Key trends in artisanal supply and demand in the Metals and Related Services Sector

Technical Report prepared for the Artisan Identity and Status Project:
The unfolding South African story

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CONTENTS

LIST OF TABLES AND FIGURES

LIST OF ACRONYMS

ADCC	Artisan Development Coordination Committee
AH&F	Agriculture, Hunting and Fishery
ANZSCO	New Zealand Standard Classification of Occupations
C&RT	Craft and Related Trades
CBMT	Competency Based Modular Training
CETA	Construction Education and Training Authority
CHE	Council on Higher Education
CHIETA	Chemical Industries Education and Training Authority
MAPPP	Media, Advertising, Publishing, Printing, Packaging
CIBD	Construction Industry Development Board
COTT	Central Organisation for Trade Testing
CS&PS	Community, Social and Personal Services
DHET	Department of Higher Education and Training
DoE	Department of Education
DoL	Department of Labour
E&B	Extraction and Building
EG&WS	Electricity, Gas and Water Supply
ESETA	Energy Sector and Education Authority
FIETA	Forest Industries Education and Training Authority
FIIRE&BS	Financial Intermediation, Insurance, Real Estate and Business Services
HSRC	Human Sciences Research Council
HWSETA	Health and Welfare Sector Education and Training Authority
ID	Identity
IMF	International Monetary Fund
INDLELA	Institute for the National Development of Learnerships, Employment Skills and Labour Assessments
ISCO	International Standard Classification for Occupations
ISETT	Information Systems, Electronics and Telecommunications
JIPSA	Joint Initiative on Priority Skills Acquisition
LFS	Labour Force Survey
LGSETA	Local Government Sector Education and Training Authority
M&Q	Mining and Quarrying
MERSETA	Metals and Related Services Sector Education and Training Authority
MM&R	Metals, Machinery and Related Trades
MQA	Mining Qualifications Authority
NPC	National Planning Commission
NQF	National Qualifications Authority

NSDS	National Skills Development Strategy
NCV	National Certificate: Vocational
OC&RT	Other Craft and Related Trades
OECD	Organisation for Economic Co-operation and Development
OFO	Organising Framework for Occupations
OHS	October Household Survey
PHP&R	Precision, Handicraft, Printing and Related
QCTO	Quality Council for Trades and Occupations
QLFS	Quarterly Labour Force Survey
RPL	Recognition of Prior Learning
SA	South Africa
SASCO	South African Standard Classification of Occupations
SARS	South African Revenue Service
SETA	Sector Education and Training Authority
SIC	Standard Industrial Classification
StatsSA	Statistics South Africa
TETA	Transport Education and Training Authority
TS&C	Transport, Storage and Communication
W&RSETA	Wholesale and Retail Sector Education and Training Authority
WSP	Workplace Skills Plans

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INTRODUCTION: ARTISANAL SKILLS IN SOUTH AFRICA - THE CURRENT CONTEXT

Globally, over the last decade, the profile of individuals involved in artisanal skilling is changing. The Metals and Related Services Sector Education and Training Authority (MerSETA) thus commissioned the Human Sciences Research Council (HSRC) to study the change in artisanal identity and status within the South African context. At its core, the research will investigate qualitative dimensions of becoming and being an artisan generally, but specifically within the Metals and Related Services sector. It will do so through case studies of key artisanal trades in the sector.

Research has been conducted in the past to establish artisanal skills supply and demand within the South African context, but this is limited. Mukora (2009) and Elliot (2009) provide probably the most comprehensive and latest information on artisanal skilling. Mukora offers a supply and demand overview until 2005, while Elliot provides a supply side focus only, until 2009. In fact, most literature on artisans in South Africa has adopted a linear labour market supply and demand stance, with a focus on the identification of artisanal skills shortages (CIDB 2007, Mukora 2008, 2009, Jordaan & Barry 2009).

Critical issues militate against creating a better overall picture of artisan development. Many have argued that in South Africa, the debate on artisanal skills production is characterised by uncertainty and confusion, which is attributed to challenges of legislative incoherence, policy disequilibrium and systemic inconsistencies (Kunene 2010). Notable gaps in the literature relate to a disjointed view of the routes to becoming, and what constitutes being, an artisan. Typically, research on artisanal skills production focuses on only learnerships or apprenticeships in isolation, or on artisanal skilling in only one sector (Mukora 2008, Landelahni 2010), or in priority areas (Elliot 2009). Our case studies will attempt to address such gaps.

To lay the foundation, the first stage of the project is to take stock of artisanal skilling with a quantitative lens, the task of this technical report. The report will describe analytically the size and nature of the artisanal population, as well as the extent and nature of artisanal skills supply and demand, in order to contextualize the case study research adequately.

The technical report is divided into four sections. The first section will deal with the datasets utilised, the methodological steps taken to aid the analysis, as well as the limitations inherent in the use of the datasets and methodological approach. Sections two and three will update available data on artisanal skills supply and demand in the Metals and Related Services Sector since 2005, relative to the national population. The final section of the report will then draw together key empirical trends characterising artisanal skills supply and demand in the sector, to raise questions for further qualitative analysis.

SECTION 1: ESTABLISHING ARTISANAL SKILLS SUPPLY AND DEMAND – DATASETS UTILISED AND METHODOLOGIES APPLIED

This part of the study focused on updating data on the supply and demand of artisanal skills since 2005, contextualised in a historical review based on the work of Mukora (2009), which spanned the period 1996 – 2005.

Establishing skills supply and demand is contentious. The term *labour supply* can be defined as the availability of suitable human resources in a particular labour market (Murcko 2012), while the *labour force* can be defined as including all people who are either working or looking for work, that is, all those who are participating in the labour market. The term *labour demand* can be understood simply as the need for particular employees in a particular job market.

Proxies are often used to estimate supply and demand. Unemployed people with qualifications relevant to the profession or occupation under review may point to an oversupply of skills or to a mismatch in the provision of skills. The supply of skills can also be derived from graduation and registration trends. Similarly, vacancy and salary data can be used to estimate the demand for certain skills and occupations. In the South African context, wage data is not routinely captured, and so in most cases, trends in employment are used to indicate where demand for skills is located.

Evaluations of labour market supply and demand trends usually attempt to establish whether and how skills shortages are evident, to inform national planning. This report has a different purpose and focus. Here, we highlight the key characteristics of the changes in artisanal skills supply and demand over the relevant period, to direct further investigation on what these changes might imply for artisanal status and identity.

1.1 ESTABLISHING THE DEMAND FOR ARTISANAL SKILLS IN THE METALS AND RELATED SERVICES SECTOR

The National Skills Development Strategy 2011-2016 (NSDS III), points to the crucial need for regular, accurate and appropriate collection and dissemination of labour market information. Knowledge about emerging trends in the labour market and training provision is essential for planning to meet skills needs and guide investment in education and training provision (DHET 2011, p. 12).

The demand for any type of skill is difficult to establish unilaterally, and it is highly contextualized and history dependent. For example, the demand for artisanal skills in the immediate future will be explicitly driven by the recently announced[1] multibillion-rand public infrastructure programme, which aims to "unlock the country's resource sector and create jobs" by focusing on rail, water and road infrastructure integration. Artisanal skills development is a key priority to achieve economic development and historical redress, within the context of widespread youth unemployment. Furthermore, employment equity in the workplace will remain a key element in plans to broaden opportunities for the historically disadvantaged, and for redress in terms of gender inequality. The influence of socio-political imperatives on the nature of skills demand should thus not be ignored.

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[1] *State of the Nation address* (Parliament 2012)

1.1.1 Data limitations, datasets and methodology

Data limitations and difficulties influence the analysis and interpretation of the available datasets for the estimation of artisanal skills demand in South Africa.

Statistics South Africa (StatsSA) used the annual October Household Survey (OHS) as the principal vehicle for collecting labour market information between 1994 and 1999. This was replaced in the following year by the Labour Force Survey (LFS), undertaken bi-annually, in March and September each year up to 2007. In response to criticism from the International Monetary Fund (IMF), the frequency of the survey was increased and the Quarterly Labour Force Survey (QLFS) was introduced and conducted since 2008. The OHS[2], the LFS[3] and the QLFS remain the main sources of information on the labour market, despite their limitations.

Occupational data

For the purposes of quantifying the demand for artisans, a data set of employment statistics falling under the major occupational group *Craft and Related Trades Workers* was extracted.

From 1996–2005, artisan data was extracted according to the South African Standard Classification of Occupations (SASCO), which reflected the International Standard Classification of Occupations (ISCO)-88. In 2005, the Department of Labour adopted the use of the Organising Framework for Occupations (OFO) based on the Australian and New Zealand Standard Classification of Occupations (ANZSCO), and various versions of the OFO were applied in classifying occupational data since then. In 2009, the process was taken over by the Department of Higher Education and Training (DHET) and in 2010 the DHET decided that the OFO should also reflect the structure of ISCO-08 to align to the international framework. The OFO of 2011 and 2012 is based on two main concepts: the concept of the kind of work *performed* and the concept of *skill*.

To investigate and identify trends in the numbers of Craft and Related Trades Workers for the period 1996 to 2011, we face the following challenges:

- **Differing occupational codes:** The SASCO codes (which is a basis for international occupational comparison) was used between 1996 and 2005, while various versions of the OFO was used between 2006 and 2011. Version 9 of the OFO (reflecting the structure of ISCO-08 to align with the international framework) was used in 2011.

- **Differing constitution of occupational groups:** The OFO has been updated annually since its release in 2005. Up to and including 2005, the three occupational groups where artisans would be located each constituted a separate, major occupational grouping (*Technicians and Associate Professionals*; *Craft and Related Trades Workers;* and *Skilled Agricultural and Fishery Workers).* In 2006 however, some artisanal occupations within the three groups were combined under one occupational major group, namely, *Technicians and Trades Workers*. This changed again, in Version 9 (2011), where *Technicians and Associate Professionals* formed a separate major group, while the other two groups (major group: *Skilled Agricultural, Forestry Workers*; and major group: *Craft and Related Trades Workers*) were combined into one major group: *Skilled Agricultural, Forestry, Craft and Related Trades Workers*.

These inconsistencies in the use of occupational codes/definitions make comparison of artisanal data over time and according to a detailed occupational breakdown a challenge. Thus, in order to

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[2] Changes were made to the OHS sample design for successive surveys, while the LFS sampling methodology was consistent in each round of the survey (StatsSA 2008).
[3] The LFS was conducted on a six-monthly basis until 2007, but to address criticisms related to timeliness and frequency, StatsSA embarked on a quarterly cycle for the collection of labour market information since 2008.

compare occupational data *over time (1996 – 2011),* the two major groups, *Technicians and Associate Professionals* and *Skilled Agricultural, Forestry, Craft and Related Trades Workers* were combined and analysed as one group to compensate for the inconsistencies in occupational classifications at a more disaggregated level.

Labour market industries according to the Standard Industrial Classification (SIC)

In addition to the more general obstacles in constructing a picture of artisanal demand in South Africa between 1996 and 2011, there are issues specific to the sector that we need to be aware of.

Precise MerSETA artisanal employment data is not available in national data sets according to the Standard Industrial Classification (SIC) codes by which the national labour market is demarcated. This is because SETAs are demarcated according to a five-digit code, while the LFS/QLFS demarcate industries up to a three-digit level.

In order to surmount this obstacle, the team incorporated and drew on information on workplace skills plans (WSPs) to provide a more complete picture of employment and future needs in industries. WSPs analysed in isolation are not sufficient however, because not all companies submit WSPs.

To analyse MerSETA employment data according the three-digit level SIC codes in LFS and QLFS thus has its challenges. If SIC codes at a five-digit level were used in LFS and QLFS, more nuanced and detailed sub-classifications would have been possible, but at the three-digit SIC code level, some of the SETA data in the LFS and QLFS overlaps and precise numbers cannot be calculated. Table 1 illustrates the 43 industry SIC codes falling under the MerSETA sector, as well as the nine SETAs (CHIETA, MAPP, ISETT, HWSETA, FIETA, CETA, LGSETA, SERVICES and W&RSETA) with which 15 of the SIC codes are shared in the LFS and QLFS data sets.

Again, regardless of the limitations, LFS and QLFS are the best available national employment datasets for sector and sub-industry analyses. Caution is required with the interpretation of LFS and QLFS employment data according SETA demarcation, because of the overlap. This technical report thus refers to *MerSETA-related industry* artisanal employment data in comparison to *other SETA industry* artisanal employment data. Data trends reported might present an over-count for artisanal employment in the Metals and Related Services Sector, because of this overlap with other SETA sub-industries.

