Developing a National Skills Forecasting Tool for South Africa

Annex D: Data Sources for National Skills Forecasting in South Africa: Strengths and Weaknesses - A Critical Assessment of Data Availability

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1. SOURCES OF LABOUR MARKET INFORMATION

Considerable confusion can arise when employment sources are directly compared, and found to be widely divergent. Different types of surveys measure different things and are useful for different purposes. They are not necessarily interchangeable as sources of information on employment. This section compares data from a variety of different sources.

1.1 Enterprise Based Surveys

One of the most common errors has been to report on total employment using establishment or firm-based surveys. Unless considerable care is taken with the design of both the sampling frame and the way that individual enterprises are selected, such surveys cannot be used to provide information on overall levels of employment although they can provide useful indicators of employment structure.

Firm Level Surveys of Employment and Earnings

Prior to 1998, Stats SA conducted 17 monthly or quarterly business surveys. In an effort to improve coverage and reliability and to reduce the respondent burden, in 1997 Stats SA consolidated and streamlined its firm surveys by replacing the various business surveys with:

1. The Survey of Total Employment and Earnings (STEE) which was later renamed the Survey of Employment and Earnings (SEE); and
2. The Survey of Average Monthly Earnings (AME).\(^1\)

The Survey of Employment and Earnings (SEE) is a quarterly survey covering a sample of 10,183 private and public enterprises in the formal non-agricultural business sector (those with a VAT turnover exceeding R300,000 per annum).

Prior to March 2003, Stats SA published the findings of the SEE as a “Discussion paper” (as opposed to a Release containing official data): it was aware that the survey had significant limitations because it did not collect information from the following industries:

- Agriculture, hunting, forestry and fishing;
- Restaurants and other eating and drinking places, boarding houses, caravan

\(^1\) A Survey of Occupations by Race and Gender was also planned but never got beyond the piloting stage.
parks and guest farms;

• Storage, water and air transport;
• Telecommunication services;
• Financial institutions other than banking institutions and insurance companies;
• Real estate and business services;
• Educational services;
• Medical, dental and other health services;
• Welfare organizations;
• Religious organizations; and
• Recreational and cultural services.

Given the limitations of the *SEE*, it is not surprising that any formal estimates of total employment are underestimated, as not all industries are covered.

Stats SA, in collaboration with the South African Revenue Services and the Departments of Trade and Industry and Labour, have now re-engineered the register of businesses and this now serves as the sampling frame (Stats SA, 2003). This new sample covers all the industries in the formal non-agricultural business sectors, i.e. all previously excluded industries mentioned above are now covered by the sample. Agriculture, domestic services and firms with a turnover of less than R300,000 (which would include most of the informal sector) remain outside the ambit of the *SEE*. This also allows for a wider coverage of occupations within these industries.

Figure 1 shows the firm-level employment data broken down by sector for the period 1995 to 2003. The change to the sampling frame in 2002 led to a break in the series, with a leap in the measured employment in “banks, insurance, real estate and business services”, wholesale and retail, and to a lesser extent in community services and construction. The change in sampling frame brought about substantial improvements in coverage in these sectors. The difference in levels of employment between 2001 and 2002 cannot be used to measure employment change over this period.
The Survey of Average Monthly Earnings (AME) is also a firm based survey and is run in conjunction with the Survey of Earnings and Employment (as discussed above). Its sample frame is similar to that of the SEE (prior to 2002) in that it only collects information from businesses in the formal non-agricultural business sector. This survey also does not collect any information from those industries mentioned above, i.e. the same industries that the SEE disregards prior to 2002. Any overall employment estimates from the AME will therefore underestimate the true total including those sectors not covered by the survey.

**Manpower Survey**

Since 1987, Stats SA has conducted the Manpower Survey on an annual basis. In 1996, the name of this survey changed to the Occupational Survey, which ran through to 1997. In 1998, it was replaced by the Survey of Occupations by Race and Gender, but this survey did not move beyond the initial piloting stage and was discontinued in 1998. The Manpower Survey (MS) was an enterprise-based survey covering private and public
enterprises in the formal non-agricultural business sector. It was conducted by mail and based on a sample of approximately 8,500 businesses/organizations. Agriculture, private households and the informal sector were excluded from the survey.

The MS covered enterprises in all eight non-agricultural major industrial groups and could be subdivided into further groups and sub groups according to the Standard Industrial Classification of all Economic Activities (SIC). This firm-based survey thus allowed for detailed desegregation by sector, yet accuracy and reliability of the data will drop as the 8 major industrial groups are examined in more detail. Estimates of occupational employment are also made for these industries, classified according to the International Standard Classification of Occupations (ISCO). This also allows for the desegregation of occupational employment by sector, yet once again the more disaggregated the analysis, the more unreliable the data become.

De Lange (1993: 53) disputed the accuracy of the Manpower Surveys, and claims that the “variability from one survey to the next is such that no useful trend information can be extracted for surveys after 1983”. This problem persists even when occupations are aggregated to a small number of major groups, “rendering these surveys essentially useless for establishing trends and making suspect any information extracted from a specific survey” (De Lange 1993: 64).

Whiteford et al, (1999), in their analysis of these data suggest that there were often inexplicable fluctuations in occupational employment that could have arisen from the following sources:

- **Respondents’ completing questionnaires incorrectly or interpreting the questionnaire differently over time.** This appears to be a particular problem in large corporations, such as Transnet and Telkom, where employment numbers in the MS seem to fluctuate considerably. For example, the 1983 MS reported that 309 electrical engineers were employed at Transnet during 1983. Two years later in 1985 the number decreased to 8 just to increase again in 1988 to 397. These figures, along with other questionable data contaminate the whole data set and render the analysis of trends over time extremely difficult.
• **Inadequate coverage of small enterprises.** The latter is a particular problem in the construction industry, where there has been a tendency for companies to reduce their employment complement and "contract in" skills in times of need. The MS indicated that there had been a consistent decline in the artisan share of employment in the construction sector, from 20.0% in 1965 to 11.7% in 1994. Rather than its being a reflection of a change in occupational composition, this was more probably a reflection of the fact that artisans were leaving existing construction companies and setting up their own businesses, which were not captured in the MS.

• **The exclusion of the TBVC2 states.** As these four homelands became independent, they were excluded from the MS. This could have had a significant impact on trends observed in the surveys, since the homelands had significant public service employment and substantial numbers of teachers and nurses, as well as other professionals, in their employ.

**SARS**

SARS refers to a database collected by the South African Revenue Service (SARS), and it consists of enterprises that are registered for tax purposes. This database is continually updated and downloads are created on a quarterly basis by SARS. This database collects information on both private and public sector enterprises, yet although there are some government enterprises registered, the data on these public enterprises are inadequate for analysis due to overly small sample sizes. (See Table 1 below).

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2 These were the independent homelands of Transkei, Bophuthatswana, Venda and Ciskei.
### Table 1: SETA Information

<table>
<thead>
<tr>
<th>SETA</th>
<th>NUMBER OF FIRMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FASSET (1)</td>
<td>12,406</td>
</tr>
<tr>
<td>BANKSETA (2)</td>
<td>1,879</td>
</tr>
<tr>
<td>CHIETA (3)</td>
<td>3,638</td>
</tr>
<tr>
<td>CTFL (4)</td>
<td>4,697</td>
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<tr>
<td>CETA (5)</td>
<td>18,991</td>
</tr>
<tr>
<td>DIDETA (6)</td>
<td>80</td>
</tr>
<tr>
<td>ETDPSETA (7)</td>
<td>8,056</td>
</tr>
<tr>
<td>ESETA (8)</td>
<td>3,578</td>
</tr>
<tr>
<td>FOODBEV (9)</td>
<td>4,761</td>
</tr>
<tr>
<td>FIETA (10)</td>
<td>3,562</td>
</tr>
<tr>
<td>HWSETA (11)</td>
<td>22,407</td>
</tr>
<tr>
<td>ISETT (12)</td>
<td>7,987</td>
</tr>
<tr>
<td>INSETA (13)</td>
<td>6,193</td>
</tr>
<tr>
<td>LGWSETA (14)</td>
<td>1,806</td>
</tr>
<tr>
<td>MAPPP (15)</td>
<td>9,982</td>
</tr>
<tr>
<td>MQA (16)</td>
<td>3,362</td>
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<tr>
<td>MERSETA (17)</td>
<td>31,202</td>
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<td>POSLECSETA (19)</td>
<td>6,281</td>
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<td>PAETA (20)</td>
<td>8,711</td>
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<td>PSETA (21)</td>
<td>126</td>
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<td>SETASA (22)</td>
<td>2,450</td>
</tr>
<tr>
<td>SERVICES (23)</td>
<td>57,224</td>
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<td>THETA (25)</td>
<td>12,911</td>
</tr>
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<td>TETA (26)</td>
<td>8,573</td>
</tr>
<tr>
<td>W&amp;RSETA (27)</td>
<td>33,320</td>
</tr>
</tbody>
</table>

*Source: own calculations on SARS database of February 2003*

The database supplied by SARS, as at February 2003 (the most recent readily available dataset at the time of writing), consisted of 274,183 establishments. It can be noted that this database is considered to be the most reliable indicator of the potential sampling frame of businesses that any other firm-level survey should attempt to cover.
1.2 Household Level Surveys

Household surveys
As a result of the unemployment debate of the mid-1970s, the Department of Statistics (which later became the Central Statistical Service and then Statistics SA) introduced the monthly Current Population Survey. For various reasons, not least the flaws in the sample design of the survey, this survey fell into disrepute and was abandoned in the late 1980s. After a gap of several years, the annual October Household Survey (OHS) came into existence in 1993, but excluded the TBVC states in the first year. The OHS had a detailed labour market module that covered a wide range of issues relating to formal and informal employment and unemployment. However, in order to fulfil the stringent reporting requirements of the IMF, in February 2000 Stats SA introduced a twice-yearly Labour Force Survey (LFS).

The household surveys (OHS & LFS) have a sample size of 30,000 households. Every individual over the age of 10 in the household is questioned about his/her employment status. The samples for the household surveys are drawn so as to be representative of the provinces or the four population groups. These surveys are discussed in more detail in the next section.

Some of the debate on employment figures relates to wide variations or seemingly sudden increases or decreases in labour force participation or economic activity. Since 1999 the household surveys (LFS) have tightened up methodologically in terms of taking a far broader view of what constitutes “employment” and the questionnaires have probed far more deeply for information on economic activity. As a result, the dramatic increases in measured employment between 1998 and 1999 and again between 1999 and 2000 are at least in part the result of methodological changes. The earlier OHS relied on self-described labour market status. For example, if a person described herself as a homemaker, she would be classified as “not economically active”. In the LFS, a long list of questions is asked to determine whether an individual is engaged in any form of gainful economic activity in the 7 days prior to the interview. To continue the example, if this same individual who regards herself as a homemaker had spent an hour tending to her vegetable patch in the previous week she would be classified in the LFS as “employed”. This may seem implausible as she is unpaid and doing informal ‘work’, yet she is still considered “employed” based on the LFS employment definition.
This increase in measured employment also has an effect on the labour force participation rate since some people who would have described themselves as economically inactive in the OHS would be classified as working (and thus economically active) in the LFS. It cannot be sufficiently overemphasized that the OHS total employment figures should not be compared directly with the LFS figures.

**Labour Force Survey (and the previous October Household Survey)**

In February 2000, Stats SA introduced the Labour Force Survey (LFS), to replace the OHS. Like its predecessor, the LFS is a household-based survey. The LFS collects information, twice yearly, regarding employed and unemployed persons in the formal AND informal business sectors. This new survey provides more detailed but similar information to the OHS.

The OHS was officially recognised in 1994 (including TBVC areas) and ran until 1999 collecting individual level data and household level data on the dynamics of employment and unemployment in South Africa per year. The LFS continues this analysis twice yearly and looks at these dynamics in a more in-depth manner.

For the LFS, Stats SA uses a rotating panel methodology to collect labour force statistics from households, in order to get a clear picture of the movements in and out of the labour market over time. This involves visiting the same dwelling units on a number of occasions (5 at most), and after this panel is established, replacing a portion of these dwelling units each time (approximately 20%). Each time new dwelling units are added to replace the old. This allows for longitudinal and cross-sectional analysis.

The first LFS took place in February 2000, and it was based on a probability sample of 10,000 dwelling units. Because of this limited sample size this is not an ideal data set to use for measuring occupational structure within sectors. The sample size was increased to 30,000 dwelling units in September of 2000. This enables a more detailed examination of occupational structure within sectors to be carried out. These same dwelling units from the first and second rounds were used for the third round in February 2001, but they were subsequently changed in September 2001 when a new sample of 30,000 dwelling units were introduced. The fifth round took place in February 2002, and it was then that the rotating panel was introduced.
There has been much debate over the wide variations or sudden increases or decreases in economic activity that these two surveys (OHS & LFS) seem to generate over time. For example, there are vast differences for employment figures between 1999 and 2000. These differences cannot wholly be attributed to changes in economic activity, but should rather be attributed to changes in methodology whereby the questionnaires for the OHS and LFS have been expanded to allow for better analysis of economic conditions. As a result, any dramatic increases in measured employment are due to methodological changes and thus are unreliable as an accurate estimate of the change in employment levels for that period. This can be said for the sectoral breakdown of these employment data as well. Nevertheless they may still provide some useful measures of structure at a point in time.

