

**Joint Initiative on Priority Skills  
Acquisition (JIPSA)**

**CONSOLIDATED REPORT: ARTISANS**

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**October 2009**

**FINAL DRAFT**

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## FOREWORD

The Joint Initiative for Priority Skills Acquisition (JIPSA) was launched in March 2006 to identify solutions to major skills shortages constraining South Africa's ability to meet the economic growth objectives contained in the Accelerated and Shared Growth Initiative for South Africa (AsgiSA)<sup>1</sup>. JIPSA has taken the form of a high level Joint Task Team (JTT), representing the different social partners engaged in the skills development environment, a Technical Working Group (TWG), and a Secretariat. JIPSA was initially intended to have an 18-month life span, but this was extended by a further 18-month period in November 2007, following a JTT bosberaad. JIPSA has subsequently been further extended, until March 31 2010, by decision of the Cabinet Committee on Employment and Investment; with the proviso that JIPSA begin its evolution into the relevant processes related to the Human Resource Development Strategy for South Africa (HRDS-SA).

As part of the process of wrapping up its work and preparing to transition into the HRDS-SA, JIPSA has commissioned a number of studies into the work that it has done since March 2006. The purpose for these studies is to bring together and analyse the various research and practical activities that have been undertaken in respect of the JIPSA priority areas. These reports are intended to explore what the initial outcomes of JIPSA's interventions have been: this is done in a manner that acknowledges that attribution is complex so instead focuses on elevating the key trends and issues that have emerged, in order to sustain these initiatives and feed key learning 'into the HRDS-SA.

This report focuses on one area of JIPSA's activities during the period under review – that of the work done in effecting change in relation to the supply of artisans, particularly in the 13 trades identified as priorities for engineering manufacturing and infrastructure development. This area is one of JIPSA's five 'priority skills areas', and has received considerable attention in line with JIPSA's overall three-point strategy for the acquisition of priority skills:

- Identifying five high profile priority skills areas
- Determining the skills required for the implementation of AsgiSA projects and increasing labour absorption
- Analysing perceived constraints and inefficiencies in the current frameworks and institutional arrangements for skills delivery<sup>2</sup>.

In developing this close-out report on Artisans the nature of JIPSA needs to be taken into account and as such the following points have been taken into consideration:

- JIPSA operates under the core assumption that skills acquisition is not just a numbers challenge but a systems challenge, so while targets must be established, it is equally important to address systems blockages, inefficiencies and quality issues.

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<sup>1</sup> Government sees the shortage of skilled labour as one of the six 'binding constraints' on achieving the sustained 6% annual growth rate required to halve poverty and unemployment. Other constraints include the overvaluation and volatility of South Africa's currency; an inadequate national infrastructure; barriers to entry, limits to competition and limited new investment opportunities; a cumbersome regulatory environment; and deficiencies in state organisation, capacity and leadership. Deputy President, Launch of JIPSA, March 2006

<sup>2</sup> JIPSA Report: March to December 2006, p.10

- JIPSA's role was never conceived as being that of an implementation agency. Rather its focus has been on bringing together the right stakeholders at the right time to address shared problems and to develop the modalities and approaches required to make visible and sustainable progress – essentially to identify the systems blockages, and then work with the relevant stakeholders to unblock those key areas through innovative approaches.

The focus of this study is therefore not necessarily to ascribe success in relation to increased numbers of artisans to JIPSA, but rather to understand how the collective work of the Joint Task Team has contributed to changes that have been made.

The report also contains a set of indicators, based on JIPSA's experience over the previous three and a half years. These indicators are proposed as key for monitoring changes in the system and the impact of these changes on agreed upon outcomes over time.

The indicators are presented in the Executive Summary as a guide for understanding what has been achieved by JIPSA thus far, essentially laying the basis for the next phase of artisan priority skills acquisition in South Africa.

## EXECUTIVE SUMMARY

The JIPSA Annual Report (2007) made the following opening observation:

Our economy was growing at an average rate of over 5% in 2005, 2006 and 2007, the first three years of AsgiSA, within the growth projections targeted for that period. In projecting future growth rates, the skills shortage was identified as one of the main threats towards achieving a sustainable gross domestic product (GDP) growth that will be consistent with AsgiSA targets set for the periods 2005 to 2014. At the same time, the global skills shortage persists, mainly created by strengthened emerging economies in the years prior to 2007. South Africa's skills challenge is thus not unique, but the global competition for skills puts us in a less favourable position.<sup>3</sup>

Six months later, the global economic climate and, consequently South Africa's industrial activity, was under significant financial constraint, suffering severe job losses and contraction of economic activity. This placed skills development under severe pressure and the numbers of artisans in training has declined in 2009-2010<sup>4</sup>.

While the achievement of the JIPSA target of 50,000 artisans qualified or in training by 2010 is under threat, significant gains have been made in re-establishing a national focus on and mechanisms for quality artisan development which can be sustained post-2010.

### Artisan development gains

1. Establishment of a platform for the national recognition of artisan qualifications based on trade-related occupational requirements as reflected in the Skills Development Act (amended December 2008) and the National Qualifications Act (February 2009), i.e. the Occupational Qualifications sub-framework and the National Artisan Moderating Body which will ensure quality of standards for artisan occupational qualifications in both development and assessment.
2. Establishment of a national benchmark for all artisan qualifications being set as the relevant trade test and the consequent recognition of different learning pathways to artisan status through FET College programmes, apprenticeships and learnerships as well as the recognition of learning through work experience.
3. Increased financial and funding incentives for artisan development, including
  - a. Parity in tax allowances for companies employing learners in learnerships and apprenticeships
  - b. Additional funding for artisan development being made available through both the National Skills Fund and SETA discretionary grants
  - c. Significant funding for the re-capitalisation of FET Colleges
4. Increased participation by business and employers in the training of artisans including

<sup>3</sup> JIPSA, *Report on Activities in 2007*, Office of the Deputy President of South Africa, Pretoria, April 2008, Foreword, p.4

<sup>4</sup> This decline based on preliminary data – to be confirmed once quantitative data analysis complete.

- a. A signed commitment by captains of industry to increase their levels of participation in training against national priority and scarce skills,
  - b. The establishment of a joint initiative by 6 of the largest companies to training artisans for the national skills pool, i.e. over-and-above their own expansion / replacement demand requirements , known as the Technical Skills Business Partnership
  - c. The establishment of the Accelerated Artisan Training Project under the management of the Metal Engineering and Related Services SETA (MERSETA). Again this project focuses on companies training above their own replacement and expansion artisan skills related needs
  - d. The establishment of a focus within Business Leadership South Africa to develop a framework for quality artisan training.
5. Increased focus by the Department of Labour and SETAs to address the quality of artisan training and assessment through the establishment of a DoL-SETA Artisan Development Forum and a SETA Artisan Development Committee. In addition to addressing funding issues and establishing a benchmark for costing artisan development these structures are focussed on revising the trade related occupational qualifications and the associated trade tests as well as curriculum and workplace experiential learning requirements.
  6. Establishment of a platform for the “professionalisation” and ongoing monitoring or artisans in South Africa through the creation of a *national register for artisans* which will hold the names and details of all persons who have qualified through the relevant trade test and are practising as artisans against the trade in which they have qualified.

Most of these gains are reflected in the new legislative landscape, principally the Skills Development Act, as amended in December 2008, and are currently being translated into regulations with accompanying criteria and guidelines. As such the platform for artisan development is held to be sustainable in the long term.

### **Indicators for monitoring sustained artisan development**

The following table of indicators has been developed using the Government-Wide Programme Performance Monitoring and Evaluation Framework adopted in 2008: These indicators are recommended for ongoing monitoring and evaluation and highlight the need for a coherent artisan development information system to be urgently established.

| Area            | Indicator   | 2006   | 2009   |
|-----------------|---|--|--|
| <b>Impact</b>   | Pool of skilled artisans to support engineering and infrastructure development is increased – need to import or pay above market wage premiums is decreased | <ul style="list-style-type: none"> <li>• The fundamental impact indicator relates to securing a skilled pool of artisans for South Africa. From the late 1980s, there had been a marked decline in the numbers of artisans being trained resulting in an absolute artisan skills shortage by 2005 able to respond to the economic growth demand. The key impact is to be measured as much by the increased numbers of artisans and a decrease in demand as by the re-establishment of the culture and practice of training artisans.               <ul style="list-style-type: none"> <li>○ Legislative separation of artisan training systems (apprenticeships under Manpower Training Act, learnerships under Skills Development Act, artisan related theory and practical under FET Act)</li> <li>○ National Master Scarce Skills List (2006) reflects shortage of 40,000 plus artisans in 2006-07. JIPSA research projects this as over 50,000 by 2010.</li> </ul> </li> <li>• JIPSA target for priority artisan skills acquisition set at 50,000</li> </ul> | <ul style="list-style-type: none"> <li>• Artisan skills acquisition remain a national focus at legislative, strategy and implementation levels (e.g. amendments to the Skills Development Act, Dec 2008; NSDS 2 extension proposals)               <ul style="list-style-type: none"> <li>○ Legislative amendments incorporate apprenticeships into Skills Development legislation. Includes the establishment of a national register of qualified artisans.</li> <li>○ Government restructured to enhance alignment across learning system, especially important for FET College and skills development system.</li> </ul> </li> <li>• 2007 and 2008 National Master Scarce Skills lists reflect increase in demand to 60,000 plus artisans in engineering and construction related skills. Increase related to infrastructure, capital investment and business expansion activities as well as better labour market and skills demand research and monitoring.</li> <li>• Artisan development training increases substantially – roughly doubling from 5,600 per annum (average based on 2000-2009 figures) to 10,100 per annum (average based on 2006-2009 figures). Despite contraction of economy, employer commitments to “above equilibrium” training projects remains</li> </ul> |
| <b>Outcomes</b> | <ul style="list-style-type: none"> <li>• Increased number of people in recognised artisan development learning programmes</li> </ul>                        | <ul style="list-style-type: none"> <li>• From 1985 to 1995, the numbers of artisans in development annually decreased from a high of 33,000 in 1985 to just over 22,000 in 1994. By early 2005, this had fallen even further to around 4,500.</li> </ul>   | <ul style="list-style-type: none"> <li>• Numbers of artisans in training or qualified in the JIPSA priority areas (March 2006-June 2009) increases to over 32,100. Data on learners in relevant NCV programmes in FET Colleges not available</li> </ul>  |

| Area           | Indicator  | 2006  | 2009   |
|----------------|--|---|--|
|                | <ul style="list-style-type: none"> <li>• Increased number of people entering the trade test</li> <li>• Increased number of people passing the trade test</li> </ul>  | <ul style="list-style-type: none"> <li>• Data not available</li> <li>• Data not available</li> </ul>  | <ul style="list-style-type: none"> <li>• Over 2,000 people registered for Section 28 trade tests of which 1,610 complete; 5,367 Section 13 apprentices complete and 5,740 people complete learnerships. The completion trend follows that of registrations. A step change is anticipated in 2009 as the higher levels of new learners in artisan related programmes in 2007 and 2008 are completed.</li> <li>• Data not available</li> </ul>   |
| <b>Outputs</b> | <ul style="list-style-type: none"> <li>• Increased number of employers providing structured workplace experience</li> <li>• Alignment of learning pathways to achieve artisan status</li> <li>• Increased confidence in the quality of trade test certification</li> </ul> | <ul style="list-style-type: none"> <li>• Baseline data not available</li> <li>• No national mechanism to align learning pathways and confusion over the introduction of the National Certificate Vocational (NCV)</li> <li>• No national standard for administering trade tests across sectors or decentralised assessment centres. Lack of employer confidence in the Section 28 trade test (Recognition of work experience trade test)</li> </ul> | <ul style="list-style-type: none"> <li>• National data not available. Specific artisan development projects reflect number of large employers have increased artisan learner enrolments by a projected 10,000. MERSETA engineering new artisan training enrolments reflect 25% increase b reach over 5,000 for first time since 2000</li> <li>• Departments of Education and Labour agree on 4 pathways in 2007. Pathway recognition reflected in legislative provisions of Skills Development Act (amended December 2008) and will be realised through artisan (trade) related occupational qualifications and curriculum design</li> <li>• SETA/Department of Labour Trade Test sub-committee revises trade tests for engineering related artisan trades according to JIPSA artisan priorities. Skills Development Act (amended December 2008) establishes National Artisan Moderating Body to ensure quality and standardisation of trade tests and trade test certification</li> </ul> |

| Area          | Indicator  | 2006   | 2009   |
|---------------|--|--|--|
| <b>Inputs</b> | <ul style="list-style-type: none"> <li>• Funding to support artisan development</li> <li>• Information systems and research to support skills demand and supply analyses</li> <li>• Capacity to teach artisan trainees at institutions</li> <li>• Capacity to train and support artisan learners in the workplace</li> <li>• Capacity to assess trade test candidates</li> </ul> | <ul style="list-style-type: none"> <li>• No nationally agreed artisan training costs. Artisan related learning programme grants (Apprenticeships and learnerships) based on individual SETA available discretionary funds. No parity in the tax allowance for companies across learnerships and apprenticeships</li> <li>• Skills demand data and identification of scarce / priority skills in process of development. Skills supply information system not available</li> <li>• Data unavailable. Acknowledged concerns about capacity of FET College lecturers to implement new NCV curricula and industry recruitment of College lecturers to meet skills demand.</li> <li>• Data unavailable but shortage of skilled artisans acknowledged as constraining capacity of workplaces to adequately supervise and mentor trainee artisans</li> <li>• Data unavailable.</li> </ul> | <ul style="list-style-type: none"> <li>• Additional funds made available through the National Skills Fund scarce skills window. SETA Artisan Development sub-committee agrees benchmark cost for artisan training and formula for funding. Parity in the tax allowance established and promulgated (Tax Laws Amendment Act, October 2008)</li> <li>• Mechanisms to improve skills demand data and forecasting from Department of Labour and SETAs captured in new draft Sector Skills Plan formats and Guideline. Forecasting methodologies and data require ongoing improvements. Skills supply information management system not yet addressed and MIS across FET and SETA systems not available.</li> <li>• Data unavailable. Indications from Department of Labour and artisan development related projects indicate that quality training providers are over-subscribed (<b>pre-economic crisis</b>). Data on numbers and quality of FET College lecturers and trainers not available.</li> <li>• Data unavailable.</li> <li>• Data unavailable. Anecdotal reports of waiting period for trade test dates reported as between 6 and 12 months – indicates shortage of qualified trade test assessors in the JIPSA priority areas but cannot be confirmed due to lack of information.</li> </ul> |