Table 1: MerSETA SIC codes and those shared with other SETAs in the LFS and QLFS data sets

SIC	Description	SETA			
		1	2	3	4
334	Manufacture: Basic chemicals	MerSETA	CHIETA		
337	Manufacture: Rubber products	MerSETA			
338	Manufacture: Plastic products	MerSETA			
351	Manufacture: Basic iron & steel	MerSETA			
352	Manufacture: Basic precious & non-ferrous metals	MerSETA			
353	Casting of metals	MerSETA			
354	Manufacture: Structural metal products, tanks, reservoirs & steam generators	MerSETA			
355	Manufacture: Other fabricated metal products; metalwork service activities	MerSETA	MAPP		
356	Manufacture: General purpose machinery	MerSETA			
357	Manufacture: Special purpose machinery	MerSETA	ISETT		
358	Manufacture: Household appliances n.e.c.	MerSETA			
359	Manufacture: Office, accounting & computing machinery	MerSETA			
361	Manufacture: Electric motors, generators & transformers	MerSETA			
362	Manufacture: Electricity distribution & control apparatus	MerSETA			
363	Manufacture: Insulated wire & cable	MerSETA			
365	Manufacture: Electric lamps & lighting equipment	MerSETA	MAPP		
366	Manufacture: Other electrical equipment n.e.c.	MerSETA			
371	Manufacture: Electronic valves & tubes & other electronic components	MerSETA			
372	Manufacture: TV & radio transmitters & apparatus for line telephony & telegraphy	MerSETA			
373	Manufacture: TV & radio receivers, sound/video recording/ reproducing apparatus	MerSETA			
374	Manufacture: Medical appliances & instruments & appliances for measuring, checking, testing, navigating & for other purposes, except optical instruments	MerSETA	HWSETA		
375	Manufacture: Optical instruments & photographic equipment	MerSETA			
381	Manufacture: Motor vehicles	MerSETA			
382	Manufacture: Bodies (coach-work) for motor vehicles; trailers & semi-trailers	MerSETA			
383	Manufacture: Parts & accessories for motor vehicles & their engines	MerSETA			
384	Building & repairing of ships & boats	MerSETA			
385	Manufacture: Railway & tramway locomotives & rolling stock	MerSETA			
386	Manufacture: Aircraft & spacecraft	MerSETA			
387	Manufacture: Transport equipment n.e.c.	MerSETA			
391	Manufacture: Furniture	MerSETA	FIETA		
395	Recycling n.e.c.	MerSETA			
503	Building installation	MerSETA	CETA		
504	Building completion	MerSETA	SERVICES	LGSETA	CETA
505	Renting of construction or demolition equipment with operators	MerSETA	SERVICES		
614	Wholesale trade: Non-agricultural intermediate products, waste& scrap	MerSETA	W&RSETA	SERVICES	CHIETA
631	Sale of motor vehicles	MerSETA	W&RSETA		
632	Maintenance & repair of motor vehicles	MerSETA			
633	Sale of motor vehicle parts & accessories	MerSETA	W&RSETA		
634	Sale, maintenance & repair of motor cycles & related parts & access	MerSETA			
635	Retail sale of automotive fuel	MerSETA			
862	Software consultancy & supply	MerSETA	ISETT		
865	Maintenance & repair of office, accounting & computing machinery	MerSETA	ISETT		
882	Architectural, engineering & other technical activities	MerSETA	CETA	HWSETA	LGSETA

Source: Derived from QLFS (2011) and MerSETA SIC codes (SARS 2012)

Educational data

In order to investigate the demand for certain levels of artisanal skills, the qualifications held by artisans in employment can be examined. However, the LFS and QLFS data sets do not have data on whether individuals completed a trade test (the final certification point to becoming a qualified artisan). The highest recorded level of education as captured on the LFS/QLFS databases was used to form four broad categories for the analysis, namely:

· *Unqualified*: "No Schooling"; Grade 1 up to Grade 11 with no additional Certificate/Diploma
· *Under-qualified*: NI-NIII, Diploma/Certificate with less than Grade 12/Std 10/Matric
· *Matriculants*: Grade 12/Std 10/Matric with no additional Certificate/Diploma or Degree
· *Qualified:* Grade 12/Std 10/Matric plus Diploma/Certificate or Degree.

Implications for interpretation

In summary, to identify the trends and the nature of artisanal employment in the Metals and Related Services Sector requires analysis of datasets by occupational-, sectoral- and educational level.

The annual changes in occupational classifications represent a challenge to isolate employment trends at the occupational level. Furthermore, a comparative challenge is evident in the different data sets that apply to an investigation over an extended time period.

At the sectoral level, it is a challenge to analyse LFS and QLFS data according to SETA demarcations, as LFS and QLFS uses a much more detailed sub-industry demarcation. An analysis according to SETA would thus result in over-counting per SETA, because of overlap between SETA data.

In terms of artisanal educational level data, the LFS and QLFS is not the best data source. It is for instance not possible to determine which Craft and Related Trades Workers have completed a trade test in order to be classified as an artisan. This points to the need for better linkages between datasets, so that such investigation can be possible in the future.

1.2 ESTABLISHING SUPPLY OF ARTISANAL SKILLS IN THE METALS AND RELATED SERVICES SECTOR

The number of 'graduates' accumulated over the years provides an indication of the current availability of people with qualifications in a particular occupation (Mukora, 2008). In this way, we will evaluate the numbers of artisan related learnership and apprenticeship participants who completed their qualification as an indication of the available human resources in artisanal occupations. Although these two routes do not represent a comprehensive and complete count of the supply of artisanal skills, learnerships and apprenticeships remain the major routes to artisanal skilling in South Africa.

1.2.1 Data limitations and difficulties

This section highlights important technical considerations regarding the cleaning and analysis of the datasets for artisanal skills supply, to enhance reliability and validity.

For all subsequent analysis on skills supply, it is important to note that the year indicated relates to the period covered by the financial year. For example, the year 2002 includes all participants who completed or registered for a qualification in the financial year from 1 April 2001 to 31 March 2002.

Learnerships and apprenticeships datasets

The dataset received from MerSETA contained learnerships and apprenticeships supply side data from 13 February 2002 to 9 February 2012[4]. Data from 2005/06 to 2011/12 is presented here, to update trends since 2005, although historical data is provided for completeness. The datasets includes records of participants in short skills programmes, which were not analysed in this report as they are not qualifications that conclude with a trade test for artisanal certification.[5]

It was necessary to create a number of new variables in order to structure, organize and prepare the data for analysis. Firstly, each record in the database was allocated a unique identification number. Thereafter a cleaning process to identify duplicate records started. Duplicates were identified on the basis of participants' first names, surnames, identity numbers, dates-of-birth, names of registered learnership or apprenticeship qualification, and the year of registration or completion. Thus if a learner registered or completed the same qualification in two different time periods, this was considered a valid record.

In the cleaning process of the *date-of-birth* and *learner identity* variables, a new variable (*DateOfBrith_rw*) was created through amalgamation. The process of constructing a new variable by using the *learner identity* number as foundation and imputing missing values with values originating from the *date-of-birth* variable, led to an almost complete and much more reliable variable. From the *DateOfBrith_rw* variable three new variables were created: the *AgeOnRegistration*, *AgeOnCompletion* and *CurrentAge* variables.

In order to determine if a qualification is artisan related, all qualifications were classified as artisan related or not artisan related. This variable (*ArtisanRel*) was created based on the government document *Regulation Gazette No 34666* of 7-October-2011, in which occupations are listed as trades for which artisan qualifications are required.

Since a number of participants registered for more than one learnership or apprenticeship qualification across the different years, two new variables were created to distinguish the chronological order of the qualification enrolment or completion. These variables (*NumReg*, *NumComp*) were created based on the valid duplications in the datasets. Hence, a value of '1' was allocated to the first appearance of a participant on the dataset in terms of the oldest date of registration or completion. This variable is also used to identify the number of 'heads' (headcount enrolment or completion) in the datasets.

INDLELA dataset

Another valuable dataset that can be utilized in analysis of the artisanal skills supply side is the INDLELA database on trade test registrations and completions.

The HSRC received a database from INDLELA consisting of all those who undertook a trade test at their test centre within the time period of 1 April 2009 to 31 March 2010 (Year 5 of NSDS II). A caution is that INDLELA is not a centralized database and although it is the main test centre, it does

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[4] This is the date on which the data was extracted from the MerSETA's information system.
[5] We acknowledge that an accumulation of certain combinations of skills programmes can lead to a learnership qualification on NQF level 4, which can then allow a learner access to a trade test and artisanal status. However, there were difficulties in the assessment of unit standards of skills programme participants to establish whether a learner who completed a number of skills programmes should be added to the supply basket. This caused unreliable data. Therefore it was decided to omit skills programme participants from investigation in this study.

not capture data from all the trade test centres. The dataset works with headcounts – those who took or passed a trade test. Thus, the total population we work with in the final section is smaller than the aggregate of 9 446 of those for whom tests were arranged.

The data went through a rigorous process of cleaning. It was cleaned by removing either duplicated records or records for which the date for the trade test fell outside the date range of 1 April 2009 to 31 March 2010. The ID numbers and names of candidates, as well as registration dates for trade tests were used to determine the final number of headcounts.

In summary

The datasets evaluated in this report are distinct, and will not be directly comparable in all cases. However, they are the best currently available and are utilised so that the trends and analysis can contribute to a clearer, contextualised understanding of both the stock and flows of artisanal skills within the Metals and Related Services Sector.

SECTION 2: KEY TRENDS IN DEMAND FOR ARTISANAL SKILLS IN SOUTH AFRICA

Mukora's (2009) quantification of the demand for artisans in South Africa spanned the 10 year period 1996–2005, covering distribution in terms of occupations and sectors, race, gender and level of education. We will build on and extend this analysis from 2005 until 2011, to provide a historical overview of shifts in the general demand for artisans between 1996 and 2011. Our analysis of artisanal skilling in the Metals and Related Services Sector will concentrate on the more recent period 2005–2011. Here we will be able to compare artisan employment in MerSETA-related industries with other industries in greater depth, in terms of employment growth rates, occupations, race, gender, age, level of education, and geographical distribution.

2.1 TRENDS IN EMPLOYMENT OF ARTISANS

Between 1996 and 2011 an overall positive growth in the employment of artisans in South Africa is evident – an average annual growth of 2.12%. Table 2 indicates a steady but small growth rate in employment over the period, with growth largely attributable to growth in the Metals, machinery and related (MM&R) trades, with the largest decline in the Precision, handicraft, printing and related (PHP&R) trades.

Almost half of all artisans over this period were employed in the Extraction and building (E&B) trades (49%); almost a third in Metal, machinery and related (MM&R) trades (30%); roughly 16% in the category Other craft and related (OC&R) trades, and less than 5% in the Precision, handicraft, printing and related trades (PHP&R). This proportional distribution highlights the dominance of the Extraction and building (E&B) trades in providing employment for artisans, while also showing that the minority of all artisans find work in the Precision, handicraft, printing and related (PHP&R) trades. This is in line with earlier trends observed by Mukora (2008).

If we focus on the trends since 2005 however, we find that while Mukora (2008) noted a 4% average annual growth between 1996 and 2005, there has been a negative average annual growth rate (-3.22%) in the period 2006 – 2011. Since 2005, there has been an overall decline in the employment of artisans, with the largest decline evident in PHP&R trades. This is particularly significant, given that this is also the subgroup in which the smallest numbers of artisans are employed.

Analysis of the sectoral distribution of artisans (Table 3), confirms some of these trends. Artisanal employment between 1996 and 2011 is concentrated in the Construction (32%) and Manufacturing (30%) sectors, with the minority being employed in the categories of Other (0.02%) and Private households (0.51%).

Table 2: Number of artisans according to occupational group, 1996 – 2011

Year	Major group	Major_sub groups			
	Craft and related trades workers	Extraction and building trades workers	Metal, machinery and related trades workers	Precision, handicraft, printing and related trades workers	Other craft and related trades workers
1996	1205170	560057	334929	69310	239364
1997	1329353	606246	393274	62354	267479
1998	1348203	641658	386314	74730	245500
1999	1391384	703232	401601	62591	223960
2000	1535889	754953	438922	70267	271747
2001	1448963	712621	434776	62331	239235
2002	1416671	661786	443903	67717	243265
2003	1455731	704804	458741	66435	225751
2004	1554683	786578	443328	72184	252593
2005	1769253	859764	502790	90163	316537
2006	1946265	1005180	553806	99435	287844
2007	1876405	884842	601797	115531	274235
2008	1898262	900752	629167	82925	285418
2009	1575486	785241	499885	70018	220343
2010	1577256	798626	480121	66263	232247
2011	1652057	824500	537587	62787	227184
Average annual growth per group (1996 - 2011)	2.12	2.61	3.20	-0.66	-0.35
Average annual growth per group (2006 - 2011)	-3.22	-3.89	-0.59	-8.79	-4.62
Average Employment per group (1996 - 2011)	1561314	761927	471309	74690	253294
% employed per group (1996-2011)	100	48.80	30.19	4.78	16.22

Source: Mukora (2008), OHS (1996 – 1999), LFS (2000/2 – 2007/2), and QLFS (2008/4 - 2011/4)

The strongest growth in artisanal employment occurred in the Construction (5% average annual growth), and the Wholesale and retail (W&R) trade (4% average annual growth) sectors (Table 3). These growth rates however reflect a slower rate of growth since 2005, as the growth in both these sectors, between 1996 and 2005, were above 8%. Other sectors that experienced growth during this period were: Agriculture, Hunting and Fishery (AH&F) (0.4%), Manufacturing (1%), and Financial Intermediation, Insurance, Real Estate and Business Services FIIRE&BS) (1.7%).

