**	**6 532 362**	**6 800 078**	**6 962 525**

Source: National Treasury (2009)

To reiterate though, it is not possible to draw any conclusions regarding the revenue or expenditure of individual SETAs from the aggregate revenue and expenditure information presented in the tables sourced from the National Treasury documentation. In addition, it is also not possible to isolate expenditure related specifically to the communications of the scarce skills lists from these documents. We therefore mainly restricted our analysis to the data on expenditure on advertising and related activities by individual SETAs sources from their annual reports.

3.2.2. Materials and Skills Development Facilitators

In this section we review the number of SDFs or sector specialists trained in skills needs, as well as whether an annual scarce skills guide has been developed by each SETA. This information is reported by all SETAs in their annual reports under Indicator 1.2. Specifically, the NSDS II target set for this success indicator is the number of SDFs trained. The rationale behind this target is that the SDFs (as well as career counselors and sector specialists) should be trained in how to use the scarce skills lists and the sector skills guides.

SDFs are responsible for the following:[9]

- Assisting the organisation to develop the WSP;
- Advising the organisation on the implementation of the WSP;
- Assisting the organisation to draft the ATR;
- Advising the organisation of any quality standards set by the SETA;
- Acting as a contact person between the organisation and the SETA;
- Advising and supporting the Skills Development Committee (particularly in medium or large organizations);
- Serving as a resource with regards to all aspects of skills development within the sector.

Considering the number of SDFs trained annually first, Table 12 below shows the achievement for each SETA for the 2005/06 to 2009/10 period, where this information is available. The columns titled 'Shortfall' show the shortfall in each year for each SETA as a proportion of the target. A

[9] This information was sourced from the MERSETA SDF Registration Manual.

negative number in the shortfall column indicates that the SETA trained fewer SDFs than its target while a positive number indicates that more SDFs received training than the target. The shortfall in each year for each SETA is shown as a proportion of the target. We only consider figures from 2006/07 to 2009/10 since there are very few figures available for the 2005/06 period. In 2006/07, eight SETAs trained less SDFs than the numbers they had agreed to in their SLAs. The worst performing SETAs were the MAPPP SETA and CETA who did not train any SDFs. They were followed by the THETA (-96 percent), LGSETA (-78 percent) and ESETA (-60 percent) which also reported high shortfalls. Finally, CHIETA's shortfall stood at 39 percent, while the shortfall for the AGRISETA and SASSETA was very low at 2 and 3 percent respectively. In turn, all other SETAs trained more SDFs than the targets required, with the INSETA, TETA, FASSET, HWSETA, PSETA and FOODBEV SETA showing particularly good results.

Table 11: Number of Skills Development Facilitators (SDF) or Sector Specialists Trained on Skills Needs

	2005/2006			2006/2007			2007/2008			2008/2009			2009/2010		
	TARGT	ACHVD	S/FALL	TARGT	ACHVD	S/FALL	TARGT	ACHVD	S/FALL	TARGT	ACHVD	S/FALL	TARGT	ACHVD	S/FALL
AGRISETA	-	-	-	400	392	-2%	400	402	1%	350	203	-42%	350	650	86%
BANKSETA	-	-	-	200	298	49%	200	460	130%	200	412	106%	200	271	36%
CETA	1,515	-	-	303	0	-100%	167	97	-42%	250	250	0%	500	388	-22%
CHIETA	-	-	-	250	152	-39%	250	281	12%	250	353	41%	250	442	77%
CTFL	-	-	-	300	411	37%	100	156	56%	70	178	154%	70	146	109%
ESETA	-	-	-	81	32	-60%	60	62	3%	80	93	16%	100	87	-13%
ETDPSETA	-	-	-	601	773	29%	711	1006	41%	822	938	14%	800	1102	38%
FASSET	-	90	-	1250	8,226	558%	1,100	6641	504%	8500	9822	16%	8,500	11409	34%
FIETA	-	-	-	50	69	38%	30	88	193%	50	255	410%	50	310	520%
FOODBEV	-	-	-	100	224	124%	100	128	28%	100	147	47%	100	146	46%
HWSETA	-	-	-	48	180	275%	51	326	539%	54	415	669%	48	173	260%
INSETA	-	-	-	50	682	1264%	50	60	20%	100	266	166%	100	198	98%
ISETT	-	-	-	435	537	23%	387	470	21%	387	449	16%	200	3501	1651%
LGSETA	5,000	-	-	1400	315	-78%	1,050	867	-17%	300	567	89%	300	356	19%
MAPPP	-	-	-	100	0	-100%	100	445	345%	250	156	-38%	250	291	16%
MERSETA	-	145	-	711	1,065	50%	711	1585	123%	711	704	-1%	711	1893	166%
MQA	-	41	-	150	261	74%	150	135	-10%	200	584	192%	200	583	192%
PSETA	-	-	-	70	215	207%	75	178	137%	200	0	-100%	180	0	-100%
SASSETA	-	134	-	340	330	-3%	200	817	309%	300	34	-89%	300	869	190%
SERVICES	-	175	-	250	318	27%	200	302	51%	300	974	225%	300	576	92%
TETA	-	16	-	70	488	597%	150	388	159%	150	222	48%	240	314	31%
THETA	-	-	-	408	18	-96%	408	588	44%	595	606	2%	634	722	14%
W&RSETA	-	-	-	1250	1,864	49%	625	838	34%	800	1036	30%	700	1220	74%
TOTAL	**6,515**	**601**	**-91%**	**8817**	**16,850**	**91%**	**7,275**	**16320**	**124%**	**15019**	**18664**	**24%**	**15,083**	**25647**	**70%**

Source: NSDS II reports; Own Calculations

Note: 1. Negative shortfall values indicate that the actual number of Skills Development Facilitators (SDF) was less than the annual target.
2. Empty cells suggests no data was available for that particular year from the NSDS II reports.

Looking next at the 2009/10 results, we note that almost all SETAs trained more SDFs in 2009/10 than they did in 2006/07 with the exception of the BANKSETA, CTFL SETA, FOODBEV SETA, INSETA, PSETA and TETA. This could however be due to the fact that the SLAs of some SETAs could have, by 2010, required training of fewer SDFs than in 2006/07. In addition, data in the 'Shortfall' column shows that the majority of SETAs, with the exception of the PSETA, CETA and ESETA, met their targets for SDF training in 2009/10. In particular, the PSETA trained no SDFs in the 2009/10 financial year, while the CETA and ESETA fell 22 percent and 13 percent short of their targets respectively. SETAs to perform particularly well in terms of their targets in 2009/10 were the ISETT SETA, FIETA, HWSETA, MQA, SASSETA, MERSETA, and CTFL SETA.

Finally, in looking more generally at the shortfall numbers over time between 2006/07 and 2009/10 it is clear that some SETAs failed to meet their targets in two (or more) of the four years under consideration. These SETAs include the AGRISETA, CETA, ESETA, LGSETA, MAPPP SETA, PSETA, and SASSETA. It appears then that these SETAs are poorly performing SETAs in terms of their targeted SDF training.

SETAs are also required to develop a Scarce and Critical Skills Guide or a Sector Guide which contains details of the skills that are in scarce supply in each of the sectors. SDFs are trained in the use of the guide in order to help them identify scarce skills training opportunities in their respective workplaces. The guide may also be disseminated to learners, students, teachers and other stakeholders at career fairs or exhibitions. SETAs have to report on whether they have created a scarce skills guide, as part of Indicator 1.2 of the NSDS targets. We obtained this data from the annual reports of SETAs. Table 12 below summarizes the findings for the period between 2005/06 and 2009/10. The blocks with dashes (-) show instances in which annual reports were not available from the websites of the SETAs. In turn, the blocks labeled 'A' show one of two outcomes, as follows: i) instances in which SETAs explicitly reported that they developed a scarce skills guide for that year; or ii) SETAs trained SDFs in that year and it is thus assumed that they developed a scarce skills guide as well. In instances where SETAs explicitly reported that they did not develop a scarce skills guide, we labeled the blocks 'B'.

Table 12: Development of SETA Scarce and Critical Skills Guide

	2005\06	2006\07	2007\08	2008\09	2009\10
AGRISETA	B	A	A	A	A
BANKSETA	A	A	A	A	A
CETA	-	B	B	B	A
CHIETA	-	-	-	-	A
CTFL SETA	-	-	-	A	A
ESETA	B	A	A	A	A
ETDP SETA	-	-	A	A	A
FASSET	A	A	A	A	A
FIETA	-	-	A	-	A
FOODBEV	-	-	A	A	A

HWSETA	A	A	A	A	A
INSETA	A	A	A	A	A
ISETT	B	A	A	A	A
LGSETA	A	A	A	A	A
MAPP	A	-	-	A	A
MERSETA	A	A	A	A	A
MQA	B	A	A	A	A
PSETA	B	-	A	A	A
SASSETA	-	-	A	A	A
SERVICES	A	-	A	A	A
TETA	-	-	-	A	A
THETA	A	-	-	A	A
W&R SETA	-	-	A	A	A

Source: Various Annual Reports of SETAs; Own Calculations

Notes: 1. - – Unknown / Annual Report not available
A – SDF training + guide available
B – No guide and no SDF

2. In constructing this table, we assumed that if a SETA had reported training SDFs, then they had also created a scarce skills guide. B thus only shows SETAs that had neither trained SDFs nor reported creating a scarce skills guide.

It is clear from the table above that all SETAs had created guides for their sectors by 2009/10. Furthermore, for the period between 2005/06 and 2009/10, the data shows (where data was available) that most SETAs had created guides for training of SDFs and dissemination to learners, students and teachers. An exception to this was the CETA which explicitly stated that it had not created a scarce skills guide for the construction sector in 2006/07, 2007/08 and 2008/09. By 2009/10 though, the SETA had created a scarce skills guide for the sector. In summary then, for the years for which data is available, most SETAs created an annual scarce and critical skills guide to provide information on scarce skill in their sectors to SDFs and learners/students/workers.

3.2.3. Discretionary Funding

Aside from the advertising, marketing and communication expenses of SETAs, SETAs may also allocate discretionary funding to projects related to the communication of scarce skills. We analysed the annual reports of SETAs for the 2007/08 and 2008/09 years in order to determine the kinds of additional resources available to SETAs from discretionary funds for scarce skills communication. We note though that this data is not exhaustive, since some SETAs did not indicate discretionary expenditure, while the annual reports for some SETAs for some years were not available on their websites. It is clear firstly from Table 13 below that Discretionary Funding related to scarce skills advertising is utilised in a number of ways. While some SETAs simply use discretionary funding for sector specialist or SDF training and capacity building, others SETAs use funding for dissemination of critical skills guides to learners, marketing of scarce skills and student recruitment at universities. In turn, it is not possible to ascertain exactly what certain discretionary-funded projects refer to. For instance, it is not clear what the Scarce and Critical Skills Project of the Furniture Chamber of FIETA entails, and whether it is specifically related to scarce skills information dissemination.

Secondly, the table shows that the amount of discretionary funding available to a single SETA for a project differs over time. Thus, while R300 000 was approved by AGRISETA in 2007/08 for sector specialist training, less funds were allocated to this type of training by the SETA in 2008/09. Similarly, while the W&R SETA approved R6 994 000 in 2006/07 for SDF Training and Capacitation, in 2007/08 and 2008/09 no money was approved for this by the SETA. In the case of the W&R SETA however, this is probably due to the fact that there was R6 584 000 available to the SETA for this project at the beginning of 2007/08 and R5 420 000 available at the beginning of 2008/09. A third case, FASSET, utilised all of the available R118 000 in 2006/07 for SDF capacity building and thereafter did not allocate any further discretionary project money to this task. We note though that the allocation of discretionary funds to projects is dependent both on the needs of SETAs as well as the availability of funds. Thus, while some SETAs may not find it necessary to allocate special funding to SDF training, other SETAs may prioritise other projects over SDF training due to limited discretionary funds.

Table 13: Discretionary Funding Related to Scarce Skills Information Dissemination (R'000)

		Opening Balance 2006/07	Approved 2006/07	Utilised 2006/07	Opening Balance 2007/08	Approved 2007/08	Utilised 2007/08	Opening Balance 2008/09	Approved 2008/09	Utilised 2008/09	Total 2008/09
AGRISETA	**Sector Specialist Training (R000)**	0	300	0	300	300	-86	514	-463	-375	-324
BANKSETA[1]											
CETA	**SDF Training**				0	0	0	0	1830	-775	1055
CHIETA											
CTFL	**Design and Print Critical Skills Guide and Distribute to Learners**				19	40[2]	-20	39	67[3]	-33	73
ESETA	**SMME/SDF**	0	0	0	0	401	-201	200	200		
ETDP SETA	**SDF**							0	283	0	283
FASSET	**SDF Capacity Building**	118	0	-118	0	0	0	0			
	SDF Upskilling	0	40	-3	37	0	-37	0	0	0	0
FIETA	**Furniture Chamber: University of Stellenbosch - Marketing and Student Recruitment**	188	0	186	2	0	-1	1			
	Furniture Chamber: Scarce and Critical Skills Project	357	0	0	357	0	-81	276			
	Wood Products Chamber: University of Stellenbosch: Wood Technology Degree (Marketing and Student Recruitment	190	0	-65	125	62	187	0			
	Furniture Chamber: Scarce and Critical Skills Project	7	0	8[4]	15	0	-13	2			
	Forestry Chamber: Training of Assessors,	77	0	9	68	-44	-23	1			
	Forestry Chamber: Training of SDFs	36	0	-25	11	100	-109	2			
	Forestry Chamber: Scarce and Critical Skills Project	272	0	-49	223	0	-88	136			
	Forestry Chamber: Development of Scarce and Critical Skills Guide	73	0	-52	22	0	-15	7			
	Forestry Chamber: SDF Capacity Building on scarce and critical skills	80	0	-51	29	100	-53	76			
	Pulp and Paper Chamber: Training of SDFs	9	0	-2	7	50	-50	7			
	Pulp and Paper Chamber: Scarce and Critical Skills Project	0	240	0	240	-60	-128	52			
	Pulp and Paper Chamber: Development of Scarce and Critical Skills Guide	148	0	-43	105	60	-164	1			
	Pulp and Paper Chamber: SDF Capacity Building on Scarce and Critical Skills						2[4]	2			
	Pulp and Paper Chamber: Development of Scarce and Critical Skills Guides	137	0	-60	77	0	-52	24			

	Pulp and Paper Chamber: SDF Capacity Building on Scarce and Critical Skills	43	0	-43	0	100	-16	84			
FOODBEV											
HWSETA	**Sector Specialist Training**				319	0	0	319			
INSETA	**Career Guide**	421	190	-173	438	1100	-1020	518	1100	-1084	534
	Workshops for SDFs	0	0	0	0	184	-115	69	380	-142	307
ISETT											
LGSETA	**SDF Training**	1616	0	-956	660	1000	-937	723	1215	-1938	0
	Capacity Support for Sector Specialists				4	500	0	504	498	-802	200
MAPPP SETA											
MERSETA[5]	**SMME Implementation (SDFs)**	0	1520	0	1520	-1520[2]	0	0	0	0	0
MQA	**SMME SDF Support**	1030	-249	-781	0	498	-498	0			
PSETA											
SASSETA	**Assessor, Moderator and SDF Training**				5570	0	-3384	2186	4076	-5992	270
SERVICES											
THETA											
TETA											
W&R SETA	**Contract SDFs**	3000	1650	-3969	681	-611[2]	-70	0	0	0	0
	SDF Training and Capacitation		6994	-430	6584	0	-1144	5420	0	0	5420
	Update of Scarce and Critical Skills Guide					1619	-421	1198	-122[2]	-1076	0

Source: Various Annual Reports of SETAs

Notes: 1. The BANKSETA, in its annual reports in 2007/08 and 2008/09 reported on special projects for which discretionary funding was made available. They noted that in 2007/08, the SETA allocated R900 000 for career awareness. More specifically, the money was allocated to fund the dissemination of a career guide on the various careers linked to critical and scarce skills in the banking and micro/finance industry. The project was labeled completed in the 2007/08 annual report. By the same token, in the 2008/09 annual report of the BANKSETA, the SETA allocated R1 000 000 to career awareness for that financial year. The aim of the project was once more to fund dissemination of a career guide on careers linked to scarce and critical skills in the sector. The project was labeled "In progress" in the annual report for the year. It is clear then that outside of the advertising, marketing and communication expenditure of SETAs, some SETAs like the BANKSETA allocated a substantial amount of funding to promote scarce and critical skills careers in their sector as well promote the broader industry as an employer of choice.