The fact that the LFS has a much more in-depth approach to determining employment figures compared to the OHS implies that these two household surveys are not directly comparable. This poses a problem with regard to analysing employment change over time, whether sectoral or occupational. One way of dealing with the problem of small sample size is to pool the data from more than one round of the survey. This can enable a more detailed occupation by industry employment matrix to be constructed than would otherwise be possible.

The target population for the LFS is all private households and residents in workers’ hostels. The survey does not cover institutions such as students’ hostels, old age homes, hospitals, prisons and military barracks. All the LFS results are based on a cross-sectional analysis at a point in time.

1996 and 2001 Population census
To date, there have only been two full population census of the whole of South Africa - in 1996 and 2001. These censuses asked a few simple questions about work status. Because only a small number of questions are asked, it is not possible to probe deeply for information about activities that might be regarded as “work” but which the respondent does not regard as such. Consequently one would expect a population census to underestimate employment.

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3 The 1991 Census used a technique called “sweeping” to estimate the population size of some parts of the country such as Soweto.
This is important. It must be remembered that questions about work are not always clear. For example, a broad question like ‘do you work’ might be answered ‘no’ if the respondent does not consider what she does as ‘work’, possibly because in her mind it is too marginal. However, her economic activity may nevertheless fit with the official definition of employment. More significantly for the South African case, these are the first national surveys that ask people about their livelihoods – this requires some self-awareness, and also awareness by survey designers about the possible character of non-formal economic activity. The post-Apartheid period released people from oppressive legislation enabling greater economic participation, but at the same time the statistical agency had little experience in measuring non-formal economic activity, and respondents had little experience in describing their circumstances.

Figure 2 shows that there are indeed substantial differences in labour market status depending on whether use is made of the September 2001 LFS or the 2001 Population Census conducted a month later. It is clear that the self-description in the Census leads to far fewer people being classified as employed (and far more as unemployed) than the LFS. For example, the census and LFS finds unemployment rate of 41.6% and 29.3% respectively, almost wholly due to the variations amongst African respondents. It must be emphasized that Stats SA make it very clear that the LFS is the official source of labour market information.

**Figure 2: Distribution of the working age population by labour market status and race, LFS September 2001 and Census 2001**

<table>
<thead>
<tr>
<th></th>
<th>LFS</th>
<th>Census</th>
<th>LFS</th>
<th>Census</th>
<th>LFS</th>
<th>Census</th>
<th>LFS</th>
<th>Census</th>
<th>LFS</th>
<th>Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not economically active</td>
<td>47.1</td>
<td>44.1</td>
<td>36.2</td>
<td>36.2</td>
<td>36.9</td>
<td>36.9</td>
<td>31.0</td>
<td>34.5</td>
<td>43.9</td>
<td>42.3</td>
</tr>
<tr>
<td>Employed</td>
<td>33.9</td>
<td>27.8</td>
<td>49.8</td>
<td>49.8</td>
<td>46.1</td>
<td>46.1</td>
<td>64.9</td>
<td>61.4</td>
<td>39.8</td>
<td>33.7</td>
</tr>
<tr>
<td>Unemployed (official defn)</td>
<td>19.0</td>
<td>28.1</td>
<td>13.9</td>
<td>13.9</td>
<td>17.1</td>
<td>17.1</td>
<td>4.1</td>
<td>4.1</td>
<td>16.5</td>
<td>24.0</td>
</tr>
</tbody>
</table>

| Unemployment rate (%) | 35.9 | 50.3 | 21.8 | 21.8 | 27.1 | 27.1 | 5.9  | 6.3  | 29.3 | 41.6 |
Once all the counting was complete and analysis could take place, certain comments were made by the Statistics Council Census sub-committee. Preliminary independent demographic analyses of the census suggested that the final census figures probably represent the following:

- An underestimate of children under age five;
- An overestimate of children aged between ten and nineteen;
- An underestimate of men relative to women; and
- An underestimate of the white population;
- An overestimate of the extent of unemployment; and
- An underestimate of those who were only employed for a few hours per week.

Given these comments by the sub-committee, there are a few labour market issues that come into play with regard to comparability of the census data with the LFS data. The census produces lower estimates of labour force participation than the September 2001 LFS. There is also possible underreporting of employment in the informal and subsistence agriculture sectors, particularly among those who work only a few hours per week. The LFS questionnaire includes more prompts to clarify these issues, which is not possible during census enumeration. The UN and ILO thus note that the LFS is expected to produce more reliable estimates of labour market variables than censuses. Consider a labour market status comparison between the September 2001 LFS and Census 2001.

### Table 2: Labour Market Status Comparisons (LFS September 2001 - Census 2001)

<table>
<thead>
<tr>
<th>Labour Market Status</th>
<th>LFS September 2001</th>
<th>CENSUS 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>39.8</td>
<td>33.7</td>
</tr>
<tr>
<td>Unemployed*</td>
<td>16.5</td>
<td>24.0</td>
</tr>
<tr>
<td>Not Economically Active</td>
<td>43.9</td>
<td>42.3</td>
</tr>
<tr>
<td><strong>Unemployment Rate</strong></td>
<td><strong>29.3</strong></td>
<td><strong>41.6</strong></td>
</tr>
</tbody>
</table>

*Source: Census 2001, LFS September 2001*

*Note: * Official or Strict definition of Unemployment. The percentage unemployed is not the unemployment rate, but rather the percentage unemployed of the entire working age population.

In Table 2, the Census 2001 figures show lower overall employment, and higher unemployment based on the official definition, when compared to September 2001 LFS. Their representations of the non-economically active population seem to be quite similar.
The problem thus lies in the different methodologies used for each survey. The *LFS* is the one that uses a more in-depth questionnaire approach and thus would be more accurate to reference in this case.

It is also important to assess the comparability of the census data over time. A comparison can be carried out between the 1996 census and the 2001 census to determine what has happened over the past 5 years with respect to sectoral employment. Estimates are shown in Table 3 below.

### Table 3: Sectoral Employment (Census96,01)

<table>
<thead>
<tr>
<th>Industry</th>
<th>1996</th>
<th>2001</th>
<th>Increased by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Hunting, Fishing &amp; Forestry</td>
<td>834,499</td>
<td>960,487</td>
<td>125,988</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>531,755</td>
<td>383,495</td>
<td>-148,260</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,132,141</td>
<td>1,206,842</td>
<td>74,701</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water</td>
<td>108,494</td>
<td>71,630</td>
<td>-36,864</td>
</tr>
<tr>
<td>Construction</td>
<td>562,540</td>
<td>520,488</td>
<td>-42,052</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>1,117,018</td>
<td>1,454,443</td>
<td>337,425</td>
</tr>
<tr>
<td>Transport, Storage &amp; Communication</td>
<td>489,238</td>
<td>442,727</td>
<td>-46,511</td>
</tr>
<tr>
<td>Financial &amp; Business Services</td>
<td>695,009</td>
<td>904,564</td>
<td>209,555</td>
</tr>
<tr>
<td>Community &amp; Social Services</td>
<td>1,607,285</td>
<td>1,841,850</td>
<td>234,565</td>
</tr>
<tr>
<td>Private Households</td>
<td>1,083,917</td>
<td>940,326</td>
<td>-143,591</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,161,896</strong></td>
<td><strong>8,726,852</strong></td>
<td><strong>564,956</strong></td>
</tr>
</tbody>
</table>

According to the census data, the industries that grew the most over the past 5 years include the wholesale and retail sector, the financial services sector and the community services sector. There were, however, large drops in employment in mining and quarrying as well as in private households. These drops offset the overall growth in employment leading to a net increase of only 564,956 workers in that 5-year period. Keeping in mind that the estimates of employment are considered to be slightly lower for the census than in the *LFS* data, this increase seems plausible.

### 1.3 Private Data Houses

Private organizations such as Quantec and Global Insight produce their own employment series, which attempt to harmonise an array of labour market information sources. It
would appear, however, that they rely most heavily on the SEE – largely because this is the data series consistent with the National Accounts (thereby avoiding internal inconsistencies with other series produced by these companies). These databases are produced for profit and are not “official” sources of data, but could be the best current time-series data for trend analysis.

1.4 Information from the SETAs

The SETAs collect limited information from employers, based on Workplace Skills Plans (WSPs). Only a small minority of employers have submitted WSPs to date. Consequently, this is not currently a useful source of employment information.

In addition, some SETAs have conducted employer surveys. The sampling frame for these surveys is typically the SARS database of skills levy-paying firms. It is possible to map the sectoral categories and SETA classifications. (This mapping has been included as an addendum to this report).

Unless such surveys are centrally co-ordinated they are unlikely to provide a consistent and comprehensive source of labour market information that can be used for anticipating general skill needs across all sectors.
2. DATA ADEQUACY FOR SECTORAL FORECASTING

2.1 SEE vs LFS

Source: SARB

Source: Own Calculations (OHS/LFS)
Figures 3 and 4 compare formal employment and GDP data between the SEE and the OHS/LFS surveys over time. Looking from 1995 onwards, one can see the discrepancy between employment data for the SEE compared to employment data from the OHS/LFS surveys. The SEE shows a downward trend, whereas the household surveys show on average an upward trend.

Table 6 below compares formal employment data taken from the LFS of September 2001 with estimates from the SEE of September 2001. The lower levels of total formal employment in the SEE, as shown below do not necessarily imply an equivalent increase in unemployment, but rather indicate the limitations of the SEE survey, since these other employed individuals (the difference between the values from September 2001 LFS and SEE) could be employed in industries or occupations not covered by the SEE.

Table 6: Formal Employment Comparison (LFS September 2001-SEE)

<table>
<thead>
<tr>
<th>MAIN INDUSTRY</th>
<th>LFS-SEPTEMBER 2001</th>
<th>SEE-SEPTEMBER 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agric, hunt, forest, fishing</td>
<td>666,000</td>
<td>NOT COVERED</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>484,000</td>
<td>404,000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,384,000</td>
<td>1,264,000</td>
</tr>
<tr>
<td>Elec, Gas &amp; Water</td>
<td>93,000</td>
<td>39,000</td>
</tr>
<tr>
<td>Construction</td>
<td>319,000</td>
<td>219,000</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>1,427,000</td>
<td>880,000</td>
</tr>
<tr>
<td>Transport, &amp; Comm</td>
<td>429,000</td>
<td>209,000</td>
</tr>
<tr>
<td>Financial Intermediation</td>
<td>890,000</td>
<td>191,000</td>
</tr>
<tr>
<td>Community Services</td>
<td>1,812,000</td>
<td>1,441,000</td>
</tr>
<tr>
<td>Private Households*</td>
<td>37,000</td>
<td>NOT COVERED</td>
</tr>
<tr>
<td>Foreign Organisations</td>
<td>0</td>
<td>NOT COVERED</td>
</tr>
<tr>
<td>TOTAL (excl. agriculture &amp;</td>
<td>6,838,000</td>
<td>4,647,000</td>
</tr>
<tr>
<td>private households)</td>
<td>(2.2 million more</td>
<td></td>
</tr>
<tr>
<td></td>
<td>than SEE)</td>
<td></td>
</tr>
</tbody>
</table>

Source: LFS September 2001, SEE September 2001
Note: * indicates private households which constitutes domestic workers.

Using the SEE survey as it stands up to now (1997 to 2002) to measure total employment is not a good idea (as employed individuals in sectors not covered would be missing and total employment- by sector and occupation- would be greatly
underestimated). However, it can provide a useful measure of occupational structure within those industries which are covered.

2.2 **SEE vs Manpower Survey**

Similar comments as mentioned above also apply to the Manpower survey (MS), although this survey does provide a somewhat broader sectoral coverage than the SEE.

“It should be noted that the results of the MS are not directly comparable with the results from the SEE. The MS collects information from enterprises in all industrial groups. Therefore, an enterprise may have one or more establishments, which may operate in different industries, e.g. mining and quarrying, manufacturing, agriculture and fishing.” Stats SA, 1995.

The SEE collects information from enterprises in the construction, wholesale trade, retail trade and motor trade, transport, storage and communication, financial institutions and community, social and personal services industries. In the manufacturing and hotels industries, however, information is collected from establishments.