The employment of artisans suffered most in the Private households 'sector' (average annual decline of 21%). The other sectors that experienced a decline during this period were, Transport, Storage and Communication (TS&C) (-2.8%), Community, Social and Personal Services (CS&PS) (-1.5%), Mining & Quarrying (M&Q) (-1.1%), and Electricity, Gas and Water Supply (EG&WS) (-5%).

Table 3: Number of artisans according to sectors (1996 – 2011)

Year	Total	Agriculture, hunting, forestry and fishing	Mining and quarrying	Manufacturing	Electricity, gas and water supply	Construction	Wholesale and retail trade: repair of motor vehicles, motor cyles and personal and household goods; hotels and restaurants	Transport, storage and communication	Financial intermediation, insurance, real estate and business services	Community, social and personal services	Private households	Other
1996	1201157	14383	109642	395858	49563	287643	172876	36900	36139	58627	39526	0
1997	1324940	21156	123605	405753	46346	331620	210058	38206	47616	61515	39065	0
1998	1331947	23447	157306	384186	32692	356726	237526	38507	32157	50692	16868	1838
1999	1383963	29227	172173	390196	22332	375152	249461	47238	24574	58077	15170	363
2000	1535889	17639	176660	463332	24100	450454	307174	31005	20263	42596	2667	0
2001	1448963	15432	173033	440801	24049	429673	272444	38562	17288	37527	155	0
2002	1416671	14555	161967	469953	25758	400682	253633	31753	14643	39476	4250	0
2003	1455731	20631	162978	460271	26172	414307	277712	23341	24258	44754	967	340
2004	1554683	20114	134159	463543	27153	524051	273296	32931	30038	46996	2166	236
2005	1769253	20404	120171	545192	32807	581571	354993	31873	24379	57097	766	0
2006	1946265	13958	117261	547060	39226	677147	403891	36840	45592	64256	0	1034
2007	1876405	34437	139555	524762	32977	611396	386029	50225	36570	60455	0	0
2008	1898262	29262	93984	535654	21597	671664	374431	43928	54303	71433	2005	0
2009	1575486	6777	101136	468918	21210	554892	303831	30932	39870	47919	0	0
2010	1577256	11192	74313	449007	15968	606095	305672	23599	45341	42472	3596	0
2011	1652057	15289	93269	456554	22988	615317	328843	24295	46683	46981	1089	748
Average annual growth per industry (1996 - 2011)	2.15	0.41	-1.07	0.96	-4.99	5.20	4.38	-2.75	1.72	-1.47	-21.29	_
Average Employment per industry (1996 - 2011)	1559308	19244	131951	462565	29059	493024	294492	35008	33732	51930	8018	285
% employed per industry (1996-2011)	100	1.23	8.46	29.66	1.86	31.62	18.89	2.25	2.16	3.33	0.51	0.02

Source: OHS (1996 – 1999), LFS (2000/2 – 2005/2), and LFS (2006/2 – 2011/4)

2.2 A FOCUS ON ARTISAN EMPLOYMENT TRENDS IN MERSETA-RELATED INDUSTRIES (2006 – 2011)

2.2.1 Employment growth

A decline in the overall employment of C&RT workers since 2006 is evident. Employment in MerSETA related industries experienced a very modest growth trend, in contrast with 'other SETA industries' which showed a marked decline. Employment of artisans in MerSETA-related industries had a positive average annual growth of 0.46%, while total employment of artisans had a negative growth (-3.25%) during the period.

The most marked change in employment is noted between 2008 and 2009 (Figure 1). Various factors could have influenced this pronounced drop. The worldwide economic recession in 2008 could have played a significant role, while it could merely be the result of the change in occupational capturing according to the SASCO system before 2009 to the OFO system post 2009.
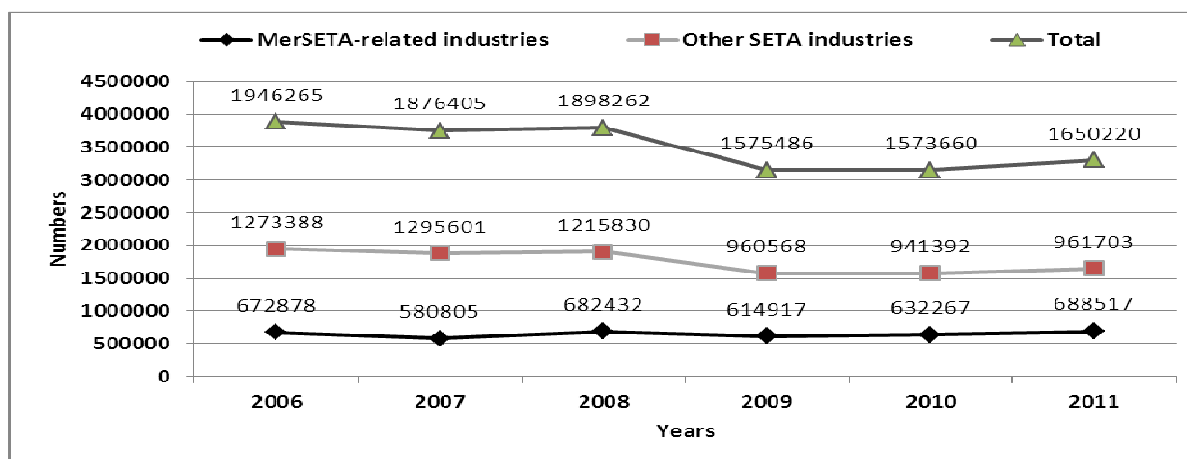
Figure 1: Artisan employment trends in MerSETA-related industries, 2006-2011

Offering another perspective, Figure 2 compares the trends suggested by two different datasets, Workplace Skills Plans (WSPs) - and LFS/QLFS information. The average annual growth in artisanal employment in MerSETA-related industries according to LFS/QLFS was 0.46%, as compared with the 0.91% average annual growth suggested by the WSP data.
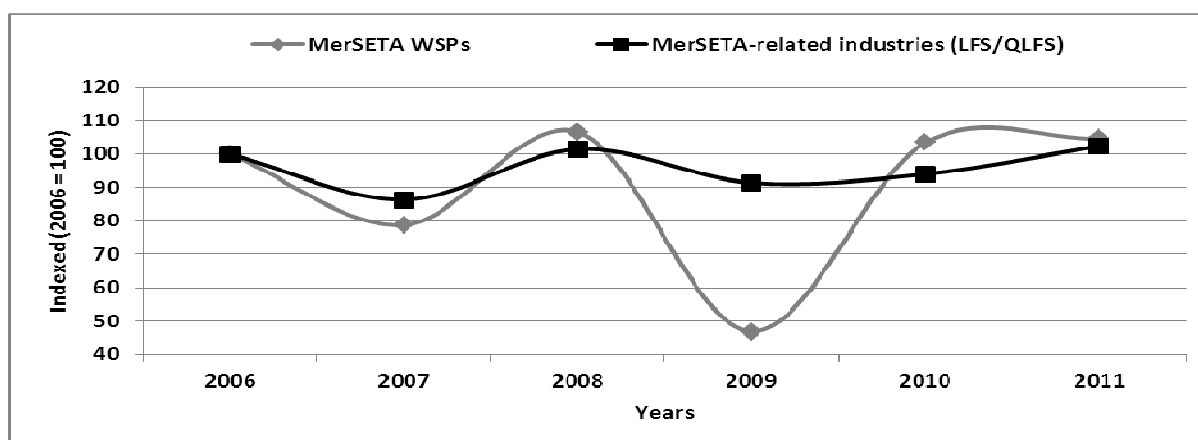
Figure 2: Artisan employment trends in MerSETA-related industries on LFS/QLFS; and MerSETA WSPs, 2006-2011

Overall though, the employment trend (Indexed 2006 = 100) suggested by both data sets, are very similar, except for a big difference in 2009. The large decline in MerSETA WSP data in 2009 could be a result of a combination of factors, among them the switch from the SASCO to the OFO occupational system that could have been confusing for firms, as well as the overall drop in artisanal employment noted between 2008 and 2009 (according to the LFS/QLFS data). Both datasets confirm the slight growth in artisanal employment in MerSETA-related industries over the period, and suggests a slightly more reliable picture emerging from the LFS/QLFS in comparison to the WSP data (especially in 2009).

2.2.2 Growth in the employment of artisans with higher qualifications

If we consider the levels of qualification that appears most desirable for artisans, a modest growth in the employment of *qualified*[6] artisans in other SETA industries (1.89% average annual growth) (Figure 3 and 4), in comparison to a more pronounced trend in MerSETA-related industries (14% average annual growth) is evident. Figure 3 provides the real employment *numbers*, while Figure 4 (indexed, 2006 = 100) illustrates the stronger *growth trend* in MerSETA-related industries.

The data suggests that it is increasingly important for artisans to gain appropriate qualification levels, as their propensity for employment will be negatively impacted if they do not have a Matric and additional qualification (Diploma/Certificate/Degree).
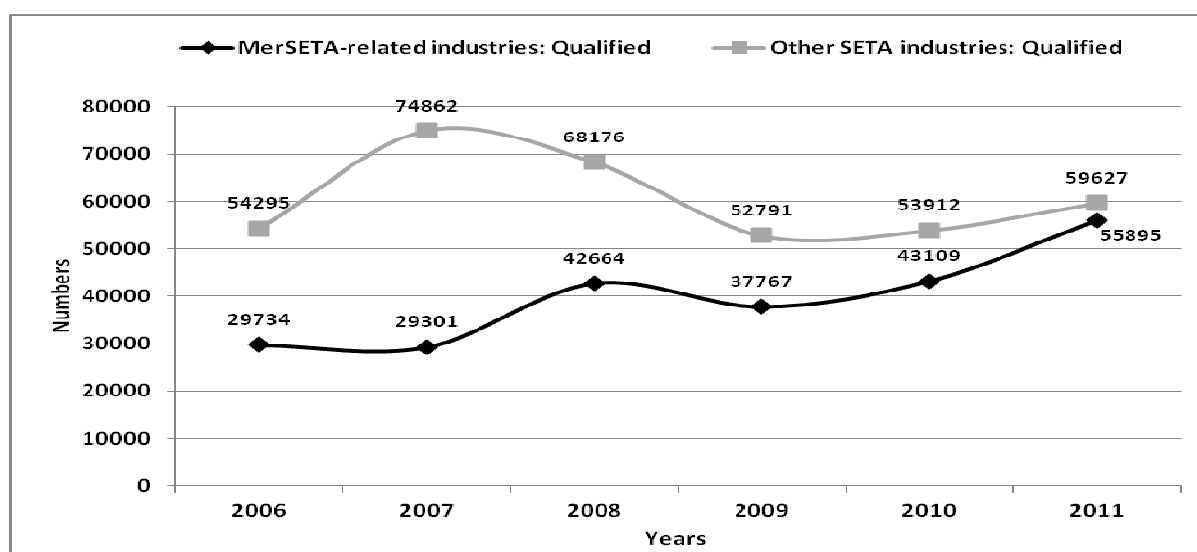
Figure 3: Employment trends of qualified artisans (numbers), 2006-2011

In other SETA industries combined, for the same period, there was a decline in the employment of unqualified, under-qualified and matriculants, while the employment of qualified artisans showed a slight increase in line with the trend noted in the overall population.