2. These are adjustments.

3. R7000 of the R67000 are adjustments.

4. This appears to be additional funding.

5. MERSETA also had a Skills Requirements Project in their 2007/08 annual report – it is unclear what this refers to.

6. Blank spaces indicate unavailable data, either because the data was not reported in the annual Report or the annual report was not available.

Thirdly, the table above indicates that many SETAs, including AGRISETA, CETA, ESETA, ETDP SETA, FASSET, FIETA, HWSETA, INSETA, LGSETA, MQA, SASSETA and the W&R SETA allocate discretionary funding for SDF training. It is not indicated whether this training is related to WSP and ATR completion or includes other aspects such as training on scarce and critical skills. Nevertheless, the data appears to indicate that most SETAs require additional funding for SDF training. Furthermore, the data also indicates that the amount of discretionary funding for SDF training differs substantially across SETAs with SETAs such as SASSETA (R3 384 000 [Assessor, Moderator and SDF training]) and W&R SETA (R1 144 000 [SDF Training and Capacitation]) utilising large amounts in 2007/08 respectively, while other SETAs such as FASSET spent only around R37 000 on SDF upskilling in 2007/08. We reiterate once more though that projects such as SDF training are dependent on both need as well as availability of funding for competing projects.

Fourthly, the table shows that some SETAs allocate money from discretionary funding for scarce and critical skills guides. Most notably, BANKSETA, CTFL, FIETA, INSETA, and the W&R SETA all allocated money towards development and/or disbursement and/or updating of these guides. Furthermore, the amount of money spent by SETAs on such activities differs. Thus, for instance, while the CTFL SETA spent R20 000 in 2007/08 to design and print a skills guide and distribute it to learners, INSETA spent R1 021 000 in this year on its career guide while the BANKSETA spent R900 000 on dissemination of a career guide on various careers linked to scarce and critical skills in the banking and microfinance industry.

3.3. Summary

In considering the resources of SETAs to communicate scarce skills information to students, learners, training providers and other constituencies, we faced a variety of challenges. Firstly, comprehensive data on resources available to SETAs for scarce skills information dissemination is not available. For instance, it is impossible to isolate the specific funds allocated by SETAs for the communication of scarce skills. More specifically, while the annual reports of SETAs show Advertising, Marketing and Promotion, and Communication expenditure, it is likely that this expense is related to general advertising and other activities, as well as scarce skills information dissemination. When a sample of SETAs were interviewed as part of section 4 of the project, we furthermore ascertained that SETAs themselves find it difficult to accurately identify the exact budgets allocated to the dissemination of information on scarce skills. In addition, some evidence shows that many SETAs utilise discretionary funds for SDF training as well as the development of scarce and critical skills guides. We were, however unable to obtain a complete picture of the discretionary fund expenditure by all SETAs for all years on these activities.

Secondly, where specific data was available, it probably did not represent all the activities undertaken by the SETA. For instance, the data on SDF training shows that most SETAs exceeded their SDF training targets in terms of Indicator 1.2 of the NSDS by 2009/10. It is unlikely however that this data represents the full spectrum of human resources required and utilized by SETAs to communicate scarce skills.

Thirdly, there is little uniformity on how SETAs report on relevant outcomes. For instance, though we attempted to analyse whether the SETAs produce scarce and critical skills guides annually, we found that while some SETAs report explicitly in their annual reports on the creation and dissemination of the guide, other SETAs do not report on this outcome. We found though that it appears as if most SETAs published a scarce and critical skills guide for most of the years analysed.

In general then, we were challenged in finding accurate, easily accessible, and complete data on resources available to SETAs for the communication of scarce skills. Furthermore, where data was available, it was sometimes difficult to interpret. For instance, as pointed out in the discussion above, the data on marketing expenditure should ideally be weighted by SETAs' contributions to the scarce skills list or SETAs contributions to employment or GDP in the economy, in order to make the analysis more meaningful. Furthermore, the human resources available to SETAs to communicate the scarce list should, we think, incorporate more than simply a measure of SDFs trained by SETAs. It is clear then that it is impossible to present a comprehensive overview of the resources available and utilized by SETAs to communicate information on scarce skills

4. SETAs Communication of Scarce Skills

In considering SETAs communication of scarce skills to stakeholders – mainly learners, teachers, and graduates – we gathered information from two sources. We firstly undertook an analysis of the annual reports of SETAs for the 2009/10 year (discussed in section 4.1 below), and secondly, interviewed a selection of SETAs (section 4.2 below). For the interviews, we chose SETAs based on their representivity in the labour market, their prominence in the 2008 National Scarce Skills List, and their past performance. The interviews with the SETAs are presented as case studies of SETA activities in sub-section two below. The third section below summarises common methods used by SETAs to communicate scarce skills and highlights unique interventions, while the final section discusses challenges with disseminating information and quantifying dissemination.

4.1. Analysis of Annual Reports[10]

In considering the communication of scarce and critical skills by SETAs, we firstly analysed the information presented in the annual reports of the SETAs. The project team feel that the analysis of annual reports gives a good indication of the types of initiatives undertaken by SETAs in the 2009/10 year. We note, however, that the analysis does not yield an exhaustive list of activities undertaken for two reasons. Firstly, while certain initiatives – such as taking part in a career fair – are directly reported on, in other cases the marketing and dissemination activities of SETAs may be subsumed in other projects. For instance, when introducing a bursary programme for learners in a particular sector, the relevant SETA will have to market the programme to learners in the sector. While this is implied, it may not be explicitly stated in the annual reports. In this section, we focus mainly on direct and reported marketing and communication of scarce skills to learners, graduates and teachers. Secondly, while we tried as far as possible to obtain as much information from the

[10] In this section, we do not elaborate on SDF training and discretionary projects related to marketing and communicating of scarce skills, since these have been discussed in detail in Section 3.

annual reports of SETAs on marketing of scarce and critical skills, it is possible that the data provided below has some omissions. The various marketing interventions of SETAs have been grouped into the following categories: i) exhibitions (and related activities); ii) media communication; and iii) online communication.

4.1.1. Workshops, Roadshows, Exhibitions and Partnerships

AGRISETA

The annual report of the AGRISETA for 2009/10 outlines that the SETA took part in various exhibitions. It did not however elaborate on the specific exhibitions attended by the SETA.

BANKSETA

The BANKSETA, in association with the KwaZulu-Natal DOE held a series of workshops and seminars for Life Orientation teachers on scarce and critical skills in the sector. In total, the workshops succeeded in accessing 1 043 schools in seven districts in KwaZulu-Natal.

Together with Junior Achievement South Africa, the BANKSETA presented career guidance seminars for school learners in Ficksburg (Free State), Belfast (Mpumalanga), Tzaneen and Thohoyandou (Limpopo), and East London (Eastern Cape).The BANKSETA also participated in career guidance sessions in Manenberg and Khayelitsha in the Western Cape.

CETA

The CETA has developed a Youth Outreach Strategy which is directed at communicating scarce and critical skills in the sector to school-goers, particularly Grade 10, 11, and 12 learners. Furthermore, the strategy targets principals and Life Orientation teachers through career workshops. It is envisaged that information on opportunities in the sector will also be distributed to libraries across South Africa.

CETA conducted roadshows at all 16 institutions of higher learning throughout South Africa with the aim of understanding the challenges encountered by the learners, and communicating scarce and critical skills in the sector. The CETA also held nationwide roadshows in May and June 2009, with the aim of engaging with stakeholders within the sector to build relationships and promote CETA services. Among the issues raised at the roadshows was the need to improve communication about the CETA's role in addressing skills shortages, particularly in rural areas. It is through these roadshows that the CETA established the need to increase media usage to keep stakeholders informed.

CHIETA

In Gauteng, the CHIETA's marketing strategy (which aims to increase artisan enrolments) resulted in the recruitment of an average of 8 learners per month. Furthermore, the Gauteng branch of the CHIETA has formed relationships and participated in numerous events, including the following:

- National Chemical Engineering Forum (HET Departments – Heads of Chemical Engineering)
- Mpumalanga Department of Labour Artisan Development Project

- North West Provincial Skills Development Summit and Conference and exhibition

In KZN, the CHIETA team consolidated its membership on the Durban University of Technology (DUT) chemistry advisory board, and participated in the colloquium on higher education and the workplace, as well as the World of Work career fair. The SETA's close relationship with FET colleges continued in this period and this is demonstrated, for instance, by the East Cape Midlands College's recognition of the CHIETA as a valued support partner in skills development.

Furthermore, the CHIETA participated in forums and outreach programmes in Newcastle, Richards Bay, East London, Durban and Port Elizabeth. The CHIETA also offered career guidance and support to learners at DOE exhibitions, and at career fairs in remote rural areas of KZN, including Dundee, Nquthu, and St Philemena.

The Apprenticeship Unit of the CHIETA has embarked on a programme to bring more FET colleges into the CHIETA system with the objective of making the FET colleges, in collaboration with SETAs, the hub of skills training in the sector. In addition, in the next financial year, the CHIETA plans to establish links with Universities of Technology and universities offering engineering and other courses related to the chemical industries sector.

While these partnerships with various FET colleges and Universities of Technology do not amount to direct marketing of scarce and critical skills, the CHIETA can, through its links with the FETs and HETs, feed information on scarce and critical skills to training providers who may then incorporate this information into their own marketing drives.

ESETA

The lack of information flow between the ESETA and its constituency has been highlighted as a particular problem. To overcome this problem, the Sector Skills Planning department of the ESETA has prioritized communicating with stakeholders on a number of issues, including scarce and critical skills in the sector. In the coming financial year, the ESETA plans a number of roadshows.

ETDP SETA

The ETDP recognizes the need to reach out to secondary school learners in order to begin the process of career development early. The ETDP SETA thus engaged in provincial imbizos, at which each learner was given a textbook on career guidance which was developed by the ETDP SETA. In addition, information on programmes and contact details of all SETAs, universities and FET institutions was provided. The imbizos were attended by various constituencies including premiers' offices, the DOE, the DOL, municipalities, tribal authorities, CBOs and NGOs. Bursaries were awarded to schools that participated in the imbizos in order to afford financially disadvantaged learners the opportunity to study at tertiary education institutions.

The imbizos were held in the following provinces and targeted rural and under-developed communities: Gauteng (Tembisa), Northern Cape (De Aar), Free State (Qwa Qwa), North West (Mokgalwaneng), Mpumalanga (Nkangala), Limpopo (Mopani, Waterberg), KwaZulu-Natal (Kwa-Dlangezwa, Pietermaritzburg), and Eastern Cape (Mhlontlo).

In addition to the imbizos, career exhibitions targeting learners were held in Limpopo (Sekhukhune district). At these exhibitions, the SETA collaborated with partners such as the Limpopo Business Support Agency (LIBSA), Love Life, Sekhukhune FET College, the University of South Africa, the University of Limpopo and the Provincial Department of Education to provide career information.

FASSET

In disseminating scarce skills information, FASSET is one of the more innovative SETAs. It has for instance, employed FASSET Skills Advisors (FSA) in all nine provinces in South Africa. Specific initiatives undertaken by the FSAs in the 2009/10 year include providing employers with an update on FASSET activities, explaining FASSET learnerships to employers, and advising employers on how skills needs within their companies may be met by learnerships in the sector. These and other services rendered by the FSAs were free of charge.

In the 2009/10 year, FASSET also conducted a marketing campaign targeted at learners. The objective of the campaign was to raise awareness among learners about scarce skills in the sector and to provide information on career options, learnerships and the role of FASSET in the sector. This drive included activities such as participation in career exhibitions, partnerships with Higher Education Institutions, viral campaigns, and a dedicated learner section on the FASSET website. FASSET has also undertaken to make career information and a career video available to schools.

In addition, FASSET participated in various expos targeting learners and graduates, including the Gordon Institute of Business Science (GIBS) Expo, Career Expo, the Sci-Bono Finance Week, the Star Workplace Careers Expo, the Cape Argus Careers Expo, as well as the University of Fort Hare's Career Expo.

One of the flagship interventions of FASSET has been the lifelong learning initiative. FASSET offers free lifelong learning training interventions to learners, accounting technicians and professionals in order to allow small and medium-sized practitioners to remain up to date with the latest skills. Around 13 529 delegates attended lifelong learning interventions in 2009/10. These interventions are marketed widely by FASSET through, for instance, its electronic newsletter.

FIETA

During the 2009/10 financial year, FIETA conducted 11 roadshows. The roadshows were aimed predominantly at employers, providers, and moderators, and addressed a range of issues including scarce and critical skills.

HWSETA

The HWSETA planned to attend one exhibition per province in the 2009/10 year. The target was exceeded considerably, since the Marketing and Communication subdivision of the HWSETA participated in 30 exhibitions across eight of the nine provinces in South Africa. The exhibitions varied in nature. Some, such as the Hospital Association of South Africa exhibition, were industry-specific, while others, such as the Pan African Health Conference, were more commercial. The

HWSETA distributed a 32-page career guide at exhibitions and events aimed at learners and graduates.

INSETA

During the 2009/10 financial year, the INSETA embarked on various initiatives to promote employment in the insurance sector to learners. These initiatives included distribution of a career guide to all schools in South Africa. Furthermore, the INSETA collaborated on the career guide for the Insurance Sector produced by RISKSA. In addition, the INSETA exhibited at various expos organised by DHET and other provincial departments, including Sci-Bono which is a one week initiative where Gauteng learners are exposed to careers in the mathematics and science fields. At the expo, learners were given talks by experts about careers in the insurance sector.

INSETA also established partnerships with public FET colleges who already have a rural footprint in order to capacitate them to deliver insurance-related training in rural areas.

LGSETA

The LGSETA has identified a number of external stakeholders with whom they would like to communicate, including organised labour, employers, training providers, skills development facilitators, workplace training committees, and LGSETA learners, interns and bursary holders. The objective of the communication is dissemination of information on learnerships as well as the mandate of the LGSETA, among other things.

MAPPP SETA

Continuous communication with stakeholders of the MAPPP SETA was maintained through roadshows and workshops conducted by the ETQA division of the SETA. It is unclear though whether these roadshows also incorporated the marketing of scarce and critical skills in the sector to learners and students.

MERSETA

The MERSETA developed and distributed more than 20 000 brochures and pamphlets on learnerships and similar opportunities to dozens of schools. In addition, promotional and informational material was available at all expos and exhibitions that the MERSETA attended.