## BACKGROUND

### ***ASGI-SA and the JIPSA focus on artisans***

JIPSA was established by Cabinet in 2006 to support the AsgiSA objectives to

1. Reduce the rate of unemployment from 30% to 15% by 2014, i.e. halve unemployment;
2. Reduce poverty from one-third to one-sixth of the population by 2014, i.e. halve poverty; and

Increase the annual rate of GDP growth from an average of 3% to 4,5% per annum for the period 2005 to 2009 and to 6% for the period 2010 to 2014<sup>5</sup>.

The establishment of JIPSA was a direct social partner acknowledgement of the critical shortage of skills in South Africa, identified as a “binding constraint”<sup>6</sup> on the country’s ability to reach the AsgiSA economic growth target of 6%. In particular, increasing the numbers of qualified and experienced people with engineering skills at professional, technical and trade levels was highlighted as a priority. In JIPSA Secretariat report to the JIPSA Joint Task Team (JTT), and after a review of available artisan data, the proposal for addressing skill shortages at artisan and trade/craft levels was sketched as follows:<sup>7</sup>

- While it is true that hard information on demand for and availability of intermediate and high level skill requirements (engineers, technicians / technologists and artisans) is difficult to accurately derive, there are sufficient indications of current and projected demand which have resulted in JIPSA proposing increasing the numbers of qualified engineers and technicians by 1,000 and 300 per annum to reach targets of 3,000 and 1,000, respectively by 2010. Current proposals are to increase the numbers of artisans – qualified and in-training – to 50,000 by 2010. This takes into account the fact that the average age of artisans is 54 years, a large number of whom will retire in the next 5 – 10 years.

### ***The JIPSA targets for artisan development***

The JIPSA artisan targets were based on a number of agreements reached through the JIPSA Artisan Advisory Group and the JTT following submissions by a range of stakeholders and researchers.

### **Agreements on the reasons for the decline in the numbers of skilled artisans:**

- Employers and researchers: The principle reason for the shortage of artisans lies in the decline of the apprenticeship training system and emerging evidence that, as in other parts of the world, learnerships (traineeships) have focussed on operator and process (machine minding) occupations and not on artisan or trades / craft occupations, i.e. intermediate level skills<sup>8</sup>. The learnership system had also not come on stream effectively across all sectors. Evidence cited included

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<sup>5</sup> Ibid, p. 7

<sup>6</sup> Deputy President, Launch of JIPSA, March 2006

<sup>7</sup> Gwede Mantashe and Glen Fisher, *Key Issues to be taken forward by JIPSA – July-October Priorities*, June 2006

<sup>8</sup> Dr Phillip Toner, *Declining Apprentice Training Rates: Causes, Consequences and Solutions*, Australian Expert Group in Industry Studies, University of Western Sydney, 2003

- The low levels of uptake in the Metal and Engineering industry where, by March 2006, just over a 1,000 learners were enrolled in learnerships above NQF level 1, of which only about 5% were at NQF level 4, i.e. the artisan equivalent level<sup>9</sup>.
- The numbers of learners exiting the system at the end of NQF level 2 for a range of reasons, including a lack of available funding or adequate planning for taking on these learners at NQF levels 3 or 4<sup>10</sup>.
- The mismatch between tax incentives for apprenticeship and learnership training
- Employers and researchers: Due to changes in work processes and increases in production pressures, there is less time available in the workplace for supervising and supporting *structured workplace learning*. With a shrinking skilled artisan pool, there are fewer people available with less time to supervise and support *structured on-the-job learning*. Opportunities for placement in structured workplace learning have been restricted by the decline in apprenticeship and trades related learnership intakes as a consequence of the steep decline in new intakes at State-Owned Enterprises, in the Mining Industry and in the Engineering Manufacturing sector as a result of low economic and business growth and through work re-organisation in the Construction sector as a result of a lack of investment in infrastructure projects<sup>11</sup>.
- Department of Labour: Schedules of training for designated trades have generally not been updated since the advent of SETAs and there is evidence of variation in apprentice training as well as assessment standards and the quality of trade tests at decentralised trade test centres<sup>12</sup>.
- Construction sector and Department of Education: Capacity to train artisans has been neglected at FET College which have not been able to keep up to date with new products, technology and changing forms of work organisation, resulting in outdated curricula, learning materials, equipment and trainers. Attempts by both industry and the Department of Education to address these shortfalls through partnership arrangements at institution level in particular projects and the introduction of a new National Vocational Certificate and curriculum system have yet to be finalised and implemented in a systemic and sustainable manner<sup>13</sup>.

#### **Agreements to increase the numbers and quality of skilled artisans:**

- The skills challenge is not simply a numbers (quantity) challenge. It includes both quality and systems challenges. This can be summarised as establishing mechanisms to retain people who are in the artisan development pipeline, to train them more effectively and to higher quality standards.
- To replenish the artisan skills pool in the country by **increasing the number of artisans** in training and qualifying in **relevant** artisan occupations to reach a national target of 50,000

<sup>9</sup> Minutes of the meeting of the SEIFSA Education and Training Advisory Committee, 18 July 2006

<sup>10</sup> Interviews with the Oil, Chemical and Gas Manufacturing (OCGM) Project Manager, April-May 2006

<sup>11</sup> Submissions by Steel Engineering, Mining employers and Department of Public Enterprises

<sup>12</sup> Interviews with SETAs and Department of Labour officials

<sup>13</sup> Submissions by the Department of Education, the College Industry Partnership and Construction employers

artisans by 2010. This target assumed an annual average output of around 5,000 artisans in the period 2000 to 2005 and the JIPSA target represented a doubling of the artisan output, held to be a credibly achievable target.

- To enhance the **quality of artisan training** by acknowledging that the decline in apprenticeship training cannot be addressed simply by increasing intake. The key to mastering the work of an artisan is to integrate theoretical knowledge with practical application in the workplace. While the numbers and quality of graduates from FET and higher education institutions needs to increase, the real bottleneck is the availability of quality, *structured workplace experience* that is aligned with the theoretical and practical curricula.
- Specific areas identified as needing to be addressed through the JIPSA artisan acquisition proposals included
- Encouraging employers (public and private) with a proven track record in engineering related artisan development to open up their workplaces and take on additional learners in artisan and trade-related apprenticeships, learnerships and structured work experience programmes to enable them to meet the requirements for trade testing and achieve artisan certificated status.
- Engaging with the Department of Labour to find mechanisms to increase SETA activities and skills development funding to support employer commitments to additional artisan development enrolments and establishing parity in the tax allowance
- Supporting the finalisation of the NQF review and the alignment of the technical and vocational aspects of FET College programmes for artisan and trade related programmes
- Clarifying the different training pathways represented by learnerships, apprenticeships and the new FET NCV qualifications and addressing issues of equivalence and articulation between the different pathways, including available mechanisms for the recognition of prior learning and experience/

### ***JIPSA's role***

The principal role of the **JIPSA artisan advisory group** was to focus on leveraging additional support and proactive engagement from Business and Labour, as well as across government, to enable the acquisition of priority artisan scarce skills, particularly in the engineering, construction and infrastructure pipeline.

The activities to leverage support included:

- Actively canvassing employers through Business to make workplaces available for young people to obtain structured workplace experiential learning, in order to meet the requirements for access to the trade test as well as creating up-skilling and up-grading of experienced workers to meet artisan demand
- Working closely with the Departments of Labour and of Education to clarify and align learning pathways (National Vocational Certificate (DoE) and learnership / apprenticeship (DoL) requirements to access trade tests for artisan status

- Encouraging employers to commit additional resources, including funding, towards training.
- Increasing the capacity of workplaces to supervise and mentor workplace learning; and,
- Investigating additional investment in skills training.

## **ACHIEVEMENTS IN ARTISAN SKILLS ACQUISITION**

The following information on the artisan development pipeline is based on SETA quarterly reports from **April 2005 to June 2009** and includes data relating to learners in apprenticeships (Section 13 and 28) and learnerships. It is important to note that

- Data for 2005-06 has been included to provide an indicative baseline for the JIPSA close-out reporting period (June 2006-June 2009).
- The data covers the last quarter of 2005 and the first quarter of the 2009-2010 reporting period. This has impacted on the conclusions that can be drawn regarding the impact of the current economic crisis on artisan development enrolments. Additional SETA data will be available by March 2010.
- There are still anomalies in the data which are being investigated with the Department of Labour and will be rectified by March 2010. There are concerns, for example, that some SETAs are reporting artisan related training under special projects and not incorporating it into the SETA/DoL quarterly reporting format, particularly where the project is responsible for managing information on registration and completion by individual learners and reports on global project learning achievements to the SETA.
- Data on trade tests, particularly for Section 13 apprentices from the accredited, decentralised trade test centres and INDLELA remains outstanding and is an issue of concern that needs to be addressed going forward. The current data highlights enrolments in learning programmes and completions but success in the trade test – the qualifying artisan requirement – remains outstanding.
- The data does not include information from the public FET College sector as there is no common reporting system yet. Enrolments of NCV graduates into structured work experience learning programmes has not yet happened, neither do the current SETA reporting formats enable such disaggregated information to be captured or monitored.

Improvement in data systems and alignment of the different reporting formats across the education, training and development systems should be a key area for development in the Ministry of Higher Education and Training in collaboration with the national Human Resources Development Council.

While there are remaining concerns about the data, sufficient information has been drawn from the data to analyse trends in artisan development, particularly in respect of the JIPSA identified priority areas and global targets.

### ***Increases in the overall numbers of artisans in training***

#### **Increases in artisan development – all trades**

The following tables reflect the global numbers of learners enrolled in artisan development learning programmes across the full range of artisan and trade / craft related occupations. These global

figures provide a platform against which year-on-year learner registrations and completions in the JIPSA priority artisan occupations can be analysed.

#### Total number of learners registered in artisan learning programmes: 2000-2010

| Gender equity |        |         | Race Equity   |        |       | Citizen Equity |        |
|---------------|--------|---------|---------------|--------|-------|----------------|--------|
| Male          | Female | Unknown | Black         | White  | Other | Citizens       | Non-SA |
| 42 687        | 13 925 | 85      | 44 191        | 10 266 | 2 240 | 51 780         | 4 917  |
| 75.3%         | 24.6%  | 0.1%    | 77.9%         | 18.1%  | 4%    | 91.3%          | 8.7%   |
| Total: 56 697 |        |         | Total: 56 697 |        |       | Total: 56 697  |        |

#### Total number of learners registered in artisan learning programmes: 2005-2010

| Gender equity |        |         | Race Equity   |       |       | Citizen Equity |        |
|---------------|--------|---------|---------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black         | White | Other | Citizens       | Non-SA |
| 33 985        | 6 686  | 0       | 29 682        | 8 933 | 2 056 | 38 436         | 2 235  |
| 83%           | 17%    | 0%      | 72%           | 21%   | 7%    | 94%            | 6%     |
| Total: 40 671 |        |         | Total: 40 671 |       |       | Total: 40 671  |        |

#### Observations:

Artisan development related learning activities, post 2005, account for just over 70% of the total artisan development related activities since the establishment of the SETAs in March 2000. While the data indicates that the 50,000 target may not be achieved by March 2010, the doubling of trades related training is a huge achievement in the face of having to re-vitalise the artisan training system alongside having to review and make quality improvements in the trades training system, including addressing training capacity gaps. This doubling is evident in analysing the 56,697 artisans in development over the 2000-2009 period compared to the 40,671 in development between 2006-2009. The ten year period averages out at around 5,600 per annum while the four year period (the JIPSA period) averages out at around 10,160 per annum.