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[6] Grade 12/Std 10/Matric plus Diploma/Certificate or Degree
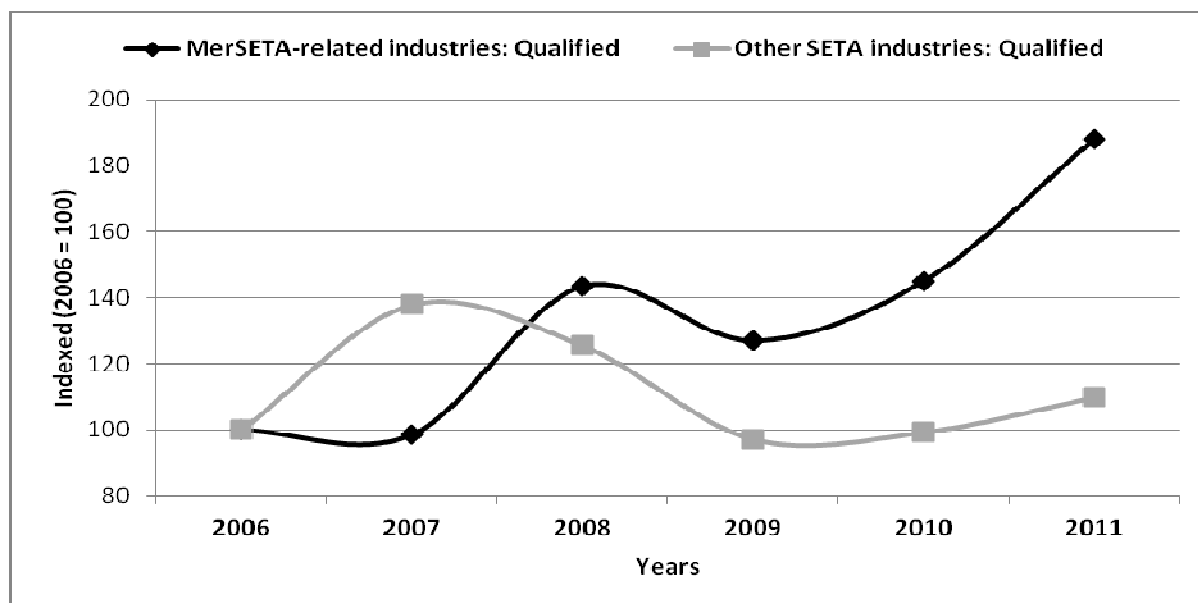
Figure 4: Employment trends (indexed, 2006 = 100) of qualified artisans, 2006-2011

Closer analysis of MerSETA-related industries over the period reveals two significant nuances to the overall trend. First, we find overall growth in the employment of qualified artisans, together with an overall decline in the employment of unqualified artisans. Relatedly, the growth in the employment of qualified artisans is largely attributable to the increase in employment of younger (under 40) qualified artisans (Figure 5). In contrast, the increase in the employment of qualified artisans in other SETA industries is mostly attributable to growth in the employment of older artisans (over 40). Second, within the sector we also find a trend towards the increasing employment of matriculants and under-qualified artisans (Table 4), again, a trend that stands in contrast to what is observed for the rest of the population.
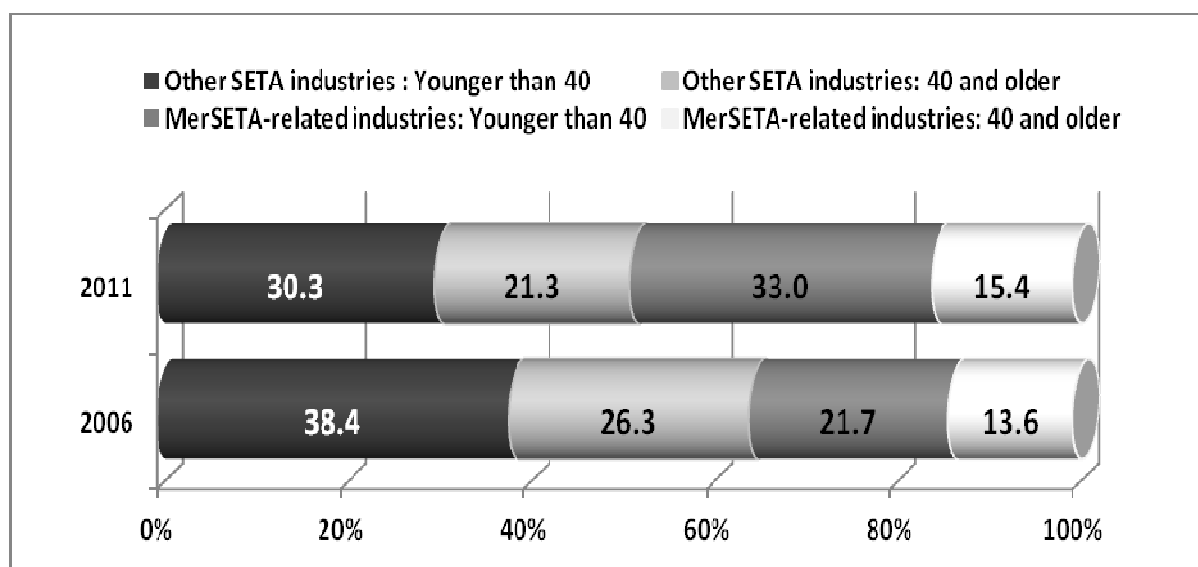
Figure 5: Age distribution of qualified artisans, 2006 and 2011

Table 4: Education levels of artisans, 2006 – 2011

Highest qualification level	2006	2007	2008	2009	2010	2011
	MerSETA-related industries					
Un-qualified	435760	353451	422974	369011	360346	403026
Matriculants	168133	166590	181691	168234	190953	178597
Under-qualified	29854	27239	18712	28643	23802	30248
Qualified	29734	29301	42664	37767	43109	55895
Unspecified	9397	4225	16391	11263	14058	20750
Total	672878	580805	682432	614917	632267	688517
	Other SETA industries					
Un-qualified	925656	886825	856822	619934	628494	656999
Matriculants	256130	281587	237904	225946	224023	205467
Under-qualified	29280	39932	31153	31485	16503	19881
Qualified	54295	74862	68176	52791	53912	59627
Unspecified	8027	12394	19770	30412	18461	19729
Total	1273388	1295601	1213825	960568	941392	961703

Source: LFS (2006/2 – 2007/2) and QLFS (2008/4 – 2011/4)

Assuming that employers look outside the appropriately qualified pool when demand for certain skills exceeds the supply, the fact that there is a trend towards increasing employment of matriculants and under-qualified artisans could indicate a *shortage* of artisanal skills. More significantly for the purposes of the present project, these trends highlight potential implications for both the status of artisans, and also what such shifts could mean for their work-related identities.

2.2.3 Decline in the employment of women

A decrease in the proportion of women in artisanal employment (down from 17.97% in 1996 to 16.75% in 2005) was noted by Mukora (2009). Evaluating the trends since 2005 shows a further decline, that in 2011 women represented only 12.09% of all artisans, down from 15.52% in 2006 (Table 5). This translates into a positive average annual growth in employment for male (0.66%) artisans, with an average annual decline of 3.42% for females.

Table 5: Artisans by gender, 2006 – 2011 (%)

		2006	2007	2008	2009	2010	2011
MerSETA related industries	Male	94.75	91.24	95.94	94.69	96.89	95.69
	Female	5.25	8.76	4.06	5.31	3.11	4.31
	Total	100	100	100	100	100	100
Other SETA industries	Male	79.05	79.09	80.17	81.24	81.89	83.71
	Female	20.95	20.91	19.83	18.76	18.11	16.29
	Total	100	100	100	100	100	100
Total	Male	84.48	82.85	85.84	84.35	87.91	87.91
	Female	15.52	17.15	14.16	15.65	12.09	12.09
	Total	100	100	100	100	100	100

Source: LFS (2006/2 – 2007/2) and QLFS (2008/4 – 2011/4)

Such gender inequalities are mirrored in the MerSETA-related industries, where female (-10.10%) employment shows a much greater decline than that of males (-4.37%). Although the proportion of female artisans has decreased more (from 20.95% – 16.29%) in other SETA industries than in MerSETA-related industries (from 5.25% – 4.31%) over the period, the proportion of women (4.31%)

in MerSETA-related industries represents a profound under-representation in comparison to Other SETA industries (16.29%), and the population as a whole (12.09%) in 2011.

Table 6: Artisans by sub-industry and gender, 2006 – 2011 (Percentages)

Craft and related trades workers	Gender	Years					
		2006	**2007**	**2008**	**2009**	**2010**	**2011**
		MerSETA-related industries					
Extraction and building trades workers	**Male**	93.92	95.32	96.43	93.32	96.00	95.04
	Female	6.08	4.68	3.57	6.68	4.00	4.96
Metal, machinery and related trades workers	**Male**	95.64	89.77	96.60	96.35	98.08	96.92
	Female	4.36	10.23	3.40	3.65	1.92	3.08
Precision, handicraft, printing and related trades workers	**Male**	100.00	73.22	95.44	89.38	100.00	93.07
	Female	0.00	26.78	4.56	10.62	0.00	6.93
Other craft and related trades workers	**Male**	80.88	65.57	67.78	69.68	58.41	72.33
	Female	19.12	34.43	32.22	30.32	41.59	27.67
Total craft and related trades workers	**Male**	94.75	91.24	95.94	94.69	96.89	95.69
	Female	5.25	8.76	4.06	5.31	3.11	4.31
		Other SETA industries					
Extraction and building trades workers	**Male**	90.58	94.48	95.52	93.45	95.02	96.17
	Female	9.42	5.52	4.48	6.55	4.98	3.83
Metal, machinery and related trades workers	**Male**	95.85	92.41	89.15	95.69	96.31	96.22
	Female	4.15	7.59	10.85	4.31	3.69	3.78
Precision, handicraft, printing and related trades workers	**Male**	77.70	73.94	67.90	73.16	64.70	73.36
	Female	22.30	26.06	32.10	26.84	35.30	26.64
Other craft and related trades workers	**Male**	38.82	29.88	39.83	42.30	47.18	46.17
	Female	61.18	70.12	60.17	57.70	52.82	53.83
Total craft and related trades workers	**Male**	79.05	79.09	80.17	81.24	81.89	83.71
	Female	20.95	20.91	19.83	18.76	18.11	16.29

Source: LFS (2006/2 – 2007/2) and QLFS (2008/4 – 2011/4)

Disaggregation to determine whether there are noticeable gender differences within the sub-industries employing artisans does not reveal a clear picture. In *all* sub-industries, across the period the proportional employment of women was *lower* than that of men, except for the OC&RT workers group in the Other SETA industries combined category, where females consistently represented the majority of the employed (Table 6). This category is not clearly delineated, so the evidence does not assist in corroborating whether women are more drawn to certain sub-industries or trades. The other category where women are consistently better represented is the PHP&R trades, and this holds for MerSETA-related industries as well as for the rest of the industries.

2.2.4 Racial profiles of artisans in employment virtually unchanged

The racial profile of artisanal employment has not shown much change between 2006 and 2011 (Table 6), although transformation since 1996 is evident. In this regard, there has been an increase in the employment of Africans (from 60.8% in 1996 to 75.6% in 2011), while the proportion of coloured (16.2% to 11.3%), asian (4.5% to 2.0%) and white (18.5% to 11.1%) artisans have decreased over the 1996 to 2011 period.

If we concentrate on the trends since 2005 however, a different picture emerges. Between 2006 and 2011, positive, but modest growth is evident in the employment of Africans, Coloureds and Whites, with only the employment of Asians showing a decline. This trend holds for MerSETA-related industries as well, although the change is smaller.

Table 7: Artisans by population group, 2006-2011

Population group	Years					
	2006	**2007**	**2008**	**2009**	**2010**	**2011**
	All industries					
African	74.23	73.10	75.26	71.96	75.07	75.56
Coloured	11.10	9.50	12.45	13.43	11.62	11.31
Asian	3.63	2.90	2.36	2.63	3.10	2.01
White	10.70	14.46	9.93	11.98	10.22	11.12
Unspecified	0.33	0.04	0.00	0.00	0.00	0.00
Total	100	100	100	100	100	100
	MerSETA-related industries					
African	69.09	68.00	68.40	66.48	67.87	69.31
Coloured	11.53	10.30	16.01	15.50	13.24	12.39
Asian	4.47	5.16	3.85	4.03	4.08	3.10
White	14.12	16.45	11.75	13.99	14.82	15.19
Unspecified	0.79	0.10	0.00	0.00	0.00	0.00
Total	100	100	100	100	100	100
	Other SETA industries					
African	76.95	75.38	79.10	75.46	79.91	80.03
Coloured	10.87	9.14	10.46	12.11	10.52	10.54
Asian	3.19	1.89	1.53	1.73	2.44	1.23
White	8.90	13.57	8.91	10.70	7.13	8.20
Unspecified	0.09	0.01	0.00	0.00	0.00	0.00
Total	100	100	100	100	100	100

Source: OHS (1996), LFS (2006/2 – 2007/2) and QLFS (2008/4 – 2011/4)

However, when the proportional representation of race groups across the entire period is considered, we find that in MerSETA-related industries Africans are consistently under-represented, Coloureds are over-represented, Asians are slightly over-represented and Whites are under-represented, in comparison with the entire population of employed artisans. Comparison with the racial representation in the total population is required to assess the full extent of these trends.