The MERSETA took part in the following career exhibitions:

Table 14: MERSETA Exhibitions: 2009/10

Career Expo	Venue	Date
Career Day	Middelburg Country Club	4-6 May 2009
Career Day	Sekhukhune District Office	5 May 2009
InKunzi IseMatholeni Career Expo	iNkandla	6 June 2009
Start Here Campaign 2009	Hammanskraal Temba (Tshwane North College)	12 June 2009
Masobye Career Expo Day 2009	Pankop Community Hall in Hammanskraal	13 June 2009
Skills Development Workshop	Moletsi Mosate	15 June 2009
I Can Foundation, "Careers of the Future"	Hatfield Christian Church	16 June 2009
National Science Week	Kroonstad	3-4 August 2009
merSETA Career Choice Day	Thohoyandou, Limpopo	5 August 2009
National Science Week	Welkom	6-7 August 2009
Engineering career week	Coca-Cola Dome	10-14 August 2009
Career Expo	Thoyandou	24 August 2009
SDF Forum	Polokwane Country Club	25 August 2009
Cell C career expo	North West: Mabe's Kraal	27 August 2009
Cell C career expo	Kwazulu-Natal: Ngcolosi Pinetown	1 September 2009
Cell C career expo	Eastern Cape: Lusikisi	4 September 2009
Cell C career expo	Free State : Thaba Nchu	8 September 2009
Cell C career expo	Northern Cape : Kimberley	11 September 2009
Cell C career expo	Limpopo : Tzaneen	15 September 2009
Cell C Career Expo	Skiroro	15 September 2009
Cell C career expo	Mpumalanga - Piet Retief	18 September 2009
Mogale City Career Expo	Krugersdorp	18 September 2009
Mass Induction	Capricorn FET College	13-14 November 2009
Provider Forum	Cape Town Convention Centre	26 November 2009

Source: MERSETA Annual Report 2009/10

MQA

In the 2009/10 financial year, the MQA sought to increase its interaction with stakeholders through roadshows, exhibitions, conferences and one-on-one meetings. Furthermore, they also improved partnerships with a number of organizations including the Diamond Council, Jewelry Council, South African Women in Mining and the Mine Health and Safety Council.

A career brochure and DVD were developed. The brochure is meant to assist learners to obtain information about career options in the sector. It was distributed to learners in towns and rural communities and the MQA reported that it was well-received.

The events in which the MQA participated include roadshows where the SETA informed the sector of its achievements and projects for the coming financial year. Community roadshows also took place to ensure engagement with rural communities in mining areas, as well as to communicate career options in the mining industry to both learners and teachers. Career workshops using the MQA brochure were held for mining-related organizations such as Lonmin in the North West, Burnstein Mines in Mpumalanga, the Chamber of Mines, and Anglo Gold. In addition, the National Union of Mineworkers (NUM) also used the brochure to support some of their events. An International Literacy Day event was held on 12 September 2009 and was hosted by the MQA and NUM and supported by Palaborwa Rio Tinto. More than 1 000 community members attended this event.

Other exhibitions attended in the 2009/10 financial year include the following:

- The Eastern Cape Skills Indaba, 26 and 27 February 2010
- Lonmin Career Day, 2 and 3 June 2009
- Department of Mineral Resources Learner Focus Week, held in East London from 6 to 10 November 2009
- Human Resources Development Exhibition, held at Sandton Convention Centre from 12 to 14 August 2009
- Beatrix Mine Career Exhibition, held at Gold Fields Beatrix Mine on 4 June 2009
- Department of Labour Youth Day Campaigns in Limpopo, 12 June 2009
- Working World Extravaganza in Port Elizabeth, 10 to 13 March 2010
- Annual Soweto Career Expo, 23 and 24 March 2010

In addition to the above, the MQA increased its pool of independent SDFs to ensure support for companies in the sector, and furthermore continued with training for both independent and company-based SDFs.

SASSETA

The SASSETA participated in a number of industry-specific exhibitions, including career fairs and youth events included in the table below:

Table 15: SASSETA Exhibitions, Career Fairs and Workshops: 2009/10

Target market	Nature of event	Description of Event	Region	Year
CORP	Exhibit	SABC Career Faire	Free State	2009
SAPS	Graduation	Learnerships	Gauteng	2009
PS	Graduation	ABET	KZN	2009
CORP	Exhibit	SABC Career Faire	KZN	2009
SAPS	ISOE	ISOE awards celebration	All Saints	2009
SAPS	ISOE	ISOE awards celebration	Bishop Lavis	2009
SAPS	ISOE	ISOE awards celebration	Eastern Cape	2009
DOD	Graduation	DOD ABET Graduations	Gauteng	2009
SAPS	ISOE	ISOE awards celebration	KZN	2009
SAPS	ISOE	ISOE's	Western Cape	2009
CORP	Exhibit	Rural Women Workshop	Eastern Cape	2009
CORP	AGM	SASSETA Annual General Meeting	National	2009
SAPS	Graduation	Graduation Traffic Control	Gauteng	2010
SAPS	NVC	Safety Patroller Graduation	Eastern Cape	2010
DOD	Certification	New Venture Creation	Eastern Cape	2010
LEGAL	Graduation	Graduation Legal Interpreters	Free State	2010
SAPS	Graduation	Graduation New Venture Creation	Gauteng	2010
SAPS	Graduation	Young Enterprising Professionals (YEP's)	National	2010
SAPS	Graduation	Graduation SAPS	North West	2010
CORP	Conference	Provincial Skills Development	North West	2010
CORP	Conference	Tomorrow's Leaders Convention	National	2010
CORP	Road Show	SDF Road Shows (9 Provinces)	National	2010

Source: SASSETA Annual Report 2009/10

SERVICES SETA

Over 5 000 learners participated in various skills expos hosted by the SERVICES SETA. Around 300 bursaries and learning opportunities were made available by member companies of the SERVICES SETA to some of these learners. Like other SETAs, the SERVICES SETA strengthened its partnership with FET Colleges in the 2009/10 financial year.

TETA

TETA hosted awareness workshops and roadshows in all nine provinces. At these roadshows, participants were able to discuss issues relating to learnerships, skills programmes, registered qualifications, company skills planning and reporting, accreditation of training providers, special projects such as Adult Basic Education and Training (ABET) and SMMEs, among others. TETA also took part in the following exhibitions:

- The InterSETA Forum which was attended by both TETA staff and its Board
- The Free State Skills Development Forum launch and exhibition
- The NEPAD Transport Expo and Awards
- The Skills and Training Summit

THETA

THETA has participated in the National Tourism Careers Expo (NTCE) since its inception in 2008. The expo brings together learners, educators and employers to share information and discuss careers in the tourism sector. The NTCE is targeted at school learners between Grade 10 and 12, as well as

learners at FET and HET institutions, unemployed graduates and educators. Importantly, the expo provided a platform for employers, training providers and learners to interact in a meaningful way. For instance, the expo includes a recruitment clinic where the recruitment process could be initiated.

In addition to the NTCE, the THETA also participated in the Limpopo Tourism Career Expo which was held from 25 to 27 February 2010 in Phalaborwa, Limpopo. This expo targeted Grade 10 to 12 learners, FET learners, educators, and unemployed graduates.

W&R SETA

Unlike other SETAs, the W&R SETA made a decision to train both SDFs and career guidance counselors at schools in the use of the Scarce and Critical Skills Guide. The W&R SETA distributed its updated Scarce and Critical Skills Guide to 1 220 beneficiaries, including SDFs and career guidance counselors working in schools and FET colleges across the country.

The W&R SETA launched a project called the Ikusasa schools project which aims to expose Grade 12 learners to career opportunities in the sector. The project was successfully piloted in the Western Cape in the previous financial year. It was subsequently rolled out nationally during 2009/10. A total of 1 800 learners were recruited nationally to participate in the project.

The W&R SETA runs a programme called the International Leadership Development Programme (ILDP). This programme gives international exposure to middle and senior managers (from leading local retailers) who have been earmarked for promotion to senior or executive management positions. The project was marketed to retail companies covered by the W&R SETA.

4.1.2. Media

AGRISETA

The AGRISETA placed advertisements in the NuFarmer newspaper which is published nationally. Furthermore, in focusing on the representation of women in the agricultural sector, an article and an advertisement were placed in the Rural Women Empowerment magazine. The publication covers the Agriculture, Agro Processing and Manufacturing sectors and is distributed in Mpumalanga, Limpopo, Eastern Cape, Free State, North-West and KwaZulu-Natal.

CETA

As a result of its national roadshows in May and June 2009, the CETA began to advertise in national and provincial newspapers. The CETA also utilised youth publications to communicate with young people interested in the construction sector.

CHIETA

The CHIETA has placed advertorials in national newspapers in the 2009/10 financial year, and intends to increase its visibility through the use of radio stations, business publications, television broadcasts, and an electronic newsletter.

ESETA

The ESETA has chosen to communicate its brand and services through the use of newspapers, magazines and flyers.

FASSET

FASSET received coverage in business publications, national and regional newspapers, community newspapers and web-based publications in the 2009/10 year. Most of the publicity obtained during the year was free publicity in publications such as the Star Workplace/Star Workplace Report, the Skills Portal, Witness Job Guide and Achiever magazine.

FASSET also advertised in youth-orientated media including Career Plant, Careers Unlimited, Learnerships SA, The Village Voice, the Mail and Guardian Youth Supplements, Skills Talk, SA Career Focus, Free-4-All, and a variety of in-house university publications.

FOODBEV SETA

The media presence of the FoodBev SETA was heightened during the year, with one of the employees of the SETA being hosted on Classic FM where she promoted the SETA's support for small businesses.

HWSETA

The HWSETA placed 101 advertorials and advertisements relating to health and social development issues in 32 magazines, newspapers and annuals.

INSETA

The INSETA maintained a presence in the media by providing editorial and advertorial content on a regular basis. Furthermore, several publications promoting the activities of the INSETA were published during the year.

MERSETA

The MERSETA utilised print, broadcast and online media to communicate with stakeholders. In addition, the reach of the SETA was broadened through the use of general branding in sector-related publications for stakeholders, particularly in the automotive, plastics, engineering and tyre manufacturing industries. In addition, the MERSETA magazine for stakeholders – Achieve – was produced quarterly. Finally, a MERSETA corporate profile was produced and circulated to around 5 000 stakeholders.

MQA

The media profile of the MQA grew in the 2009/10 year as a result of an aggressive media campaign run by an external service provider. The campaign focused on increased advertorials and face-to-face interventions. The latter included a media breakfast to allow the MQA to engage with journalists covering the sector.

Sixteen articles and more than 43 advertisements were placed in national newspapers and magazines in the course of the year. This campaign served to inform both stakeholders and the general public

about skills development interventions in the mining and minerals sector. In addition, magazines such as Mining News, Mining Weekly, Mining Mirror, Aspire magazine, Opportunity, Ubuntu magazine, Jewellex Networking Directory, Business Times, Gauteng Directory and Learnerships in SA were used to inform the sector and potential learners about the sector and careers available in the sector.

SASSETA

The SASSETA decided to make use of print advertising and radio commercials in order to communicate directly with its target markets. A national radio campaign to promote brand awareness was planned for implementation in the second quarter of 2010.

TETA

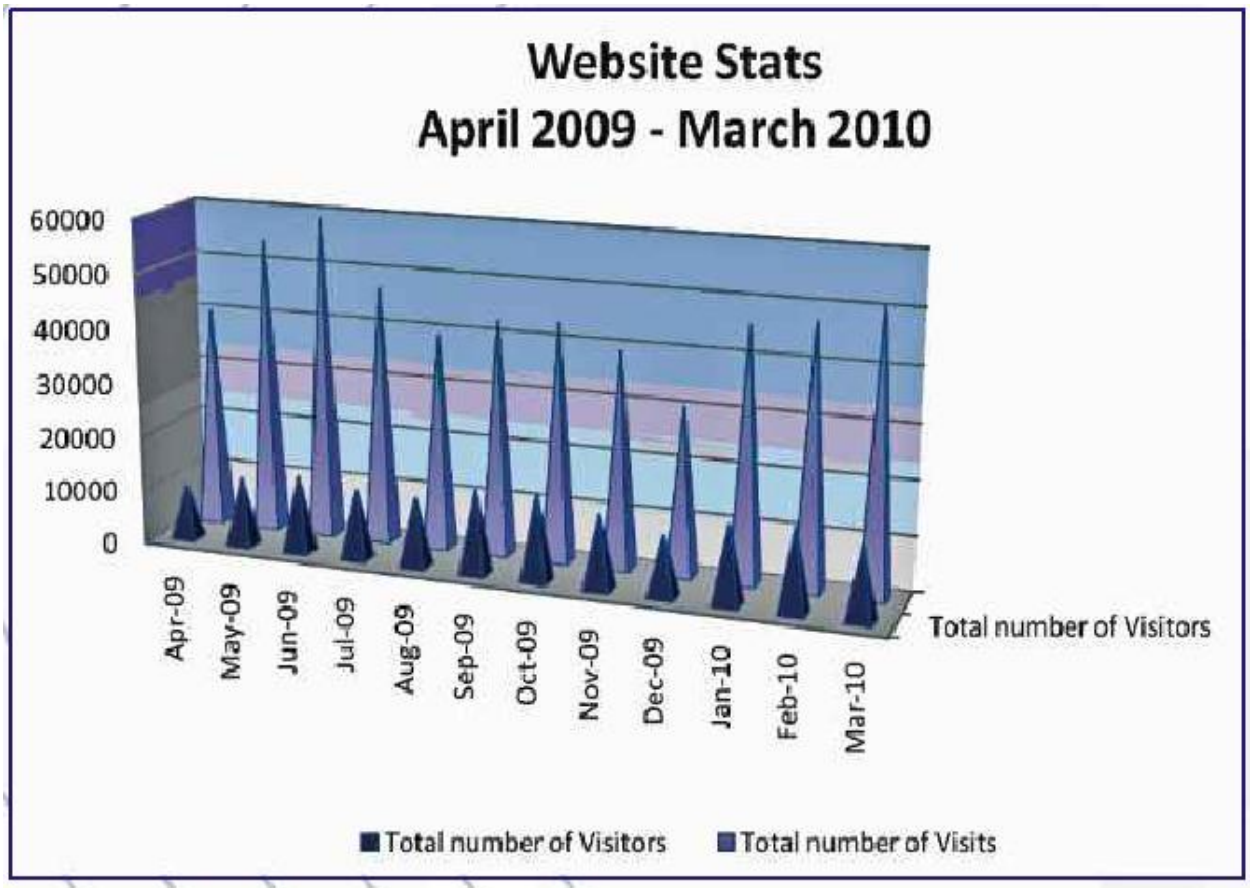
TETA placed adverts and advertorials in a variety of newspapers and magazines including City Press, The Star, FOCUS, Succeed magazine, Truck & Bus, Railways Africa, Transport World-Africa, CEO magazine, Transport Weekly, Sowetan, and Transport News. The aim of using the media was to enhance the image of TETA as well as to publicize its activities, achievements, projects, grants submissions and events.

4.1.3. Online Communication and Call Centres

AGRISETA

Skills programmes and learnership applications were advertised on the AGRISETA website. In addition, the website was used to communicate with stakeholders. The following graph gives an indication of the use of the website:

Graph 1: AGRISETA Website Traffic: 2009/10



	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10
Total number of visitors	9992	12835	14266	12849	12685	15506	16077	13618	11193	14463	15461	13832
Total number of visits	40520	54294	59209	47140	39533	43061	43771	39637	30870	46129	47632	51574

Source: AGRISETA Annual Report 2009/10

CETA

The CETA utilised email to communicate pertinent matters to stakeholders that have access to email facilities. Furthermore, improvements were made to the CETA website, in order to provide better communication services for the end-user. It is anticipated that changes to the website will allow the organization to reach a wider audience.

ESETA

The ESETA identified its website as a key tool in its communication with the sector. To this end, it has revamped its website, adding different functionalities. This includes interfacing the website with

some key areas of the management information system. Further upgrades to the website are planned for 2010/11.

FASSET

The FASSET website remains one of its most important methods of communication with stakeholders, particularly since the sector is generally highly literate and technologically advanced. During the year under review, the average number of visitors to the website was around 29 thousand a month, while the average number of visits was around 74 thousand.

FOODBEV SETA

The FOODBEV SETA produced a monthly eFocus bulletin and a quarterly newsletter titled FOODBEV Focus.