In the main, this increase can be attributed to the substantial increase in demand linked to high levels of economic growth in 2005-2008 coupled with the focus on artisan development by the social partners and facilitated by JIPSA. This is a key indication of the level of skills development response to sustained and sustainable economic development.

The proportion of artisan development related activities in the JIPSA priority areas to the overall artisan development information underscores this.

It should also be noted that the profile of those in artisan related learning programmes is close to or over the equity targets for designated groups as reflected in the National Skills Development Strategy, namely, 80% black, 4% women and 100% South African citizens. Data related to disability was not available.

#### Increases in the JIPSA artisan priority areas

The tables below reflect that artisan training in the JIPSA priority areas constitutes some 75% plus of all artisan related development activities.

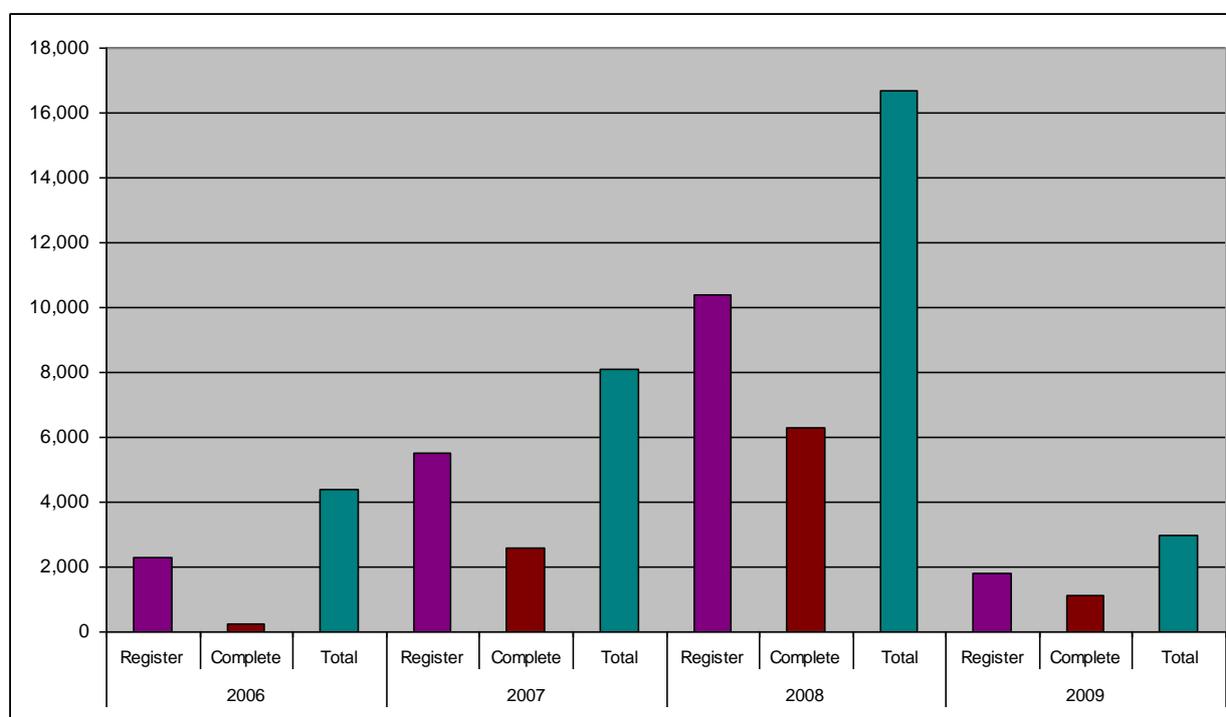
**Year-on-Year changes in registrations in artisan learning programmes: 2005-2010 ALL**

| 2006                |          | 2007                 |          | 2008                 |          | 2009                |          |
|---------------------|----------|----------------------|----------|----------------------|----------|---------------------|----------|
| Register            | Complete | Register             | Complete | Register             | Complete | Register            | Complete |
| 4 673               | 257      | 7 688                | 3 346    | 12 977               | 8 059    | 2 405               | 1 266    |
| <b>Total: 4 930</b> |          | <b>Total: 11 034</b> |          | <b>Total: 21 036</b> |          | <b>Total: 3 671</b> |          |

**Year-on-Year changes in registrations in artisan learning programmes: 2005-2010 JIPSA priorities**

| 2006                |          | 2007                |          | 2008                 |          | 2009                |          |
|---------------------|----------|---------------------|----------|----------------------|----------|---------------------|----------|
| Register            | Complete | Register            | Complete | Register             | Complete | Register            | Complete |
| 4139                | 238      | 5 534               | 2 599    | 10 369               | 6 317    | 1 779               | 1 117    |
| <b>Total: 4 377</b> |          | <b>Total: 8 133</b> |          | <b>Total: 16 886</b> |          | <b>Total: 2 956</b> |          |

These can be represented graphically as follows:



**Figure 1: JIPSA priority trades: Time trends**

**Observations:**

From the current data, the efforts of JIPSA and the social partners – business, Department of Labour and SETAs – responded substantially to the nationally acknowledged artisan skills crisis between 2006 and 2008. In analysing this data for trends and coming to the above conclusion, a number of points must be borne in mind:

1. The SETA quarterly reporting system was upgraded and stricter protocols applied from 2005. While 2005 should form the base data for tracking artisan training, the information from SETAs is probably not as reliable as that from 2006 onwards – given that SETAs and the Department of Labour were implementing the new reporting system

**Recommendation:** The information management systems to be put in place should be designed and implemented to take account of lead times required for all the reporting partners to implement new / changed reporting formats and to ensure that data available, particularly from 2006 can be migrated to the new reporting system. This will ensure that there is a sufficient platform for ongoing monitoring and impact evaluation.

2. The increase in artisan learning programme enrolments and completions between 2006 and 2008 is attributed to two key interventions:
  - a. The response by the Department of Labour and the SETAs to reprioritise and refocus skills development initiatives and funding on artisan development
  - b. The commitment by large employers (public and private) to train additional artisans to replenish the artisan skills pool particularly through “business unusual” or “above equilibrium” training initiatives, i.e. offering apprenticeships and learnerships additional to individual business requirements.
3. The indicative decline in enrolments in 2009 – based on the number of registered learners in artisan development programmes – is attributed to the global financial crisis and its impact on mining, manufacturing and engineering industries in South Africa. In the main, the ability of employers to take on learners, particularly for the structured workplace learning component of the artisan development curriculum, has been constrained not just by training budget constraints but also by the closure of companies, retrenchment of workers and production slow downs and shut downs limiting the number of opportunities for supervised learning on the job.

**Recommendation:** Sustaining a focus on and culture of artisan development requires long-term visioning and planning able to adjust to and accommodate short- to medium-term changes in the economy. Initiatives such as government’s recently announced Training Layoff Scheme should be reviewed for key lessons that can be applied to sustaining artisan development commitments.

In addition, it should be noted that the Department of Labour-SETA 2009 reporting year ends at the end of March 2010 and it is predicted that both registrations – particularly new enrolments – and completions of artisan development learning programmes will rise.

### ***Increased numbers of artisans in priority trades***

In addition to proposing a doubling of artisans both qualified and in training to 50,000 by 2010, JIPSA also proposed that the priority occupations for this training should be the following 16 trades, based on the 2006 National Scarce and Critical Skills List projecting skill scarcity over the 2005-2010 period, aligned to the National Skills Development Strategy 2<sup>14</sup>

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<sup>14</sup> These figures were determined by the Department of Labour based on SETA 5 Year Sector Skills Plan data, and were then verified in a process undertaken by the Skills Committee under government’s Economic Cluster. The committee includes DoL, DTI, DST, DPE, Home Affairs, DoE, and DEAT.

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1. Automotive Electrician          | 9. Fitter and Turner             |
| 2. Boilermaker                     | 10. Instrument mechanician       |
| 3. Carpenter and Joiner            | 11. Millwright                   |
| 4. Diesel mechanic                 | 12. Motor mechanic               |
| 5. Earth moving equipment mechanic | 13. Sheetmetal trades workers    |
| 6. Electrician (light)             | 14. Toolmakers and Patternmakers |
| 7. Electrician (heavy)             | 15. Turners                      |
| 8. Fitter                          | 16. Welder                       |

The detailed information on learner registrations and completions in the priority artisan development programmes is contained in Appendix 1.

As indicated, detailed information on artisan demand and development was largely unavailable at the outset of the JIPSA process and the JIPSA artisan priority skills acquisition targets were agreed on the basis of indicative and projected demand. Securing reliable artisan development data has been extremely difficult given

1. The format of SETAs quarterly reports, the Department of Labour’s data information IT system which was still under development at the time of writing this report
2. The lack of standardised naming conventions for artisan development programmes and SAQA registered trades related qualifications

The current data reflects these difficulties and anomalies, which necessitated the combining of data on some trades, for example the combining of electricians for both light and heavy current. The graph below reflects the enrolments, completions and totals over the period 2005 – 2010 .from which a number of trends can be identified.

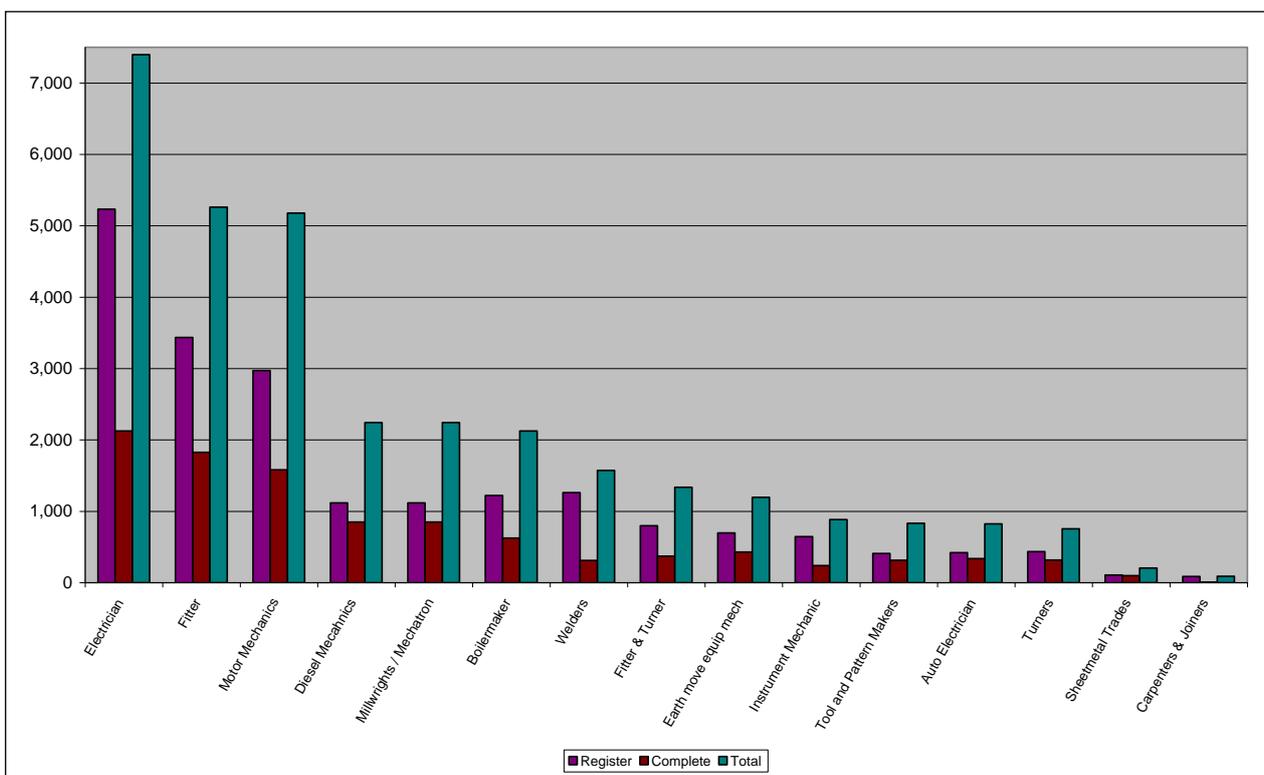


Figure 2: JIPSA priority trades: 2005-2010

## Observations

From the total artisan development enrolments and completions, 7 of the 16 artisan areas reflect an investment in training over 2,000 learners in each of these occupational areas.

More importantly, these investments begin to point to establishing a key mechanism for validating the artisan scarcity and future prioritisation of artisan skills acquisition. Since the establishment of the National Scarce and Critical Skills List concerns have been raised about the reliability and validity of the information. The Department of Labour has consistently maintained that the List is a reliable indicator of the occupations in which skills shortages are being experienced while providing an indication of the extent of the skills shortages in those occupations.