Table 8: Racial distribution of artisans compared

Categories	African	Coloured	Asian	White	Total
Artisans: All Industries	75.56	11.31	2.01	11.12	100
Artisans: MerSETA-related industries	69.31	12.39	3.10	15.19	100
Economically active South African population	74.86	10.11	2.92	12.11	100
Total South African population	79.40	8.80	2.60	9.20	100

Source: Stats SA mid-year estimates (2010) and QLFS (2011/4)

Table 8 shows that the racial distribution of employed artisans in 2011 compares well with both the total South African (SA) population and the economically active SA population, but not in MerSETA-related industries. Africans were substantially under-represented in comparison to their representation in the total population (10.09 percentage points), as well as their representation in the economically active population (5.55 percentage points). Conversely, Coloured artisans were over-represented in MerSETA-related industries compared to both the economically active and the total population. Asian representation is in line. Whites are particularly over-represented in employment in MerSETA-related industries in comparison to their representation in the total SA population, employment in all SETA industries, as well as their proportion of the economically active SA population.

2.2.5 Transformation in artisanal employment: Younger and African

Age is increasingly becoming a critical indicator, in the face of the extensive problem of unemployed youth. Is artisanal skilling perceived as offering a viable option for gaining access to employment, for the youth? In this regard, it is positive to find that the total population of employed artisans appear to be relatively young, and getting even younger. Mukora (2008) reported that in 1996, 60.51% of employed artisans were younger than 40 years of age and in 2011 this proportion has increased to 63.53%.
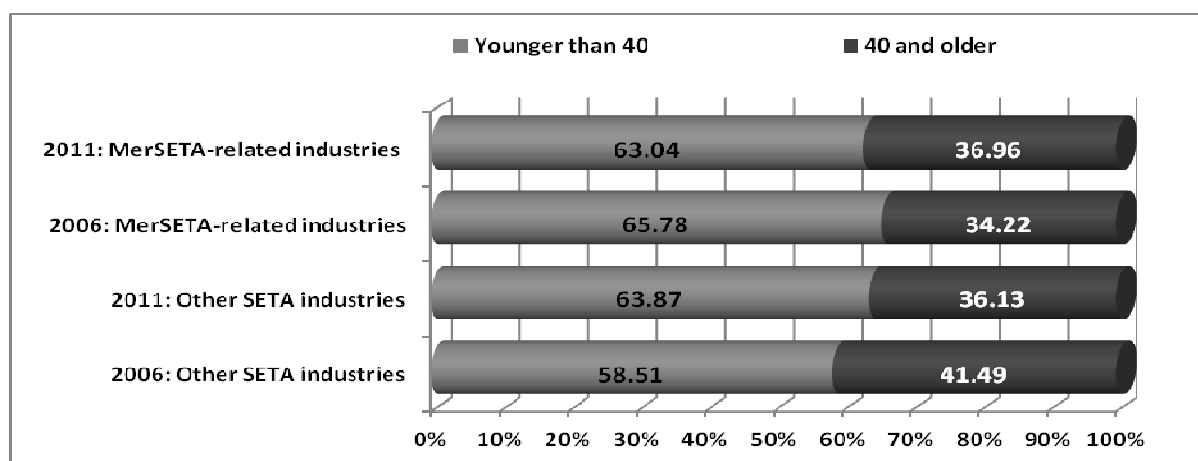
Figure 6: Age distribution of artisans, 2006 and 2011

Disaggregation by *industry* indicates a more nuanced picture (Figure 6). Contrary to the trends observed for the total population, artisans employed in MerSETA-related industries are *becoming slightly older* (from 65.78% in 2006 to 63.04% in 2011 being younger than 40 years of age). If we consider this in relation to earlier observations, it becomes clear that overall, artisans employed in the sector are becoming older, but the newly qualified artisans tend to be younger. These trends may be signs that an artisan qualification is becoming a more attractive option to young people.

A further dimension characterising shifts in the profile of those employed as artisans is evident in the growing proportion of those who are black (Figure 7).
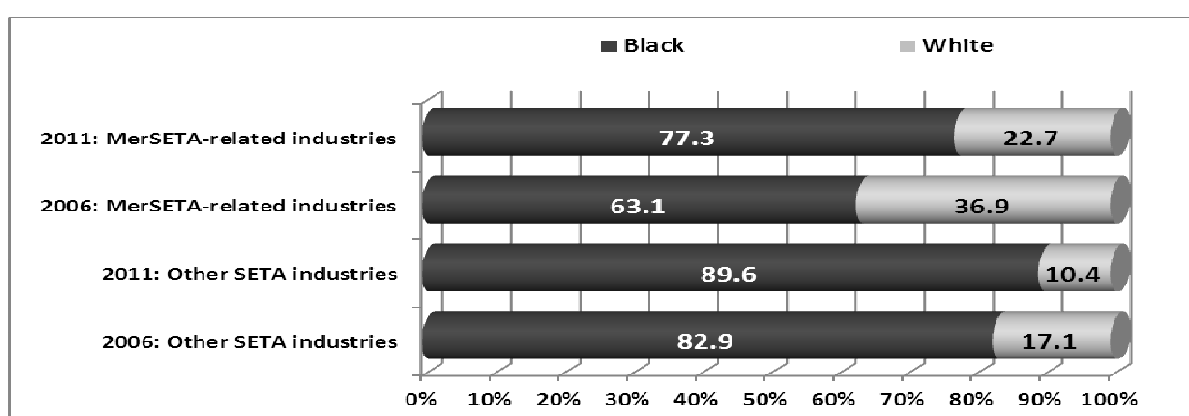
Figure 7: Population group distribution of young qualified artisans, 2006 and 2011

Taken together, the data trends can now show that proportionally, the employment of *black,* young (under 40) qualified artisans has been *increasing* (from 63.1% in 2006 to 77.3% in 2011). This trend is more pronounced in MerSETA-related industries in comparison to other SETA industries (from 82.9% in 2006 to 89.6% in 2011). Concurrently, the proportion of white, young, qualified artisans in

employment has been *decreasing* (from 36.9% in 2006 to 22.7% in 2011). Again this trend is more pronounced in MerSETA-related industries than in other SETA industries (from 17.1% in 2006 to 10.4% in 2011).

Another key issue, from a transformational perspective, is the extent to which artisanal employment is providing access for those in most marginalised areas. Figure 8 reflects that artisans in MerSETA-related industries made up around 42% of artisans employed in the country in 2011. This underscores the big role for the sector in relation to national transformational objectives. Artisans employed in MerSETA related industries are concentrated in Gauteng (53.2%), where they are the majority of employed artisans in the province. The minority of artisans employed in MerSETA related industries can be found in Limpopo (25%) and the Northern Cape (25.4%). In all other provinces the majority of artisans are employed in other SETA industries.
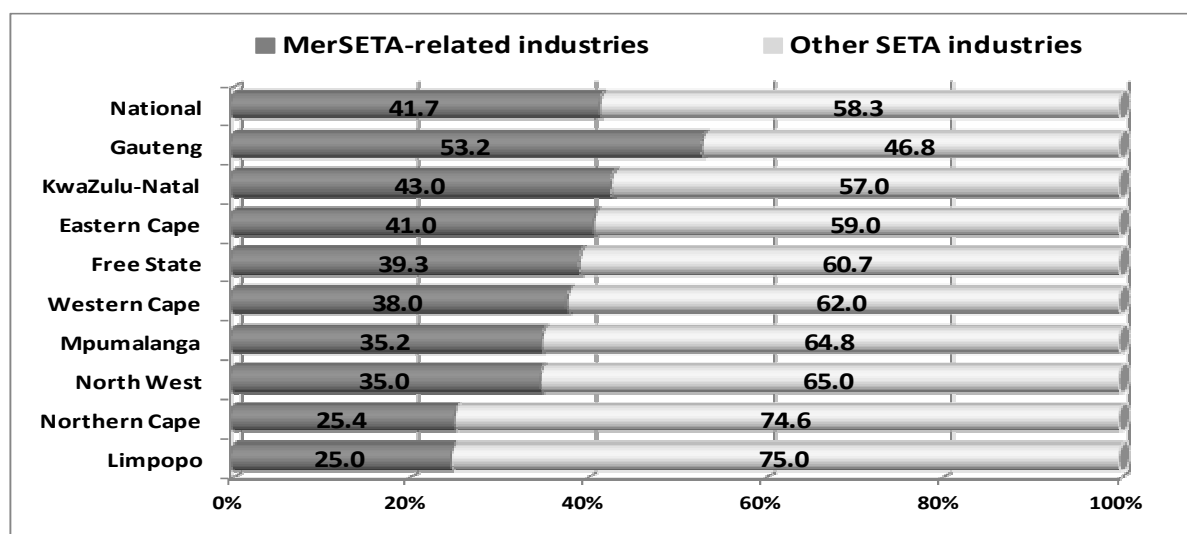
Figure 8: Spatial distribution of artisans, 2011

Furthermore, artisans are found to be predominantly employed in *urban formal* areas (63.2%), in both MerSETA-related (69.8%) and other SETA industries (58.5%) (Figure 9). A minority of artisans are employed in *rural formal areas*. Larger proportions of artisans were employed in *tribal areas[7]*, as opposed to urban informal areas. The proportional distribution of artisans employed in urban informal areas holds even if disaggregated by industries. The figure highlights the predominance of artisanal employment in the more formal markets in comparison to the more informal.
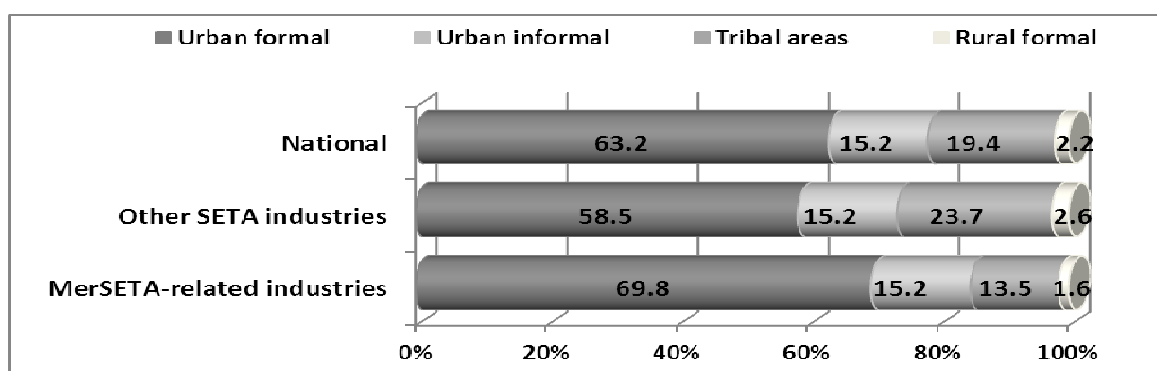
Figure 9: Type of areas where artisans are working, 2011

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[7] Tribal areas are those regions which fall in the jurisdiction of a chief and are composed of a group of villages each administered by a headman (StatsSA 2011)

2.3 THE NATURE OF ARTISANAL EMPLOYMENT (2006 – 2011) AND IMPLICATIONS FOR THE NATURE OF DEMAND

The evaluation of trends in artisanal employment over the period highlights key features characterising artisanal skills demand overall, and in the MerSETA sector specifically, over the period. The analysis also identifies shifts in the demographic and locational profile of artisans in employment that raise critical questions for our investigation of the changes in artisanal identity and status.

There has been negative growth in the overall employment of artisans nationally since 2005. Although the reasons for this are multi-faceted, the global financial crisis in 2008 undoubtedly had an impact. In contrast, employment of artisans in MerSETA-related industries experienced slight growth over this period. This could be attributed to the large infrastructural projects in preparation for the Soccer World Cup, amongst other factors. The overall decline in employment of artisans over the period might suggest a declining demand for artisans in the national labour market. Nevertheless, we may expect the upward trend in employment in MerSETA-related industries to strengthen, given recent national infrastructure development and investment plans.

The trend towards the increasing employment of *qualified* artisans nationally and even more so in MerSETA-related industries may have implications for the perceived status of artisanal employment. In particular, the shift in MerSETA-related industries appears to be driven by the growth in employment of young (under 40), and African artisans. The data analysis thus indicates a shift in the profiles of people traditionally found in the artisanal labour market (white and older individuals). The fact that artisans in the sector are getting slightly older combined with the trend to increasingly employ *matriculants* and *under-qualified* artisans, is also significant.

Investigation of the potential impact of these shifts on the work-related identities of artisans is thus required. How would an older population of employed artisans perceive the increasing employment of particularly young qualified and African artisans? Will there be differences in either group's perception of what it means to be an artisan? Will this affect perceptions of status across industry sectors?

While the analysis illustrates shifts that would be perceived as positive from a transformational perspective, some historical features of artisanal employment still persist. In this regard we find a decline in the employment of female artisans overall, accompanied by the concentration of female artisans in 'gender-appropriate' (Adams, 2005) trades (PHPR). Also, the racial transformation in employment nationally since 1996 is not as strongly reflected in MerSETA-related industries. Whites are still over-represented in comparison to their representation in the economically active South African population, the overall population, in other SETA-industries combined, as well as in the Metals and Related Services Sector.