HWSETA

Between October 2009 and March 2010, the HWSETA sent out monthly electronic newsletters to stakeholders.

INSETA

The INSETA regards its website as one if it's most important communication tools. The graph below shows the level of traffic accessing the SETA website.

Table 16: INSETA Website Traffic: 2009/10

Web information	Apr 2009	May 2009	June 2009	July 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	Jan 2010	Feb 2010	Mar 2010
Total Number of Visitors	12 302	14 341	19 072	16 179	15 501	16 437	19 223	18 712	14 291	17 949	18 332	18 907
Total Number of Visits	41 165	44 365	65 269	52 493	41 811	45 947	57 601	61 532	43 770	49 576	51 943	52 561
Average Hits per day	9 580	9 248	13 454	10 790	8 613	9 760	11 749	12 469	7 927	10 982	13 241	11 224
Average Page views per day	1 372	1 431	2 176	1 693	1 349	1 532	1 858	2 051	1 412	1 599	1 855	1 696
Average Number of User Sessions per day	410	463	636	522	500	548	620	624	461	579	655	610

Source: INSETA Annual Report 2009/10

MAPPP SETA

The MAPPP SETA launched a more effective and interactive website during the 2009/10 financial year.

MQA

The MQA is continuing to promote the use of its website as a source of information for both existing and potential customers. The website is also used for registration for MQA conferences and events. During the financial year, 141 903 users visited the website.

PSETA

The PSETA undertook the following activities to promote registered learning programmes in scarce skills and other areas in the sector:

- Developed and distributed learning programme brochures
- Participated in a number of exhibitions
- Issued communiqués about registered learnerships and skills programmes
- Updated learning programme guidelines and communicated availability to stakeholders
- Participated in a career expo in support of Cell C's "Take a Girl Child to Work" initiative
- Uploaded the scarce and critical skills list on the Employment Services of South Africa's system.

Furthermore, the PSETA also strengthened its relationships and co-operation with other government-related SETAs such as SASSETA, for example, by participating in the Public Service Trainers Forum. The PSETA accepted the role of coordinating the activities of government-related SETAs.

The PSETA is a member of a number of provincial growth and development forums, and thus participates in forum activities in Limpopo, the North West and Mpumalanga.

SASSETA

The SASSETA uses digital marketing to increase market response to newspaper advertisements as they feel it is a cost-effective and personal means of communication with stakeholders. Furthermore, the SASSETA website is being re-engineered to incorporate online video streaming, daily site updates, measurable marketing campaigns and rapid downloads of eBrochures and publications. The provision of links to other service providers such as national and local government sites, financial institutions and industry experts is aimed at building positive and co-operative relationships.

The SASSETA considers its call centre the customer care hub of the organization for all stakeholders, including learners and students.

4.2. Case Studies of SETA activities

The case studies of SETA activities are based on interviews with selected SETAs. SETAs were chosen based on three criteria: 1) prominent sectors of employment in the economy; 2) prominent scarce skills identified in the 2008 National Scarce Skills list; and 3) performance data on SETAs as documented in the Singizi (2007) study. Appendix 2 shows the information used to choose the SETAs to be interviewed. The following SETAs were selected to be interviewed: CETA, CHIETA, ETDP SETA, FASSET, HWSETA, MERSETA, SERVICES SETA, and W&R SETA.

We interviewed the ETDP SETA, MERSETA, W&R SETA and FASSET on the 6th and 7th of December 2010, and conducted interviews with the HWSETA and CETA on the 25th of January 2011. Despite numerous attempts, we were unable to secure interviews with CHIETA and the SERVICES SETA in the timeframe required by the project. The discussions with the selected SETAs mainly revolved around their target markets, activities and resources to communicate scarce

skills. We note that information gleaned from the SETAs in the interviews does not only relate to the 2009/10 financial year, but may also cover activities to the end of 2010.

4.2.1. CETA

Resources and Activities

SDFs attached to companies covered by the CETA are mainly responsible for communication of scarce skills in the sector. The CETA thus continuously conducts workshops on scarce skills in the sector with the SDFs.

Further information dissemination interventions used by the CETA include annual roadshows and exhibitions. The CETA also attends career fairs at universities, and is in contact with bursary departments at HET institutions. At present, the CETA collaborates with eight HET institutions. The CETA is also trying to forge closer working relationships with FETs and has set an annual target of providing bursaries to 300 learners at FET institutions. Furthermore, scarce skills information is also disseminated to learners/students/graduates who visit the regional offices of the CETA.

The CETA has compiled a career guide for the 2008-2010 period and this, together with a "mini-guide" on learnerships in the sector, is distributed when necessary. The CETA gave us a copy of the career guide. It contains the following: a sector profile; a career profile (showing careers in the construction sector, and training providers); scarce and critical skills in the construction sector; and a note on SDFs. Further to the guides, the SSP is uploaded onto the CETA website and is thus available to all.

The Bursary Department of the CETA communicates scarce skills to schools. Furthermore, bursaries are advertised in SADTU publications. The CETA aims to provide bursaries to 250 learners annually. The CETA does not at present have the human resources available to visit schools, but does, however, distribute leaflets, career guides, and brochures to schools.

Finally, the CETA places advertisements in newspapers (national, regional, and community) to educate the general public about available training opportunities.

Challenges

- The minimum requirement of mathematics at a matric level to study engineering at an HET institution limits the ability of the CETA to attract large numbers of learners into scarce skills in the sector. Furthermore, the CETA is also competing with other SETAs to attract learners with matric mathematics and other appropriate science subjects.
- The CETA struggles to market and award bursaries to learners from rural areas.
- There is a high drop-out rate and low pass rate for some scarce skills qualifications in the sector. The SETA thus feels that the initial pool of learners/students to be attracted into scarce skills qualifications in the sector has to be larger than in other sectors.

Budget

The budget for SDF training derives from discretionary funding, while roadshows are funded through the administration budget.

4.2.2. ETDP SETA

Resources and Activities

The interviewee noted that since only a small proportion of education training providers in the sector is registered to pay levies to the SETA, this SETA is possibly under-resourced compared to other SETAs. Limited funding can therefore be allocated to marketing activities. The SETA thus attempts to reach learners and students through its constituent members, who provide information on scarce skills to the public.

For instance, the ETDP SETA is involved in a special programme with the Gauteng Department of Education to raise the profile of teachers in order to encourage learners to become teachers. In addition, the ETDP SETA also trains career facilitators at FET colleges in order to raise awareness and educate learners about scarce and critical skills in the sector.

The ETDP SETA held imbizos in eight of the nine provinces, and around a thousand Grade 12 learners attended the imbizos in each province. At these imbizos, skills guide booklets were distributed, and about 650 learners in each province were supported to enter learnerships. Annual, the ETDP SETA also takes part in a variety of exhibitions upon invitation. For example, the ETDP SETA was invited to exhibit at a Career & Job Fair exhibition hosted by the South West Gauteng College. The exhibition was held in March 2011 in the Soweto, Ennerdale, Orange Farm and Diepsloot areas. The target market was unemployed graduates, Grade 11s, Grade 12s, and matriculants. The ETDP SETA was invited to exhibit free of charge at this career fair and was given a 3x3m stand, free publicity (media attended the event), and a free database of all schools. In addition, the SETA was invited to a number of other exhibitions, but does not have a record of the exhibitions attended. The ETDP has assigned a representative to every province, and this person represents the SETA at career exhibitions.

The ETDP SETA distributes a career guide for learners at exhibitions. It outlines scarce and critical skills in the sector, as well as bursaries and learnerships that learners can apply for. Learners are also given scarce skills information when they visit SETA offices. Finally, the SETA also advertises in the media to reach learners.

Challenges

- The interviewee noted that the fact that many schools no longer have dedicated career guidance teachers is problematic. He felt that it would perhaps be more worthwhile to train career guidance teachers rather than reach out to school learners. The interviewee also noted that it may be necessary to reach school learners earlier than Grade 12 in order to allow them to make better informed career choices.
- The ETDP SETA noted that is it difficult to disseminate information to the unemployed.

- The SETA feels that aside from dispensing career advice, it is also necessary to be able to assess students and learners in order to ascertain if they may be suited to a career in the ETDP sector, and to perhaps steer them in a direction that is most suited to them.
- Since the sector is dominated by small providers, the SETA noted that in order to reach out to a maximum number of training providers it has to bring them together in one venue. This sometimes presents a logistical challenge.

Budget

The interviewee noted that budgets for communication of scarce skills are spread across various departments and, furthermore, are captured in different line items in the financial statements. For example, workshops on scarce skills are funded from the administration budget and this includes the cost of the venue, catering, and printing of documents. The human resource cost of marketing exercises is however much higher and difficult to quantify.

4.2.3. FASSET

Resources and Activities

FASSET's dissemination of information on scarce and critical skills is targeted at two distinct groups, namely employers and learners. Although Indicator 1.2 of the NSDS II focuses on the number of SDFs or sector specialists trained, FASSET also utilises professional bodies such as the South African Institute of Chartered Accountants (SAICA) and the South African Institute of Professional Accountants (SAIPA) to disseminate information to employers.

In addition to training on scarce skills, company SDFs also receive quarterly electronic newsletters outlining numerous issues including scarce skills in the sector. In addition to newsletters, SDFs receive scarce skills information through email and annually when the SSP is updated. FASSET also provides training to SDFs when legislative changes occur; these opportunities are then utilized to present information on scarce and critical skills to SDFs.

The second target group is learners, specifically graduates at universities. The objective is to recruit learners to enroll in learnerships in the Accounting, Tax and Auditing fields. These learners are generally only targeted from NQF level 5 upwards. FASSET also participates in exhibitions at universities, and visits campuses every August to market scarce skills learnerships in the sector. Furthermore, FASSET employs Brand Ambassadors. These ambassadors represent FASSET at universities and distribute career information at exhibitions on campuses. FASSET also advertises scarce skills through university publications such as the Limpopo Leader, Career Planet, Black Moon and Student Village.

Graduates currently enrolled in FASSET learnerships are reached via the learner e-zine, and social media such as Facebook. FASSET generally does not utilise television and radio advertising.

Two years ago FASSET launched a marketing campaign targeted at learners at the school level in order to develop the learner pipeline. A career video was distributed to about 1 000 schools in 2010. In addition, schools are targeted through articles or adverts in other publications. Furthermore,

FASSET co-sponsors Olympiads for learners. Schools are also targeted through the Sci-Bono exhibition and other initiatives such as a national careers campaign by DHET. FASSET has found, however, that some career exhibitions are too general and require too many resources, particularly human resources. The SETA therefore prefers to focus on attracting graduates from universities rather than school learners.

FASSET has developed a "mini-guide" for those interested in careers in the sector covered by the SETA. The "mini-guide" provides background on the financial services sector, and gives the reader information on choosing a career generally and in the financial sector specifically. Most importantly, the guide also outlines the following: professions in the sector; the study path to achieve qualifications for these professions; professional bodies under which professions fall; scarce skills; and learnerships in the sector.

In addition, FASSET produced a pamphlet on learnerships which outlines the following: what a learnership is; the parties to a learnership; how to participate in a learnership; why learnerships are important; and 22 learnerships offered by FASSET. The pamphlet invites readers to contact FASSET to obtain further information regarding any of these learnerships and provides a hotline number and FASSET contact details. The SETA also publishes a career guide for learners called FASSET 101 which details the following: what FASSET is; scarce and critical skills in the sector; what a learnership is; and how scarce skills in the sector can be addressed through FASSET learnerships. Furthermore, the guide provides some advice to students on how to choose a career in the financial services sector and illustrates the study paths to different careers in the sector. FASSET distributes the "mini-guide", learnership pamphlet, and career guide at exhibitions and other events.

Challenges

- FASSET noted that the dissemination of information is not solely the responsibility of the SETA's marketing department. In order to make interactions with learners and students most useful, professionals from the sector are required to attend career exhibitions, and these exhibitions are typically quite intensive in terms of time. The human resource cost of attending exhibitions, particularly exhibitions of a very general nature, is thus sometimes too high.
- FASSET feels that targeted exhibitions are much more useful than general career fairs in communicating information on scarce skills in the sector.

Budget

All publications are produced using the marketing budget.

It is not possible to estimate a budget for the human resources required to participate in exhibitions and other presentations.

4.2.4. HWSETA

Resources and Activities

Annually, upon completion of the Sector Skills Guide, HWSETA hosts a forum where training on scarce and critical skills is provided. All SDFs linked to the SETA are invited. Since these SDFs are often independent consultants, the HWSETA also invites staff members from companies who submitted WSPs.

The HWSETA has only recently started communicating scarce skills by working with HET and FET institutions. Specifically, the marketing department of the HWSETA takes part in careers fairs and exhibitions at these institutions. However, since the environment within which the HWSETA operates is highly regulated and registration of learners with relevant councils is critical, the HWSETA mainly collaborates with its constituent councils. Contact with learners and students in the sector is therefore mainly through councils and professional bodies and the HWSETA has very little direct contact with learners.

The HWSETA has produced a Health and Social Development career guide for learners. The guide provides information on the following: the sector; learnerships in the sector; scarce and critical skills in the sector; contact information for the councils; National Health Awareness Days for 2010; and HWSETA contact information. Importantly, the guide highlights that the HWSETA does not select, recruit or engage with learners directly but that this is done through employers. It advises learners to first prepare a one-page CV indicating, among other things, the learnership the learner is interested in and the reason for the interest, and to then contact the HR department of the relevant organization. These guides are distributed at exhibitions and other events.

Scarce skills information is also posted on the websites of councils.

Challenges

- The HWSETA only receives around 1 100 WSPs from more than 29 000 registered organizations. As a result, the Sector Skills Guide only provides an indication of scarce and critical skills in the sector, as it is based on such as relatively small number of WSPs.
- In addition, the low number of levy-paying organizations in the sector means that the HWSETA's ability to service the sector may be more constrained than for other SETAs.
- Since the environment within which the HWSETA operates is highly regulated, the HWSETA mainly works through its constituent councils.

4.2.5. MERSETA

Resources and Activities

A range of people and departments within the MERSETA are involved in communicating and marketing scarce skills in the sector. These include the Bursary Department, the Communications and Marketing Department, the Events Department, and the Project Manager for Career

Development. At present, the SETA targets learners, educators (specifically mathematics, technology and science teachers), and FET colleges.

The MERSETA does not necessarily regard the career guide as a good tool for communicating scarce skills; instead they feel that engaging directly with learners is more worthwhile. In practice, the MERSETA found that the career guide was not very well utilised. They thus took a decision to produce little pamphlets or "mini-guides" on each of the five scarcest skills in the sector. These "mini-guides" are distributed at career exhibitions, and have been very well-received. (This is demonstrated by the fact that they have been reprinted five times.) For example, the MERSETA's "mini-guide" for Sheet Metal Workers is divided into the following sections: 1) What do Sheet Metal Workers do?; 2) What skills and abilities are required?; 3) What duties and tasks will I have to perform?; 4) What can I do to get myself involved before leaving school?; What are the minimum entry requirements?; 5) How do I apply for training?; and 6) What are the working conditions like? The "mini-guide" is small and short, and appropriately illustrated, thus making it user-friendly. Overall, the guide is very useful and well-presented.

In communicating scarce and critical skills in the sector, the MERSETA initially focused on youth who have completed secondary schooling. They are now however also targeting youth from as early as Grade 9. The aim is to encourage learners choosing subjects at the Grade 10 level to continue with mathematics and science subjects, so that they have the option of choosing qualifications and ultimately careers which require matric mathematics and/or science. For instance, the MERSETA supports the STAR schools programme which promotes science and mathematics at the school level. The MERSETA feels that the Life Orientation subject at the school level should become examinable and more practical. For instance, learners should be able to compile a professional CV when they leave school. Furthermore, they feel that career guidance itself should be considered an occupation, to ensure that career guidance counselors are well-equipped to deal with the important task of advising learners about future careers.