2.3 **SARS**

The SARS provides a comprehensive list of entities i.e. enterprises that are disaggregated by sector based on the 5 digit SIC sectoral codes. It does not, however, have any information regarding occupational segregation with respect to the employees in these registered enterprises. An analysis of the database indicates that 43% of the firms did not supply any information regarding their number of employees. The SARS database will therefore have limited use in verifying sectoral information obtained from the macro model, but might be useful in indicating sectoral change because the database is continuously updated.
Table 7: Number of Firms and Average Number of Employees by Sector (SARS)

<table>
<thead>
<tr>
<th>1 DIGIT SIC CODES</th>
<th>NO OF FIRMS</th>
<th>AVG NO EMPLOYEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>8,779</td>
<td>41,62</td>
</tr>
<tr>
<td>Mining</td>
<td>2,472</td>
<td>419,67</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>39,374</td>
<td>265,77</td>
</tr>
<tr>
<td>Electricity, Gas &amp; Water</td>
<td>737</td>
<td>367,77</td>
</tr>
<tr>
<td>Construction</td>
<td>14,605</td>
<td>72,07</td>
</tr>
<tr>
<td>Wholesale / Resale Trade</td>
<td>53,427</td>
<td>94,65</td>
</tr>
<tr>
<td>Transport</td>
<td>10,602</td>
<td>25,33</td>
</tr>
<tr>
<td>Financial Services</td>
<td>67,066</td>
<td>83,39</td>
</tr>
<tr>
<td>Community Services</td>
<td>59,931</td>
<td>110,37</td>
</tr>
<tr>
<td>All</td>
<td>274,183*</td>
<td>114,10</td>
</tr>
</tbody>
</table>

Note: Own calculations based on SARS database, February 2003

* Column total may not add up due to missing values.

Considering Table 7 above, if the average number of employees (based only on non-missing records) is correct, then the average firm in the database employs 114 workers, implying that estimated total employment from the SARS database is just over 3 million – well below other private formal sector employment estimates.

2.4 Census vs LFS

When considering employed individuals and the industries that they work in, one can observe lower employment estimates for the Census 2001 than for September 2001 LFS. Table 8 illustrates this with regard to employment in different economic industries.
Table 8: Industry Comparisons (LFS September 2001 – Census 2001)

<table>
<thead>
<tr>
<th>Industry</th>
<th>LFS Sep ('000)</th>
<th>% of total</th>
<th>Census 2001 ('000)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture etc</td>
<td>1,051</td>
<td>9.7</td>
<td>960</td>
<td>11.0</td>
</tr>
<tr>
<td>Mining and Quarrying</td>
<td>487</td>
<td>4.5</td>
<td>383</td>
<td>4.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,605</td>
<td>14.9</td>
<td>1,207</td>
<td>13.8</td>
</tr>
<tr>
<td>Electricity etc</td>
<td>95</td>
<td>0.9</td>
<td>72</td>
<td>0.8</td>
</tr>
<tr>
<td>Construction</td>
<td>594</td>
<td>5.5</td>
<td>520</td>
<td>6.0</td>
</tr>
<tr>
<td>Wholesale &amp; Retail trade</td>
<td>2,397</td>
<td>22.2</td>
<td>1,454</td>
<td>16.7</td>
</tr>
<tr>
<td>Transport etc</td>
<td>543</td>
<td>5.0</td>
<td>443</td>
<td>5.1</td>
</tr>
<tr>
<td>Finance etc</td>
<td>975</td>
<td>9.0</td>
<td>904</td>
<td>10.4</td>
</tr>
<tr>
<td>Community services etc</td>
<td>1,998</td>
<td>18.5</td>
<td>1,841</td>
<td>21.1</td>
</tr>
<tr>
<td>Private households</td>
<td>1,055</td>
<td>9.8</td>
<td>940</td>
<td>10.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,800</strong></td>
<td><strong>100</strong></td>
<td><strong>8,724</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Census 2001, LFS September 2001

In all industries the September 2001 LFS once again shows higher levels of employment. The shares of different sectors are, however, broadly similar.

2.5 SASID vs LFS

The table below contains a comparison of sectoral employment from the LFS and the South African Standard Industry Database (SASID), obtained from Quanetc.

Table 9: Sectoral Employment, 2000

<table>
<thead>
<tr>
<th>Total Employment</th>
<th>SASID</th>
<th>LFS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL</td>
<td>% Share</td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>783,235</td>
<td>13.1%</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>416,270</td>
<td>6.9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,296,166</td>
<td>21.6%</td>
</tr>
<tr>
<td>Electricity, gas and water</td>
<td>72,643</td>
<td>1.2%</td>
</tr>
<tr>
<td>Construction (contractors)</td>
<td>222,420</td>
<td>3.7%</td>
</tr>
<tr>
<td>Wholesale and retail trade, catering and accommodation</td>
<td>1,011,487</td>
<td>17%</td>
</tr>
<tr>
<td>Transport, storage and communication</td>
<td>273,162</td>
<td>4.6%</td>
</tr>
<tr>
<td>Financial int., insurance, real estate &amp; business services</td>
<td>485,054</td>
<td>8.1%</td>
</tr>
<tr>
<td>Community, social and personal services</td>
<td>1,415,785</td>
<td>24%</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>5,976,222</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SASID, September 2000 LFS
The size of the sectors is broadly similar except with regard to Trade, Transport, Finance services and Community services. These employment estimates are higher in the LFS as this data set covers these sectors in more depth than SASID (remember SASID is based on SEE). With regard to shares of total employment, these values are similar across the sectors.

3. DATA ADEQUACY FOR OCCUPATIONAL FORECASTING

3.1 LFS vs Census

Table 10 shows a breakdown of occupations from the September 2001 LFS and the Census 2001. The percentage shares of total employment in each occupation are also given.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>LFS Sep ('000)</th>
<th>% of total</th>
<th>Census 2001 ('000)</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislators</td>
<td>661</td>
<td>6.1</td>
<td>515</td>
<td>5.8</td>
</tr>
<tr>
<td>Professionals</td>
<td>485</td>
<td>4.5</td>
<td>668</td>
<td>7.5</td>
</tr>
<tr>
<td>Technicians</td>
<td>1,146</td>
<td>10.6</td>
<td>920</td>
<td>10.3</td>
</tr>
<tr>
<td>Clerks</td>
<td>1,101</td>
<td>10.2</td>
<td>1,048</td>
<td>11.7</td>
</tr>
<tr>
<td>Service Workers</td>
<td>1,396</td>
<td>12.9</td>
<td>978</td>
<td>10.9</td>
</tr>
<tr>
<td>Skilled Agriculture</td>
<td>469</td>
<td>4.3</td>
<td>268</td>
<td>3.0</td>
</tr>
<tr>
<td>Craft Workers</td>
<td>1,434</td>
<td>13.3</td>
<td>1,165</td>
<td>13.0</td>
</tr>
<tr>
<td>Plant Operators</td>
<td>1,085</td>
<td>10.0</td>
<td>844</td>
<td>9.4</td>
</tr>
<tr>
<td>Elementary Occupations</td>
<td>2,115</td>
<td>19.6</td>
<td>2,539</td>
<td>28.4</td>
</tr>
<tr>
<td>Domestic Workers</td>
<td>916</td>
<td>8.5</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,808</strong></td>
<td><strong>100</strong></td>
<td><strong>8,945</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Census 2001, LFS September 2001

Note: * Domestic workers are included in Elementary occupations for Census 2001.

Although employment figures are higher for most occupations within the LFS data set, there are two occupations that show much higher employment with the Census 2001 data set. These occupations are Professionals and Elementary occupations. Elementary
occupations are quite large (in the Census data) due to the fact that domestic workers are included in this category. Once they are accounted for, elementary occupations show a lower level of employment for Census data than for LFS data. Focussing on percentage shares of the total, the patterns are broadly similar.

This information is disaggregated by occupation only. Table 11 illustrates the situation when it comes the data are further disaggregated, comparing percentage shares of total employment in each occupation by sector using Census 2001 and LFS data. The Census share is compared to a confidence interval share that is based on the occupational and sectoral employment matrix obtained from the LFS data. The values highlighted in italics are within the confidence intervals from the LFS September 2001 employment matrix. This implies that those particular values from the Census are comparable with the LFS values within that same employment matrix context. There are, however, only 27 comparable values in a sectoral and occupational employment matrix giving 90 different values. This does not necessarily imply that the Census is incorrect, as it may very well be the LFS that has partially incorrect employment figures and thus distorted confidence intervals. This table is only being shown to determine whether or not the LFS can be used in conjunction with the Census data to provide a more accurate employment matrix.

### 3.2 Census 1996 vs Census 2001

Another factor to consider with regard to whether or not the Census is the best option for sectoral and occupational forecasting, is what kind of changes have taken place over time within the Census and whether or not these changes are feasible given other time-series data.

Table 12 shows percentage shares of occupations within each sector for 1996. The values for Census 2001 are given in Table 11, along with their respective confidence intervals. Over this 5-year period, most of the shedding of employment has occurred in the craft occupations as well as the skilled agricultural occupations. These occupations’ shares of total employment by sector have dropped since 1996. The overall share of total employment by sector has managed to stay broadly similar though, over this 5-year period.
One of the key questions, however, with regard to the scope of this project, is whether or not the Census data can be used in conjunction with other data to get a more accurate portrayal of the labour market over time. The Census data available for analysis consist of surveys done in 1996 and 2001, with the next Census survey being conducted in 2011. This leaves the years in between unaccounted for with respect to data for that time period, creating a need for another data series to be used to fill in the gaps. The question remains which data series is the most reliable option for using in the interim whilst ‘waiting’ for the next Census year. The review of the particular surveys as specified above, leads to the conclusion that, broadly speaking, the Census data are the more robust and as a result, would give the more accurate portrayal of the South African labour market at that particular moment in time. The LFS could be used as not only a benchmark, but also as a means to filling in the blanks with regard to the interlinking years which are not covered by the Census. It is important to remember that the focus in this project is on occupational and qualification employment structures, in aggregate and within industries.
Table 11: Occupational Breakdown by Sector (Census 2001: Total Employment)