From the perspective of geographical location, we find artisanal employment to predominate in the more formal and urban areas, and this trend is particularly so for MerSETA-related industries. How should the concentration of artisanal employment in the *urban formal* areas be perceived within a context of high unemployment? Should we not more fiercely pursue the potential of the informal sector for "opening-up employment opportunities, and for the generation of rural income and the strengthening of purchasing power of the rural people"? (Solanki 2008). Is this in line with the traditional identities associated with being an artisan? If not, is it problematic for individual artisans' conceptualisation of what would constitute artisanal work?

These key trends point to some critical dimensions of the shifting profile and location of artisans currently in employment, which can inform further investigation through our case studies in the next phase of the project.

SECTION 3: KEY TRENDS IN SUPPLY OF ARTISANAL SKILLS IN SOUTH AFRICA

The Department of Higher Education and Training (DHET) in response is committed to strategies to meet skills requirements (Department of Basic Education 2012). This requires a clear understanding of the structure and capabilities of the artisanal skills development system.

The first point to emphasize is that the current system of artisanal skills production is complex. There are a range of routes to artisanal status, which are have been continually refined by discussions between SETA Coordination, Department of Labour, DHET and stakeholder groupings that make up the members of the Artisan Development Coordination Committee (ADCC). Currently, a learner who seeks to become an artisan may apply to take the trade test after completion of the appropriate theoretical and workplace training via one of four routes: a learnership[8], apprenticeship[9], internship/skills programme[10], or through recognition of prior learning[11]. In all cases, registration as an artisan is contingent upon passing the trade test.

All artisans qualify at NQF level 4. Some trades take three years, others four years and some five years to complete, while RPL apprentices (registered under section 28) may take short courses over a number of years.

The reality of four qualification routes illustrates the complexity of integrating datasets. An individual may be recorded as having completed a learnership or apprenticeship on the DHET/DoL databases, and subsequently recorded as applying for or passing the trade test on the INDLELA database. However, we have no way of aligning the two datasets to determine individual or cohort progression.

The second point to highlight is that the system for artisanal production is very small. As illustration of this point, the National Planning Commission (NPC) (National Development Plan 2011, 270) announced that public colleges enrol an equivalent of one-third (roughly 300 000) of learners enrolled in higher education, when ideally the situation should be the other way round. While there are diverging views on how best the post-schooling system should be structured, there is consensus on the need for this system to be expanded to provide more opportunities for a greater proportion of our population.

Many have argued that this small supply system contributes to a workforce with serious shortages of artisanal and other mid-level skills (Green Paper 2012). A considerable amount of artisanal training is taking place through learnerships and apprenticeships, but these systems are also very small (our research indicates a system of roughly 50 000 enrolments in 2010/11).

Within the context of high youth unemployment, what is the proportion of young people for whom these skills development opportunities are provided in South Africa? And how does this compare to other countries? One way of addressing such questions, is to calculate a participation rate (Figure 10).

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[8] A learner may register for a learnership programme with a SETA on an NQF registered artisan trade qualification and spend between two and four years on multi-year learnership contracts linked to a competency based modular learning programme that ends in a trade test.

[9] A learner may register as an apprentice with a SETA on an NQF registered artisan trade qualification and spend between two and four years on a single apprenticeship contract linked to a competency based modular learning programme that ends in a trade test.

[10] A learner may have a relevant trade related National Certificate: Vocational (NCV) qualification and register on an internship or skills programme with a SETA on an NQF registered artisan trade qualification.

[11] A learner may register with the National Institute for Artisan Development (INDLELA) as a Recognition of Prior Learning (RPL) candidate, on an NQF registered artisan trade qualification.
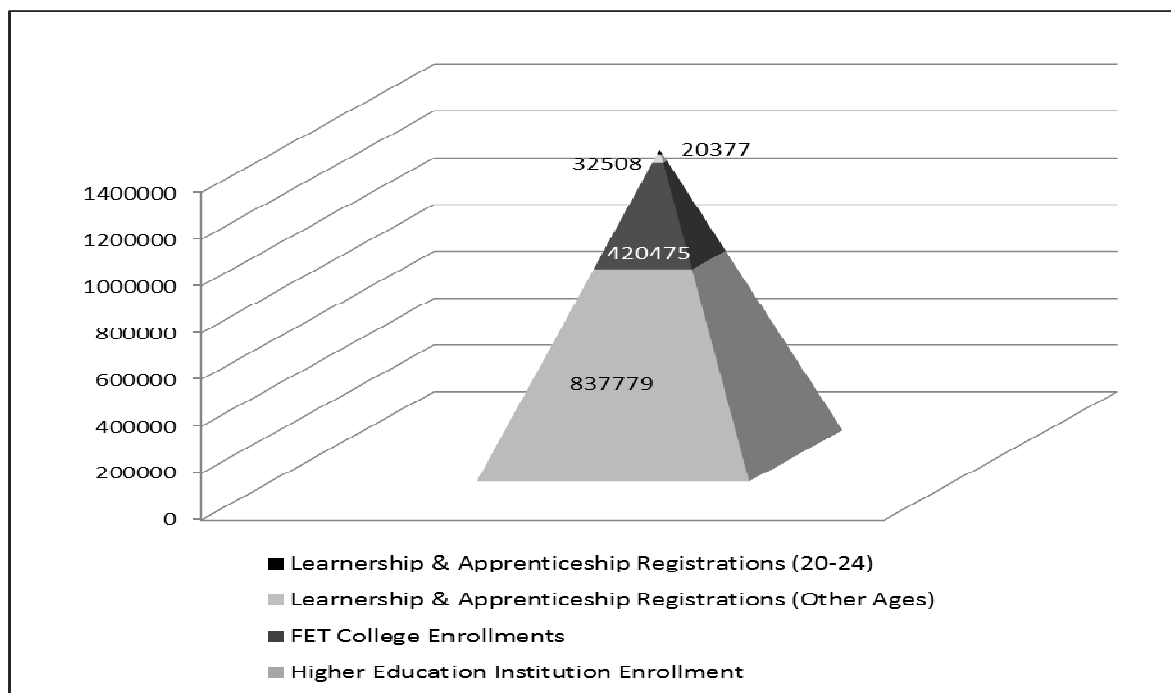
Figure 10: Participation rate of 20-24 year cohort in the different education and training systems

The OECD typically calculates the participation rate of young people in education and training in terms of those in the 20-24 years age group. According to Statistics South Africa 2009 Mid-Year population estimates, 4 920 900 persons fell in the 20-24 age group (rounded to nearest hundred). In the same age group 4 038 apprenticeships were registered and 16 339 learnerships (20 377 in total[12]), which shows an extremely low participation rate of 0.41% within this age cohort. It illustrates the gravity of low youth participation and the limited number of education and training opportunities that the two pathway systems can provide for school leavers.

Lastly, the difficulties experienced in the artisanal development system cannot be overlooked. Most widely acknowledged is the problem of insufficient workplace-based training opportunities. For instance, approximately 65% of college students are unable to find workplace experience necessary to complete their courses (National Planning Commission 2011, p. 271). It is proposed that state-owned enterprises, workshops of the Department of Public Works, government departments and state programmes such as the Extended Public Works Programme and all public infrastructure projects should play a more direct role in expanding workplace-based training (Green Paper 2012).

This section focuses on describing the contribution of MerSETA to the stock of artisanal skills, by means of learnership and apprenticeship registrations and completions for the period 2004/05 to 2011/12. No data on artisans through internships or skills programmes are presented in this report.

3.1 Size and shape of MerSETA's apprenticeship and learnership systems

MerSETA's enrolment figures are contextualised within the broader national population of learnerships and apprenticeships. National registration and completion numbers were compared with the MerSETA dataset. The 2009/10 national population figures reflect findings from a recent

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[12] The total number of apprenticeship participants (4 038) and learnership participants (16 339) have been derived from databases received from DHET which were used in another HSRC research study (Kruss, 2011)

study commissioned by the Department of Labour (DoL) and conducted by the HSRC (Kruss et.al. 2011). It shows that MerSETA accounted for 13% of all learnership completions, 60% of all apprenticeship completions, 17% of all registered learnership participants and 47% of all registered apprentices countrywide.

For a historical overview, Tables 9 and 10 reflect the total number of participants in the MerSETA learnership and apprenticeship pathway from 2001/02 to 2011/12[13]. They reflect the size and shape of the two systems to contextualise later data analysis that focuses on the MerSETA sector during the period 2004/05 to 2011/12, and only those learners who registered for or completed artisanal related learnership or apprenticeship qualifications. A total of 36 986 individuals registered for 44 931 learnership qualifications; 49 089 individuals registered for 50 774 apprenticeship qualifications; 18 625 individuals completed a total of 23 902 learnership qualifications and 27 578 individuals completed a total of 27 697 apprenticeship qualifications.

Table 9: Number of participants registered on learnerships and apprenticeships

MerSETA Population	Learnerships	Apprenticeships	Total
Original number of records/registrations	45 043	51 015	96 058
Number of duplicates	112	241	353
Total number of registrations	44 931	50 774	95 705
Total number of headcounts	36 986	49 089	86 075
Participants who registered more than once	5 643	1 642	7 285
Registered once	31 343	47 447	78 790
Registered twice	3 742	1 603	5 345
Registered three times	1 555	36	1 591
Registered four times	305	2	307
Registered five times	31	1	32
Registered six times	6	0	6
Registered seven times	4	0	4
Total headcounts	**36 986**	**49 089**	**86 075**

Source: MerSETA database (2002 – 2012)

Table 10: Number of participants who completed artisan-related learnerships and apprenticeships

MerSETA Population	Learnerships	Apprenticeships	Total
Original number of records/completions	23 906	27 732	51 638
Number of duplicates	4	35	39
Total number of completed qualifications	23 902	27 697	51 599
Total number of headcounts	18 625	27 578	46 203
Completed more than one qualification	3 789	116	3 905
Completed one qualification	14 836	27 462	42 298
Completed two qualifications	2 516	114	2 630
Completed three qualifications	1 077	1	1 078
Completed four qualifications	183	1	184
Completed five qualifications	7	0	7
Completed six qualifications	6	0	6
Completed seven qualifications	0	0	0
Total	**18 625**	**27 578**	**46 203**

Source: MerSETA database (2002 – 2012)

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[13] After initial record screening, duplicate removing and data cleaning. The MerSETA database was created on 9 February 2012 and thus only records uploaded by this date are reflected in the analysis.

The data firstly confirm MerSETA's significant contribution to training artisans nationally. Secondly, it shows that in this sector, more learners participate in apprenticeship qualifications than in learnership qualifications – of all registered qualifications 47% are learnership while 53% are apprenticeship qualifications. Lastly, apprenticeship participants have a higher completion rate in comparison to learnership participants – of all completed qualifications in this sector, 46% are learnership and 54% are apprenticeship qualifications.

3.2 MEASURING SUCCESS IN THE SYSTEMS

Completion rates are often used as proxies to assess the success of training programmes. They can be calculated by dividing the total number of qualifications completed in a given year by the total number of participants registered in the same year. This is a generally accepted method of calculating graduation rates in the higher education sector (DoE 2009, CHE 2010). It is a rough measure of the number of years that learners are staying in the system, but it does not take into account fluctuating enrolments or the different durations of qualifications (Steyn & De Villiers 2006).

Cohort studies that track the number of students in a cohort who graduate after three, four or five years give a better sense of participant progress and are becoming available (Scott et al. 2007), but in the absence of such data, completion rates are widely used as an indication of success (Carpenter et al., 1998).

Measuring the success of learnerships and apprenticeships, is further complicated because learnership participants (and to a lesser extent apprentices) do not follow linear pathways through the systems (Visser & Kruss, 2009). Learners may start off by registering for a qualification in one trade and then move to a different trade or to a different employer or training provider. While these appear as 'dropouts' in measures of that skills development system, they may go on to successful completion elsewhere.

Some argue further that those who participate in skills development systems for a period of time without completing still benefit from the skills and insights developed, and should not be considered 'failures'. Such rates (where they consider success according to variables such as participant characteristics, socioeconomic factors, trades, employers and training providers), can at the very least indicate where further and more systematic investigation of different pathway systems would be most useful.

The following two tables provide the annual completion rates of apprenticeship and learnership qualifications, disaggregated by whether they are artisan-related. Table 11 indicates an overall apprenticeship completion rate of 56%. This means that during the period, slightly more than half of all individuals involved in apprenticeships in MerSETA completed their qualification.

Table 12 on the other hand, indicates that while participation in learnerships resulted in a lower overall completion rate (only 50%), most of MerSETA's learnership participants enrolled and passed artisan related qualifications. Only 13% of all learnership registrations and only 4% of all completed learnership qualifications were not artisan related. We can thus claim with authority that the majority of learnership registrations and completions in MerSETA reflect artisan related qualifications.