Analysing the occupations in which there is a significant amount of artisan development occurring should assist with the monitoring of achievements against scarcity and the replenishment of the artisan skills pool. Importantly, as one of the key indicators of scarcity is the amount of investment by employers and skills development intermediaries in filling skills gaps, the intensity of skills development interventions in particular artisan related occupations is a key verifier for the identification of scarcity in these same occupations.

**Recommendation:** Alongside the SETA research improvements for identifying scarce and critical skills in economic sectors, supply data should be built in to the national information management system to:

1. Monitor interventions to address scarcity, and
2. Provide an additional mechanism for validating identified scarcity based on the precept that investment in training and skills development reflects areas in which there is a significant shortage of skills.

## SYSTEM ENHANCEMENTS FOR ARTISAN DEVELOPMENT

### *Data gathering and analysis improvements*

Given that there was little reliable information on the pool of skilled artisans and artisans in training at the outset of the process, the Department of Labour and government's economic cluster have instituted a number of improvements to the identification of artisan skill needs and monitoring skill scarcity. In particular,

- The Department of Labour has established the Organising Framework of Occupations (OFO) which clusters all jobs in the South African labour market as occupations at increasing levels of generalisation into 8 major occupation groups. The use of the OFO in employer Workplace Skills Plans and Annual Training Reports and SETA Sector Skills Plans has enabled a more reliable identification of occupations experiencing skill scarcity. The Department has also embarked on a detailed forecasting model and SETA capacity building process to improve the identification of skill scarcity.
- Government's economic cluster has established a Skills Committee which focuses on validating and approving for publication the Department of Labour's national scarce and critical skills list.

These mechanisms are intended to ensure that national and sector initiatives to acquire skills are relevant, i.e. address skills shortages required for economic growth and poverty alleviation. A number of challenges still remain. Firstly, the current methods used at sector and national level to quantify skill scarcity remain contested and additional effort is required to improve the reliability of the national scarce and critical skills list.

**Recommendation:** Processes currently underway to improve sector and national skills planning and demand forecasting need to be supported and should be integrated within the National HRD Strategy. These are the responsibility of the Ministry of Higher Education while the HRD Council and JIPSA (in the interim) should have the responsibility for testing out the skills demand and forecasting proposed enhancements with the social partners. The key issue is to ensure alignment with proposed economic growth and development strategies across government and the private sector, balanced with labour concerns about sustainable jobs and access to artisan training and recognition.

Secondly, the gathering and analysis of data in respect of the education, training and skills development pipeline remains a major challenge on a number of fronts, including integrating information across the FET College system and the skills development system (apprenticeships and learnerships) as well as tracking learners in the skills development system.

The integration of the Skills Development system into the new Ministry of Higher Education and Training should enable integration of data and enable a comprehensive skill demand and learning-supply information system to be established.

Business support for JIPSA's initiative to work with the Department of Labour in developing an interim database and analytical tool over SETA quarterly reports on learners in artisan development programmes could be used as the basis for a longer term solution.

### ***Articulation and alignment of learning routes to artisan status***

By the end of 2006, the Departments of Labour and Education had an in principal agreement which recognised four learning routes to accessing the trade test – the summative, exit assessment – and attaining artisan status – by successfully completing the trade test. These four routes are reflected in the table below:

| <b>Trade Test for designated trades registered by the Department of Labour<br/>Administered through accredited trade test centres</b>               |   |   |   |
|---|---|---|---|
| <b>Section 13<br/>Apprenticeship</b>  | <b>Learnership</b>  | <b>FET College NCV with<br/>structured workplace<br/>learning</b>   | <b>Section 28<br/>Apprenticeship</b>  |
| N2 plus entry requirement or Matric with Maths and Science plus 2 to 3 year indentured contract generally covering workshop and on-the-job training | Achievement of NQF levels 2, 3 and 4 covering theory, practice and structured workplace experience. Entry to the trade test determined by achievement at NQF level 4 for the majority of trades | Achievement of NCV 2, 3 and 4 with structured workplace learning. Entry to the trade test determined by achievement of NCV 4 and completion of work placement | At least 4 years of employer signed work experience with exposure to tasks and responsibilities related to those of the artisan |

During this time the Department of Labour embarked on a detailed process to finalise the NQF Review. This process resulted in the development of an occupational learning system and an occupational qualifications framework which will form a sub-framework of the National Qualifications Framework. The occupational learning system is built around an occupational curriculum model having three curriculum components – theory, practical and work experience – which allows for the articulation and integration of the 4 learning routes, identified above and enables a system of exemptions for curriculum components based on learning achievements through the different routes.

The occupational curriculum model and its application in the engineering skills development context are broadly reflected in the diagram below:

| NQF | Occupation Curriculum Components  |                                      |                    | Occupation                          |
|-----|---|--------------------------------------|--------------------|-------------------------------------|
|     | Theory  | Practical                            | Work experience    |                                     |
| 10  |   |                                      |                    |                                     |
| 9   |   |                                      |                    |                                     |
| 8   |   |                                      |                    |                                     |
| 7   | BSc Electrical Engineering<br>(4 year programme at HEI)                           |                                      | 2 years structured | Professional Electrical Engineer    |
| 6   |   |                                      |                    |                                     |
| 5   |   |                                      |                    |                                     |
| 4   | National Certificate Vocational<br>(3 year programme at FET College)              |                                      | months structured  | Registered Electrician<br>(Artisan) |
|     | Registered apprenticeship learning programme (The amended Skills Development Act) |                                      |                    | Registered Electrician<br>(Artisan) |
|     | <i>Required theory through part time or distance learning</i>                     | ± 4 years recognised work experience |                    | Registered Electrician<br>(Artisan) |
| 3   |   |                                      |                    |                                     |
| 2   |   |                                      |                    |                                     |

■ The shaded areas reflect curriculum components that could be provided at employer training centres

The development and adoption of the occupation qualifications sub-framework and the Quality Council for Trades and Occupations has legislative status through its inclusion in statute, namely the amendments to the Skills Development Act (Act 97 of 1998), promulgated in December 2008 as well as the National Qualifications Framework Act, promulgated in February 2009 which replaces the SAQA Act.

**Recommendation:** The JIPSA artisan development priority trade occupations should be proposed as part of the prioritisation for occupational qualifications review and development. This is underscored by the data analysis which reflects that over 75% of all SETA reported artisan development is in these priority areas. The priority list would obviously need to be revised based on the low levels of enrolments in some of the identified priority trades, particularly where there is a drop off in enrolments over the 2006-2008 period, and balanced with artisan related skill scarcity based on the 2009-10 national scarce and critical skills list (forthcoming).

### **Parity in funding incentives**

The October 2008 Tax Amendments Act establishes **parity across learnership and apprenticeship allowances** with employers now able to claim equal tax allowances for apprentices based on the total time of training in the year that the apprentice does their final trade test. An example of this parity taken from the Tax Amendment Memo<sup>15</sup> is reflected below.

The revised deduction regime is illustrated below:

| Learnerships   |                     |           | Time Based Apprenticeships |                      |           | CMBT           |                              |           |
|----------------|---------------------|-----------|----------------------------|----------------------|-----------|----------------|------------------------------|-----------|
| Year           | Performance measure | Allowance | Year                       | Performance measure  | Allowance | Year           | Performance measure          | Allowance |
| 1              | NQF1/Contract 1     | 20,000    | 1                          | Contract for 4 years | 20,000    | 1              | Level 1/Contract For 4 years | 20,000    |
|                |                     | 30,000    |                            |                      |           |                |                              | 30,000    |
| 2              | NQF2/Contract 2     | 20,000    | 2                          |                      |           | 2              | Level 2                      | 20,000    |
|                |                     | 30,000    |                            |                      |           |                |                              | 30,000    |
| 3              | NQF3/Contract 3     | 20,000    | 3                          |                      |           | 3              | Level 3                      | 20,000    |
|                |                     | 30,000    |                            |                      |           |                |                              | 30,000    |
| 4              | NQF4/Contract 4     | 20,000    | 4                          |                      |           | 4              | Level 4                      | 20,000    |
|                |                     | 30,000    |                            |                      | 180,000   |                |                              | 30,000    |
| <u>200,000</u> |                     |           | <u>200,000</u>             |                      |           | <u>200,000</u> |                              |           |

In principle, employers registering learners in learnerships or apprenticeships post October 2008 are entitled to claim the amended tax allowance. SETAs, of which such companies are levy paying members, are required to report these apprenticeship / learnership enrolments and achievements to the Department who, in turn, are required to report these to SARS to verify tax allowance claims for calculation purposes.

In May 2009 the SETA Forum Artisan Development sub-committee, in response to **“business unusual” artisan training development initiatives** – exemplified in projects such as the MERSETA’s Accelerated Artisan Training Project and the Technical Skills Business Partnership (TSBP) – adopted a SETA artisan “business unusual” training and development funding model based on an acceptance of the total average cost for training an artisan being set at R300 000 for a three year artisan learning programme<sup>16</sup>. The funding model is based on a one-third proportional allocation of funding resource as follows:

1. Skills development grant = R100 000

This amount to be made up from SETA discretionary grants plus NSF funding top-up, if required based on SETA income and available discretionary funds

2. Learner tax allowance claims = R100 000
3. Employer contribution = R100 000

<sup>15</sup> Tax Amendments Act, October 2008, Treasury Memo

<sup>16</sup> This cost is based on research amongst SETAs engaged in supporting artisan training and includes training costs – theory and practical, wages or learnership allowances, safety equipment, learning materials, tools, trade test costs and assessment for learner intake. The average cost takes into account that training for complex trades such as millwrights or mechanics will be more expensive.

Challenges in implementing this “business unusual” training funding model remain, centring on administrative issues with access to NSF project and funding approvals. Emerging challenges relate to the focus of NSF spending which the National Skills Development Conference in October 2008 recommended should be aimed at skills development support for poor communities, SMEs and the unemployed<sup>17</sup>.

**Recommendation:** The announcement by the Minister of Higher Education and Training (3 November 2009) of the extension by one year of the National Skills Development Strategy II and the certification of the current 23 SETAs provides the social partners with an opportunity to engage more broadly on the proposed funding formula and the foci for SETA and NSF grants and ensure that the resultant proposals are formalised as part of the platform for embedding a sustainable culture for artisan development.

## CAPACITY ENHANCEMENTS FOR ARTISAN DEVELOPMENT

### *Expanding access to structured workplace learning*

As stressed in this report, artisan development requires the acquisition of theoretical, practical and structured, supervised workplace learning. Addressing institutional learning requirements still leaves people without the necessary work experience. This lack of access to structured work experiential learning, together with the aging pool of artisan skills capable of supervising and mentoring learners in the workplace has been a central focus for the social partners in the JIPSA process.

The business component within the JIPSA process identified the lack of access to workplace learning<sup>18</sup> as resulting from

- The economic recession of the 1980s – locally and internationally – coupled with the high costs of apprenticeship training resulted in significant reduction in the number of new apprentices and shrinking training budgets. As a consequence of this, countries around the world continue to experience artisan shortages which they address in the short-term by sourcing artisans globally. The result is that qualified and experienced artisans are part of a globally mobile and competitive labour pool.
- The increased business focus of the State Owned Enterprises (SOEs) since the mid 1990s which led them to reducing their numbers of trainees, including apprentices, very substantially. Whereas organisations such as Transnet and Eskom used to effectively help to train for the nation, by 2005 their focus was on training only for their own needs. The major steel producer Iscor, now Arcelor Mittal, had also substantially reduced its intake of apprentices post privatisation.
- The unintended consequences resulting from the Skills Development Act of 1997. For example, with the introduction of the new learnership system, the impression was created

<sup>17</sup> Stakeholder focus group report back to National Skills Development Conference Plenary, October 2008

<sup>18</sup> Brian Angus, CEO SEIFSA, occasional paper August 2007

that the apprenticeship system was being phased out and, faced with this uncertainty, substantial numbers of companies either reduced their apprentice numbers or else stopped training apprentices altogether.

### **Business initiatives to increase access to structured workplace learning**

The period of economic growth from 2005 has shown that business had started to respond to the skills crisis. For example, research conducted for the JIPSA JTT and BLSA indicated that by the end of 2006, the percentage of payroll spent on training by business was well exceeding the 1% levy payable to the various SETAs.<sup>19</sup> Across the sectors reviewed, the overall percentage of payroll spent on training was 3.34% with mining spending the most (4%) and metal engineering some 2.9%.

Business Leadership South Africa has also established a Business Leadership Skills Initiative. The chief executives represented in BLSA have announced their commitment to achieving a significant increase in the number of skilled people in all areas required by business and agreed on an overall strategy aimed at further accelerating artisan development in South Africa.