The MERSETA feels that skills communication forms part of broader career guidance and development. Put differently, they feel that learners need to be educated about all their options, and the requirements for each option, in order to enable them to make an informed career choice. Furthermore, the MERSETA also feels that before choosing fields of study, learners should be encouraged to determine their own strengths and weaknesses. The SETA therefore ha a broader approach to information dissemination than perhaps other SETAs are. The MERSETA also encourages youth to engage in voluntary activities. They feel that volunteering at companies will help youth obtain a better idea of different types of work, and furthermore, would also help them gain a better understanding of the type of work they may be suited for.

The MERSETA takes part in around 20 exhibitions each year, including the Sci-Bono exhibition, the Job Fair (for graduates), and the SA Women in Engineering initiative. To make career information dissemination more practical, the SETA ran a flagship "try-a-skill" exhibition. At this exhibition, member companies set up demonstrations of different skills/occupations and learners were encouraged to practically "experience" these trades. The MERSETA plans to expand these types of

exhibitions in 2011. They also plan to link this "try-a-skill" type of exhibition with trade shows so learners can experience motor and auto trades. The MERSETA thus favours exhibitions which are tailor-made for audiences.

The MERSETA also took part in, among others, the following exhibitions:[11]

- A Youth Day careers fair in the Vaal Triangle in 2010 to celebrate Youth Day by exposing young people to career opportunities in the science, engineering and financial sectors. The event attracted around 1 000 learners from high schools in the Vaal area as well as rural high schools in the Free State. Learners at the exhibition could interact with exhibitors and find out about careers in the science, engineering and finance fields.
- MERSETA took part in the 10th SABC Career Fair which attracted around 8 000 learners in Gauteng. At the fair, the MERSETA interacted with learners around career choices and disseminated information on careers and opportunities in the manufacturing and engineering sector.
- MERSETA took part in a Mandela Day career fair hosted by the Department of Higher Education and Training (DHET) at Letaba FET College in Giyani in Limpopo.
- MERSETA took part in the South African Women in Engineering Conference. The keynote speaker was the Chairperson of MERSETA, Ms Jeanne Esterhuizen. She emphasized both the importance of studying/recruiting into engineering fields, as well as retention in the field. The Technical Project Co-ordinator, Cindy Jade Africa, spoke about the establishment of GirlEng to encourage young girls to enter the field.

To disseminate scarce skills information, the MERSETA also established collaborative working relationships with other organizations. For instance, the MERSETA has a Memorandum of Understanding with the National Youth Development Agency (NYDA), where it utilises the NYDA's systems, infrastructure and projects to reach target audiences. Furthermore, the MERSETA is also working with the South African Qualifications Authority (SAQA) to utilise its hotline facilities to market scarce and critical skills in the sector to learners. It intends to train SAQA staff to disseminate information on MERSETA scarce and critical skills, so that call centre operators at SAQA would be able to give all relevant information to learners who call in to the hotline.

With its focus on the pipeline, practical exhibitions, and collaborative relationships the MERSETA seems to have adopted a more holistic approach to disseminating career information than other SETAs. In the next five years, the MERSETA intends to focus on workshops with learners and career guidance/life practitioners, and collaboration between SETAs, particularly with regard to rural outreach, in order to bring down the costs of exhibitions and interventions in rural areas.

[11] Details of these exhibitions were obtained from the Achieve magazine (September 2010, Issue 9). It should be noted that these exhibitions took place in 2010, while the information presented in section 4.1.1 was taken from the 2009/10 Annual Report and thus includes activities which mainly took place in 2009.

4.2.6. W&R SETA

Resources and Activities

In marketing and communicating scarce and critical skills in the sector, the W&R SETA targets schools (learners), career guidance counselors, training providers, SDFs (attached to companies), and independent SDFs (who are essentially consultants). The SETA is involved in a number of activities to advertise and promote scarce skills in the sector, including national workshops with SDFs, career guidance counselors, and training providers. Furthermore, the W&R SETA pays independent SDFs to assist in informing companies about scarce and critical skills.

The W&R SETA has developed a training guide for its workshops with SDFs, career guidance counselors and training providers. It is comprehensive and provides information on the following: the landscape of the SETA; scarce and critical skills in the sector; and study/learning programmes for those scarce and critical skills. Furthermore, at the end of the guide contact numbers for the W&R SETA offices and a questionnaire enquiring about the usefulness of the guide and training are included. The guide thus appears to be quite comprehensive and useful in conjunction with the training. In addition to the training guide, the W&R SETA has produced a CD with information on career paths and qualifications. An impact assessment conducted by the W&R SETA showed that respondents were happy with the training guide/CD and training sessions, and they felt it contributed to their knowledge of the wholesale and retail sector and led to personal and social benefits. Furthermore, respondents noted that they shared information with a wide variety of people, thus potentially resulting in an increase in the number of people choosing careers in the sector.

In addition to the training outlined above, the W&R SETA is also involved in other projects involving learners and students. An example of a specific project of the W&R SETA is the WEEG project. This is a national project that is specifically targeted at introducing Grade 12 learners to the sector, and communicating scarce and critical skills in the sector to them. The intervention has been running for two years. The WEEG project has now been expanded to FETs.

The W&R SETA is targeting 10 000 schools in the new year (2011), and the focus is on learners from Grade 10 onwards. This is to ensure that career choices of learners are as informed as possible. Furthermore, the SETA intends to introduce bursary programmes for qualifications related to scarce and critical skills. The W&R SETA has in addition been invited to and participated in a variety of exhibitions and career guidance events, including for instance, the Soweto Festival targeted at youth and learners. In addition, the W&R SETA also participates in events and skills forums in each of the provinces, and furthermore works with provincial stakeholders like the Gauteng Retail Sector Forum. More recently, the SETA has also increased its outreach to FETs and schools in order to attract more learners into scarce skills occupations. At exhibitions and outreach events, the W&R SETA, in addition to interacting with learners and students, disseminates a career guide.

The career guide for learners is quite detailed and provides information on the following: an introduction to the sector (including scarce and critical skills in the sector); the environment within

which the SETA operates (including how the educations system interfaces with the SETA); and a guide towards planning a career. In the third section, the guide encourages learners to do a self-assessment, gain an understanding of the world of work, and then take steps to launch their career. The guide is practical and provides examples of CVs and cover letters, as well as potential interview questions. The fourth section of the career guide provides contact details for FET colleges, universities, the W&R SETA offices, other SETAs, and also points readers to other useful websites. Overall, the student guide is very well-presented and seems to include all important information.

Another popular programme of the W&R SETA is the International Leadership Development Programme (ILDP) which targets employed people who have been identified to receive support for further career development. These employees are enrolled onto the ILDP programme and travel to other countries to learn from international retailers in middle management.

The W&R SETA has a dedicated Marketing and Communications Department. This department publishes information on careers in the sector in newspapers and makes use of more than fifty radio stations. In addition, a percentage of the marketing budget is allocated to small, rural radio stations.

Challenges

The W&R SETA faces a number of challenges in marketing scarce and critical skills to learners and students in the sector. These include the following:

- A career in the retail sector is often not perceived as a career of choice, with the result that the W&R SETA has to be aggressive in communicating possibilities in the sector.
- Since FETs and HETs do not offer retail-specific qualifications but more generic business management qualifications, the SETA has to first prioritize the development of qualifications in scarce and critical skills areas. To this end, the W&R SETA is currently running a project to capacitate training providers to develop relevant qualifications. Furthermore, big retailers have begun to engage with HET institutions to develop programmes.
- The sector is dominated by employees without a matric qualification, and these learners require ABET training. Employees however, have a negative perception of ABET training; the SETA has therefore developed an education and training programme for adults. The uptake was huge, and more than 1 000 employees were expected to complete the training at the end of 2010.

Budget

Funding for the marketing and communication of scarce and critical skills derives from discretionary project grants as well as the administration budget. The SETA specifically budgets for the development of the career guide and the skills guide annually.

4.3. Summary of Activities

It is clear from the annual reports of SETAs as well as the case studies presented above that SETAs are involved in a variety of activities in order to disseminate information on scarce and critical skills in the sector. In addition, while SETAs ultimately target learners, students, the unemployed and others to study and thus take up employment in scarce skill areas, their efforts are aimed both

directly at these groups as well as indirectly at other parties involved in the information dissemination process. Other parties to which SETAs communicate scarce skills include career guidance counselors, training providers (HETs, FETs, Universities of Technology), employers, SDFs, industry players and professional councils, to name a few. Some SETAs have indicated that it is time-consuming and expensive to reach out directly to learners and students, with the result that they simply focus on indirect means of communication. Furthermore, some SETAs like the HWSETA work in a highly regulated environment which may perhaps force them to use indirect means more often than direct means, and specifically through the regulatory bodies.

Typically, all SETAs seems to provide training for SDFs. Fewer SETAs, however, train life orientation teachers and career guidance workers from schools to disseminate information on scarce skills in their sector. In addition, while some SETAs visit schools to provide information on careers in their sector, this exercise seems to be too costly and time-consuming for most SETAs to undertake. SETAs also target school-learners through career exhibitions and career fairs aimed directly at learners. While many SETAs target Grade 12 students, other SETAs such as the MERSETA target younger learners since it is critical that learners continue with mathematics and science subjects in order to pursue careers in the manufacturing and engineering sectors. Furthermore, the MERSETA has also pursued a particularly innovative and practical method of career information dissemination with its "try-a-skill" exhibition which it intends to expand in the future. Finally, some SETAs target school-learners through collaborative relationships and projects.

Students at universities, FETs and universities of technology are targeted through exhibitions, career fairs and roadshows. Furthermore, some SETAs train career guidance counselors at FET and other higher education institutions to disseminate scarce skills information to students on their behalf. In addition, many SETAs appear to have fostered collaborative relationships with higher and further education training institutions for a variety of reasons including to influence the curriculum and to distribute information on scarce and critical skills in the sector. Students are also targeted through university publications

In order to communicate with learners, students, career guidance counselors, and training providers, all SETAs appear to have created a career guide. A few SETAs have created smaller "mini-guides", since they feel that the longer and more comprehensive guides are not widely utilised. Finally, FASSET has created a career video which it has distributed at schools. While this is an innovative idea, it is unclear how useful such a video is to schools without adequate facilities.

Indirect communication of scarce skills information occurs through a variety of means, including SDF training, roadshows, conferences, and other events. In the case of SETAs such as FASSET (which works mainly with professionals in the financial sector) and HWSETA (which operates in a highly regulated environment) communication of scarce skills information also occurs through bodies such as SAICA and the South African Nursing Council (SANC). The MERSETA – and possibly other SETAs too – has created important collaborative relationships with organizations such as the NYDA, SAQA, and other SETAs. It would appear that these types of collaborative

relationships are critical, both in terms of sharing resources but also in order to provide a more coherent message to the target market.

Direct communication of scarce skills also occurs through different types of media, including local, regional and national newspapers, television and radio advertisements/programmes, sector-specific magazines, employment/skills/career magazines, and online media. Furthermore, SETAs such as the MQA have also used other means like a media breakfast to engage with journalists in the sector. Finally, direct communication of scarce skills also occurs through SETA call centres, the SETA websites and when people visit the SETA's offices.

All SETAs use their websites to communicate with a variety of stakeholders. Some SETAs such as FASSET also use electronic newsletters, e-zines, and other means of online communication such as Facebook to communicate with stakeholders. It seems though that SETAs which mainly represent professionals, are more likely to communicate via electronic means.

4.4. Challenges with Disseminating Information and Quantifying Dissemination

4.4.1. Challenges with Disseminating Information

In analysing annual reports and interviewing select SETAs about scarce and critical skills information dissemination, we have identified a number of challenges faced by SETAs. At the outset though, we note that SETAs continually disseminate this information in numerous ways, both directly and indirectly. Thus, while the target market to increase the number of workers in scarce skills is students/learners/the unemployed, scarce skills information is also communicated to various other constituencies, bodies, individuals, and forums and may thus reach the main target audience in a variety of ways. Below we expand on some of the challenges faced by SETAs in directly marketing scarce skills information:

Prioritization of stakeholder needs:

SETAs are responsible for a variety of functions and indeed some studies have argued that the mandate of the SETAs is too broad (see for instance, Singizi (2007)). While disseminating information on scarce and critical skills in the sector is indeed one of its responsibilities, some SETAs – particularly those who have a low number of levy-paying members – may give this task less priority. In effect, some SETAs merely approach this task with the view of achieving a positive score in its SLA, while not engaging in this activity meaningfully. To the extent that certain SETAs are heavily under-resourced compared to other SETAs though, it is perhaps unsurprising that this occurs.

Disseminating information through exhibitions and career fairs:

- Though this seems to be a popular method of information dissemination, SETAs identified various problems with disseminating information in this manner. More than one SETA noted that the time and expense costs associated with professionals attending exhibitions are too high.

They noted that professionals generally participate in exhibitions so that they can interact with learners/students in a meaningful way. Particularly where these career fairs and exhibitions are of a very general nature, SETAs feel that the results may not be worth the time and effort expended.

- More than one SETA noted that simply disseminating information on scarce skills within a sector is not a fruitful way of approaching career development. Some SETAs feel that a more holistic approach to career development should be taken, including assessment of the individual, considering the individual's strengths and weaknesses, and provision of information on a range of options that may suit the individual. Moreover, one SETA feels that individuals need to gain practical experience of possible future jobs before they make a choice, to enable them to make a decision based on practical experience.

Lack of career guidance counselors:

- Some SETAs noted that there is a lack of adequate staff, both at schools and at further and higher education training institutions, to counsel learners and students appropriately regarding career choices.
- In addition to SETAs marketing directly to target audiences, it would be useful for them to train career guidance personnel at schools and tertiary institutions.

Marketing through other stakeholders:

- Some SETAs prioritize reaching their target market through other stakeholders. For instance, one SETA explained that since the sector within which it operates is so regulated and requires learners to register with professional councils, the reach of the SETA is limited. While it does engage in some direct marketing to learners, it is forced to refer learners/students to the relevant professional councils since learnerships have to be directed through them.
- One SETA noted that it is dominated by small training providers, and that it is therefore necessary to bring providers together (in order to reach an optimal number of providers) prior to informing them of scarce and critical skills in the sector. This provides a range of logistical and administrative challenges

Reaching the unemployed:

One SETA noted that it is difficult to target the unemployed, and that most interventions are thus aimed at schools or tertiary institutions.

Not enough qualifications developed:

One SETA noted that though it has identified scarce skills in the sector, there are not enough qualifications offered by higher education institutions (HEIs) which are relevant to the sector. The SETA therefore has to prioritize developing qualifications in the sector.

Skills needs may not be clear:

More than one SETA indicated that the scarce and critical skills in the national skills list are only indicative of scarce skills in the sectors. Some SETAs implied that since they do not place that much value on the published numbers, they may try to simply market the sector rather than particular scarce skills.

Skills needs affect marketing strategies:

The sectors of some SETAs are dominated by professionals while the sectors of other SETAs are dominated by less-skilled workers. The skills-makeup of the sector thus often impacts on the nature of the marketing strategy, which in turn has cost implications. For example, a SETA like FASSET which is dominated by professionals, communicates mainly with graduates at HET institutions. In comparison, the MERSETA targets learners far earlier in the learning pipeline since it is imperative for the sector that a large pool of learners choose mathematics and science subjects in order to make it possible for them to consider a scarce skill profession in the sector. The marketing strategies of these two SETAs thus differ radically due to the nature of the sectors. The cost implications for these two SETAs are thus also quite different, with one being required to expend much more in terms of time and resources.

Late publishing of scarce skills guide:

One SETA noted that its scarce skills guide was published too late in the year to be of optimal use.