Table 11: MerSETA apprenticeship completion rates (headcounts)

Year	Registered	Completed	Completion rate
2002	636	36	6%
2003	9 523	3 249	34%
2004	4 660	2 861	61%
2005	5 948	3 252	55%
2006	4 019	3 105	77%
2007	2 797	1 407	50%
2008	2 756	1 594	58%
2009	5 015	1 849	37%
2010	4 962	2 977	60%
2011	4 984	3 696	74%
2012	3 789	3 552	94%
Total	**49 089**	**27 578**	**56%**

Table 12: MerSETA learnership completion rates (headcounts)

Years	Non- artisan related			Artisan related			Total		
	Registered	Completed	Completion rate	Registered	Completed	Completion rate	Registered	Completed	Completion rate
2002								0	0	
2003				341		0%	341	0	0%
2004				758	2	0%	758	2	0%
2005				7 508	474	6%	7 508	474	6%
2006	343	2	1%	4 158	3 232	78%	4 501	3 234	72%
2007	503		0%	2 693	2 779	103%	3 196	2 779	87%
2008	437	53	12%	2 429	2 146	88%	2 866	2 199	77%
2009	818	156	19%	2 554	1 767	69%	3 372	1 923	57%
2010	1 642	86	5%	4 527	2 736	60%	6 169	2 822	46%
2011	575	49	9%	4 178	2 874	69%	4 753	2 923	61%
2012	487	480	99%	3 035	1 789	59%	3 522	2 269	64%
Total	**4 805**	**826**	**17%**	**32 181**	**17 799**	**55%**	**36 986**	**18 625**	**50%**

Reflecting on these results overall, it appears as if MerSETA's management information system contains incomplete data on the 2002 apprenticeships and also on the 2002 to 2005 learnership data. Apart from these years, the completion rates of apprentices ranged from a low of 34% in 2003 to the highest rate of 94% in 2012, while the completion rates for learnerships ranged from the lowest of 46% in 2010 to the highest rate of 87% in 2007. In sum, average completion rates of 56% for apprentices and 50% for learnerships have been achieved at MerSETA between 2002 and 2012. However, due to fluctuation in the completion rates for each year, no reliable trend across the period could be identified.

Analysis in the sections that follow focuses only on headcounts of participants in apprenticeship and artisanal related learnership qualifications in MerSETA since 2005.

3.3 MERSETA'S CONTRIBUTION TO ARTISANAL SKILLS SUPPLY: PARTICIPANTS INVOLVED IN ARTISAN RELATED QUALIFICATIONS

This section describes the population *of artisanal related* learnership and apprenticeship participants from 2004/5 to 2011/12, in terms of race, gender, age, sub-sectoral distribution, provincial distribution and the employment status of participants.

Table 13: Annual completion rates of relevant sample (headcounts)

Year	Artisanal related learnerships			Apprenticeships		
	Registered	Completed	Completion rate	Registered	Completed	Completion rate
2005	7 508	474	6%	5 948	3 252	55%
2006	4 158	3 232	78%	4 019	3 105	77%
2007	2 693	2 779	103%	2 797	1 407	50%
2008	2 429	2 146	88%	2 756	1 594	58%
2009	2 554	1 767	69%	5 015	1 849	37%
2010	4 527	2 736	60%	4 962	2 977	60%
2011	4 178	2 874	69%	4 984	3 696	74%
2012	3 035	1 789	59%	3 789	3 552	94%
Total	31 082	17 797	57%	34 270	21 432	63%

3.3.1. Race

The proportional representation of participants according to racial categories over the period is presented in Tables 14 to 17 (in Appendix A) and an overall picture of the racial distribution is provided in Figure 11. It shows the proportional distribution of the four sample groups by race: registered learnerships (*L-Reg*), completed learnerships (*L-Comp*), registered apprenticeships (*A-Reg*) and completed apprenticeships (*A-Comp*).
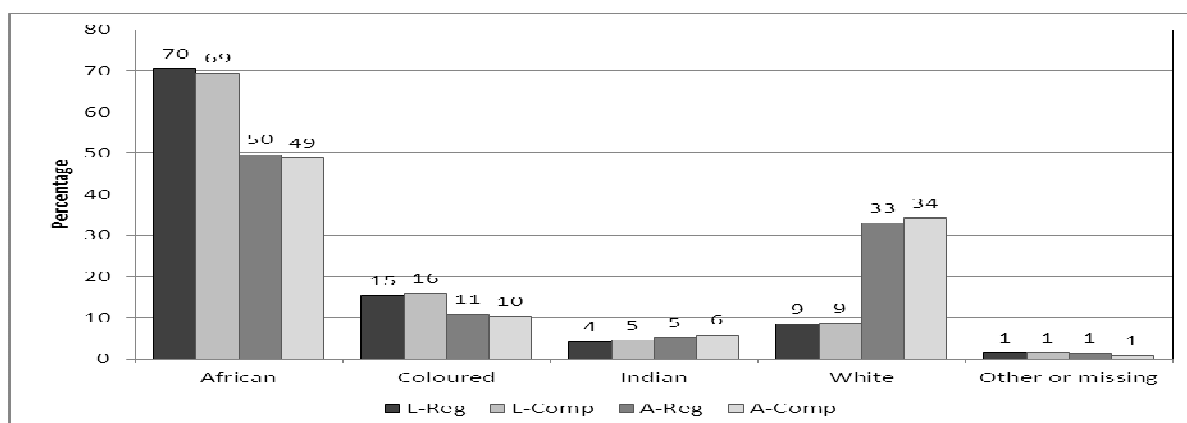
Figure 11: Learnership and apprenticeship registrations and completions by race (%)

Important characteristics of the learnership and apprenticeship system in MerSETA emerge. Firstly, participation in learnerships reflects the racial distribution of the population fairly well in terms of both registration and completion[14]. And in comparison to apprenticeships, they reflect the racial composition of the population more accurately, indicating greater broadening of access to educational opportunities to previously disadvantaged individuals. Apprenticeship participation still

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[14] The mid-year population estimates for South Africa by population group are 79.5% African, 9% coloured, 2.5% Indian and 9% white (StatsSA, 2011).

reflects a severe under-representation of african participants in comparison to the continued over-representation of white participants. This reflects the trends observed in employment.

Closer examination of the data disaggregated by year and race reveals further differences in trends (see Tables 14 – 17, and Figures 12 – 15, in Appendix A). At the aggregate level and comparing the two pathway systems, we find that more Africans register for participation in a learnership (70%) than for an apprenticeship (50%). Analysis of the data on apprenticeship registration shows that while African participation has increased overall, this trend is much stronger in the learnership system.

An evaluation of the trends across the period for learnerships illustrates an increase in registration of african (64% - 74%) and white (8% - 10%) participants, accompanied by an overall decrease coloured participants (23% - 4%), while the registration of indian participants have remained static. The data on completion of the qualification (Table 16) reveals an increase in the proportion of Africans completing learnerships (from 51% to 75%). This trend is accompanied by an overall drop in proportional representation of the successful completion by coloured (31% - 16%), indian (4% - 3%) and white (14% - 8%) individuals.

Trends in the apprenticeship system reflect an increase in african registration in contrast to a decline in registration observed for all other race groups over the period. Coloureds dropped from a proportional representation of 16% to 10%, Indians from 6% to 4%, and Whites from 44% to 29% (Table 15). The proportion of Africans who complete apprenticeships has also shown an increase (from 31% in 2005 to 64% in 2011) (Table 17), while all other groups reflect a decline. Coloured representation dropped from 14% to 6%, Indians from 7% to 4% and Whites from 47% to 25% during the period.

The tables[15] show that although the racial distribution of those participating in learnerships and apprenticeships is not yet totally reflective of the distribution in the population, there have been shifts towards transformation. This is more evident in registration trends, rather than completion trends. It suggests that while the sector is providing greater access to previously disadvantaged individuals to training opportunities, attention is required to facilitate higher rates of successful completion.

3.3.2. *Change in gender distribution over time*

The continued dominance of males in artisanal trades is evident in the overall gender distribution for learnership and apprenticeship participants. 93% of those who registered and completed an apprenticeship qualification are male, and only 7% are female. For learnership registrations the distribution is 75% male and 25% female, whereas the figures for completed learnership programmes are 73% male and 27% female.

Figure 16 (see also Appendix B for Figures 17 – 20) illustrates the male-to-female ratio of the four groups over the period. It is clear that the gender distribution of registered and completed learnership participants followed roughly the same trend across the years. Except for the 2005 completions, all ratios were less than five male participants for each female participant. In contrast all ratios for apprenticeship participants exceed eight males for each female participant. The highest ratio of 32 males for each female was found in 2006 for apprenticeship registrations. It is clear from the simple comparison of apprenticeship and learnership participants that the apprenticeship system is more clearly gendered male with male participants predominating by a larger margin in these

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[15] Also see Appendix A for Figures 2.3 – 2.6, which illustrates the registered and completed learnerships and apprenticeships by race from 2005 to 2012.

qualifications. The data also suggests that although men still outnumber females by a larger margin in apprenticeships, the participation of women in apprenticeships have slowly increased over the period.

	2005	2006	2007	2008	2009	2010	2011	2012
A-Comp	25.9	18.8	18.8	14.9	20.0	9.4	9.9	8.5
A-Reg	22.1	32.8	23.8	19.6	10.2	8.9	8.8	10.4
L-Comp	5.9	2.0	2.8	3.8	3.2	2.5	2.6	3.3
L-Reg	2.7	2.6	3.8	4.0	2.4	3.1	2.5	3.9
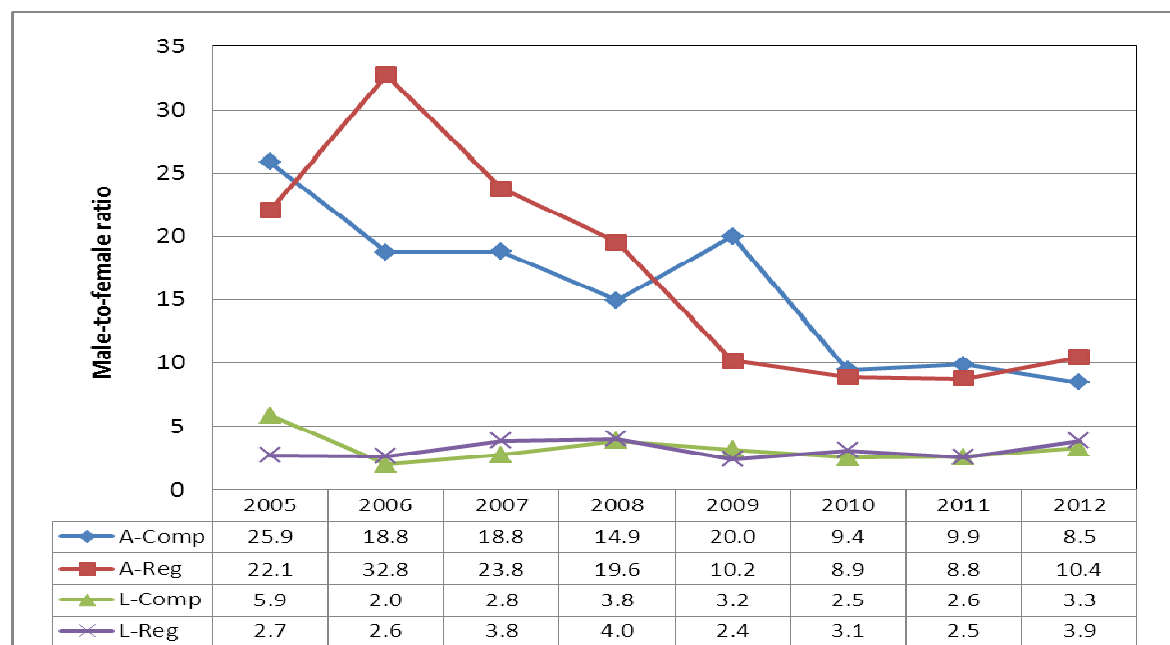
Figure 16: Comparison of the male-to-female ratios of the subgroups of the skills development system