(With confidence intervals for total employment from the LFS September 2001)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>% SHARE OF TOTAL EMP</th>
<th>Agriculture, forestry and hunting</th>
<th>Mining and quarrying</th>
<th>Manufacturing</th>
<th>Electricity; gas and water supply</th>
<th>Construction</th>
<th>Wholesale and retail trade</th>
<th>Transport and personal services</th>
<th>Financial, insurance, real estate and business services</th>
<th>Community, social and personal services</th>
<th>Private Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Census) Legislators etc</td>
<td>2.2%</td>
<td>2.3%</td>
<td>6.2%</td>
<td>5.4%</td>
<td>4.2%</td>
<td>10.1%</td>
<td>9.2%</td>
<td>9.4%</td>
<td>9.4%</td>
<td>4.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.5% - 1.8%)</td>
<td>(1.7% - 4.2%)</td>
<td>(5.2% - 7.7%)</td>
<td>(7.3% - 18.6%)</td>
<td>(3.4% - 6.5%)</td>
<td>(7.5% - 9.6%)</td>
<td>(14.9% - 20.4%)</td>
<td>(11.6% - 15.9%)</td>
<td>(2.7% - 3.9%)</td>
<td>(0.0%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Professionals</td>
<td>0.9%</td>
<td>5.6%</td>
<td>5.1%</td>
<td>8.8%</td>
<td>3.3%</td>
<td>3.3%</td>
<td>5.2%</td>
<td>16.1%</td>
<td>16.7%</td>
<td>0.1%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.4% - 0.6%)</td>
<td>(0.7% - 2.5%)</td>
<td>(2.1% - 3.6%)</td>
<td>(1.4% - 8.2%)</td>
<td>(0.4% - 2.1%)</td>
<td>(0.26% - 0.76%)</td>
<td>(0.7% - 2.6%)</td>
<td>(8.7% - 12.4%)</td>
<td>(13.9% - 16.9%)</td>
<td>(0.0%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Associate Professionals</td>
<td>0.9%</td>
<td>2.6%</td>
<td>6.5%</td>
<td>8.5%</td>
<td>3.2%</td>
<td>5.2%</td>
<td>9.4%</td>
<td>12.1%</td>
<td>28.8%</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.2% - 0.6%)</td>
<td>(1.5% - 3.6%)</td>
<td>(6.6% - 9.1%)</td>
<td>(4.9% - 14.6%)</td>
<td>(1.1% - 2.9%)</td>
<td>(2.9% - 4.2%)</td>
<td>(5.9% - 9.5%)</td>
<td>(17.2% - 21.5%)</td>
<td>(32.1% - 35.6%)</td>
<td>(0.0% - 0.2%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Clerks</td>
<td>1.9%</td>
<td>5.1%</td>
<td>10.7%</td>
<td>13.5%</td>
<td>5.0%</td>
<td>17.7%</td>
<td>16.2%</td>
<td>22.7%</td>
<td>13.3%</td>
<td>0.4%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.8% - 1.7%)</td>
<td>(4.7% - 7.7%)</td>
<td>(8.1% - 10.4%)</td>
<td>(8.4% - 17.2%)</td>
<td>(1.5% - 3.4%)</td>
<td>(10.4% - 12.5%)</td>
<td>(14.7% - 19.9%)</td>
<td>(21.9% - 26.8%)</td>
<td>(12.2% - 14.8%)</td>
<td>(0.0%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Service Workers</td>
<td>2.1%</td>
<td>2.7%</td>
<td>4.7%</td>
<td>3.9%</td>
<td>2.5%</td>
<td>22.9%</td>
<td>5.6%</td>
<td>20.8%</td>
<td>14.2%</td>
<td>1.5%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.4% - 1.1%)</td>
<td>(1.4% - 3.5%)</td>
<td>(2.3% - 3.7%)</td>
<td>(2.2% - 3.6%)</td>
<td>(0.3% - 1.6%)</td>
<td>(30.1% - 33.2%)</td>
<td>(3.3% - 6.3%)</td>
<td>(15.8% - 20.4%)</td>
<td>(16.5% - 19.5%)</td>
<td>(0.4% - 1.2%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Skilled Agric Workers</td>
<td>22.0%</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.7%</td>
<td>0.3%</td>
<td>0.6%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.6%</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(27.0% - 33.3%)</td>
<td>(0.01% - 0.3%)</td>
<td>(0.04% - 0.36%)</td>
<td>(0.3% - 2.7%)</td>
<td>(0.0%)</td>
<td>(0.03% - 0.22%)</td>
<td>(0.0% - 0.4%)</td>
<td>(1.2% - 2.6%)</td>
<td>(1.1% - 2.1%)</td>
<td>(11.1% - 14.2%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Craft Workers</td>
<td>3.1%</td>
<td>42.5%</td>
<td>23.9%</td>
<td>31.8%</td>
<td>51.6%</td>
<td>13.6%</td>
<td>5.9%</td>
<td>4.0%</td>
<td>2.9%</td>
<td>0.8%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(0.9% - 1.9%)</td>
<td>(31.4% - 39.5%)</td>
<td>(25.2% - 29.1%)</td>
<td>(18.9% - 33.1%)</td>
<td>(68.0% - 74.1%)</td>
<td>(10.2% - 12.2%)</td>
<td>(5.3% - 9.2%)</td>
<td>(1.1% - 2.6%)</td>
<td>(1.4% - 2.4%)</td>
<td>(0.0%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Plant Operators</td>
<td>8.2%</td>
<td>23.2%</td>
<td>23.3%</td>
<td>10.4%</td>
<td>6.7%</td>
<td>5.7%</td>
<td>36.7%</td>
<td>2.3%</td>
<td>2.5%</td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(8.5% - 11.3%)</td>
<td>(34.3% - 42.8%)</td>
<td>(25.6% - 29.6%)</td>
<td>(13.4% - 27.1%)</td>
<td>(2.5% - 5.0%)</td>
<td>(2.3% - 3.3%)</td>
<td>(31.7% - 38.3%)</td>
<td>(1.0% - 2.6%)</td>
<td>(1.3% - 2.1%)</td>
<td>(0.0% - 0.3%)</td>
<td></td>
</tr>
<tr>
<td>(Census) Elementary Occups</td>
<td>56.7%</td>
<td>13.2%</td>
<td>16.3%</td>
<td>14.5%</td>
<td>20.4%</td>
<td>18.3%</td>
<td>9.3%</td>
<td>9.4%</td>
<td>14.2%</td>
<td>92.5%</td>
<td></td>
</tr>
<tr>
<td>LFS4 confidence intervals</td>
<td>(51.7% - 58.0%)</td>
<td>(9.1% - 13.6%)</td>
<td>(14.6% - 17.6%)</td>
<td>(9.7% - 20.2%)</td>
<td>(12.9% - 17.3%)</td>
<td>(28.9% - 32.3%)</td>
<td>(8.2% - 12.1%)</td>
<td>(7.7% - 10.9%)</td>
<td>(9.9% - 12.1%)</td>
<td>(85.0% - 88.9%)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Italics denotes acceptable values based on LFS data

Source: Own Calculations (lfs4) & Census 2001
<table>
<thead>
<tr>
<th>Occupation</th>
<th>Agriculture, hunting; forestry and fishing</th>
<th>Mining and quarrying</th>
<th>Manufacturing</th>
<th>Electricity; gas and water supply</th>
<th>Construction</th>
<th>Wholesale and retail Trade</th>
<th>Transport and storage and communication</th>
<th>Financial, insurance, real estate and business services</th>
<th>Community, social and personal services</th>
<th>Private households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislators etc</td>
<td>1.3%</td>
<td>2.1%</td>
<td>4.9%</td>
<td>3.8%</td>
<td>1.7%</td>
<td>10.1%</td>
<td>5.3%</td>
<td>7.0%</td>
<td>3.0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Professionals</td>
<td>0.5%</td>
<td>3.8%</td>
<td>3.5%</td>
<td>6.0%</td>
<td>2.6%</td>
<td>1.7%</td>
<td>2.5%</td>
<td>13.5%</td>
<td>39.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Associate Professionals</td>
<td>0.7%</td>
<td>1.9%</td>
<td>5.9%</td>
<td>7.4%</td>
<td>3.4%</td>
<td>5.6%</td>
<td>8.5%</td>
<td>17.4%</td>
<td>10.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Clerks</td>
<td>1.0%</td>
<td>2.8%</td>
<td>6.5%</td>
<td>7.8%</td>
<td>1.9%</td>
<td>12.5%</td>
<td>11.6%</td>
<td>24.5%</td>
<td>8.7%</td>
<td>0.4%</td>
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<tr>
<td>Service workers</td>
<td>1.2%</td>
<td>2.8%</td>
<td>3.9%</td>
<td>3.0%</td>
<td>0.8%</td>
<td>25.6%</td>
<td>3.4%</td>
<td>18.2%</td>
<td>15.9%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Skilled agricultural Workers</td>
<td>29.4%</td>
<td>0.4%</td>
<td>1.5%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.6%</td>
<td>0.3%</td>
<td>0.4%</td>
<td>1.0%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Craft workers</td>
<td>1.9%</td>
<td>37.1%</td>
<td>27.7%</td>
<td>47.6%</td>
<td>66.2%</td>
<td>14.9%</td>
<td>5.9%</td>
<td>3.2%</td>
<td>2.5%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Plant and machine operators</td>
<td>4.9%</td>
<td>20.5%</td>
<td>18.2%</td>
<td>7.8%</td>
<td>3.3%</td>
<td>4.0%</td>
<td>45.5%</td>
<td>2.1%</td>
<td>1.9%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Elementary occupation</td>
<td>54.9%</td>
<td>19.1%</td>
<td>14.5%</td>
<td>7.6%</td>
<td>14.9%</td>
<td>17.5%</td>
<td>7.9%</td>
<td>6.2%</td>
<td>11.4%</td>
<td>87.7%</td>
</tr>
</tbody>
</table>

Source: Census 1996
4. DATA ADEQUACY FOR ESTIMATING REPLACEMENT DEMAND

4.1 Replacement demand

In addition to changes in overall occupational employment levels it is important to consider replacement demand arising from retirements, net migration, movement into other occupations and in-service mortality.

Estimating replacement demand is not straightforward, especially in a country like South Africa where the data on the mortality effects of HIV/AIDS remain uncertain and controversial. To estimate replacement demand one ideally needs the following information:

- Data on the age and gender structure of occupational employment;
- Data on the rates of outflow due to:
  1. Retirement (and other reasons for leaving the workforce)
  2. Emigration;
  3. Inter-occupational mobility; and

Information on the age and gender structure is required because many of the flows, especially retirements and mortality, are age and gender specific. Age structures vary significantly by occupation – for example, a higher proportion of managers than IT professionals are likely to be nearing retirement age. Differences in age structure across occupations will clearly influence exits, with older people retiring, but younger people changing occupations. Age structure also affects mortality – while older people are more likely to die of non-AIDS causes, younger people are more likely to succumb to AIDS.

From the household survey/population census data, it is possible to analyse the demographic composition of each occupation. This makes it possible to estimate specific rates of retirement and mortality for each occupational class.

4.2 Retirements

For the purposes of modelling retirements, a fraction of the occupational class that is aged 55 to 65 (say) in a given year can be assumed to retire each year. It is important to
choose a fairly wide age category, as the occupational samples are quite small in some cases. It might be possible to measure retirement flows over time, although this kind of approach could result in the sampling errors being too large. Nevertheless, some reasonably robust assumptions can be made that result in better estimates that simply ignoring the issue.

4.3 Mortality
To estimate replacement demand arising from deaths in each occupation it is possible to use the race-, age- and gender-specific mortality rates contained in the Actuarial Society of South Africa's "AIDS demographic model 2000". The ASSA model was developed by the ASSA AIDS Committee, which was set up in 1987 "to assist the actuarial profession (and later the wider public) in estimating the impact of the AIDS epidemic in South Africa". As part of this work, the Committee has produced various papers and monographs on the epidemic and constructed models (the ASSA500 model released in 1996, the ASSA600 model released in 1998 and most recently the ASSA2000 suite of models) to predict the impact of the epidemic at both the national and regional level (ASSA, 2002). It is expected that a new version of the ASSA model – based on the 2001 Census results - will be released in 2004.

Using the mortality assumptions of the ASSA model, it is possible to calculate the risk of dying for each member of an occupational class in the survey data and use this to arrive at the number of people that will be required to replace those dying over the forecast period.

4.4 Migration and mobility
The migration of skilled professionals from the country has also been an increasing source of concern over the past few years. Skills migration is clearly a reality and must also enter the model as these losses also impact the supply and demand for higher-level human resources.

The official source for skills migration data in South Africa is the annual reports published by Statistics South Africa. These sources are as a result of a joint effort between the Department of Home Affairs and Stats SA. It is the Department’s responsibility to record who leaves and enters the country via any of the major airports in South Africa. When
individuals leave they are required to fill in a departure form, in which they state their reasons for leaving. Stats SA then captures the relevant emigration information from the departure forms. Immigration data are also gathered from records of individuals who have been granted permanent residence in the country (Bailey, 2003). These data are largely incomplete and inaccurate due to the following reasons outlined by Brown, Kaplan & Meyer (2001):

a) The completion of departure forms is not always enforced and not all those individuals intending to emigrate permanently indicate as much (Stats SA, 2001).
b) Only individuals leaving from the major South African airports are captured.
c) Many South Africans leaving the country to travel, and who then stay abroad permanently are not captured.
d) The system only recently started capturing disaggregated occupation data; therefore a trend analysis of skills leaving the country is limited at best.
e) Stats SA categories have changed over the years, making it difficult to formulate trend analyses.

A study conducted by Meyer, Brown and Kaplan (2000) illustrated that the receiving countries data reported around three times as many skilled South Africans entering their borders in the decade prior to 1997 than did the Stats SA data. This shows that the official data show a severe undercount of emigration in South Africa. However,

“There is no consensus on the number of highly skilled human resources leaving South Africa, and how many of them will be returning after a shorter or longer period abroad. With increasing globalisation and a relatively free flow of the factors of production (including workers, professionals and management), it is assumed that people are engaging in ‘return migration’ for certain periods to other destinations, with the implication that a large percentage of human resources leaving the country will probably return.” (van Aardt, 2001)

According to the official figures, only 8,487 people left South Africa during 1999, of which only 4,848 were economically active and only 1,831 of these were professionals. The loss of highly skilled people is therefore ostensibly relatively limited (Stats SA, 1999). Figures released by the South African Network of Skills Abroad (SANSA) are significantly higher than the official statistics and are serious cause for concern. Van Aardt (2001)
indicates that, should the SANSA figures be correct, the implication would be that South Africa is losing highly skilled professionals much faster to other countries than it is able to train such professionals. For eleven years from 1987 to 1997, the number of recorded South African emigrants to Australia, Canada, New Zealand, the United States and the United Kingdom was 233,609. This is compared with the figure of 82,811 declared, registered and officially recorded by Stats SA for the same period. This is 2.8 times higher than what the official figures show.

SANSA also found that the number of professionals who left South Africa after 1994 was 56% higher than during 1989, and that about 77% of South African emigrants to the United States had a tertiary education. The implications of these findings are that the extent of emigration from South Africa and the educational profile of those who emigrate may be of such a nature that South Africa has been incurring extensive losses in human capital for quite some time, could be facing acute skills shortages and could be heading for a situation where the possibility of sustainable economic growth and development is threatened.

**Figure 5: Estimates of the Number of Emigrants (1996-2000)**

Sources: SAIRR (2001) and BMR estimates
Barker (1999) agrees that the impact of labour migration, especially of highly skilled human resources, on labour supply in South Africa has been considerable. Barker refers to data provided by Statistics South Africa and points out that by 1997, 41.2% of emigrants were professional, semi-professional and technical workers, while a further 13.9% were managerial and administrative workers. Updated statistics provided by Stats SA (1999) shows that about 54% of the emigrants who left South Africa during 1998 were economically active. Of these, about 44.3% were people with professional, semi-professional and technical skills, 15.2% were people with specialist managerial skills and 6.8% were artisans.