More significantly, as a direct response to the lack of workplaces for artisan development, and as a practical expression of the Business CEO commitment<sup>20</sup> to “the development of staff across all disciplines and industries, as well as the development of technical and artisan skills in production, manufacturing, construction and heavy industry in particular”, South African business initiated a number of sector and cross-sector partnerships to “train above equilibrium”, i.e. above their own replacement needs.

Research undertaken for Business Leadership South Africa (BLSA) by the National Business Initiative (NBI)<sup>21</sup> indicated that at least ten major projects aimed at increasing the numbers of artisans in construction, mining and heavy metal engineering had been initiated in the private sector post 2005. The majority of these projects are ongoing and include

- The **College Industry Partnership**, comprising a number of major companies in the construction, mining and engineering sectors. Its purpose is to promote strategic partnerships between Further Education and Training Colleges (FETs) and industry to support better alignment between vocational education programmes and workplace occupation requirements and create a more modern and responsive college sector.
- **Learnership 1000**, a joint project between the Gauteng Department of Transport and the construction sector, intended to assist 1000 unemployed learners in mainly rural areas to complete learnerships and find employment.
- **Mashki’isizwe**, a project involving the Western Cape Provincial Government and the construction sector, which aims to build engineering and professional capacity across both public and private sector organisations and involves managing students to ensure high throughput rates and success at institutions of higher learning.
- The **Metal, Engineering and Related Services SETA (MERSETA) Accelerated Artisan Training Project**, involving the metal engineering and motor sectors, aimed at substantially increasing

<sup>19</sup> *Skills Development: The Role of Business*, Singizi report for BLSA and JTT, managed by NBI, June 2007

<sup>20</sup> CEO Commitment to Address Scarce Skills, Statement published November 2007

<sup>21</sup> NBI Report prepared for BLSA and submitted to JIPSA, 2007

the number of artisans in these sectors by encouraging larger employers to train above their own immediate needs (so-called “above equilibrium training”).

- The **Mining Employment and Skills Development Agency (ESDA)**. Involving both learnerships and apprenticeships, the project seeks to increase the number of skilled people in core mining related occupations.
- The **Oil, Gas and Chemical Manufacturing Companies Artisan Skills Training Project**, intended to increase the number of artisans in six key trades for the petro-chemical and refinery sector, particularly in respect of shut-down and maintenance projects
- The **Public Enterprises ESDA**, which facilitates structured workplace placements for FET College graduates with State Owned Enterprise (SOE) suppliers. This project is focussed on increasing the pool of skilled artisans for the SOE strategic and capital investment projects and reflects a commitment by public enterprises to train outside their own immediate needs.
- The **SAFCEC Construction Centre of Excellence**. The purpose of the Centre is to provide skills training and learnerships in scarce skills in civil engineering and building (artisans, technicians and engineers) through the co-ordination of training efforts in the Western Cape.
- The **SEIFSA/ Department of Labour (DoL) Accelerated Artisan Training Project**. Funded by the Gauteng South DOL, this project is increasing the pool of artisans in the metal and engineering industry by providing funded training for FET college graduates at two private technical training centres on the east rand.
- The **Technical Skills Business Partnership**, which involves six major companies in energy, metal engineering, mining, petroleum and transport sectors of the economy, including State Owned Enterprises. The partnership is directed at an “above equilibrium” or “business unusual” training initiative and share best practices for trainees in a number of artisan skills areas.

### ***Business Leadership Skills Initiative***

The overall strategy adopted by Business Leadership as an outcome of the research conducted is based on an analysis of the key constraints and obstacles in accelerating the training of artisans in South Africa and developing proposed solutions to these which can be undertaken with the involvement of government. The challenges, constraints and proposed solutions are reflected below:

#### **The FET College qualified candidate pool**

**Challenge:** The research indicated that large numbers of students with an N3 or higher qualification failed to obtain an apprenticeship. In order to address the skills crisis, the pool of artisan trainee candidates would need to be sourced in order to accelerate this training. Access to this pool depends on accurate information on these graduates for recruitment. Unfortunately, learner records from the FET College system were found to be unavailable.

**Proposal:** To address this problem, a database of FET graduates with the relevant engineering FET College qualification needs to be developed and made available to prospective employers. Employer organisations could also embark on campaigns to get these graduates to forward their CVs to an

identified centre to be accessed by prospective employers. This could possibly be led by the national employer federation Business Unity South Africa (BUSA).

**Challenge:** The poor image of the artisan in the eyes of school leavers is a further problem which needs to be addressed if suitable students are to be attracted to artisan careers. Unfortunately, so-called “blue collar” occupations which involve working in factory conditions are often viewed as far less desirable than careers in IT or other “white collar” areas.

**Proposal:** A great deal needs to be done to address this problem, including much better career guidance at schools and colleges and a more concerted effort by the business community to enhance the image of the artisan in the eyes of today’s school leavers. Industries and colleges could also work together to develop programmes informing students of the career opportunities which are opened up by embarking on a technical career.

### **Matching learners to workplace learning opportunities**

Improved career guidance as well as pre-selection testing is needed to address the problem of learners embarking on technical studies and later finding themselves to be unsuited to and uninterested in this type of career. While the introduction of really effective programmes of this nature at educational institutions would not be an easy task, the waste of time and money involved in students embarking on and even completing courses to obtain a qualification towards a career for which they are not inclined is enormous. Even relatively simple interventions such as organised visits to factories for new entrants into colleges could go a long way towards addressing this problem.

### **Relevance of FET College curricula**

A lack of proper liaison between business and government, and in particular the Department of National Education, over many years has resulted in FET College curricula which are often out of date and not properly aligned to the needs of industry. The introduction of the new national certificate vocational courses from the beginning of 2007 was an ideal opportunity to address this problem, but this opportunity has not been sufficiently realised and business is working on mechanisms to partner with the national department to address gaps in the new curricula.

The Occupational Learning Framework and the integration of the Skills Development legislation in the Ministry of Higher Education and Training should facilitate improvements in the curricula and enable the development of closer partnerships between business and Colleges.

### **Lack of properly qualified FET College staff**

Many business organisations who interact with the FET colleges on a formal or informal level report that one of the major challenges they face is a lack of properly qualified and technically up to date staff. This is unsurprising in an environment where a serious lack of technical skills is the order of the day and competent staff are often lured away by business into more lucrative positions than can be afforded by the colleges themselves. This is a complex problem, but more arrangements to enable college staff to spend time in modern factory environments and to keep up to date with modern manufacturing practices and methods would certainly be a partial solution. The education authorities also need to be far more creative in seeking ways to retain competent technical staff in their institutions, including special incentives and salary differentials between these staff and others in less

commercially marketable occupations. The transfer of staff from the provincial departments of education to the College will enable such improvements to be addressed.

### **Insufficient workplace training capacity**

The relative neglect of technical training in recent years by both business and state run institutions has resulted in a serious lack of institutional training capacity in both sectors. Skilled training personnel have in many instances been allowed to retire without suitable replacements being found or trained. Possible solutions to this problem include calling back suitably qualified and experienced persons in this category, particularly those who may have taken early retirement, more intensive training of other qualified and experienced personnel to take up these positions and overseas recruitment campaigns. Creative ways also need to be found to design more attractive long term career paths for people willing to enter a career in training, as these positions are often seen as “dead end” jobs which lack promotional opportunities. One practical way for companies to address this problem is to encourage suitable individuals to enter a training post for a limited period of time, or as part of their normal occupation, and also by giving preference to those who have been prepared to enter these occupations when promotional opportunities occur in the organisation.

### **Funding and other issues**

As was indicated earlier, some sectors are having considerable success in encouraging larger employers in particular to train above their own immediate needs – i.e. the so-called “above equilibrium” or “business unusual” training initiatives. Increasing their pool of trainees obviously enables these employers to select the better candidates for continued employment in the company at the end of their formal training period and many larger employers have shown willingness - and indeed a commitment - to do this, provided that the programme can be funded in a manner which is at least cost neutral to the company. The Business Leadership Skills Initiative is actively involved in encouraging and challenging more employers to make this commitment and employer organisations in all sectors should be undertaking similar campaigns. However, accessing the necessary funding for these initiatives has proven to be difficult and this has been a limiting factor in being able to persuade employers to buy in to this challenge.

Consideration should also be given to recognising employers who provide over equilibrium training to previously disadvantaged individuals by enabling them to score additional points on their Broad Based Black Economic Empowerment (BBBEE) scorecards.

### **Insufficient assessment and certification capacity**

Owing to a lack of resources, INDLELA and other trade test centres seem unable to cope with the current numbers of apprentices seeking to complete their trade tests and qualify as artisans. The current waiting period for trade tests at INDLELA is reportedly around 12 to 18 months. Significant increases in the number of artisans can only exacerbate this problem and an effective national system needs to be re-established. As with the staffing capacity issues confronting FET Colleges and workplace training, the pool of qualified assessors has shrunk considerably. Earlier initiatives under the Skills Development regime (2000-2005) to develop workplace assessors who conduct assessments as part of their job have not proven successful particularly given the demands of production and service delivery. Obvious short term solutions include calling back retired assessors where possible and training other competent artisans in assessment and making them available on a

roster basis to conduct testing at INDLELA and other centres. Longer term solutions would involve a complete overhaul of the present system, including improving the quality and consistency of assessments and the commissioning of additional testing facilities.

The adoption in legislation of a National Artisan Moderating Body reflects a significant move to improve the quality of trade testing and re-establish the credibility and reliability of artisan trade testing. The key issue is for the Ministry of Higher Education and Training to rapidly move towards the establishment of the National Artisan Moderating Body and the introduction of the revised trade tests based on the requirements of Occupational Qualifications which will reflect the revisions of those trade qualifications currently registered on the National Qualifications Framework.

### **Role of the SETAs**

The administrative inefficiencies of some of the SETAs and the existing systems relating to grant payments for training often act as a disincentive for employers to train artisans either through the apprenticeship or the learnership system. Employers recruiting trainee artisans are often not able to obtain grants for all the trainees, owing to fact that the SETAs have to comply with numerous other funding priorities.

The review of NSDS II and the recommendations that the SETAs focus on sector skills requirements for new labour market entrants and the currently employed in their sectors together with the system performance improvements recommended in the Nedlac and Singizi reports on SETA performance and functions should form the basis for improvements in the registration of apprenticeships and learnerships as well as grant allocations in the NSDS III period.

### ***Partnership initiatives to address artisan skills scarcity***

The detail of the artisan development projects is provided in Appendix 3. The following is a brief overview of the range of business and cross-company initiatives to increase the number of artisans in development, including initiatives to accelerate the training of artisans.

In the main, the initiatives reviewed were instituted post the establishment of the Joint Initiative on Priority Skills Acquisition (JIPSA) and particularly post the CEO Commitment to train artisans for the national pool, i.e. over-and-above their own production needs and the Business Partners within JIPSA commitments.

The business initiatives reviewed cover construction, metal and engineering; petro-chemical; mining; and public enterprise industries and include cross-employer / industry initiatives bringing transport, metal and engineering, mining, petro-chemical, and electricity generation employers together and a number include formal partnerships with FET Colleges.

The focus of the projects is largely similar –

- All focus on artisan development, with 1 including technicians and engineering professionals
- 2 focus on managing learning / contractual arrangements on behalf of employers to minimize the administrative burden on employers associated with contract management.

Just prior to the onset of the global financial and economic crisis in late 2008, the following commitments and initial results had been achieved.

- All of the initiatives are up and running with some already in the final or closing stages;
- More than 15,000 artisans could be trained and qualified through these projects by 2010-2011
- By February 2008, 770 artisans had completed training with between 83% and 100% finding permanent work placement.

#### Key lessons to ensure success

- Industry engagement is essential to ensure successful “start-to-finish” project, i.e. project planning, industry commitment (resources and funding), securing work experience and placement post completion
- Selection of appropriate candidates and management / support of trainees / learners during the whole process
- Clear project planning essential with clarity of roles and objectives needed from the outset
- Partnerships are across industries and companies, across industry and FET colleges and between industry, employers, government and SETAs are possible and work best where the objectives and roles of each partner are clearly identified and understood from the outset
- Additional / increased commitments by SETAs to support and incentivise training, particularly for industries “in distress”.

#### Key constraints and challenges

- Turning commitments into operational plans and ensuring that line is committed to the project from the outset rather than having the project as an HRD initiatives
- Provision of equipment and technical training resources
- Funding mechanisms and systems
- SETA systems and administrative capacity
- Sustaining training commitments in periods of economic and financial “crisis”, particularly in the face of diminished training budgets at company level, company closures and increased job losses and retrenchments.