4.4.2. Challenges with Quantifying Dissemination and Quantifying Budgets for Dissemination Activities

In addition to the challenges experienced by SETAs with disseminating scarce skills information, as outlined in subsection 4.4.1 above, the project team encountered a number of challenges in measuring and quantifying information dissemination activities. As mentioned above, SETAs currently disseminate scarce skills information in a variety of ways and to a variety of stakeholders. Much of the direct and indirect information dissemination however does not appear to be documented, but is done on an ad-hoc basis. It appears as though many SETAs aim to meet the NSDS targets (specifically the number of SDFs trained) which are then reported, and over and above that, partake in a variety of other activities to disseminate scarce skills information. Since this information is often not documented, it was hard for the project team to get an accurate sense of information dissemination activities and strategies. Furthermore, upon speaking to SETAs, it was often clear that they had engaged in many more activities than they generally reported on.

Furthermore, it would appear that the SETAs partake in a number of projects in which they implicitly market scarce skills in the sectors. For instance, in marketing learnerships and bursaries, SETAs are indirectly marketing scarce skills qualifications. Our study does not take this into account, that is, we mainly concentrate on direct marketing of scarce skills.

On questioning SETAs about budgets related to scarce skills information dissemination, they noted that the direct costs are difficult to calculate since they are spread over different projects and initiatives and are therefore captured in different line items in the financial statements. Furthermore,

they also noted that the human resource cost of scarce skills information dissemination must be taken into account when considering the cost of information dissemination by SETAs. However, these costs, though large, are very difficult to quantify.

5. Enrolment in Fields of Study Related to Scarce Skills

In the previous section we considered all the activities undertaken by SETAs to communicate the information on scarce skills to all relevant roleplayers, including learners, students and graduates. The objective of this section is to examine whether more learners are choosing to enroll in fields of study related to scarce skills.

Before proceeding with the analysis, two challenges have to be highlighted. Firstly, it was a very difficult exercise to match the scarce skills listed in the National Scarce Skill List to fields of study. In fact, as discussed further below, only a limited number of occupations could eventually be matched with some level of certainty to Classification of Educational Subject Material (CESM) categories of major area of specialisation and qualification type.

Secondly, the analysis is limited to a discussion of changes in enrolment rates in fields of study which are related to the scarce skills in the economy. It is impossible to determine the *reasons* for any changes in the enrolment rates in these fields[12]. More specifically, it is impossible to conclude whether any changes in enrolment have been the result of the communication of the information on scarce skills to learners, students, graduates and other roleplayers such as guidance counselors.

5.1. Matching Scarce Skills with CESM Categories

In order to simplify matters, a decision was taken to only attempt to match skills (occupations) where the magnitude of scarcity was larger than 2,000 in the 2008 National Scarce Skill List with fields of study. This corresponded to 76 occupations, with the absolute number of skills required by the South African economy ranging from more than 20,000 Call and Contact Centre Workers to 2,000 Textile Cleaners. The results of this matching process can be found in Appendix 3.

Only 21 of the occupations considered to be scarce skills could be matched to CESM categories with some degree of certainty (These occupations and the corresponding CESM categories can be found in Appendix 4). Some of the matches could possibly be considered 100 percent accurate. For example, the occupation Accountants was matched with the CESM category "0410 Accounting". Certain occupations could be matched with more than one CEMS category. For example, the occupation Agricultural and Forestry Scientist was matched with the "0104 Animal Sciences", "0105 Horticulture", "0106 Plant Sciences", "0106 Soil Sciences" and "0109 Forestry". While these

[12] A question was included in the 2010 Apprenticeship Survey asking respondents to select their top three reasons for entering their specific apprenticeship. One of the reasons offered was "identified scarce skill". We were not able to gain access to the raw data from this survey and were therefore not able to do any substantive analysis of the results from the apprenticeship survey. However, the evidence from the data presented in the frequency tables provided to us, seems to suggest that only 3.8 percent of respondents entered their apprenticeship because it is an identified scarce skill. It should also be noted that this survey was restricted to learners registered for an apprenticeship and therefore the scarce skills referred to in the survey are limited to those which can be provided through apprenticeships.

matches were done using the four digit CESM codes, some of the matches were done using the two digit CESM codes. A range of education related occupations, ranging from Education Aides to Further Education and Training Teachers and Trainers, are considered to be scarce skills. While these are difficult to match accurately to the four digit CESM categories, we assumed that the majority of the qualifications required for these occupations fall under the broader two digit "07 Education" category, hence the trends in enrolment in the broad category were considered. The same reasoning was applied to occupations related to the health or medical fields. Here the enrolment trends in the "09 Health Care and Health Sciences" field were considered.

It should, however, be highlighted again that the occupations which we did manage to match with fields of study constitute only a small share of the total number of occupations on the scarce skills list. In addition to the occupations with magnitudes of scarcity of less than 2,000, 64 occupations with a magnitude of scarcity of more than 2,000 could not be matched with any degree of accuracy to a CESM category. For example, Call and Contact Centre Workers which accounted for the largest number of scarce skills in the 2008 list could not be matched to a field of study.

5.2. Trends in Enrolment in Fields of Study Matched with Scarce Skills

Finally, we consider the trends in enrolments at Universities and University of Technology in South Africa in the fields of study which could be matched with the scarce skill occupations. The absolute numbers for 2005 to 2009 are presented in Source: 2008 National Scarce Skills List; Department of Higher Education and Training. 2010. HEMIS3 Database; Own Calculations

Appendix 5. The growth rates in enrolments over the period (2006 to 2009) are shown below. The growth in aggregate enrolment (i.e. across *all* fields of study and not limited to those linked to scarce skills) is presented in the last line, while the average of the annual growth rates is given in the final column of the table.

The first key result here is that the majority of the fields of study (matched with scarce skills) experienced positive average growth in enrolment over the period 2006 to 2009. In fact, most of these fields experienced higher averages of annual growth rates in enrolment than at the aggregate level. The only exception is the negative trend in enrolment in Electrical Engineering and Technology. Enrolment in Social Work enjoyed the largest average growth rate, at 16 percent. In 2008, Welfare Support Workers were ranked at number two on the National Scarce Skills List, with a magnitude of scarcity of just more than 19,500. In addition, the Social Worker occupation was ranked at number 31 on the scarce skills list, with a magnitude of scarcity of 5,000. The positive trend in enrolment in the related field of study can therefore be considered a positive sign in light of the relative magnitude of scarcity of this skill. Other fields of study displaying an average of annual growth rates or more than 10 percent include Soil Sciences (albeit from a relatively low base), Marketing, Personnel Management and Administration, Graphics and Drafting for Engineering and Technology and Industrial Engineering and Technology. These qualifications were matched with the following occupations: Agricultural and Forestry Sciences, Advertising and Marketing Professionals, Human Resource Professionals, Electrical Engineering Draftspersons and Technicians, and Industrial, Mechanical and Production Engineer.

Table 17: Annual Growth Rates in Enrolments, 2006 – 2009

	2006	2007	2008	2009	Average
0104 Animal Sciences	15.3%	15.4%	-7.2%	-3.2%	5.1%
0105 Horticulture	-5.3%	6.8%	24.4%	-4.2%	5.4%
0106 Plant Sciences	6.4%	8.4%	-3.2%	16.1%	6.9%
0107 Soil Sciences	10.9%	-7.2%	34.9%	5.5%	11.0%
0109 Forestry	-2.8%	2.4%	6.6%	14.1%	5.1%
0401 Accounting	7.3%	0.6%	0.3%	2.3%	2.6%
0410 Marketing	22.3%	4.0%	8.5%	8.9%	10.9%
0411 Personnel Management and Admin.	22.5%	8.9%	11.9%	3.8%	11.8%
07 Education	-6.9%	8.0%	17.2%	10.2%	7.1%
0708 Special Education Programmes	18.7%	-21.8%	15.2%	3.0%	3.8%
0806 Civil Engineering and Technology	4.9%	5.9%	10.8%	8.5%	7.5%
0808 Electrical Engineering and Technology	-3.2%	-0.3%	3.9%	-4.3%	-1.0%
0809 Graphics and Drafting for Eng. & Tech.	-10.1%	16.3%	-53.8%	90.3%	10.7%
0814 Industrial Engineering and Technology	13.7%	5.7%	12.6%	13.6%	11.4%
0819 Mechanical Engineering and Tech.	-2.5%	5.0%	6.8%	7.7%	4.3%
09 Health Care and Health Sciences	-1.1%	3.0%	8.0%	5.2%	3.8%
0904 Pharmaceutical Science	-14.4%	9.2%	10.3%	6.1%	2.8%
2104 Social Work	30.5%	14.1%	7.2%	12.0%	16.0%
AGGREGATE	**0.9%**	**2.6%**	**5.1%**	**4.8%**	**3.3%**

Source: Department of Higher Education and Training. 2010. HEMIS3 Database; Own Calculations

When the trends in enrolment as presented by the consecutive annual growth rates are considered, no clear pattern is discernible. Many of the fields of study experienced a decline (or negative growth rate) in enrolment in at least one of the years under consideration. This means that fewer individuals enrolled in the specific filed in that year than in the previous year. There is also no evidence of successively higher growth rates over the period, which would have suggested progressively more learners choosing to enroll in these fields over the years.

Two key challenges should again be highlighted. Firstly, it is impossible to link the growth rates in the enrolments in these fields to any specific reason. Specifically, while the trends above do suggest increased enrolment in a small selection of fields of study which could be matched to scarce skills, it is impossible to conclude that this is as a result of the relevant SETAs' communication and dissemination of information on scarce skills. Secondly, due to the challenges experienced with matching the scarce skills occupations to actual fields of study, the trends in enrolments discussed above only relate to a very small share of the total number of scarce skills in the economy and cannot be taken to reflect trends in enrolments in qualifications linked to scarce skills in general or a the aggregate.

6. Conclusion and Recommendations

The primary aim of this study was to consider the dissemination of information on scarce skills by SETAs, and the resources available to SETAs to undertake this task. Prior to analyzing dissemination strategies however, we considered the magnitudes and types of scarcities reported in the 2007 and 2008 National Scarce Skills lists. We found that changes in absolute numbers of scarce skills between the two lists were primarily the result of changes in occupations included in the two lists. Typically, occupations with high numbers of scarce skills in the most recently published National Scarce Skills list (2008) were engineering and artisan-related occupations, education-related occupations, call centre operators, community and personal service workers (welfare support workers, nurses, security officers, dental assistants, funeral workers) and other science-related occupations. Furthermore, managers across a spectrum of occupations were also in short supply according to the list, while certain types of clerical and administrative workers, sales workers, machinery operators and drivers, and technicians and trades workers were also undersupplied. Perceived scarcities are thus widespread across a variety of occupations and industries.

We would like to once more highlight the following regarding the scarce skills numbers in the two lists. Firstly, changes in numbers between the two lists must be viewed with caution since these are primarily a reflection of the data used to compile the lists, including WSPs and sectoral studies. It is possible that the number of firms submitting WSPs might have changed (or the methodologies used in sectoral studies might have changed) between years. It is important therefore not to place too much emphasis on the absolute numbers presented in the lists. Secondly, a few SETAs noted in the interviews conducted as part of the study that they regarded the numbers published in the scarce skills lists as merely indicative of scarcities in the economy rather than accurate reflections of scarcities. It appears then that though scarce skills numbers give an indication of scarcities in the economy, one must keep the methodology used to compile the lists in mind when considering the numbers.

In terms of the resources of SETAs to determine scarce skills numbers, we note firstly that SETAs, by and large, have undertaken the level of SDF training agreed upon in SLAs. Furthermore, most SETAs, have produced scarce skills guides for their respective sectors. Many SETAs, however, noted that scarce skills information dissemination is not simply restricted to the training of SDFs, but that it is carried out much more widely and with many more role-players than just SDFs. These role-players include teachers, life orientation teachers, career guidance counselors, independent SDFs, and employees of companies. Furthermore, many SETAs have been innovative when producing scarce skills guides. The MERSETA, for instance, produced "mini-guides" for each of the top five scarce skills in the sector.

As far as budgets of SETAs to communicate scarce skills are concerned, we found the following. Firstly, some SETAs noted in the interviews that they are underfunded (compared to other SETAs) when considering the number of levy-paying organizations they service. The amount of levy income received thus impacts on, among other things, the ability of SETAs to effectively communicate scarce skills. Secondly, though we considered discretionary funding and administration and budget

expenditure of SETAs, a few SETAs noted in their interviews that it is not possible to accurately estimate the budget for (and actual expenditure on) marketing and communication of scarce skills since this activity forms a part of a range of other activities undertaken by SETAs. Furthermore, SETAs also noted that the human resource cost of attending career fairs and exhibitions is high, and furthermore, is not quantifiable. SETAs however feel that these costs need to be taken into account when considering the amount of time and money spent by SETAs to communicate the scarce skills list.

Thirdly, the nature of the sectors within which different SETAs operate impacts on their information dissemination strategies, which in turn has cost implications. Thus, while a SETA servicing mainly professionals may have a less resource-intensive strategy, another SETA servicing the engineering sector may have to target learners early in their secondary school careers to ensure that they continue with mathematics and science subjects up to matriculation level. For this latter SETA then, the amount of money spent on communication strategies may be much higher.

Finally, in considering activities used to communicate scarce and critical skills, we note that this task is carried out in a variety of direct and indirect ways. Direct activities include, for example, participation in career fairs and exhibitions, while indirect activities include, for example, training employers and training providers. Furthermore, communication of scarce skills is subsumed within various other activities, like the promotion of learnerships and bursaries. It appears then that scarce skills information dissemination is carried out to a variety of stakeholders in a variety of different ways, and importantly, that it is carried out almost continuously. Many of these activities are thus not reported on, or are reported on as part of other activities. It is difficult then to accurately quantify the activities that SETAs undertake to disseminate scarce skills. Finally, the discussion on activities in section 4 above shows that some SETAs are far more engaged with stakeholders in their sectors than other SETAs. Though this finding may be a result of a lack of data at our disposal, it appears that some SETAs are better managed in terms of information dissemination strategies than others.

Common activities undertaken by SETAs to directly communicate scarce skills include attendance of career fairs and exhibitions, and roadshows. Some SETAs however directly target learners at schools, while other SETAs have formed important collaborative relationships with, for instance, the NYDA, FETs, HETs and provincial DOEs. While many SETAs take part in exhibitions, some SETAs have been much more innovative in terms of the exhibitions they participate in. The MERSETA's "try-a-skill" exhibition is an example of this. Learners and students at this exhibition were encouraged to "experience" trades in a more hand-on approach.

As far as communication via the media is concerned, SETAs have utilised university publications, local, regional and national newspapers, television and radio advertisements/programmes, sector-specific magazines, employment/skills/career magazines, and online media. Furthermore, SETAs such as the MQA have also used other means like a media breakfast to engage with journalists in the sector. Finally, direct communication of scarce skills also occurs through SETA call centres, the SETA websites and when people visit the SETAs.

Challenges experienced by SETAs in disseminating information include the following: the fact that SETAs may be forced to prioritise spending on stakeholder needs and other activities, instead of information dissemination activities; the lack of career guidance teachers and counselors at schools, FETs and HETs; the fact that some SETAs operate in an environment within which there are insufficient qualifications developed to serve scarce skills needs; actual skills shortages have not been sufficiently quantified; and the fact that some SETAs operate in highly-regulated environments thus forcing them to rely on interaction through professional councils.

The above challenges do point to various opportunities for policy interventions. These interventions may however involve recommendations for changes to the SETAs' mandate, or reprioritizing of their key activities which the project team feel fall outside the scope of this report. Issues such as the lack of career guidance counselors and schools, FETs and HETs as well as the lack of qualifications linked to scarce skills in certain sectors require in-depth analysis of the various options available to address these challenges. We therefore focus on two key recommendations.