If these figures are used to estimate the number of emigrants with the above-mentioned skills during the period 1989 to 2000 (on the basis of the BMR’s estimates derived from the SANSA data), a figure of about 167,326 economically active South African emigrants during the period in question is obtained, of whom 74,125 were people with professional, semi-professional and technical skills, 25,433 were people with specialist managerial skills, 11,378 were artisans and 10,951 were engineers or technologists.

5. CONCLUDING REMARKS

This review has considered a number of potentially important data sources, which might be used to develop a comprehensive national multi-sectoral occupational forecasting tool. Ideally, it should be possible to draw upon existing official statistics that are consistent with the National Accounts and as already used in existing macro and sectoral models. This does, however, presume that there is some consensus on such matters. This unfortunately is not always the case, and there are many discrepancies in the data that make trend analysis difficult. There are also comparability issues with regard to certain survey data sets at a particular point in time.

There is an ongoing debate over which survey data sets are the best to make use of for the purposes of multi-sectoral analysis. Therefore what needs to take place is a meeting whereby a decision on what sectoral and occupational employment data (and related indicators such as output and productivity) should be used for any new forecasting work. This should be agreed upon with the various interested parties. These various parties include:
• Stats SA as arbiters of the official view on the data;
• Macro modellers, such as Global Insight and ABSA, who have an interest in establishing robust and agreed estimates;
• The Department of Labour which has an overall responsibility for employment across all sectors and
• The SETAs, who will have strong views about those sectors (or parts thereof) falling within their remit.

This should be undertaken as part of the process of setting up a comprehensive multi-sectoral forecasting tool, (Module 1, as set out in the main report).

The sources that this Annex has covered are important for developing the other modules set out in the main report. These include Module 2, which deals with the occupational model within sectors, Module 3, which deals with the replacement demands, and lastly, Module 4, which deals with the implications for qualifications and other aspects of skills.

With regard to the adequacy of the available data, it seems that the Labour Force Survey appears to be the most reliable when it comes to in-depth data collection methods and thus high levels of data quality. However, its sample size raises issues about how detailed a picture one can develop on changing occupational employment structure.

The Manpower Survey and the Survey of Earnings and Employment have both strengths and weakness, but potentially provide useful corroborative evidence to be set against the Labour Force Survey material.

The Census offers potentially much larger sample sizes, although there are issues to be resolved regarding the reliability and possible bias in the 2001 results and of comparability with previous Census results.

Two more data sources considered are the SARS data set and information obtained from the SETAs (currently very limited). The SARS is essentially a sample frame of tax paying businesses or establishments and thus as a result does not offer much with respect to the projects objectives of focussing on skills. The SETAs typically use the SARS database as the sampling frame for their own surveys, so the SETA data-sets will tend to have the same limitations as the SARS database.
Whilst sectoral trends will have to rely on national accounts and private data houses, as stated above, the occupational structure within sectors and replacement demand will have to come from a variety of different sources, these sources being chosen based on the review conducted in this Annex.

References


Separate annexes and reports connected to the present document

Main Report:


Separate Annexes:

A: The Rationale for Conducting National Occupational Projections and how they are Typically Undertaken.
B: Labour Market Projections: A Review of International Best Practice
APPENDIX A: CONCORDANCE TABLE- MAPPING BETWEEN SETA AND SIC CODES