## APPENDIX 1: ARTISAN DEVELOPMENT DATA IN JIPSA PRIORITY AREAS

### Appendix 1.1 Learning programme enrolments and completions

#### 1. Automotive Electricians

Total number of learners registered in Automotive Electrician learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 729           | 95     | 0       | 552         | 272   | 0     | 817            | 7      |
| 88%           | 12%    | 0%      | 66%         | 34%   | 0%    | 99%            | 1%     |
| Total: 824    |        |         | Total: 824  |       |       | Total: 824     |        |

Year-on-Year changes: Automotive Electricians

| 2006      |          | 2007       |          | 2008       |          | 2009      |          |
|-----------|----------|------------|----------|------------|----------|-----------|----------|
| Register  | Complete | Register   | Complete | Register   | Complete | Register  | Complete |
| -         | -        | 161        | 86       | 227        | 188      | 32        | 64       |
| Total: 66 |          | Total: 247 |          | Total: 415 |          | Total: 96 |          |

#### 2. Boilermakers

Total number of learners registered in Boilermaker, including Plater-Boilermaker learning programmes: 2005-2010

| Gender equity |        |         | Race Equity  |       |       | Citizen Equity |        |
|---------------|--------|---------|--------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black        | White | Other | Citizens       | Non-SA |
| 1 981         | 145    | 0       | 1 675        | 384   | 67    | 2 085          | 41     |
| 93%           | 7%     | 0%      | 78%          | 18%   | 4%    | 98%            | 2%     |
| Total: 2 126  |        |         | Total: 2 126 |       |       | Total: 2 126   |        |

Year-on-Year changes: Boilermakers

| 2006       |          | 2007       |          | 2008         |          | 2009       |          |
|------------|----------|------------|----------|--------------|----------|------------|----------|
| Register   | Complete | Register   | Complete | Register     | Complete | Register   | Complete |
| -          | -        | 350        | 199      | 766          | 340      | 106        | 85       |
| Total: 290 |          | Total: 549 |          | Total: 1 106 |          | Total: 191 |          |

#### 3. Carpenters and Joiners

Total number of learners registered in Carpenter and Carpenter-Joiner r learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 83            | 6      | 0       | 36          | 3     | 50    | 63             | 26     |
| 93%           | 7%     | 0%      | 40%         | 3%    | 57%   | 70%            | 30%    |
| Total: 89     |        |         | Total: 89   |       |       | Total: 89      |        |

Year-on-Year changes: Carpenters and Joiners

| 2006            |          | 2007             |          | 2008             |          | 2009             |          |
|-----------------|----------|------------------|----------|------------------|----------|------------------|----------|
| Register        | Complete | Register         | Complete | Register         | Complete | Register         | Complete |
| -               | -        | 34               | 2        | 25               | 0        | 28               | 0        |
| <b>Total: -</b> |          | <b>Total: 36</b> |          | <b>Total: 25</b> |          | <b>Total: 28</b> |          |

#### 4. Diesel Mechanics

Total number of learners registered in Diesel Mechanic learning programmes: 2005-2010

| Gender equity       |        |         | Race Equity         |       |       | Citizen Equity      |        |
|---------------------|--------|---------|---------------------|-------|-------|---------------------|--------|
| Male                | Female | Unknown | Black               | White | Other | Citizens            | Non-SA |
| 2 118               | 124    | 0       | 1 212               | 823   | 207   | 2 196               | 46     |
| 94%                 | 6%     | 0%      | 54%                 | 36%   | 10%   | 97%                 | 3%     |
| <b>Total: 2 242</b> |        |         | <b>Total: 2 242</b> |       |       | <b>Total: 2 242</b> |        |

Year-on-Year changes: Diesel Mechanics

| 2006              |          | 2007              |          | 2008                |          | 2009              |          |
|-------------------|----------|-------------------|----------|---------------------|----------|-------------------|----------|
| Register          | Complete | Register          | Complete | Register            | Complete | Register          | Complete |
| -                 | -        | 426               | 190      | 620                 | 544      | 71                | 115      |
| <b>Total: 276</b> |          | <b>Total: 616</b> |          | <b>Total: 1 164</b> |          | <b>Total: 186</b> |          |

#### 5. Earth Moving Equipment Mechanics

Total number of learners registered in Earth Moving Equipment Mechanic learning programmes: 2005-2010

| Gender equity       |        |         | Race Equity         |       |       | Citizen Equity      |        |
|---------------------|--------|---------|---------------------|-------|-------|---------------------|--------|
| Male                | Female | Unknown | Black               | White | Other | Citizens            | Non-SA |
| 1 121               | 74     | 0       | 808                 | 386   | 1     | 1 176               | 19     |
| 93%                 | 7%     | 0%      | 67%                 | 32%   | 1%    | 98%                 | 2%     |
| <b>Total: 1 195</b> |        |         | <b>Total: 1 195</b> |       |       | <b>Total: 1 195</b> |        |

Year-on-Year changes: Earth Moving Equipment Mechanics

| 2006             |          | 2007              |          | 2008              |          | 2009             |          |
|------------------|----------|-------------------|----------|-------------------|----------|------------------|----------|
| Register         | Complete | Register          | Complete | Register          | Complete | Register         | Complete |
| -                | -        | 235               | 110      | 433               | 306      | 28               | 14       |
| <b>Total: 69</b> |          | <b>Total: 345</b> |          | <b>Total: 739</b> |          | <b>Total: 42</b> |          |

#### 6. Electrician (Light and Heavy current)

Total number of learners registered in Electrician learning programmes: 2005-2010

| Gender equity       |        |         | Race Equity         |       |       | Citizen Equity      |        |
|---------------------|--------|---------|---------------------|-------|-------|---------------------|--------|
| Male                | Female | Unknown | Black               | White | Other | Citizens            | Non-SA |
| 6 008               | 1 347  | 0       | 5 207               | 1 473 | 675   | 6 035               | 1 320  |
| 81%                 | 19%    | 0%      | 70%                 | 20%   | 10%   | 82%                 | 18%    |
| <b>Total: 7 355</b> |        |         | <b>Total: 7 355</b> |       |       | <b>Total: 7 355</b> |        |

Year-on-Year changes: Electricians (Light and Heavy current)

| 2006              |          | 2007                |          | 2008                |          | 2009              |          |
|-------------------|----------|---------------------|----------|---------------------|----------|-------------------|----------|
| Register          | Complete | Register            | Complete | Register            | Complete | Register          | Complete |
| 859               | 58       | 990                 | 510      | 2 699               | 1 380    | 682               | 177      |
| <b>Total: 917</b> |          | <b>Total: 1 500</b> |          | <b>Total: 4 079</b> |          | <b>Total: 859</b> |          |

## 7. Fitter

Total number of learners registered in Fitter and Fitter-Machinist related learning programmes: 2005-2010.

| Gender equity |        |         | Race Equity  |       |       | Citizen Equity |        |
|---------------|--------|---------|--------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black        | White | Other | Citizens       | Non-SA |
| 4 499         | 756    | 0       | 4 247        | 712   | 296   | 5 144          | 111    |
| 85%           | 15%    | 0%      | 80%          | 13%   | 7%    | 97%            | 3%     |
| Total: 5 255  |        |         | Total: 5 255 |       |       | Total: 5 255   |        |

Year-on-Year changes: Fitters

| 2006              |          | 2007                |          | 2008                |          | 2009              |          |
|-------------------|----------|---------------------|----------|---------------------|----------|-------------------|----------|
| Register          | Complete | Register            | Complete | Register            | Complete | Register          | Complete |
| 737               | 105      | 846                 | 485      | 1 572               | 1 025    | 281               | 210      |
| <b>Total: 842</b> |          | <b>Total: 1 331</b> |          | <b>Total: 2 597</b> |          | <b>Total: 491</b> |          |

## 8. Fitter and Turner

Total number of learners registered in Fitter and Turner learning programmes: 2005-2010

| Gender equity |        |         | Race Equity  |       |       | Citizen Equity |        |
|---------------|--------|---------|--------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black        | White | Other | Citizens       | Non-SA |
| 1 253         | 82     | 0       | 865          | 404   | 66    | 1 302          | 33     |
| 93%           | 7%     | 0%      | 64%          | 30%   | 6%    | 97%            | 3%     |
| Total: 1 335  |        |         | Total: 1 335 |       |       | Total: 1 335   |        |

Year-on-Year changes: Fitter and Turner

| 2006              |          | 2007              |          | 2008              |          | 2009              |          |
|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| Register          | Complete | Register          | Complete | Register          | Complete | Register          | Complete |
| -                 | -        | 228               | 60       | 505               | 252      | 65                | 58       |
| <b>Total: 167</b> |          | <b>Total: 288</b> |          | <b>Total: 757</b> |          | <b>Total: 123</b> |          |

## 9. Instrument Mechanician / Mechanic

Total number of learners registered in Instrument Mechanician / Mechanic learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 704           | 180    | 0       | 653         | 201   | 30    | 864            | 20     |
| 79%           | 21%    | 0%      | 73%         | 22%   | 5%    | 97%            | 3%     |
| Total: 884    |        |         | Total: 884  |       |       | Total: 884     |        |

## Year-on-Year changes Instrument Mechanician / Mechanics

| 2006              |          | 2007              |          | 2008              |          | 2009             |          |
|-------------------|----------|-------------------|----------|-------------------|----------|------------------|----------|
| Register          | Complete | Register          | Complete | Register          | Complete | Register         | Complete |
| 163               | 39       | 251               | 60       | 182               | 121      | 49               | 19       |
| <b>Total: 202</b> |          | <b>Total: 311</b> |          | <b>Total: 303</b> |          | <b>Total: 68</b> |          |

**10. Millwrights and Mechatronics artisans**

Total number of learners registered in Millwright and Mechatronics related learning programmes: 2005-2010

| Gender equity |        |         | Race Equity  |       |       | Citizen Equity |        |
|---------------|--------|---------|--------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black        | White | Other | Citizens       | Non-SA |
| 2 118         | 124    | 0       | 1 212        | 823   | 207   | 2 196          | 46     |
| 94%           | 6%     | 0%      | 54%          | 36%   | 10%   | 97%            | 3%     |
| Total: 2 242  |        |         | Total: 2 242 |       |       | Total: 2 242   |        |

Year-on-Year changes: Millwrights and Mechatronics

| 2006              |          | 2007              |          | 2008                |          | 2009              |          |
|-------------------|----------|-------------------|----------|---------------------|----------|-------------------|----------|
| Register          | Complete | Register          | Complete | Register            | Complete | Register          | Complete |
| -                 | -        | 426               | 190      | 620                 | 544      | 71                | 115      |
| <b>Total: 276</b> |          | <b>Total: 616</b> |          | <b>Total: 1 164</b> |          | <b>Total: 186</b> |          |

**11. Motor Mechanics**

Total number of learners registered in Motor Mechanic learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |          |
|---------------|--------|---------|-------------|-------|-------|----------------|----------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA-6 |
| 4 896         | 282    | 0       | 3 303       | 1 868 | 7     | 5 112          | 66       |
| 94%           | 6%     | 0%      | 63%         | 36%   | 1%    | 98%            | 2%       |
| 5 178         |        |         | 5 178       |       |       | 5 178          |          |

Year-on-Year changes Motor Mechanics

| 2006       |          | 2007         |          | 2008         |          | 2009       |          |
|------------|----------|--------------|----------|--------------|----------|------------|----------|
| Register   | Complete | Register     | Complete | Register     | Complete | Register   | Complete |
| -          | -        | 1 041        | 491      | 1 811        | 961      | 120        | 128      |
| <b>626</b> |          | <b>1 532</b> |          | <b>2 772</b> |          | <b>248</b> |          |

**12. Sheetmetal Trades Workers**

Total number of learners registered in Sheetmetal Trades learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 141           | 63     | 0       | 203         | 0     | 1     | 202            | 2      |
| 69%           | 315    | 05      | 99%         | 0%    | 1%    | 99%            | 1%     |
| 204           |        |         | 204         |       |       | 204            |        |

Year-on-Year changes: Sheetmetal Trades Workers

| 2006     |          | 2007     |          | 2008     |          | 2009     |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| Register | Complete | Register | Complete | Register | Complete | Register | Complete |
| -        | -        | 85       | 39       | 20       | 54       | 1        | 5        |
| -        |          | 124      |          | 74       |          | 6        |          |

### 13. Toolmakers and Patternmakers

Total number of learners registered in Tool and Pattern Making, including Tool, Jig and Dye Making, learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 783           | 48     | 0       | 441         | 386   | 4     | 826            | 5      |
| 90%           | 10%    | 0%      | 53%         | 46%   | 1%    | 99%            | 1%     |
| 831           |        |         | 831         |       |       | 831            |        |

Year-on-Year changes: Toolmakers and Patternmakers

| 2006              |          | 2007              |          | 2008              |          | 2009             |          |
|-------------------|----------|-------------------|----------|-------------------|----------|------------------|----------|
| Register          | Complete | Register          | Complete | Register          | Complete | Register         | Complete |
| -                 | -        | 90                | 49       | 275               | 229      | 44               | 36       |
| <b>Total: 108</b> |          | <b>Total: 139</b> |          | <b>Total: 504</b> |          | <b>Total: 80</b> |          |