Recommendation 1

The national skills list is the key source of information which SETAs are expected to utilize when marking and communicating scarce skills to all relevant stakeholders. As highlighted in the report, other research, as well as some of the SETAs interviewed, has questioned the accuracy of the information on scarce skills presented in the SETAs SSPs, and by implication the accuracy of the information presented in the national skills list. The recommendation is that DHET should consider providing support to SETAs in the collection of the necessary data on scarce skills in their sectors. This can take the form of the introduction of a standard methodology for the collection of labour market data (specifically data on scarce and critical skills) by SETAs in their relevant sectors. This will not only improve the accuracy and quality of the national skills list, but will also enable a more accurate monitoring and evaluation of changes in skills shortages between lists. In addition, marketing and communication activities will be informed by more accurate information.

Recommendation 2

If the performance in terms of Indicator 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")* is to be effectively monitored; the actual outcome monitored should be reconsidered. The target related to indicator 1.2 is the number of SDFs trained annually, as agreed by each SETA in its SLA. In addition, some SETAs report on whether they have developed and published an annual scarce and critical skills guide, but this is not explicitly required under Indicator 1.2. The numerical count of SDFs trained, however, does not provide any information of the activities of the SDF in communicating scarce and critical skills to the relevant stakeholders. In fact, the activities of SDFs generally include much more than just the marketing of scarce and critical skills. On the other hand, most SETAs undertake a range of activities to disseminate scarce skills information but these are not reported under Indicator 1.2. Success in terms of Indicator 1.2 is therefor currently very difficult to measure since the official target is so narrowly focused on the

number of SDFs trained. It may be useful to include other targets such as whether a skills guide has been published and is available on the website. Alternatively, specific targets for participation in exhibitions or roadshows may also be considered, but should be informed by the sectoral scope and budgetary constraints of each SETA.

To conclude then, though our analysis provides a good indication of the activities of SETAs (and associated budgets) regarding dissemination of scarce skills information, we note that it does not provide a complete picture. It does appear that while some SETAs were not particularly successful in fulfilling this specific mandate, other SETAs appear to have been very innovative and forward-thinking in how they have approached the task of critical skills information dissemination, and these innovative interventions can serve as examples to be emulated by other SETAs in updating and improving their marketing and communication activities. Finally, we note that it is not possible given the data at our disposal to provide an analysis of whether marketing and communication activities of SETAs have directly resulted in an increase in the number of learners enrolling in scarce skills qualifications.

7. Appendix

Appendix 1: Scarce Skills List Changes, Disaggregated Categories and Occupational Groups: 2007 & 2008

DISAGGREGATED CATEGORIES	Occupational Grouping (2007)	2007 List Only		2008 List Only	
		No	Prop	No	Prop
MANAGERS					
Farm Managers	Crop Farmers	102,670	11%		
	Livestock Farmers	100	0%		
	Mixed Crop and Livestock Farmers	150,000	16%		
Construction, Distribution and Production / Operations Managers	Importers, Exporters and Wholesalers	300	0%		
Education, Health and Welfare Services Managers	Principals	350	0%		
	Other Education Manager	995	0%		
Small Business, Office, Programme and Project Managers	Small Business Managers	690	0%		
	Office, Unit and Practice Managers	690	0%		
Events, Hospitality, Retail and Service Managers	Amusement, Fitness and Sports Centre Managers	180	0%		
	Miscellaneous Hospitality, Retail and Service Managers			150	0%
Miscellaneous Specialist Managers	Safety and Security Managers			350	0%
	Other Specialist Managers			6,955	1%
PROFESSIONALS					
Arts and Media Professionals	Actors, Dancers and Other Entertainers			300	0%
	Visual Arts and Crafts Professionals			500	0%
	Miscellaneous Arts Professionals			100	0%
	Artist Directors and Media Practitioners and Presenters			500	0%
Financial Brokers	Financial Brokers			1,005	0%
Information and Organisation Professionals	Archivists, Curators and Records Managers			265	0%
	Intelligence and Policy Analysts	45	0%		
	LED Officers	500	0%		
	Miscellaneous Information and Organization Analysts			100	0%
	Librarians			200	0%
Architects, Designers, Planners and Surveyors	Fashion, Industrial and Jewellery Designers			965	0%
	Interior Designers	1,000	0%		

Engineering Professionals	Miscellaneous Engineering Professionals			185	0%
Natural and Physical Science Professionals	Agricultural and Forestry Scientists			6,175	1%
	Miscellaneous Natural and Physical Science Professionals			210	0%
Other Education and Training Professionals	Private Tutors and Teachers	230	0%		
	Teachers of English to Speakers of Other Languages	6,430	1%		
	Vocational or Occupational Instructors and Trainers	5,300	1%		
Health Therapy Professionals	Speech Professionals and Audiologists			450	0%
	Miscellaneous Health Therapy Professionals			100	0%
Social and Welfare Professionals	Counselors			1,215	0%
TECHNICIANS AND TRADES WORKERS					
Agricultural, Medical and Science Technicians	Other Miscellaneous Science Technicians			660	0%
Building and Engineering Technicians	Miscellaneous Building and Engineering Draftspersons and Technicians			990	0%
Manufacturing and Process Technicians	Manufacturing Technicians	280	0%		
	Power Plant Processing Technicians			110	0%
Fabrication Engineering Trades Workers	Metal Casting, Forging and Finishing Trades Workers			500	0%
Mechanical Engineering Trades Workers	Aircraft Maintenance Engineers	110	0%		
Floor Finishers and Painting Trades Workers	Painting Trades Workers			1,360	0%
Glaziers, Plasterers and Tilers	Glaziers			350	0%
	Roof Tilers			300	0%
Electrotechnology and Telecommunications Trades Workers	Domestic Radio and Television Mechanic	20	0%		
Food Trades Workers	Cooks	15	0%		
	Chefs			3,800	1%
Agricultural Produce Graders and Supervisors	Agricultural Produce Evaluators and Brokers	375	0%		
Animal Attendants and Trainers	Animal Attendants Trainers and Shearers			110	0%
Textile, Clothing and Footwear Trades Workers	Clothing Trades Workers			380	0%
	Upholsterers			300	0%
Wood Trades Workers	Cabinet Makers			3,100	1%
	Wood Machinists and Other Wood Trades Workers			300	0%
Other Technicians and Trades Workers	Boat Builders and Shipwrights	20	0%		
	Gallery, Library and Museum Technicians	150	0%		

	Machine Setters and Minders			1,175	0%
	Operational Process Controllers			100	0%
COMMUNITY AND PERSONAL SERVICE WORKERS					
Health and Welfare Support Workers	Enrolled and Mother Craft Nurses			10,110	2%
Hospitality Workers	Gaming Workers	340	0%		
	Waiters and Bartenders	1,285	0%		
	Hotel, Hospitality and Service Managers			200	0%
Defense Force Members, Fire Fighters and Police	Emergency and Fire Workers	500	0%		
	South African National Defense Force Members			350	0%
	Fire and Rescue Officers			890	0%
	Police, Detectives and Traffic Officers			200	0%
Prison and Security Officials	Security Officers			6,835	1%
Personal Service and Travel Workers	Travel Attendants			100	0%
	Miscellaneous Personal Service Workers			500	0%
CLERICAL AND ADMINISTRATIVE WORKERS					
Call or Contact Centre Information Clerks	Inquiry Clerks (inc Client Services Administrators)	40	0%		
Financial and Insurance Clerks	Financial and Insurance Clerks	85	0%		
	Bank Workers			180	0%
	Insurance, Money Market and Statistical Clerks	155	0%		
Other Clerical and Administrative Workers	Human Resource Clerks	20	0%		
	Inspectors and Regulatory Officers	2,000	0%		
	Insurance Investigators, Loss Adjusters and Risk Surveyors	230	0%		
Miscellaneous Administrative Workers	Debt Collectors			605	0%
	Other Miscellaneous Clerical and Administrative Workers			200	0%
SALES WORKERS					
Real Estate Sales Agents	Real Estate Agency Principals			100	0%
Sales Assistants and Salespersons	Motor Vehicles and Vehicle Parts Salespersons			270	0%
	Retail Supervisors			4,875	1%
Other Sales Support Workers	Checkout Operators and Office Cashiers			1,400	0%
	Models and Sales Demonstrators			6,300	1%

	Retail Buyers			5,980	1%
	Visual Merchandisers	500	0%		
MACHINERY OPERATORS AND DRIVERS					
Machine Operators	Paper and Wood Processing Machine Operators			800	0%
	Plastics and Rubber Production Machine Operators			2,610	1%
	Sewing Machinists			390	0%
	Miscellaneous Machine Operators			655	0%
	Chemical Production Machine Operators	900	0%		
Mobile Plant Operators	Agricultural, Forestry and Horticultural Plant Operators	2,000	0%		
	Other Mobile Plant Operators			675	0%
Automobile, Bus and Rail Drivers	Automobile Drivers			150	0%
	Train Drivers			800	0%
Store Persons	Store Persons			2,245	0%
ELEMENTARY WORKERS					
Cleaners and Laundry Workers	Housekeepers (Commercial)	200	0%		
	Carpet and Window Cleaners	900	0%		
Construction and Mining Workers	Insulation and Home Improvement Installers			485	0%
Food Process Workers	Food and Drink Factory Workers	1,680	0%		
	Meat Boners and Slicers, and Slaughterers	80	0%		
Factory Process Workers	Produce Packers and Handlers			310	0%
	Product Assemblers			1,915	0%
Other Factory Process Workers	Other Factory Process Workers	2,300	0%		
	Manufacturing Engineering Process Workers			3,000	1%
	Plastics and Rubber Factory Workers			785	0%
	Timber and Wood Process Workers			250	0%
Farm, Forestry and Garden Workers	Crop Farm Workers	180,000	19%		
	Livestock Farm Workers	40,000	4%		
	Forestry and Logging Workers			3,200	1%
Other Workers	Motor Vehicle Parts and Accessories Fitters			120	0%
	Printing Assistants and Table Workers			350	0%

TOTAL	503,665	54%	91,095	18%
	938,635	100%	508,810	100%

Source: 2007 National Scarce Skills list; 2008 National Scarce Skills list; Own Calculations

Notes: 1. Italicized Disaggregated Categories mark those Disaggregated Categories which, in totality, are only present in either one of the two lists.
2. It is not clear whether 'cooks' from the 2007 list and 'chefs' from the 2008 list refer to the same occupation.
3. The 2007 National Skills list has 10,100 Registered Nurses under Professionals, while the corresponding number in the 2008 List is 400. The 2008 list additionally has 10,110 Enrolled and Mother Craft Nurses under Community and Personal Service Workers.

Appendix 2: Data Used to Identify SETAs to be Interviewed

1) PROMINENT EMPLOYMENT SECTORS

[manufacturing, wholesale and retail trade, financial services, community services]

INDUSTRY	NUMBER	PROPORTION
Agriculture, Forestry & Fishing	1041	7.82%
Mining and Quarrying	432	3.25%
Manufacturing	**1757**	**13.20%**
Electricity, Gas and Water Supply	98	0.74%
Construction	1054	7.92%
Wholesale and Retail Trade	**2936**	**22.06%**
Transport, Storage & Communication	696	5.23%
Financial & Other Related Services	**1482**	**11.14%**
Community, Social and Personal Services	**2560**	**19.24%**
Private Households	1196	8.99%
Total	13307	100.00%

Source: LFS 2007:2
Note: 1. Bolded figures indicate prominent employment sectors.

2) PROMINENT SCARCE SKILLS FROM THE NATIONAL SCARCE SKILLS LIST 2008

[SERVICES SETA, HWSETA, ETDP SETA, W&R SETA, CETA, MERSETA, TETA]

OCCUPATIONS (2008 List)	NO	NOTES FROM THE DOL COMPARISON OF 2007 and 2008 LISTS	SETAS RESPONSIBLE
Call or Contact Centre Workers	20,185	large increase in demand reported by SERVICES	CHIETA, ISETT, **SERVICES,** TETA
Welfare Support Workers (inc Community and Youth Workers)	19,545	HWSETA reporting scarcity for enrolled nurses – previously reported as professional	ETDP, **HWSETA**, LGSETA, MQA, SASSETA
Special Education Teachers	13,885	ETDP SETA has adjusted demand at FET colleges by some 10,000 and 5,000 at higher education levels	BANK, **ETDP**, HWSETA, ISETT, MERSETA, MQA, W&R SETA
Industrial, Mechanical and Production Engineer	12,665	doubling demand (chemical engineers), treble demand, (electrical engineers), 800% increase in demand (electronics engineers, industrial engineers). MERSETA reporting across occupation groupings for first time. *DPE demand across all traditional engineering disciplines is related to energy projects.*	AGRI, BANK, **CETA**, **CHIETA**, **ESETA**, FOODBEV, HWSETA, ISETT, LGSETA, MERSETA, **MQA**, **PSETA**, TETA
Earthmoving Plant Operators	10,355	demand more than doubled – CETA and SERVICES; quantified demand from FIETA	**CETA,** CHIETA, FIETA, LGSETA, MQA, **SERVICES,** TETA
Enrolled and Mother Craft Nurses	10,110	HWSETA reporting scarcity for enrolled nurses – previously reported as professional	ETDP, **HWSETA,** LGSETA, MQA, SASSETA
Pharmacists (inc Pharmacist Assistants)	10,030	slight increase in demand	CHIETA, **HWSETA,** LGSETA, MQA
Medical Technicians (inc Laboratory Technicians)	10,000		AGRI, CHIETA, CTFL, FIETA, FOODBEV, **HWSETA,** LGSETA, MQA
Optical Laboratory Assistants	10,000	quantified scarcity available for the first time from some SETA (CTFL, FIETA)	CHIETA, CTFL, FIETA, FOODBEV, HWSETA, MAPPP, MERSETA, MQA, W&R SETA
Further Education and Training Teachers and Trainers (inc Schooling and FET College lecturers)	9,365	ETDP SETA has adjusted demand at FET colleges by some 10,000 and 5,000 at higher education levels	BANK, **ETDP,** HWSETA, ISETT, MERSETA, MQA, W&R SETA
Training and Development Professionals (incl. Skills Development Facilitators)	9,260	2,000 increase for Human Resource Advisors and 7,000 increase in demand for Training and Development Professionals linked to SETA imperatives to increase training participation rates	BANK, CHIETA, ETDP, FASSET, ISETT, MERSETA, MQA, TETA, W&R SETA
Purchasing and Supply Logistics Clerks	9,235	W&R SETA demand for Warehouse Administrators – shift on OFO code usage. *DPE demand identified for procurement and stores/stock clerks*	BANK, CHIETA, FIETA, ISETT, MERSETA, **W&R SETA**