09001 SERVICES Marketing services
09000 StatsSA Other activities not adequately defined
09002 SERVICES Marketing communications
09000 StatsSA Other activities not adequately defined
09003 MAPPP Production of craft art
09000 StatsSA Other activities not adequately defined
09004 MAPPP Production of traditional art
09000 StatsSA Other activities not adequately defined
09005 MAPPP Production of designer goods
09000 StatsSA Other activities not adequately defined
09006 MAPPP Production of functional wares
09000 StatsSA Other activities not adequately defined
09007 MAPPP Production of souvenirs
09000 StatsSA Other activities not adequately defined
09008 SERVICES Direct marketing
09000 StatsSA Other activities not adequately defined
11140 SETASA Seed production and marketing
11000 StatsSA Agriculture, hunting and related services
11121 PAETA Growing of vegetables, horticultural specialties (including ornamental horticulture) and nursery products
11120 StatsSA Growing of vegetables, horticultural specialties and nursery products
11122 PAETA Sugar Plantation including sugar cane and sugar beet etc.
11120 StatsSA Growing of vegetables, horticultural specialties and nursery products
11221 PAETA Ostrich farming
11220 StatsSA Other animal farming; production of animal products n.e.c.
11222 PAETA Game Farming
11220 StatsSA Other animal farming; production of animal products n.e.c.
12101 FIETA Establishment
12100 StatsSA Forestry and related services
12102 FIETA Re-establishment
12100 StatsSA Forestry and related services
12103 FIETA Maintenance
12100 StatsSA Forestry and related services
12104 FIETA Fire protection, fire suppression, fire prevention
12100 StatsSA Forestry and related services
12105 FIETA Forest conservation
12100 StatsSA Forestry and related services
12106 FIETA Forest protection
12100 StatsSA Forestry and related services
12107 FIETA Forest management
12100 StatsSA Forestry and related services
12108 FIETA Forestry and tree nurseries for forests
12100 StatsSA Forestry and related services
12109 PAETA Growing of trees as second crop by farmers
12100 StatsSA Forestry and related services
12201 FIETA Harvesting
12200 StatsSA Logging and related services
12202 FIETA Road construction and maintenance
12200 StatsSA Logging and related services
12203 FIETA Transport (short haul and long haul)
12200 StatsSA Logging and related services
23001 MQA Thin tabular operations
23000 StatsSA Mining of gold and uranium ore
23002 MQA Thick tabular operations
23000 StatsSA Mining of gold and uranium ore
23003 MQA Massive mining operations
23000 StatsSA Mining of gold and uranium ore
25101 MQA Quarrying/dimension stone operations
25100 StatsSA Stone quarrying, clay and sandpits
25102 MQA Open cast/strip mining operations
25100 StatsSA Stone quarrying, clay and sandpits
25103 MQA Open pit operations
25100 StatsSA Stone quarrying, clay and sandpits
25201 MQA Marine mining operations
25200 StatsSA Mining of diamonds (including alluvial diamonds)
25202 MQA Coastal mining operations
25200 StatsSA Mining of diamonds (including alluvial diamonds)
30101 N/A Production, processing and preservation of meat products by local governments
30100 StatsSA Production, processing and preservation of meat, fish, fruit, vegetables, oils and fats
30114 SETASA Poultry and egg production
30110 StatsSA Production, processing and preserving of meat and meat products
30115 SETASA Production, sale and marketing of agricultural by-products (e.g. bones, hides)
30110 StatsSA Production, processing and preserving of meat and meat products
30116 PAETA Slaughtering, dressing and packing of livestock including poultry and small game for meat and processing of ostrich products
30110 StatsSA Production, processing and preserving of meat and meat products
3011A N/A Intensive production, slaughtering, de-boning and packaging of livestock (including small game and ostriches)
30110 StatsSA Production, processing and preserving of meat and meat products
30121 FOODBEV Manufacture of canned, preserved and processed fish, crustaceans and similar foods (except soups)
30120 StatsSA Processing and preserving of fish and fish products
30132 SETASA Fruit packed in cartons, fruit juice concentrate drummed and fruit juice in container ready for human consumption
30131 StatsSA Manufacture of canned, preserved, processed and dehydrated fruit and vegetables (except soups), incl. fruit juices, juice extracts and potato flour meal
30332 SETASA Manufacture of starches and starch products
30320 StatsSA Manufacture of starches and starch products
30331 SETASA Manufacture of pet foods
30330 StatsSA Manufacture of prepared animal feeds
30401 FOODBEV Manufacture of food preparation products
30400 StatsSA Manufacture of other food products
30493 SETASA Growing and marketing of coffee and tea
30490 StatsSA Manufacture of other food products n.e.c.
3011B SETASA Grading, ginning and packaging of wool and cotton raw material
31111 StatsSA Grading, ginning and packaging of wool and cotton raw material
31214 CTFL SETA Manufacture of made-up textile articles and fibres except apparel
31210 StatsSA Manufacture of made-up textile articles, except apparel
31291 CTFL SETA Manufacture of textiles, clothing, leather goods and other textiles n.e.c.
31290 StatsSA Manufacture of other textiles n.e.c.
31292 CTFL SETA Fashion clothing, textiles and footwear manufacture and design
31290 StatsSA Manufacture of other textiles n.e.c.
31501 CTFL SETA Dressing and dyeing of fur; manufacture of artificial fur, fur apparel and other art
31400 StatsSA Manufacture of wearing apparel, except fur apparel
31701 CTFL SETA Manufacture of footwear from material other than leather
31700 StatsSA Manufacture of footwear
32108 FIETA Mill maintenance
32100 StatsSA Sawmilling and planing of wood
32110 FIETA Charcoal
32100 StatsSA Sawmilling and planing of wood
32111 FIETA Wattle extract manufacturing
32100 StatsSA Sawmilling and planing of wood
32102 FIETA Saw doctoring
32101 StatsSA Sawmilling and preserving of timber
32103 FIETA Wet milling
32101 StatsSA Sawmilling and preserving of timber
32104 FIETA Lumber drying
32101 StatsSA Sawmilling and preserving of timber
32105 FIETA Lumber grading
32101 StatsSA Sawmilling and preserving of timber
32106 FIETA Dry milling
32101 StatsSA Sawmilling and preserving of timber
32107 FIETA Finger jointing and laminating
32101 StatsSA Sawmilling and preserving of timber
32211 FIETA Fibreboard and chipboard products
32210 StatsSA Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board another panels and boards
3010C FIETA Manufacture of wooden doors
32220 StatsSA Manufacture of wooden doors
32221 FIETA Truss manufacturing
32220 StatsSA Manufacture of wooden doors
32222 CETA Joinery and wood machining including manufacture and installation of timber and other building fixtures
32220 StatsSA Manufacture of wooden doors
32223 CETA Kitchen cabinet making for customized requirements on-site
32220 StatsSA Manufacture of wooden doors
32224 N/A Kitchen cabinet making for standardized production
32220 StatsSA Manufacture of wooden doors
32293 FIETA Match manufacturing
32220 StatsSA Manufacture of wooden doors
32294 FIETA Pallets and bulk bins
32220 StatsSA Manufacture of wooden doors
32311 FIETA Manufacture of Pulp, Paper, Paperboard, Tissue and Paper Recycling
32310 StatsSA Manufacture of pulp, paper and paperboard
32323 MAPPP Manufacture of packing material
32390 StatsSA Manufacture of packing material
32393 MAPPP Printing and embossing of stationery and labels
32391 StatsSA Stationery
32392 MAPPP Books and stationery
32399 StatsSA Books and stationery
33421 CHIETA Manufacture raw materials and chemical compounds used in agriculture
33420 StatsSA Manufacture of fertilizers and nitrogen compounds
33431 CHIETA Manufacture of plastic bags
33430 StatsSA Manufacture of plastics in primary form and of synthetic rubber
33501 CHIETA Chemically-based general household and personal care products
33500 StatsSA Manufacture of other chemical products
33502 CHIETA Manufacture, sale and/or distribution of diversified specialty chemicals for industrial use
33500 StatsSA Manufacture of other chemical products
33543 CHIETA Manufacture of beauty products
33542 StatsSA Manufacture of perfumes, cosmetics and other toilet preparations
33594 CHIETA Manufacture of chemicals for the mining industry
33590 StatsSA Manufacture of other chemical products n.e.c.
33791 MERSETA Calendaring
33790 StatsSA Manufacture of other rubber products
33792 MERSETA Compounding
33790 StatsSA Manufacture of other rubber products
33799 N/A Manufacture of other rubber products
33790 StatsSA Manufacture of other rubber products
33801 MERSETA Injection moulding
33800 StatsSA Manufacture of plastic products
33802 MERSETA Blow moulding
33800 StatsSA Manufacture of plastic products
33803 MERSETA Extrusion
33800 StatsSA Manufacture of plastic products
33804 MERSETA Plastics processes
33800 StatsSA Manufacture of plastic products
36301 N/A Rotational moulding
33800 StatsSA Manufacture of plastic products
39001 MERSETA Rotational moulding
33800 StatsSA Manufacture of plastic products
39003 MERSETA Compression moulding
33800 StatsSA Manufacture of plastic products
39004 MERSETA Cast moulding
33800 StatsSA Manufacture of plastic products
34211 CETA Manufacture of tiles and sanitary ware
34210 StatsSA Manufacture of non-structural non-refractory ceramic ware
34231 CETA Brickmaking
34230 StatsSA Manufacture of structural non-refractory clay and ceramic products
34232 CHIETA Pottery
34230 StatsSA Manufacture of structural non-refractory clay and ceramic products
34251 CETA Manufacture of articles of concrete, cement and plaster including pre-cast building and civil engineering products on-site and off-site
34250 StatsSA Manufacture of articles of concrete, cement and plaster
35412 MERSETA Manufacture of basic metals, fabricated metal products, machinery and equipment
35590 StatsSA Manufacture of basic metals, fabricated metal products, machinery and equipment
35780 MERSETA Manufacture and installation of pneumatic and hydraulic systems
35790 StatsSA Manufacture and installation of pneumatic and hydraulic systems
35791 ISETT Manufacture of alarm systems
35790 StatsSA Manufacture and installation of pneumatic and hydraulic systems
35691 MERSETA Air conditioning and refrigeration equipment, and its design and installation
36000 StatsSA Air conditioning and refrigeration equipment, and its design and installation
36504 MAPPP Graphic design, manufacture and display of illuminated signs and advertising displays and other graphic media outputs and products
36502 StatsSA Manufacture of illuminated signs and advertising displays
36601 MERSETA Manufacture of electrical machinery and apparatus n.e.c
36600 StatsSA Manufacture of other electrical equipment n.e.c.
87147 ISETT Electronics importation and product integration of pre-manufactured electronics IT and telecommunications equipment
36600 StatsSA Manufacture of other electrical equipment n.e.c.
87148 ISETT Telecommunications importation and product integration of pre-manufactured electronics IT and telecommunications equipment
37201 MERSETA Manufacture of television and radio transmitters and apparatus for line telephone and telegraphy and other communications equipment n.e.c.
37200 StatsSA Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
37413 HWSETA Manufacture of medical precision and optical instruments
37410 StatsSA Manufacture of medical and surgical equipment and orthopedic appliances
37601 MQA Manufacture of watches, clocks and related articles
37600 StatsSA Manufacture of watches and clocks
38101 MERSETA Manufacture and assembly of motor vehicles
38100 StatsSA Manufacture of motor vehicles
39104 N/A Ship fitting
38420 StatsSA Building and repairing of pleasure and sporting boats
39105 FIETA Furnishing of ships
38420 StatsSA Building and repairing of pleasure and sporting boats
39005 CHIETA Powder coating and shelving
39002 StatsSA Dip coating
39106 FIETA Cane furniture
39100 StatsSA Manufacture of furniture
39107 FIETA Bedding
39100 StatsSA Manufacture of furniture
39108 FIETA Curtaining
39100 StatsSA Manufacture of furniture
39109 N/A Wooden utility items
39100 StatsSA Manufacture of furniture
3910A N/A Upholstery
39100 StatsSA Manufacture of furniture
3910B N/A Wooden furniture
39100 StatsSA Manufacture of furniture
39110 FIETA Caravan furniture
39100 StatsSA Manufacture of furniture
39521 MERSETA Recycling of plastic materials
39520 StatsSA Recycling of non-metal waste and scrap n.e.c.
41114 ESETA Generation of renewable energy
41111 StatsSA Generation of energy
41117 N/A Generation of electric energy by local governments
41111 StatsSA Generation of energy
41115 ESETA Transmission of energy
41112 StatsSA Distribution of purchased electric energy only
41118 ESETA Marketing of electricity
41112 StatsSA Distribution of purchased electric energy only
41116 ESETA Project management, maintenance and operation of electrical generation, transmission and distribution, plants, networks and systems
41113 StatsSA Generation and/or distribution for own use
41210 CHIETA Manufacture of industrial gases in compressed, liquefied or solid forms
41200 StatsSA Manufacture of gas; distribution of gaseous fuels through mains
42001 LGWSETA Public water enterprises: Collection, purification and distribution of water, including potable water supply, domestic waste and sewage systems, refuse and sanitation services
42000 StatsSA Collection, purification and distribution of water
42002 LGWSETA Private water companies: Collection, purification and distribution of water, including potable water supply, domestic waste and sewage services, refuse and sanitation services
42000 StatsSA Collection, purification and distribution of water
42003 LGWSETA Irrigation boards: collection, purification and distribution of water, including potable water supply, domestic waste and sewage systems, refuse and sanitation services
42000 StatsSA Collection, purification and distribution of water
50001 CETA Contractor development
50000 StatsSA Construction
50101 CETA Excavation, earth moving and tunneling
50100 StatsSA Site preparation
50102 CETA Demolition of buildings and structures
50100 StatsSA Site preparation
50103 CETA Shoring and piling
50100 StatsSA Site preparation
50201 CETA Construction management and supervision
50200 StatsSA Building of complete constructions or parts thereof; civil engineering
50202 CETA Cutting, bending and fixing of reinforcing steel
50200 StatsSA Building of complete constructions or parts thereof; civil engineering
50203 CETA Manufacture and assembly of building related aluminium components and fixtures, including aluminium fenestration and skylight installation
50200 StatsSA Building of complete constructions or parts thereof; civil engineering
50212 CETA Building construction and project management
50210 StatsSA Construction of buildings
50213 CETA Timber construction
50219 StatsSA Timber construction
50221 CETA Construction and maintenance of water supply, sewage and storm water infrastructure
50220 StatsSA Construction of civil engineering structures
50222 ESETA Construction of pylons for electric transmission lines
50220 StatsSA Construction of civil engineering structures
50223 N/A Construction of pylons for electric transmission lines by local governments
50220 StatsSA Construction of civil engineering structures
50231 CETA Plant operation
50230 StatsSA Construction of other structures
50232 CETA Building installation, services and completion
50230 StatsSA Construction of other structures
50241 CETA Carpentry
50240 StatsSA Construction by specialist trade contractors
50242 CETA Ceiling and partition erection
50240 StatsSA Construction by specialist trade contractors
50243 CETA Conservation, restoration and refurbishment of buildings, structures etc.
50240 StatsSA Construction by specialist trade contractors
50244 CETA Shuttering
50240 StatsSA Construction by specialist trade contractors
50250 CETA Structural steel and cladding contracting
50240 StatsSA Construction by specialist trade contractors
50260 CETA Construction, maintenance and repair of roads, runways, bridges, tunnels and related structures including draining and road services
50240 StatsSA Construction by specialist trade contractors
50261 CETA Road surfacing and repair; hot mix and cold mix asphalt manufacture; and bituminous slurry, bituminous emulsion and modified bituminous binder manufacture
50240 StatsSA Construction by specialist trade contractors
34261 CETA Dimensional stone trades
50390 StatsSA Dimensional stone trades
50340 CETA Bricklaying
50390 StatsSA Dimensional stone trades
50350 CETA Plastering, tiling and paving
50390 StatsSA Dimensional stone trades
50360 CETA Fencing
50390 StatsSA Dimensional stone trades
50370 CETA Glazing
50390 StatsSA Dimensional stone trades
50380 CETA Scaffolding
50390 StatsSA Dimensional stone trades
50391 CETA Fire suppression equipment installation and maintenance in buildings
50390 StatsSA Dimensional stone trades
50392 MERSETA Manufacture of fire sprinklers
50390 StatsSA Dimensional stone trades
34221 CETA Installation of refractory ceramic products
50490 StatsSA Installation of refractory ceramic products
50411 SERVICES Decorating business / Interior designers and decorators