### 14. Turners

Total number of learners registered in Turning including Turning and Machining learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 703           | 50     | 0       | 529         | 249   | 1     | 745            | 8      |
| 93%           | 7%     | 0%      | 67%         | 32%   | 1%    | 98%            | 2%     |
| 753           |        |         | 753         |       |       | 753            |        |

Year-on-Year changes: Turners

| 2006             |          | 2007              |          | 2008              |          | 2009             |          |
|------------------|----------|-------------------|----------|-------------------|----------|------------------|----------|
| Register         | Complete | Register          | Complete | Register          | Complete | Register         | Complete |
| 87               | 8        | 81                | 75       | 247               | 192      | 21               | 42       |
| <b>Total: 95</b> |          | <b>Total: 156</b> |          | <b>Total: 439</b> |          | <b>Total: 63</b> |          |

### 15. Welders

Total number of learners registered in Welding, including welding-plating learning programmes: 2005-2010

| Gender equity |        |         | Race Equity |       |       | Citizen Equity |        |
|---------------|--------|---------|-------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black       | White | Other | Citizens       | Non-SA |
| 1 342         | 231    | 0       | 1 167       | 182   | 224   | 1 526          | 47     |
| 85%           | 15%    | 0%      | 74%         | 11%   | 15%   | 97%            | 3%     |
| 1 573         |        |         | 1 573       |       |       | 1 573          |        |

Year-on-Year changes: Welders

| 2006              |          | 2007              |          | 2008              |          | 2009              |          |
|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| Register          | Complete | Register          | Complete | Register          | Complete | Register          | Complete |
| 425               | 28       | 270               | 53       | 367               | 181      | 200               | 49       |
| <b>Total: 453</b> |          | <b>Total: 323</b> |          | <b>Total: 548</b> |          | <b>Total: 249</b> |          |

## Appendix 2 Learning Programme Types

### 2.1 All artisan related training

#### Section 28 Trade Tests

Overall: Total number of section 28 trade tests: 2005-2010

| Gender equity |        |         | Race Equity  |       |       | Citizen Equity |        |
|---------------|--------|---------|--------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black        | White | Other | Citizens       | Non-SA |
| 2 010         | 194    | 0       | 1 365        | 535   | 304   | 1 967          | 237    |
| 91%           | 9%     | 0%      | 61%          | 24%   | 15%   | 89%            | 11%    |
| Total: 2 204  |        |         | Total: 2 204 |       |       | Total: 2 204   |        |

Overall: Year-on-Year section 28 trade tests

| 2006     |          | 2007     |          | 2008     |          | 2009     |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| Register | Complete | Register | Complete | Register | Complete | Register | Complete |
| unknown  | Unknown  | 1 190    | 1 151    | 683      | 459      | 331      | 0        |

#### Section 13 Apprenticeships

Overall: Total number of section 13 Apprenticeships: 2005-2010

| Gender equity |        |         | Race Equity   |       |       | Citizen Equity |        |
|---------------|--------|---------|---------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black         | White | Other | Citizens       | Non-SA |
| 18 058        | 1 420  | 0       | 13 092        | 6 133 | 253   | 18 829         | 649    |
| 92%           | 8%     | 0%      | 67%           | 31%   | 2%    | 96%            | 4%     |
| Total: 19 478 |        |         | Total: 19 478 |       |       | Total: 19 478  |        |

Overall: Year-on-Year section 13 Apprenticeships

| 2006     |          | 2007     |          | 2008     |          | 2009     |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| Register | Complete | Register | Complete | Register | Complete | Register | Complete |
| 2 708    | Unknown  | 2 431    | 339      | 11 978   | 4 001    | 2 361    | 1 027    |

#### Learnerships

Overall: Total number of Learnerships: 2005-2010

| Gender equity |        |         | Race Equity   |       |       | Citizen Equity |        |
|---------------|--------|---------|---------------|-------|-------|----------------|--------|
| Male          | Female | Unknown | Black         | White | Other | Citizens       | Non-SA |
| 11 372        | 4 757  | 0       | 14 237        | 1 886 | 6     | 15 218         | 911    |
| 70%           | 30%    | 0%      | 88%           | 11%   | 1%    | 94%            | 6%     |
| Total: 16 129 |        |         | Total: 16 129 |       |       | Total: 16 129  |        |

Overall: Year-on-Year Learnerships

| 2006     |          | 2007     |          | 2008     |          | 2009     |          |
|----------|----------|----------|----------|----------|----------|----------|----------|
| Register | Complete | Register | Complete | Register | Complete | Register | Complete |
| 1 234    | Unknown  | 6 068    | 1 927    | 7 984    | 3 572    | 843      | 241      |

### Appendix 3: Detailed summary of “business unusual” training initiatives

| Project                                       | Industry shareholder  | Industry sector   | SETA    | Government Shareholder       | Skills Focus                       |   | Implementation stage   |
|---|---|---|---------|------------------------------|------------------------------------|---|--|
|   |   |   |         | National / Provincial        | Artisans/Technicians/Professionals | Numbers                                   |  |
| College Industry Partnership                  | Construction, Mining and Steel Engineering companies  | Construction  | CETA    |                              |                                    | ± 5000                                    | Steering committees working - Construction has 2 regional working groups   |
|   |   | Mining  | MQA     |                              |                                    |   |  |
|   |   | Steel engineering   | MERSETA |                              |                                    |   |  |
|   | Purpose   | To promote strategic partnerships between public FET Colleges and industry to support better alignment between education and training, create a modern and responsive College sector, relevant to needs of society and economy          |         |                              |                                    |   |  |
|   | Governance & Sustainability   | Collaborative partnership (business, government, SETA) in each sector, facilitated by NBI   |         |                              |                                    |   |  |
|   |   | Sector partnership steering committees  |         |                              |                                    |   |  |
|   | Successes (Best Practices)  | Model for curriculum development (review and revision) undertaken by Construction industry  |         |                              |                                    |   |  |
|   |   | Industry participation and commitment to long term investment in development FET College sector capacity, relevance and quality   |         |                              |                                    |   |  |
|   | Challenges (Constraints)  | <b>College capacity</b> is constrained at all levels - curriculum and learning materials; quality assurance; staffing numbers and relevance of training; staff retention; clear communication and roles between national and provincial |         |                              |                                    |   |  |
|   |   | Placement of learners for workplace experience post training is critically lacking  |         |                              |                                    |   |  |
| Funding and Financing                         | DOE: No funding for additional lecturers, Recap unable to address CAPEX needs; funding implications for NCV unclear; funding inadequate for additional learner requirements (workshops, infrastructure) |   |         |                              |                                    |   |  |
|   | DOL: SETAs constrained from funding Colleges  |   |         |                              |                                    |   |  |
| Learnership 1000 (DoT Province - NSF Project) | SAFCEC and other industry players   | Construction?   |         | Dept of Transport (Province) |                                    | 200 trained (120-300 still to be trained) | Running for some time - short-comings (accredited providers, industry involvement, work experience, planning) now being addressed) |
|   | Purpose   | Assist 1000 learners to complete learnerships and find employment   |         |                              |                                    |   |  |
|   | Governance & Sustainability   | Provincial government initiated - invited industry to participate in 2007   |         |                              |                                    |   |  |
|   |   | Learnership 1000 Committee (provincial govt officials and SAFCEC members)   |         |                              |                                    |   |  |
|   |   | MoU Guidance document   |         |                              |                                    |   |  |
|   | Successes (Best Practices)  | Focus on PDI and unemployed; rural areas  |         |                              |                                    |   |  |
|   |   | Industry involvement - securing workplace experience and placement  |         |                              |                                    |   |  |
| Challenges (Constraints)                      | Student selection & management - reflected in learner drop-outs.<br>No structured obligation of learners to DoT results in waste - effort, money, resources   |   |         |                              |                                    |   |  |

| Project   | Industry shareholder                                 | Industry sector   | SETA | Government Shareholder             | Skills Focus                       |                                 | Implementation stage   |
|---|--|---|------|------------------------------------|------------------------------------|---------------------------------|--|
|   |  |   |      | National / Provincial              | Artisans/Technicians/Professionals | Numbers                         |  |
|   |  | Late inclusion of industry resulted in lack of workplace experience for learners  |      |                                    |                                    |                                 |  |
|   |  | Contracting non-accredited training providers (quality and recognition of learners compromised)                                 |      |                                    |                                    |                                 |  |
|   | Funding and Financing                                |   |      |                                    |                                    |                                 |  |
| Mashki'isizwe (Western Cape Provincial Govt - NSF Project)  | Various organisations & companies - including SAFCEC | Construction?   |      | Western Cape Provincial Government | HE degrees and diplomas            | 180 completed (250 in training) | Project has been running for some time - moving to greater formalisation (i.e. establishment of S21 company) |
|   | Purpose  | Build engineering and professional capacity across public and private organisations   |      |                                    |                                    |                                 |  |
|   |  | Retain skills in the province   |      |                                    |                                    |                                 |  |
|   |  | Manage students to ensure high throughput rates and success at HE institutions  |      |                                    |                                    |                                 |  |
|   | Governance & Sustainability                          | Project Advisory Board (SAFCEC 2 seats)   |      |                                    |                                    |                                 |  |
|   |  | Joint Management Committee (each contributing member has 1 seat)  |      |                                    |                                    |                                 |  |
|   |  | Seeking Treasury approval to establish Section 21 company in collaboration with provincial government                           |      |                                    |                                    |                                 |  |
|   | Successes (Best Practices)                           | 90% placement for students successfully completing qualifications   |      |                                    |                                    |                                 |  |
|   |  | Quality and relevance of provision - Committee with various HE institutions to influence curriculum                             |      |                                    |                                    |                                 |  |
|   |  | Joint funding mechanisms  |      |                                    |                                    |                                 |  |
|   |  | Careful screening, selection and <b>ownership</b> of candidates (players take responsibility for their learners in the project) |      |                                    |                                    |                                 |  |
|   |  | Management of learners - 1 student facilitator per campus to manage learners and student needs                                  |      |                                    |                                    |                                 |  |
|   | Challenges (Constraints)                             | Administration around funding mechanisms  |      |                                    |                                    |                                 |  |
|   |  | Public Finance Management Act implications for joint funding mechanisms   |      |                                    |                                    |                                 |  |
|   |  | Meeting demand  |      |                                    |                                    |                                 |  |
|   |  | Competition for learners - appropriate candidate pool ("fighting over good students)  |      |                                    |                                    |                                 |  |
|   | Funding and Financing                                | NSF funding through provincial project  |      |                                    |                                    |                                 |  |
| Industry paying administration fee  |  |   |      |                                    |                                    |                                 |  |
| Funding based on sliding scale according to CIDB grading - allows developing contractors to get involved and get bigger subsidies |  |   |      |                                    |                                    |                                 |  |

| Project   | Industry shareholder  | Industry sector   | SETA    | Government Shareholder | Skills Focus  |   | Implementation stage   |
|---|---|---|---------|------------------------|---|---|--|
|   |   |   |         | National / Provincial  | Artisans/Technicians/Professionals  | Numbers   |  |
| Merseta Accelerated Artisan Training Project (AATP) - Metal and Motor sectors | Participating employers - includes Arcelor Mittal   | Metal Engineering   | MERSETA | DoL - NSF              | Boilermaker<br>Earth moving equipment mechanic<br>Electrician<br>Fitter<br>Fitter & Turner<br>Instrument mechanician<br>Millwright<br>Tool, jig and diemaker<br>Turner<br>Welders | Target = 650 for 2007/08<br>Target = 1,135 for 2008/09<br><br>(additional 650 for Motor trades in 07/08 – not achieved) | Funding for Phase 1 secured.<br>Funding proposal in to NSF for an additional 2,270 (1,135 in Metal sector) secured |
|   | Governance & Sustainability   | Special project established under SETA regulated by a SETA Board approved project and governance terms of reference document  |         |                        |   |   |  |
|   |   | Steering Committee chaired by SETA CEO. Includes representatives of Metal and Motor employers, labour, bargaining council and both project management and training development experts  |         |                        |   |   |  |
|   | Successes (Best Practices)  | Agreement on skills crisis and scarce skills  |         |                        |   |   |  |
|   |   | Information sharing   |         |                        |   |   |  |
|   |   | Willingness to share best practices and training materials (e.g. log books)   |         |                        |   |   |  |
|   |   | Model developed addresses 3 learning programme structures:<br>(1) Accelerated metal engineering trades (apprenticeship) training model with N3 entry requirements, practical / workshop training and then structured work experience (indentured component)<br>(2) CBMT motor trades (apprenticeship) training with additional incentives for employers<br>(3) Learnership model for both metal engineering and motor trades with additional incentives for employers |         |                        |   |   |  |
|   |   | The ability of the SETA to leverage good project management, different contractual and grant payment forms to employer participants and provide employer and learner support together with strict requirements for learner entry and contracting purposes are held to have been the key success underpinnings for this project.   |         |                        |   |   |  |
|   | Challenges (Constraints)  | Practical training capacity is limiting intake  |         |                        |   |   |  |
|   |   | Recruiting suitable candidates - questions being raised about availability of N3 engineering candidates   |         |                        |   |   |  |
|   |   | Workplace capacity is limiting over-and-above own needs (i.e. shortage of workplace learning supervisors and mentors)   |         |                        |   |   |  |
|   |   | Getting companies to commit to training large numbers above own needs   |         |                        |   |   |  |
|   | Funding and Financing   | The changed nature of work in the motor industry and associated need for specialists rather than general motor mechanics as well as shrinkage in the auto and motor sectors of the economy have negatively impacted the uptake of the accelerated artisan training project in the MERSETA.  |         |                        |   |   |  |
|   | Project conceptualisation and research funded by SEIFSA   |   |         |                        |   |   |  |
|   | Phase 1 funding through MERSETA discretionary funds - additional grant for demonstrated above equilibrium commitments in identified areas |   |         |                        |   |   |  |
|   | Phase 2 funding proposal to NSF by MERSETA approved 2008. First project tranche funding received 2009.                                    |   |         |                        |   |   |  |