Truck Drivers	9,125	Over 6,000 demand for truck drivers reported by TETA	CHIETA, FIETA, LGSETA, MQA, **TETA**
Metal Fitters and Machinists (inc Mechanics)	8,340	CHIETA and MERSETA significant increases in demand for Fitters and Metal Machinists; *DPE demand related to energy projects high in these skills as well*	AGRI, CETA, **CHIETA,** CTFL, ESETA, FOODBEV, ISETT, **MERSETA,** MQA, TETA
Bricklayers and Stonemasons	7,225	CETA reflecting increase of additional 1000 bricklayers. *DPE demand figures for bricklayers over 4,000 and over 500 for carpenters for energy projects*	**CETA**, MQA
Intermediate and Senior Phase School Teacher:	7,155	ETDP SETA has adjusted demand at FET colleges by some 10,000 and 5,000 at higher education levels	BANK, **ETDP,** HWSETA, ISETT, MERSETA, MQA, W&R SETA
Other Specialist Managers (Includes Environmental, Arts and Culture, Office and Quality Managers	6,955	OFO restructured	AGRI, CHIETA, FIETA, FOODBEV, ISETT, LGSETA, MAPPP, MERSETA, SERVICES
Engineering Production Systems Workers (inc Metal Machine Setters)	6,860	*DPE identified demand for plant operators linked to energy projects*	CETA, CHIETA, ESETA, FOODBEV, MAPPP, **MERSETA**
Security Officers	6,835	SASSETA reporting detailed security industry data	**SASSETA**
Concreters (inc Shutterhands)	6,685	doubling of demand for structural steel construction workers and new demand recorded for surveyors assistants. *DPE identifying demand for concretors and building insulators linked to energy projects*	**CETA,** CHIETA, FIETA, MQA
Models and Sales Demonstrators	6,300	new demand reporting and OFO changes, eg. Retail buyers	INSETA, ISETT, W&R SETA
Early Childhood (Pre-primary School) Teachers	6,260	ETDP SETA has adjusted demand at FET colleges by some 10,000 and 5,000 at higher education levels	BANK, **ETDP,** HWSETA, ISETT, MERSETA, MQA, W&R SETA
Agricultural and Forestry Scientists	6,175	increase in demand – inclusion of this by MERSETA and *DPE demand for environmental scientists and professionals linked to energy projects*	**AGRI,** CHIETA, **FIETA,** FOODBEV, HWSETA, LGSETA, MERSETA, MQA, THETA, W&R SETA
Chemistry, Food and Beverage Technicians	6,145		AGRI, **CHIETA,** CTFL, FIETA, **FOODBEV,** HWSETA, LGSETA, MQA
Retail Buyers	5,980		
General Clerks	5,625	SASSETA giving though demand figures – previously illustrative	CHIETA, FASSET, HWSETA, MAPP, MQA, SASSETA, SERVICES, TETA, W&R SETA
Electricians (inc Armature Winders)	5,315	MERSETA and TETA figures significantly increased from previous years	AGRI, CETA, CHIETA, **MERSETA,** MQA, **TETA**
Electrical Engineering	5,145	increase in scarcity identified for electrical technicians SETAs. *DPE*	AGRI, CETA, CHIETA, FIETA, FOODBEV,

Draftspersons and Technicians		*demand for all engineering technicians related to energy projects. DME absolute scarcity for MINING Inspectors*	INSETA, ISETT, LGSETA, **MERSETA,** MQA, SERVICES, TETA
Medical and Laboratory scientists	5,000	increase in demand – inclusion of this by MERSETA and *DPE demand for environmental scientists and professionals linked to energy projects*	AGRI, **CHIETA,** FIETA, FOODBEV, HWSETA, LGSETA, **MERSETA,** MQA, THETA, W&R SETA
Medical Imaging Professionals	5,000	slight increase in demand	CHIETA, HWSETA, LGSETA, MQA
Social Workers	5,000	slight increase in demand	CHIETA, ETDP, FASSET, **HWSETA,** INSETA, LGSETA, MAPPP, PSETA
Dental Assistants	5,000	no change	**HWSETA**

Source: 2008 National Scarce Skills List; DOL Comparison of Lists (2008)

Notes: 1. Analysis only done for occupation representing more than 5 000

3. The bolded SETAs represent in some cases the actual SETA responsible for the scarcity, and in other cases, the SETA(s) most likely responsible for most of the scarcity.

3) DATA USED FROM SINGIZI (2007) REPORT

	RATING FOR QUALIFICATIONS REGISTERED FOR AGAINST SCARCE SKILLS	PERCENTAGE OF TRAINING RELAETD TO SCARCE SKILLS
AgriSETA		analysis not possible in terms of data available
BankSETA	100	84%
CETA	25	22%
CHIETA	100	78%
CTFL	25	9%
ESETA	25	27%
ETDP SETA	100	100%
FASSET	100	100%
FIETA	25	analysis not possible in terms of data available
FOODBEV	100	98%
HWSETA	87.5	73%
INSETA	25	analysis not possible in terms of data available
ISETT		analysis not possible in terms of data available
LGSETA	75	60%
MAPPP		analysis not possible in terms of data available
MERSETA	75	74%
MQA	25	23%
PSETA	25	17%
SASSETA	75	analysis not possible in terms of data available
SERVICES		analysis not possible in terms of data available
TETA		analysis not possible in terms of data available
THETA	100	87%
WRSETA		analysis not possible in terms of data available

Source: Singizi Report (2007)

Appendix 3: Matching of Scarce Skills Occupations to CESM Categories

Broad Occupation Category	Occupation	No	Second Order CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	Call or Contact Centre Workers	20 185	Cannot be linked to CESM Category
COMMUNITY AND PERSONAL SERVICE WORKERS	Welfare Support Workers (incl Community and Youth Workers)	19,545	2104 Social Work
PROFESSIONALS	Special Education Teachers	13,885	0708 Special Education Programmes
PROFESSIONALS	Industrial, Mechanical and Production Engineer	12,665	0814 Industrial Engineering and Technology
			0819 Mechanical Engineering and Tech.
MACHINERY OPERATORS AND DRIVERS	Earthmoving Plant Operators	10,355	Cannot be linked to CESM Category
COMMUNITY AND PERSONAL SERVICE WORKERS	Enrolled and Mother Craft Nurses	10,110	09 Health Care and Health Sciences
PROFESSIONALS	Pharmacists (incl. Pharmacist Assistants)	10,030	0904 Pharmaceutical Science
TECHNICIANS AND TRADES WORKERS	Medical Technicians (incl. Laboratory Technicians)	10,000	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Optical Laboratory Assistants	10,000	Cannot be linked to CESM Category
PROFESSIONALS	Further Education and Training Teachers and Trainers (incl. Schooling and FET College lecturers)	9,365	07 Education
PROFESSIONALS	Training and Development Professionals (Inc. Skills Development Facilitators)	9,260	07 Education
CLERICAL AND ADMINISTRATIVE WORKERS	Purchasing and Supply Logistics Clerks	9,235	Cannot be linked to CESM Category
MACHINERY OPERATORS AND DRIVERS	Truck Drivers	9,125	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Metal Fitters and Machinists (incl. Mechanics)	8,340	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Bricklayers and Stonemasons	7,225	Cannot be linked to CESM Category
PROFESSIONALS	Intermediate and Senior Phase School Teacher:	7,155	07 Education
MANAGERS	Other Specialist Managers (Includes Environmental, Arts and Culture, Office and Quality Managers	6,955	Cannot be linked to CESM Category
MACHINERY OPERATORS AND DRIVERS	Engineering Production Systems Workers (incl. Metal Machine Setters)	6,860	Cannot be linked to CESM Category
COMMUNITY AND PERSONAL SERVICE WORKERS	Security Officers	6,835	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Concreters (incl. Shutterhands)	6,685	Cannot be linked to CESM Category
SALES WORKERS	Models and Sales Demonstrators	6,300	Cannot be linked to CESM Category
PROFESSIONALS	Early Childhood (Pre-primary School) Teachers	6,260	07 Education
PROFESSIONALS	Agricultural and Forestry Scientists	6,175	0104 Animal Sciences
			0105 Horticulture
			0106 Plant Sciences
			0107 Soil Sciences
			0109 Forestry
TECHNICIANS AND TRADES WORKERS	Chemistry, Food and Beverage Technicians	6,145	Cannot be linked to CESM Category
SALES WORKERS	Retail Buyers	5,980	Cannot be linked to CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	General Clerks	5,625	Cannot be linked to CESM Category

TECHNICIANS AND TRADES WORKERS	Electricians (incl. Armature Winders)	5,315	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Electrical Engineering Draftspersons and Technicians	5,145	0808 Electrical Engineering and Technology
			0809 Graphics and Drafting for Eng. & Tech.
PROFESSIONALS	Medical and Laboratory scientists	5,000	09 Health Care and Health Sciences
PROFESSIONALS	Medical Imaging Professionals	5,000	Cannot be linked to CESM Category
PROFESSIONALS	Social Workers	5,000	2104 Social Work
COMMUNITY AND PERSONAL SERVICE WORKERS	Dental Assistants	5,000	Cannot be linked to CESM Category
SALES WORKERS	Retail Supervisors	4,875	Cannot be linked to CESM Category
MANAGERS	Retail Managers (incl. Post Office Managers)	4,830	Cannot be linked to CESM Category
SALES WORKERS	Sales Assistants (General)	4,575	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Bakers and Pastrycooks	4,490	Cannot be linked to CESM Category
COMMUNITY AND PERSONAL SERVICE WORKERS	Funeral Workers (incl. Funeral Directors)	4,250	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Motor Mechanics	4,205	Cannot be linked to CESM Category
PROFESSIONALS	Foundation Phase School Teachers	4,200	07 Education
MANAGERS	Advertising, Marketing and Sales Managers	4,045	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Structural Steel and Welding Trades Workers (incl. Boilermakers & Welders)	4,045	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Civil Engineering Draftspersons and Technicians	3,960	0806 Civil Engineering and Technology
PROFESSIONALS	Human Resource Professionals	3,885	0411 Personnel Management and Admin.
ELEMENTARY WORKERS	Commercial Cleaners	3,815	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Chefs	3,800	Cannot be linked to CESM Category
COMMUNITY AND PERSONAL SERVICE WORKERS	Education Aides	3,540	07 Education
MANAGERS	Call or Contact Centre Managers	3,390	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Structural Steel Construction Workers	3,355	Cannot be linked to CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	Personal Assistants	3,260	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Forestry and Logging Workers	3,200	Cannot be linked to CESM Category
MACHINERY OPERATORS AND DRIVERS	Bus and Coach Drivers	3,190	Cannot be linked to CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	Contract, Program and Project Administrators	3,150	Cannot be linked to CESM Category
MANAGERS	Production / Operations Managers (incl. Mine Managers)	3,130	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Cabinet Makers	3,100	Cannot be linked to CESM Category
PROFESSIONALS	Advertising and Marketing Professionals	3,095	0410 Marketing
CLERICAL AND ADMINISTRATIVE WORKERS	Survey Interviewers	3,020	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Printers	3,000	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Manufacturing Engineering Process Workers	3,000	Cannot be linked to CESM Category
MANAGERS	Supply and Distribution Managers (incl. Logistics Managers)	2,950	Cannot be linked to CESM Category
PROFESSIONALS	Civil Engineering Professionals	2,940	0806 Civil Engineering and Technology

TECHNICIANS AND TRADES WORKERS	Plumbers	2,930	Cannot be linked to CESM Category
PROFESSIONALS	Software and Applications Programmers	2,890	Cannot be linked to CESM Category
MANAGERS	Contract, Programme and Project Managers	2,860	Cannot be linked to CESM Category
MANAGERS	Engineering Managers and Engineering Project Managers	2,770	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Other Construction, Mining and Metal Workers (esp. Riggers)	2,750	Cannot be linked to CESM Category
TECHNICIANS AND TRADES WORKERS	Architectural, Building and Surveying Technicians	2,705	Cannot be linked to CESM Category
MACHINERY OPERATORS AND DRIVERS	Plastics and Rubber Production Machine Operators	2,610	Cannot be linked to CESM Category
MANAGERS	Finance Managers Incl. Municipal Finance Managers and Audit Managers)	2,530	Cannot be linked to CESM Category
PROFESSIONALS	Electrical Engineer	2,485	0808 Electrical Engineering and Technology
PROFESSIONALS	Accountants	2,455	Accountants
TECHNICIANS AND TRADES WORKERS	Butchers and Smallgoods Makers	2,385	Cannot be linked to CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	Credit and Loans Officers	2,325	Cannot be linked to CESM Category
MACHINERY OPERATORS AND DRIVERS	Store Persons	2,245	Cannot be linked to CESM Category
PROFESSIONALS	Technical Sales Representatives	2,060	Cannot be linked to CESM Category
CLERICAL AND ADMINISTRATIVE WORKERS	Couriers and Postal Deliverers	2,000	Cannot be linked to CESM Category
ELEMENTARY WORKERS	Textile Cleaners	2,000	Cannot be linked to CESM Category

Source: 2008 National Scarce Skills List; Department of Higher Education and Training. 2010. HEMIS3 Database; Own Calculations

Appendix 4: Matches between Occupations in 2008 National Scarce Skills List and CESM Categories

Occupation in National Scarce Skills List 2008	CESM Category
Agricultural and Forestry Scientists	0104 Animal Sciences
Agricultural and Forestry Scientists	0105 Horticulture
Agricultural and Forestry Scientists	0106 Plant Sciences
Agricultural and Forestry Scientists	0107 Soil Sciences
Agricultural and Forestry Scientists	0109 Forestry
Accountants	0401 Accounting
Advertising and Marketing Professionals	0410 Marketing
Human Resource Professionals	0411 Personnel Management and Admin.
Further Education and Training Teachers and Trainers (incl. Schooling and FET College lecturers)	**07 Education**
Training and Development Professionals (Inc. Skills Development Facilitators)	
Intermediate and Senior Phase School Teacher:	
Early Childhood (Pre-primary School) Teachers	
Foundation Phase School Teachers	
Education Aides	
Special Education Teachers	0708 Special Education Programmes
Civil Engineering Draftspersons and Technicians	0806 Civil Engineering and Technology
Civil Engineering Professionals	
Electrical Engineering Draftspersons and Technicians	0808 Electrical Engineering and Technology
Electrical Engineer	
Electrical Engineering Draftspersons and Technicians	0809 Graphics and Drafting for Eng. & Tech.
Industrial, Mechanical and Production Engineer	0814 Industrial Engineering and Technology
Industrial, Mechanical and Production Engineer	0819 Mechanical Engineering and Tech.
Enrolled and Mother Craft Nurses	**09 Health Care and Health Sciences**
Medical and Laboratory scientists	
Pharmacists (incl. Pharmacist Assistants)	0904 Pharmaceutical Science
Welfare Support Workers (incl. Community and Youth Workers)	2104 Social Work
Social Workers	

Source: 2008 National Scarce Skills List; Department of Higher Education and Training. 2010. HEMIS3 Database; Own Calculations

Appendix 5: Enrolment in Fields of Study Matched with Scarce Skills, 2005 – 2009

	2005	2006	2007	2008	2009
0104 Animal Sciences	2 866	3 304	3 814	3 538	3 426
0105 Horticulture	1 254	1 188	1 269	1 578	1 511
0106 Plant Sciences	1 136	1 209	1 310	1 268	1 473
0107 Soil Sciences	407	451	419	565	596
0109 Forestry	248	241	247	263	300
0401 Accounting	88 062	94 530	95 125	95 390	97 613
0410 Marketing	10 260	12 550	13 049	14 157	15 423
0411 Personnel Management and Admin.	12 183	14 929	16 252	18 182	18 876
07 Education	105 825	98 476	106 365	124 690	137 467
0708 Special Education Programmes	3 740	4 439	3 470	3 997	4 117
0806 Civil Engineering and Technology	9 103	9 553	10 116	11 214	12 162
0808 Electrical Engineering and Technology	20 145	19 499	19 440	20 197	19 319
0809 Graphics and Drafting for Eng. & Tech.	390	350	407	188	359
0814 Industrial Engineering and Technology	2 758	3 136	3 316	3 735	4 243
0819 Mechanical Engineering and Tech.	9 136	8 911	9 360	9 999	10 765
09 Health Care and Health Sciences	45 346	44 861	46 193	49 868	52 439
0904 Pharmaceutical Science	2 253	1 928	2 105	2 322	2 463
2104 Social Work	6 196	8 085	9 228	9 895	11 081
Total Enrolment (ALL Fields at HEIs, not limited to scarce skills)	**735 073**	**741 380**	**760 889**	**799 490**	**837 779**

Source: 2008 National Scarce Skills List; Department of Higher Education and Training. 2010. HEMIS3 Database; Own Calculations

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