50490 StatsSA Installation of refractory ceramic products
50420 CETA Roofing
50490 StatsSA Installation of refractory ceramic products
50430 CETA Floor covering
50490 StatsSA Installation of refractory ceramic products
50491 CETA Waterproof contracting
50490 StatsSA Installation of refractory ceramic products
50492 MERSETA Manufacture of waterproofing products
50490 StatsSA Installation of refractory ceramic products
50493 MERSETA Manufacture of resistant and insulation material
50490 StatsSA Installation of refractory ceramic products
30133 SETASA Fruit Exporters and importers
61221 StatsSA Fruit Exporters and importers
61421 SERVICES Import and Export of various metals
61420 StatsSA Wholesale trade in metal and metal ores
61502 SETASA Wholesale & retail trade in agricultural machinery
61509 StatsSA Wholesale & retail trade in agricultural machinery
62111 SETASA Sale and distribution of agricultural raw materials and other farming inputs
62110 StatsSA Retail trade in non-specialised stores with food, beverages and tobacco predominating
62112 SETASA Service for nut farmers and companies
62110 StatsSA Retail trade in non-specialised stores with food, beverages and tobacco predominating
62208 SETASA Processing and dispatching of tobacco
62209 StatsSA Processing and dispatching of tobacco
62311 W&RSETA Retail of non-prescribed medicines and pharmaceutical products other than by pharmacists
62310 StatsSA Retail trade in pharmaceutical and medical goods, cosmetic and toilet articles
62313 HWSETA Private sector pharmacy services
62310 StatsSA Retail trade in pharmaceutical and medical goods, cosmetic and toilet articles
62314 HWSETA Public sector pharmacy services
62310 StatsSA Retail trade in pharmaceutical and medical goods, cosmetic and toilet articles
62315 HWSETA Pharmacy management services
62310 StatsSA Retail trade in pharmaceutical and medical goods, cosmetic and toilet articles
65004 W&RSETA Retailing of beauty products
62310 StatsSA Retail trade in pharmaceutical and medical goods, cosmetic and toilet articles
65002 W&RSETA Retail of baby clothing
62320 StatsSA Retail trade in textiles, clothing, footwear and leather goods
65005 W&RSETA Sale of marine equipment and everything to do with boats
62323 StatsSA Retail trade by general outfitters and by dealers in piece goods, textiles, leather and travel accessories
65003 W&RSETA Selling of wooden doors
62340 StatsSA Retail trade in hardware, paints and glass
65006 W&RSETA Retail of packing materials
62399 StatsSA Retail trade by other specialised stores
86010 ISETT Consumer electronics repair and maintenance
62602 StatsSA Repair, servicing and installation of household and personal appliances
63001 N/A Sale, maintenance and repair of motor vehicles and cycles
63000 StatsSA Sale, maintenance and repair of motor vehicles and motor cycles; retail trade in automotive fuel
63205 MERSETA Sale, service, fitting, maintenance and repair of new and used cars
63200 StatsSA Maintenance and repair of motor vehicles
86012 ISETT Communication equipment repair and maintenance
63202 StatsSA Electrical repairs
86013 ISETT Other electronic and precision equipment repair and maintenance
63202 StatsSA Electrical repairs
86014 ISETT Repair and maintenance of electronic marine equipment
63202 StatsSA Electrical repairs
96133 ISETT Installation, Maintenance and repair of tracking devices for cars
63209 StatsSA Other maintenance and repairs n.e.c.
63312 MERSETA Sale, service and fitting of car accessories
63300 StatsSA Sale of motor vehicle parts and accessories
63314 MERSETA Sale fitting and service of new and used tyres
63311 StatsSA Sale of tyres
63313 MERSETA Sale of used parts and accessories from metal scrap yards
63320 StatsSA Sale of used parts and accessories from metal scrap yards
63401 N/A Sale of new and used motor cycles
63400 StatsSA Sale, maintenance and repair of motor cycles and related parts and accessories
63402 MERSETA Sale, service, fitting, maintenance and repair of new and used motor cycles
63400 StatsSA Sale, maintenance and repair of motor cycles and related parts and accessories
63002 W&RSETA Retail trade in automotive fuel
63500 StatsSA Retail trade in automotive fuel
64101 THETA Hotels, motels, boatels and inns not registered
64100 StatsSA Hotels, camping sites and other provision of short-stay accommodation
64104 THETA Hotels, motels, boatels and inns registered
64100 StatsSA Hotels, camping sites and other provision of short-stay accommodation
64105 THETA Bed and breakfast
64100 StatsSA Hotels, camping sites and other provision of short-stay accommodation
64106 THETA Management and operation of game lodges
64100 StatsSA Hotels, camping sites and other provision of short-stay accommodation
64206 THETA Fast food establishments
64200 StatsSA Restaurants, bars and canteens
64207 THETA Other catering services n.e.c. including pubs, taverns, night clubs
64202 StatsSA Restaurants or tearooms without liquor license
64205 THETA Take-away restaurants
64203 StatsSA Take-away counters
74111 TETA Transport of goods
71000 StatsSA Land transport; transport via pipelines
71201 TETA Land transport
71200 StatsSA Other land transport
71213 N/A Urban, suburban and inter-urban bus and coach passenger lines, operated by local government
71211 StatsSA Urban, suburban and inter-urban bus and coach passenger lines
71214 THETA Tour operators (inbound and outbound tour operators)
71220 StatsSA Tour operators (inbound and outbound tour operators)
71223 THETA Safaris and sightseeing trip operators
71220 StatsSA Tour operators (inbound and outbound tour operators)
74136 SETASA Transport of livestock as supporting activity
71239 StatsSA Other freight transport by road
73002 THETA Inbound international flights
73000 StatsSA Air transport
71232 TETA Freight forwarding and clearing
74110 StatsSA Freight forwarding and clearing
30313 SETASA Handling and storage of grain
74120 StatsSA Handling and storage of grain
74112 TETA Tow truck services
74132 StatsSA Tow truck services
73001 TETA Civil aviation
74134 StatsSA Civil aviation
75121 SERVICES Mail handling
75100 StatsSA Postal and related courier activities
75201 ISETT Wired telecommunication carriers
75200 StatsSA Telecommunication
75202 ISETT Television broadcasting
75200 StatsSA Telecommunication
75203 ISETT Cable networks and programme distribution
75200 StatsSA Telecommunication
75204 N/A Telephone and wired telecommunication carriers
75200 StatsSA Telecommunication
75205 ISETT Wireless telecommunication carriers except satellite
75200 StatsSA Telecommunication
75206 ISETT Radio Broadcasting
75200 StatsSA Telecommunication
75207 ISETT Radio networks
75200 StatsSA Telecommunication
75208 ISETT Radio stations
75200 StatsSA Telecommunication
75209 ISETT Television broadcasting
75200 StatsSA Telecommunication
75210 ISETT Telecommunications
75200 StatsSA Telecommunication
75211 ISETT Telecommunication and wired telecommunication carriers
75200 StatsSA Telecommunication
75212 ISETT Paging
75200 StatsSA Telecommunication
75213 ISETT Cellular and other wireless telecommunications
75200 StatsSA Telecommunication
75214 ISETT Satellite telecommunications
75200 StatsSA Telecommunication
75215 ISETT Other telecommunications
75200 StatsSA Telecommunication
75111 SERVICES Banking via post office
81900 StatsSA Banking via post office
81901 SERVICES Project financial management
81900 StatsSA Banking via post office
81903 N/A Asset management
81900 StatsSA Banking via post office
81904 FASSET Investment entities and trusts
81900 StatsSA Banking via post office
81905 BANKSETA Unit trusts
81900 StatsSA Banking via post office
88102 FASSET Asset portfolio management
81900 StatsSA Banking via post office
82132 HWSETA Medical aid schemes
82100 StatsSA Insurance and pension funding, except compulsory social security
82191 INSETA Short term insurance
82100 StatsSA Insurance and pension funding, except compulsory social security
82131 INSETA Health care benefits administration
82130 StatsSA Medical aid funding
82192 INSETA Funeral insurance
82190 StatsSA Other insurance n.e.c.
82193 INSETA Reinsurance
82190 StatsSA Other insurance n.e.c.
83101 BANKSETA Securities dealings by banks
83100 StatsSA Activities auxiliary to financial intermediation, except insurance and pension funds
83102 BANKSETA Activities ancillary to financial mediation
83100 StatsSA Activities auxiliary to financial intermediation, except insurance and pension funds
83121 FASSET Stock broking activities
83120 StatsSA Security dealing activities
83180 FASSET Development corporations and organizations
83120 StatsSA Security dealing activities
84111 THETA Time sharing
84130 StatsSA Time sharing
84202 SERVICES Property management services
84200 StatsSA Real estate activities on a fee or contract basis
84203 SERVICES Estate Agencies
84200 StatsSA Real estate activities on a fee or contract basis
84201 SERVICES Real estate valuation services
84210 StatsSA Real estate valuation services
85111 THETA Renting of land transport equipment including car rentals
85110 StatsSA Renting of land transport equipment
86005 ISETT Office machinery and equipment rental and leasing
85230 StatsSA Renting of office machinery and equipment (including computers)
85291 MQA Supply of mining equipment
85290 StatsSA Renting of other machinery and equipment n.e.c.
86001 ISETT Software publishers
86200 StatsSA Software publishers
86002 ISETT Computer systems design and related services
86200 StatsSA Software publishers
86006 ISETT Computer programming services
86200 StatsSA Software publishers
86009 ISETT Computer system design services and integrated solutions
86200 StatsSA Software publishers
86004 ISETT Electronic and precision equipment repair and maintenance
86500 StatsSA Electronic and precision equipment repair and maintenance
86011 ISETT Computer and office machine repair, maintenance and support services
86500 StatsSA Electronic and precision equipment repair and maintenance
86003 ISETT Computer facilities management services
86900 StatsSA Computer facilities management services
86007 ISETT Other computer related activities
86900 StatsSA Computer facilities management services
87141 ESETA Industrial research for electrical energy
87140 StatsSA Industrial research, e.g. fuel research
87142 ISETT Research and development of electronic equipment and systems
87140 StatsSA Industrial research, e.g. fuel research
87143 ISETT Information technology import and product integration of pre-manufactured electronics IT and telecommunications equipment
87140 StatsSA Industrial research, e.g. fuel research
87144 FIETA Forest research
87140 StatsSA Industrial research, e.g. fuel research
87145 N/A Scientific research and development services
87140 StatsSA Industrial research, e.g. fuel research
87146 ISETT Research and development in the physical and engineering sciences
87140 StatsSA Industrial research, e.g. fuel research
87132 ETDP SETA Research and development
87190 StatsSA Research and development
87131 HWSETA SA medical Research council
87200 StatsSA SA medical Research council
91108 FASSET South African Revenue Service (SARS)
88100 StatsSA Legal, accounting, bookkeeping and auditing activities; tax consultancy; market research and public opinion research; business and management consultancy
88101 FASSET Tax services
88120 StatsSA Tax services
91108 FASSET South African Revenue Service (SARS)
88120 StatsSA Tax services
81902 INSETA Risk management
88140 StatsSA Risk management
88103 FASSET Company secretary services
88140 StatsSA Risk management
88141 SERVICES General consulting services
88140 StatsSA Risk management
88201 MERSETA Precision engineering
88211 StatsSA Precision engineering
88217 N/A Roads
88211 StatsSA Precision engineering
88218 N/A Municipal public works functions (specifically assigned)
88211 StatsSA Precision engineering
88219 N/A Municipal fencing and fences
88211 StatsSA Precision engineering
8821A N/A Municipal roads
88211 StatsSA Precision engineering
8821B N/A Street lighting
88211 StatsSA Precision engineering
8821C CETA Earth crust drilling
88211 StatsSA Precision engineering
88221 HWSETA Biomedical engineering
88211 StatsSA Precision engineering
8821D CETA Landscape architecture
88212 StatsSA Architectural activities
88222 CETA Testing the strength of concrete
88220 StatsSA Technical testing and analysis
88229 N/A Other activities - engineering and other commercial research, developing and testing e.g. SABS
88220 StatsSA Technical testing and analysis
88313 MAPPP Commercial design
88312 StatsSA Sign writing and industrial and commercial artistry
86008 ISETT Call centre and customer relationship management system development
88900 StatsSA Call centre and customer relationship management system development
88913 CETA Labour only contracting for building and construction
88910 StatsSA Labour recruitment and provision of staff
88914 CETA Sub-contracting for building and construction
88910 StatsSA Labour recruitment and provision of staff
88915 HWSETA Health professionals’ employment agencies
88912 StatsSA Hiring out of workers (labour-broking activities)
88916 SERVICES Private employment agencies & temporary employment services
88912 StatsSA Hiring out of workers (labour-broking activities)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Department/Agency</th>
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<tbody>
<tr>
<td>88917</td>
<td>SERVICES Temporary employment services</td>
<td>StatsSA</td>
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<tr>
<td>88912</td>
<td>StatsSA Hiring out of workers (labour-broking activities)</td>
<td>StatsSA</td>
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<tr>
<td>88918</td>
<td>SERVICES Permanent Employment Agencies</td>
<td>StatsSA</td>
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<tr>
<td>88912</td>
<td>StatsSA Hiring out of workers (labour-broking activities)</td>
<td>StatsSA</td>
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<td>88931</td>
<td>N/A Building and industrial plant cleansing activities</td>
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<tr>
<td>88930</td>
<td>StatsSA Building and industrial plant cleaning activities</td>
<td>StatsSA</td>
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<tr>
<td>8899A</td>
<td>THETA Event and conference management</td>
<td>StatsSA</td>
</tr>
<tr>
<td>88999</td>
<td>StatsSA Other business activities n.e.c.</td>
<td>StatsSA</td>
</tr>
<tr>
<td>8899B</td>
<td>MAPPP Duplicating / photocopying in copy shops</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91106</td>
<td>DIDTETA Department of foreign affairs</td>
<td>StatsSA</td>
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<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91107</td>
<td>DIDTETA Department of trade and industry</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
</tr>
<tr>
<td>9110A</td>
<td>POSLECSETA Policing</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
</tr>
<tr>
<td>9110B</td>
<td>POSLECSETA Correctional services</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
</tr>
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<td>9110C</td>
<td>POSLECSETA Justice</td>
<td>StatsSA</td>
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<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
</tr>
<tr>
<td>9110D</td>
<td>DIDTETA Department of defence</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91101</td>
<td>StatsSA Government departments</td>
<td>StatsSA</td>
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<tr>
<td>91104</td>
<td>DIDTETA NIA National Intelligence Agency</td>
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</tr>
<tr>
<td>91109</td>
<td>StatsSA NIA National Intelligence Agency</td>
<td>StatsSA</td>
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<tr>
<td>91105</td>
<td>DIDTETA SASS South African Secret Services</td>
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<tr>
<td>91109</td>
<td>StatsSA NIA National Intelligence Agency</td>
<td>StatsSA</td>
</tr>
<tr>
<td>9110F</td>
<td>PSETA Parastatals n.e.c.</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91300</td>
<td>StatsSA Parastatals n.e.c.</td>
<td>StatsSA</td>
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<tr>
<td>91201</td>
<td>LGWSETA All functions, services and facilities provided by a metropolitan council as determined by 84(1); (2) and (3) of Act 117 of 1998 - Local Government Municipal Structure Act of 1998</td>
<td>StatsSA</td>
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<tr>
<td>91300</td>
<td>StatsSA Parastatals n.e.c.</td>
<td>StatsSA</td>
</tr>
<tr>
<td>91202</td>
<td>LGWSETA Category B municipalities: all functions, services and facilities provided by local council as determined by 84(1), (2) and (3) of Act 117 of 98</td>
<td>StatsSA</td>
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<td>91300</td>
<td>StatsSA Parastatals n.e.c.</td>
<td>StatsSA</td>
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</tbody>
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91203 LGWSETA Category C municipalities: all functions, services and facilities provided by a district council and district area management as per Act 117 as determined by 84(1), (2) and (3) of Act 117 of 1998 Local government Municipal Structures Act 1998