| Project  | Industry shareholder  | Industry sector  | SETA   | Government Shareholder | Skills Focus  |  | Implementation stage  |
|--|---|--|--------|------------------------|---|--|---|
|  |   |  |        | National / Provincial  | Artisans/Technicians/Professionals  | Numbers  |   |
| Mining ESDA project  | Mining companies Chamber of Mines   | Mining   | MQA    | DME<br>DoL             | Artisans in core mining related occupations using both learnerships, apprenticeships and FET college programmes e.g. Electricians, Diesel Mechanics, Fitter-Machinists, Fitter and Turner, Instrument Mechanician, Plater-Boilermakers, Plater-Welders, Millwrights | 350 per annum<br>1,050 by 2010   | Stakeholder negotiation stage   |
|  | Purpose   | To manage the placement and training of artisans through learnerships and apprenticeships at mining related company work sites over and above those that the mining industry has currently committed to train, i.e. above-equilibrium training                       |        |                        |   |  |   |
|  | Governance & Sustainability   | Section 21 company to be established as an Employment and Skills Development Agency with the Board / Governance Committee to be made up of Directors from participating mining companies who will report to the Education Advisory Committee of the Chamber of Mines |        |                        |   |  |   |
|  | Successes (Best Practices)  |  |        |                        |   |  |   |
|  | Challenges (Constraints)  | Company participation would be secured on the basis that there will be no additional <b>direct costs</b> to those companies taking on Learners / Apprentices over-and-above current intake, i.e. above-equilibrium trainees  |        |                        |   |  |   |
|  | Funding and Financing   | Ensuring that artisans developed through this programme have portable skills, i.e. ensuring transferability of the GMET qualifications   |        |                        |   |  |   |
| Oil, Gas & Chemical Manufacturing Companies Artisan Skills Training Project (OG&CM ASTP)   | Sasol Synfuels (MP&FS)  | Petro-chemicals  | CHIETA | DME Liquid fuels (DTI) | Boilermakers  | 615 (L2); 225 (L3); 127 (L4 - to qualify by May08). Target = 1,400 qualified artisans by Dec09. Extra 1,100 by Dec10 if funding avail. | Project has been running since May 2004 > previously as collaboration between OC&GM companies and CHIETA. |
|  | Engen (KZN)   |  |        |                        | Electricians  |  |   |
|  | PetroSA (WC - Mosselbay)  |  |        |                        | Fitters   |  |   |
|  | Chevron (WC - Cape Town)  |  |        |                        | Instrument mechanics  |  |   |
|  |   |  |        |                        | Riggers   |  |   |
|  |   | Welders  |        |                        |   |  |   |
|  | Governance & Sustainability   |  |        |                        |   |  |   |
|  | Successes (Best Practices)  | 97% retention of learners from NQF level 2 through to NQF level 4 to date  |        |                        |   |  |   |
|  | Challenges (Constraints)  | Training capacity is limiting intake (Sufficient accredited training providers to handle large numbers of learners without sacrificing quality)  |        |                        |   |  |   |
|  |   | Recruiting suitable candidates - making artisan a rewarding, legitimate and socially acceptable career   |        |                        |   |  |   |
| Getting companies to commit to training large numbers above own needs - Making their facilities available to mentor learners in industry environment |   |  |        |                        |   |  |   |
| Funding and Financing  | Access to funding at SETA and NSF level - lack of responsiveness has resulted in project stagnating for 20 months in 2005-2006  |  |        |                        |   |  |   |
|  | Securing funding to maintain the project and achieve objectives in the order of R200m (NSF = R45m, CHIETA = R15m, Sasol = R140m) has not been secured and is placing additional pressure on the central employer (Sasol) to meet additional funding requirements. |  |        |                        |   |  |   |

| Project   | Industry shareholder  | Industry sector  | SETA    | Government Shareholder  | Skills Focus                       |  | Implementation stage  |
|---|---|--|---------|---|------------------------------------|--|---|
|   |   |  |         | National / Provincial   | Artisans/Technicians/Professionals | Numbers  |   |
| Public Enterprises ESDA   | SOEs  | Various  | Various | DPE   | Various                            | 1,000 in 3 years   | To kick-off with companies in PBMR supply chain - Jan/Feb 2008                        |
|   | <i>Purpose</i>  | Facilitate SETA-funded workplace placements for FET College graduates with companies in SOE supply chains  |         |   |                                    |  |   |
|   | <i>Governance &amp; Sustainability</i>  | Structure within the DPE - applied for registration with DoL   |         |   |                                    |  |   |
|   | <i>Successes (Best Practices)</i>   |  |         |   |                                    |  |   |
|   | <i>Challenges (Constraints)</i>   |  |         |   |                                    |  |   |
|   | <i>Funding and Financing</i>  |  |         |   |                                    |  |   |
| SAFCEC Construction Centre of Excellence                                    | SAFCEC and MBSA members (25 companies participating)  | Construction   | CETA    | SANRAL, Western Cape Provincial Government, Dept of Transport and Dept Public Works |                                    | 300 already trained - target 250 p.a. for 5 years (1250) | 300 learnerships completed - all learners placed                                      |
|   | <i>Purpose</i>  | Provide skills training and learnerships in scarce skills in civil engineering and building (trades, technicians, engineers) through co-ordination of training efforts at provincial level |         |   |                                    |  |   |
|   | <i>Governance &amp; Sustainability</i>  | Private Public Partnership between SAFCEC (SAFCEC Western Cape), TJEKA, Boland College, CETA and MBSA members  |         |   |                                    |  |   |
|   |   | Industry steering committee (includes SAFCEC members)  |         |   |                                    |  |   |
|   | <i>Successes (Best Practices)</i>   | 100% placement of learners on completion of learnerships (skills programmes)   |         |   |                                    |  |   |
|   |   | Careful recruitment and selection of candidates - quality recruitment and selection  |         |   |                                    |  |   |
|   |   | Management of trainees and students  |         |   |                                    |  |   |
|   |   | Learnership rotation schedule - exposure to all curriculum elements  |         |   |                                    |  |   |
|   |   | Collaborative partnership - employer buy-in and industry steering committee  |         |   |                                    |  |   |
|   |   | Focus for provincial government projects   |         |   |                                    |  |   |
|   | <i>Challenges (Constraints)</i>   | FET College buy-in - guaranteed funding for fundamental course provision and utilisation of accommodation facilities (subsidised by DoE but under-utilised)                                |         |   |                                    |  |   |
|   |   | Training facilities - plant and equipment  |         |   |                                    |  |   |
| CETA red tape (bureaucracy) and lack of administrative and systems capacity |   |  |         |   |                                    |  |   |
| <i>Funding and Financing</i>  | DoL specific focus on unemployed targets is problematic   |  |         |   |                                    |  |   |
|   | Funding is problematic - includes inflexibility of DoL's funding for training and lack of access to NSF |  |         |   |                                    |  |   |
|   |   |  |         |   |                                    |  | Some leverage of DoE FET subsidies through use of subsidised accommodation facilities |

| Project   | Industry shareholder  | Industry sector   | SETA    | Government Shareholder                              | Skills Focus  |         | Implementation stage   |
|---|---|---|---------|---|---|---------|--|
|   |   |   |         | National / Provincial                               | Artisans/Technicians/Professionals                                | Numbers |  |
| SEIFSA / DoL Accelerated Artisan Training Project | SEIFSA and SEIFSA members   | Metal and Engineering   | MERSETA | DoL(Gauteng South) - NSF Social Development Funding | Boilermakers  | 24 (13) | First group of technical trainees completed institutional training by January 2008. 83% placement success to date. |
|   |   |   |         |   | Electricians  | 24 (24) |  |
|   |   |   |         |   | Fitters and Turners   | 24 (20) |  |
|   |   |   |         |   | Toolmakers  | 6 (6)   |  |
|   |   |   |         |   | Welders   | 12 (12) |  |
|   |   |   |         |   | Totals (figures in brackets = completed, placed with an employer) | 90 (75) |  |
|   | Purpose   | Assist with addressing scarce and critical artisan trade-related skills shortages in metal and engineering industry through facilitating a strategic skills development and placement strategy focused on<br>(1) Building capacity within metal and engineering industry<br>(2) Creating a pool of qualified artisans from which employers can recruit<br>(3) Facilitating a comprehensive training programme for skilling unemployed people to become qualified artisans |         |   |   |         |  |
|   | Governance & Sustainability   | Project managed by SEIFSA   |         |   |   |         |  |
| Successes (Best Practices)                        | 83% of trainees indentured as apprentices within 1-2 months of completing technical (institutional) training  |   |         |   |   |         |  |
|   | Careful selection of candidates - already in possession of required N courses   |   |         |   |   |         |  |
| Challenges (Constraints)                          | Based on accelerated artisan training model piloted by SEIFSA in 2005/06 - consists of<br>(1) Institutional training for unemployed young people who have completed N courses doing technical training (24 weeks) at MERSETA accredited training centres (Fundi and SAJ)<br>(2) Candidates successfully completing of training, indentured as apprentices at companies for work place training to trade test (80 weeks) |   |         |   |   |         |  |
|   | None noted  |   |         |   |   |         |  |
| Funding and Financing                             | Funded through DoL (Gauteng South) Social Development Funding Window (NSF grants?)  |   |         |   |   |         |  |

| Project                               | Industry shareholder   | Industry sector   | SETA   | Government Shareholder   | Skills Focus  |  | Implementation stage  |
|---------------------------------------|--|---|--|--|---|--|---|
|                                       |  |   |  | National / Provincial  | Artisans/Technicians/Professionals  | Numbers  |   |
| Technical Skills Business Partnership | SASOL<br>Eskom<br>Transnet<br>Anglo Platinum<br>Goldfields<br>Arcelor Mittal | Petro-chemicals<br>Energy<br>Transport<br>Mining - Platinum<br>Mining - Gold<br>Steel engineering   | CHIETA<br>ESETA<br>TETA<br>MQA<br>MQA<br>MERSETA | DME Liquid fuels (DTI)<br>DPE (dme?)<br>DPE (dt?)<br>DME<br>DME<br>DTI | Fitters<br>Boilermakers<br>Welders<br>Millwright<br>Fitter and Turner<br>Steel fixer<br>Sheet metal worker<br>Electricians (Heavy and Light current)<br>Turners<br>Toolmakers | Maximum of 5,400 – more likely to be around 4,700 (excluding miners and riggers) | Project structures established with agreement on skill areas needing attention and sharing of good practice and facilities<br>4 of the employers have already enrolled learners |
|                                       | Governance & Sustainability  | Independent Business Partnership regulated by a Framework document (officially signed MoU).<br>Steering Committee with Chair rotating across member company senior representatives, NBI acts as secretariat. Working committee of experts from member companies responsible for execution |  |  |   |  |   |
|                                       | Successes (Best Practices)   | Agreement on skills crisis and scarce skills  |  |  |   |  |   |
|                                       |  | Information sharing   |  |  |   |  |   |
|                                       |  | Willingness to share facilities and train for others  |  |  |   |  |   |
|                                       | Challenges (Constraints)   | Getting business to commit sufficient resources to drive the initiative (people and time)   |  |  |   |  |   |
|                                       |  | Despite numerous attempts to develop cross-sector, cross-SETA solutions and including support for the TSBP initiative from the SETA Artisan Development sub-committee, additional funding from the NSF has not been secured and project support remains at employer to SETA level         |  |  |   |  |   |
|                                       |  | Growing the initiative to other sectors   |  |  |   |  |   |
|                                       |  | Getting companies to commit to training large numbers above own needs   |  |  |   |  |   |
|                                       | Funding and Financing  | Funding model does not support above-equilibrium training - at SETA or national (NSF) level   |  |  |   |  |   |