91300 StatsSA Parastatals n.e.c.

91204 LGWSETA Organized local government- any statutory or regulatory body assigned the function as per constitution of RSA, to deal with matters at and executive level within local government

91300 StatsSA Parastatals n.e.c.

91301 N/A Metro police

91300 StatsSA Parastatals n.e.c.

91302 N/A Traffic management / law enforcement

91300 StatsSA Parastatals n.e.c.

91303 N/A Air pollution

91300 StatsSA Parastatals n.e.c.

91304 N/A Municipal planning

91300 StatsSA Parastatals n.e.c.

91305 N/A Trading regulations

91300 StatsSA Parastatals n.e.c.

91306 N/A Billboards and the display of advertisements in public places

91300 StatsSA Parastatals n.e.c.

91307 N/A Control of public nuisances

91300 StatsSA Parastatals n.e.c.

91308 N/A Control of undertakings that sell liquor to the public

91300 StatsSA Parastatals n.e.c.

91309 N/A Licensing of dogs

91300 StatsSA Parastatals n.e.c.

9130A N/A Licensing and control of undertakings that sell food to the public

91300 StatsSA Parastatals n.e.c.

9130B N/A Noise pollution

91300 StatsSA Parastatals n.e.c.

9130C N/A Street trading

91300 StatsSA Parastatals n.e.c.

9130D N/A Management of parking lots, park meters and traffic lights

91300 StatsSA Parastatals n.e.c.
9130E CETA Town and regional planning
91300 StatsSA Parastatals n.e.c.
9130F N/A Land use planning
91300 StatsSA Parastatals n.e.c.
93101 HWSETA Universities, specialist pharmaceutical and drug information services
92007 StatsSA Education by universities
9200A ETDP SETA NGOs involved in education
92009 StatsSA Other educational services - own account teachers, motor vehicle driving schools/tutors and music, dancing and other art schools etc
9200B N/A Pre-primary education and activities of after school centres by local authorities
92009 StatsSA Other educational services - own account teachers, motor vehicle driving schools/tutors and music, dancing and other art schools etc
92010 ETDP SETA Examination and assessment bodies
92009 StatsSA Other educational services - own account teachers, motor vehicle driving schools/tutors and music, dancing and other art schools etc
93102 HWSETA Public and private rehabilitation
92009 StatsSA Other educational services - own account teachers, motor vehicle driving schools/tutors and music, dancing and other art schools etc
93104 HWSETA Ancillary health care services
93000 StatsSA Health and social work
93105 HWSETA Residential care facilities
93100 StatsSA Human health activities
93106 HWSETA Rehabilitation services
93100 StatsSA Human health activities
93107 HWSETA Environmental and occupational health and safety services
93100 StatsSA Human health activities
93108 HWSETA Health maintenance organizations
93100 StatsSA Human health activities
9311B HWSETA Private hospitals
93110 StatsSA Hospital activities
9311C HWSETA Mine hospitals
93110 StatsSA Hospital activities
9311D HWSETA Company owned hospitals
93110 StatsSA Hospital activities
9319D HWSETA Public hospitals and clinics
93110 StatsSA Hospital activities
9319F HWSETA Private hospitals and clinics
93110 StatsSA Hospital activities
9319H N/A Municipal clinics
93110 StatsSA Hospital activities
9311A HWSETA Defence force hospitals
93119 StatsSA Other hospitals, n.e.c.
9311E HWSETA Hospice care facilities
93119 StatsSA Other hospitals, n.e.c.
9319E HWSETA Community services
93119 StatsSA Other hospitals, n.e.c.
9319G N/A Day clinics
93119 StatsSA Other hospitals, n.e.c.
9319I N/A Community care services
93119 StatsSA Other hospitals, n.e.c.
9312A HWSETA Public sector doctors
93120 StatsSA Medical and dental practice activities
9312B HWSETA Private sector doctors
93120 StatsSA Medical and dental practice activities
9312D HWSETA Industry based doctors
93120 StatsSA Medical and dental practice activities
9312E HWSETA Doctors in charitable organisations
93120 StatsSA Medical and dental practice activities
9312G HWSETA Public service dentists
93120 StatsSA Medical and dental practice activities
9312H HWSETA Private sector dentists
93120 StatsSA Medical and dental practice activities
9319J N/A Public sector clinicians and managers
93120 StatsSA Medical and dental practice activities
9312C HWSETA General and specialist practice
93121 StatsSA Medical practitioner and specialist activities
9312F HWSETA Pediatrics
93190 StatsSA Pediatrics
9312I HWSETA Oral hygienists
93190 StatsSA Pediatrics
9312J HWSETA Dental therapists
93190 StatsSA Pediatrics
9312K HWSETA Dental laboratories
93190 StatsSA Pediatrics
9319A HWSETA Public sector emergency services
93190 StatsSA Pediatrics
9319B N/A Local government services
93190 StatsSA Pediatrics
9319C HWSETA State services
93190 StatsSA Pediatrics
9319M HWSETA Optical and optometric services
93190 StatsSA Pediatrics
9319N HWSETA Dietetics and nutritional services
93190 StatsSA Pediatrics
9319P HWSETA Complementary health services
93190 StatsSA Pediatrics
9319Q HWSETA Laboratory services
93190 StatsSA Pediatrics
9319R N/A Laboratories
93190 StatsSA Pediatrics
9319K N/A Private sector nurses
93191 StatsSA Supplementary health services or paramedical staff (practitioners)
9319L N/A Local government nurses
93191 StatsSA Supplementary health services or paramedical staff (practitioners)
33531 HWSETA Traditional healing services
93199 StatsSA Traditional healing services
9319S HWSETA Ambulance services
93199 StatsSA Traditional healing services
9319T HWSETA Blood transfusion
93199 StatsSA Traditional healing services
9319U HWSETA Psychological and psychometric testing
93199 StatsSA Traditional healing services
9319V N/A Public and private laboratory services
93199 StatsSA Traditional healing services

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93201 N/A State services
93199 StatsSA Traditional healing services
93202 N/A Local government
93300 StatsSA Local government
93301 HWSETA Public welfare sector
93300 StatsSA Local government
93302 HWSETA Private Welfare Sector
93300 StatsSA Local government
93303 HWSETA Development and social services
93300 StatsSA Local government
93304 N/A Social Work Activities within local government
93300 StatsSA Local government
9391W HWSETA NGO Welfare Sector
93300 StatsSA Local government
93103 HWSETA Other services including local government, mines and industry
94000 StatsSA Other services including local government, mines and industry
94002 N/A Health and community services
94000 StatsSA Other services including local government, mines and industry
94003 N/A Water and sanitation services (potable water supply, domestic waste water and sewage systems)
94000 StatsSA Other services including local government, mines and industry
94004 TETA Waste management
94000 StatsSA Other services including local government, mines and industry
94005 N/A Other community, social and personal service activities provided by municipalities
94000 StatsSA Other services including local government, mines and industry
94001 N/A Refuse and sanitation
94009 StatsSA Refuse and sanitation
95121 ETDP SETA Professional organizations in education
95120 StatsSA Activities of professional organisations
95122 SERVICES Professional bodies n.e.c.
95120 StatsSA Activities of professional organisations
95991 SERVICES Bargaining councils and dispute resolution
95200 StatsSA Activities of trade unions
95911 SERVICES Religious institutions, grief counseling, work with the dying e.g. Hospices, etc
95910 StatsSA Activities of religious organisations
95992 SERVICES Associations, federations and umbrella bodies
95990 StatsSA Activities of other membership organisations n.e.c.
96001 N/A Recreational, cultural and sporting facilities within local government
96000 StatsSA Recreational, cultural and sporting activities
96002 THETA Recreational, leisure and outdoor adventure activities incl. management and operation of facilities, government departments
96000 StatsSA Recreational, cultural and sporting activities
96113 MAPPP Film and video reproduction
96111 StatsSA Motion picture and video production and distribution
96123 MAPPP Bioscope cafes
96122 StatsSA Motion picture projections by drive-in cinemas
96131 ISETT Providing radio and television transmission signals
96130 StatsSA Radio and television activities
96132 MAPPP Production and broadcast of radio and television broadcast content
96130 StatsSA Radio and television activities
96141 MAPPP Activities of artists and entertainers
96140 StatsSA Dramatic arts, music and other arts activities
96142 MAPPP Activities of theatre and entertainment technicians
96140 StatsSA Dramatic arts, music and other arts activities
96143 MAPPP Production of 'live' theatrical and artistic events
96140 StatsSA Dramatic arts, music and other arts activities
96144 MAPPP Activities of arts councils and other related institutions
96140 StatsSA Dramatic arts, music and other arts activities
96191 N/A Beaches and amusement facilities and fairs
96190 StatsSA Other entertainment activities n.e.c.
96192 N/A Pounds
96190 StatsSA Other entertainment activities n.e.c.
96193 N/A Public places
96190 StatsSA Other entertainment activities n.e.c.
96194 N/A Amusement arcades
96190 StatsSA Other entertainment activities n.e.c.
96195 THETA Operation & management of convention centres
96190 StatsSA Other entertainment activities n.e.c.
96196 THETA Amusement Parks
96190 StatsSA Other entertainment activities n.e.c.
96311 ETDP SETA Provision and operation of libraries of all kinds
96310 StatsSA Library and archives activities
96321 N/A Museum activities and preservation of historical sites and buildings by local governments
96320 StatsSA Museum activities and preservation of historical sites and buildings
96331 N/A Parks and gardens under control of municipalities
96330 StatsSA Botanical and zoological gardens and nature reserve activities
96332 N/A Zoos
96330 StatsSA Botanical and zoological gardens and nature reserve activities
96333 THETA Game parks, reserves incl. but not limited to wildlife, parks, zoological or animal parks and botanical gardens
96330 StatsSA Botanical and zoological gardens and nature reserve activities
96334 THETA Activities of conservation bodies
96330 StatsSA Botanical and zoological gardens and nature reserve activities
96335 THETA Wildlife conservation incl. wildlife, game, parks, game reserves, zoological establishments, botanical gardens etc
96330 StatsSA Botanical and zoological gardens and nature reserve activities
96336 THETA Tourist info centres
96330 StatsSA Botanical and zoological gardens and nature reserve activities
93195 THETA Operation and management of health and well-being centres incl. but not limited to hydros, spas, fitness centres etc.
96400 StatsSA Operation and management of health and well-being centres incl. but not limited to hydros, spas, fitness centres etc.
96411 THETA Operation and management of sporting facilities and clubs
96410 StatsSA Sporting activities
96412 THETA Operation and management of sport academies
96410 StatsSA Sporting activities
96413 THETA Promotion and management of sporting events and activities
96410 StatsSA Sporting activities
96414 N/A Local sports facilities under control of municipalities
96410 StatsSA Sporting activities
96415 THETA Management and operation of non-motorized sporting activities
96410 StatsSA Sporting activities
96416 N/A Operation of golf courses and clubs
96410 StatsSA Sporting activities
96417 THETA Sporting activities incl. but not limited to sport federations etc.
96410 StatsSA Sporting activities
96418 THETA Management and operation of motorized sporting activities
96410 StatsSA Sporting activities
96419 THETA Operation and management of horse racing events and clubs and academies
96410 StatsSA Sporting activities
96491 THETA The operation and management of recreation parks and beaches, fairs and shows of a recreational nature and recreational transport activities
96490 StatsSA Other recreational activities
96492 MAPPP The activities of casting for motion pictures, television and theatre productions.
96490 StatsSA Other recreational activities
96493 N/A Municipal parks
96490 StatsSA Other recreational activities
96494 THETA Gambling, licensed casinos and the national lottery incl. but not limited to book makers, totalisators, casinos, bingo operators
96490 StatsSA Other recreational activities
99001 N/A Building regulations
99000 StatsSA Other service activities
99002 SERVICES General cleaning
99000 StatsSA Other service activities
99003 SETASA Pest control
99000 StatsSA Other service activities
99004 N/A Project Management Frameworks
99000 StatsSA Other service activities
99005 N/A Project management integration
99000 StatsSA Other service activities
99006 N/A Project scope management
99000 StatsSA Other service activities
99007 N/A Project time management
99000 StatsSA Other service activities
99008 N/A Project Risk Management
99000 StatsSA Other service activities
99009 N/A Project communication management
99000 StatsSA Other service activities
99011 N/A Project human resource management
99000 StatsSA Other service activities
99012 N/A Project procurement management
99000 StatsSA Other service activities
99013 N/A Project quality management
99000 StatsSA Other service activities
99014 SERVICES Quality management and related services
99000 StatsSA Other service activities
99015 SERVICES Non-financial business management and management consulting
99000 StatsSA Other service activities
99016 SERVICES NGO management and services
99000 StatsSA Other service activities
99017 SERVICES SETA Management
99000 StatsSA Other service activities
99018 SERVICES Cleaning of carpet and upholstery
99000 StatsSA Other service activities
99019 SERVICES Cleaning equipment and consumable supply
99000 StatsSA Other service activities
99025 SERVICES Dry cleaning and laundering
99000 StatsSA Other service activities
99026 SERVICES Garden maintenance services
99000 StatsSA Other service activities
99027 SERVICES Domestic services
99000 StatsSA Other service activities
99028 THETA Car Hire
99000 StatsSA Other service activities
99028 THETA Car Hire
99000 StatsSA Other service activities
99029 SERVICES Function and catering equipment hire
99000 StatsSA Other service activities
99031 N/A Cemeteries
99000 StatsSA Other service activities
99032 N/A Facilities for the accommodation, car and burial of animals
99000 StatsSA Other service activities
99033 SERVICES Coffin making by funeral enterprises
99000 StatsSA Other service activities
99034 SERVICES Manufacture of funeral and tombstones
99000 StatsSA Other service activities
99035 SERVICES Miscellaneous item hire
99000 StatsSA Other service activities
99036 SERVICES Truck Hire
99000 StatsSA Other service activities
99037 SERVICES Video Hire
99000 StatsSA Other service activities
99038 SERVICES Brand marketers
99000 StatsSA Other service activities
99039 SERVICES Generic project management
99000 StatsSA Other service activities
99039 SERVICES Generic project management
99000 StatsSA Other service activities
99040 N/A Call centres
99000 StatsSA Other service activities
99041 SERVICES Nail technology including nail technologist, nail technicians and distributors and agencies of nail products
99000 StatsSA Other service activities
99042 SERVICES Perfumery including aromatics, aromatic oils and related products, perfumery consultants, sales people and distributors of perfumes
99000 StatsSA Other service activities
99043 SERVICES Health and skin care incl. health and skin care therapists, stress therapists and somatologists, slimming salons and distributors of slimming products including slimming machines
99000 StatsSA Other service activities
99044 SERVICES Make-up artistry
99000 StatsSA Other service activities
99045 SERVICES Personal services agencies
99000 StatsSA Other service activities
99046 SERVICES Modelling agencies
99000 StatsSA Other service activities
99047 SERVICES Pet care
99000 StatsSA Other service activities
99048 THETA Tourism authorities incl. but not limited to tourism marketing, tourist
    information centres, publicity associations
99000 StatsSA Other service activities
99049 THETA Guides incl. tourist river, mountain etc
99000 StatsSA Other service activities
99050 SERVICES Distributors of slimming products including slimming machines
99000 StatsSA Other service activities
99051 SERVICES Distributors of make-up products and related merchandise
99000 StatsSA Other service activities
99052 SERVICES Truck and plant hire
99000 StatsSA Other service activities
99053 SERVICES Valuers
99000 StatsSA Other service activities
99054 SERVICES Fashion design not related to clothing
99090 StatsSA Other service activities n.e.c.