3.3.3. Age distribution of participants

To ascertain whether artisanal training in the Metals and Related Services Sector is providing more opportunities for our youth, it is important to ascertain the age of participants. Figure 21 illustrates the current age distribution of the four groups. The mode for all groups except for completed apprentices (which had a slightly higher mode of 28 years) was 27 years. The mean age for all groups except for registered apprentices (which had a younger mean age of 29 years) was 31 years.
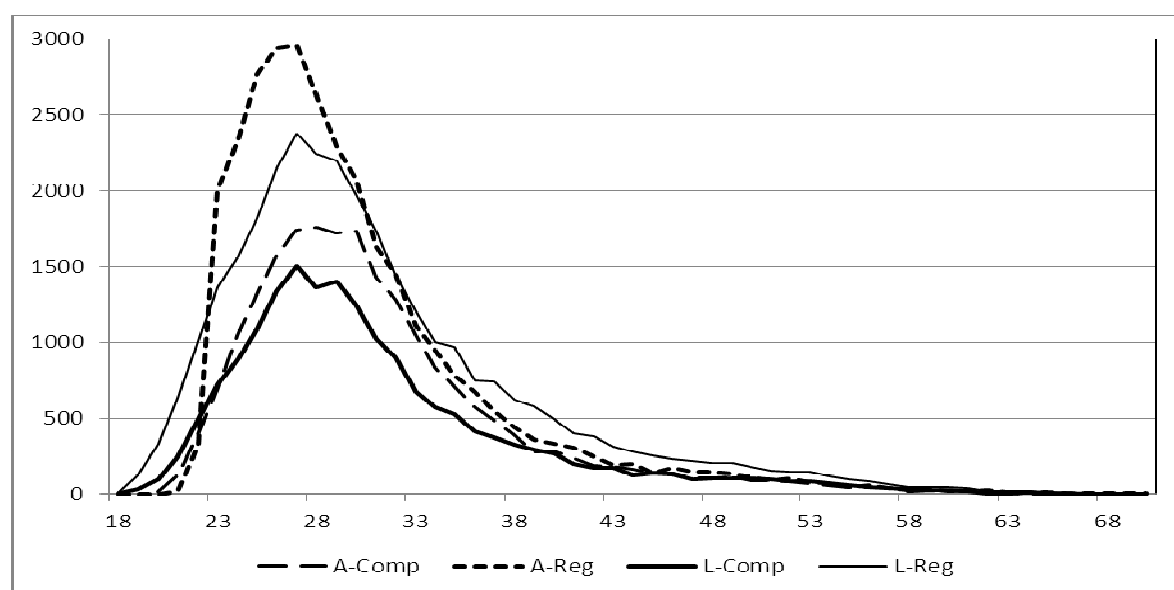
Figure 21: Age distribution of the four groups across the years 2005 to 2012

Table 18 reflects the age of participants at the time of registration or completion, and provides the mean age and mode for each group. The figures show that apprenticeship participants are on average younger than learnership participants at registration, while the average age for completion is the same for both learnerships and apprenticeships.

Table 18: Mean age and mode of participants at the time of registration or completion by group

	L-Reg	L-Comp	A-Reg	A-Comp
Mean	27	28	25	28
Mode	22	23	22	24

Figures 18 to 21 (see Appendix C) illustrates the changes in age over time for each group of participants and merely shows that within all groups there is a trend towards younger participants. The trend is most pronounced for apprenticeship registrations, where in 2011/12 50% of this group was recorded at being between 21 and 25, while just over 40% of apprenticeship completions were between 21 and 25 at the time. In comparison, just over 40% of learnership registrations were between the ages of 21 and 25, while 40% of learnership completions fell in that age group.

3.3.4. Chamber analysis

To get a better sense of whether there are any major differences in participation by subsectors, Figures 22 – 25 (see Appendix D) depict the distribution of registered and completed learnership and apprenticeship participants over the period, according to the five chambers constituting the Metals and Related Services Sector.

The variable that identifies the chamber for each participant is not complete which makes the analysis on chambers quite risky. It is thus only offered as an indication of distributions. Despite the incompleteness of the data some trends can be identified, but again these are offered as indications, and can surely be contested.

The data shows that apprentices mainly register and complete apprenticeship programmes that fall under the metal and motor chambers. On the other hand, learnership participants mainly register and complete learnerships that falls under the auto, metal and motor chambers. Combined, it reflects that the majority of both learnership and apprenticeship participation can be found in the Metals subsector.

3.3.5. Employment status at registration

This section addresses the employment status of participants within the four groups to ascertain the types of individuals who tend to participate in artisanal training in this sector. Distinct tendencies emerged from the analysis. It is clear from Figure 26 (which illustrates an overall picture) that the majority of those who register for learnerships tend to be unemployed: two in every three were unemployed at registration. Similarly, two out of every three individuals who completed a learnership were unemployed at registration. The contrary has been noticed for apprenticeship participants. Just more than half of the registered apprenticeship participants (56%) were employed at registration, while more than two thirds of the group who completed apprenticeship programmes was employed at registration. It appears that apprenticeship participants are most likely to be employed, while the converse is true for participation in a learnership in this sector.
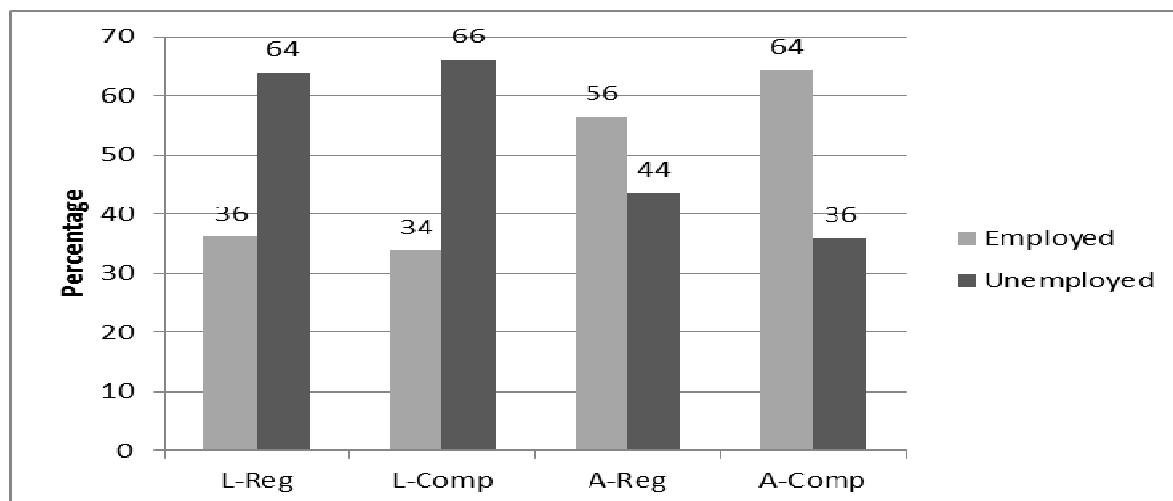
Figure 26: Employment status of each group at registration

Figures 27 to 30 (to be found in Appendix E) depict the employment status of the different groups at registration over time. The data indicates a fairly constant trend over the period for learnership registrations and completions (except for 2005) to be dominated by unemployed individuals. For apprenticeships, 2010 appears to be a turning point. Before 2010, the majority of apprenticeship registrations were from employed individuals, and after 2010 registrations were dominated by unemployed individuals. A similar trend applies to apprenticeship completions. Before 2010 these were clearly dominated by employed apprentices, but since 2010, the reverse is true.

3.3.6. Provincial distribution

Examining the provincial distribution of participants in the two skills development systems is also very important. Figure 31 provides an overall (2004/5 – 2011/12) view of registered and completed participants, disaggregated by province. It is clear that both learnership and apprenticeship participation concentrate in three provinces: Gauteng, Kwazulu-Natal and the Western Cape. In both Gauteng and KZN, apprenticeships dominate, while in the Western Cape, learnerships dominate. On the other hand, the Northern Cape, Limpopo and North-West have the minority of participants.
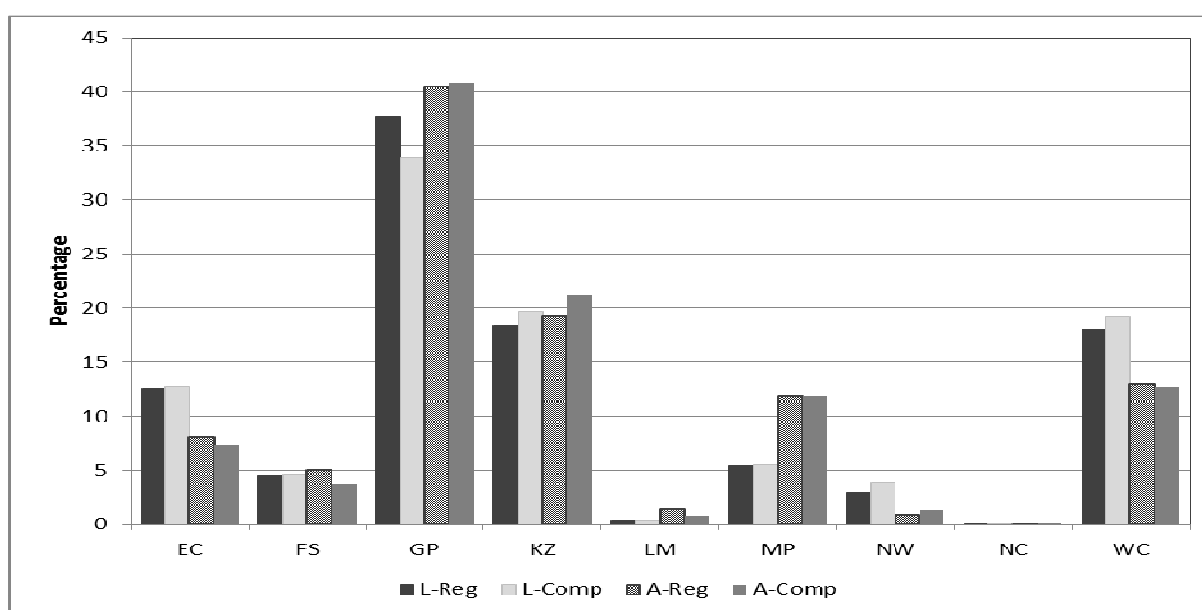
Figure 31: Overall provincial distribution of participants of the four groups

The trends over time suggest that in relation to the other provinces, a steady decrease of learnership and apprenticeship participation in the Western Cape can be noted (see Appendix F for Figures 32 – 35 for a more detailed view). Gauteng on the other hand, illustrates an increase in registration and completion through both skills development programmes. The Metals and Related Services Sector needs to reflect on whether these trends are in line with their objectives as well as the overall transformative objectives of these skills development programmes.

3.3.7. Apprenticeship type

Next, the nature of participation in terms of the different types of apprenticeships over the years in the sector is considered. The database provides information on three types of apprenticeships: time-based, section 28, and Competency Based Modular Training (CBMT) apprenticeships.
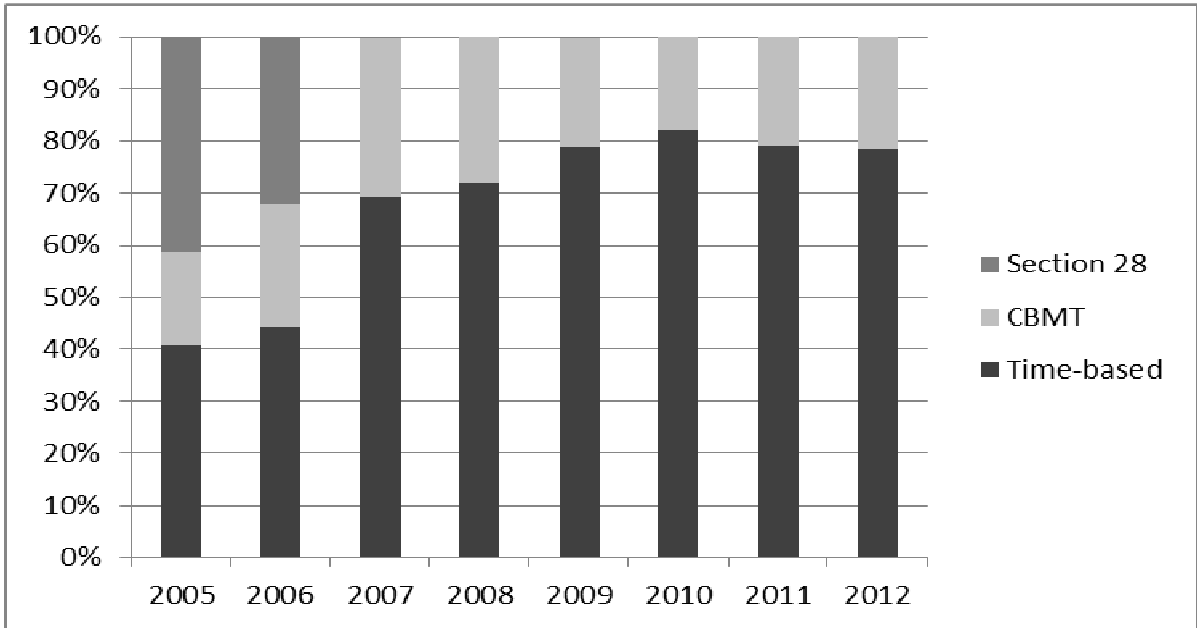
Figure 36: Registered apprenticeship participants by type of apprenticeship and year
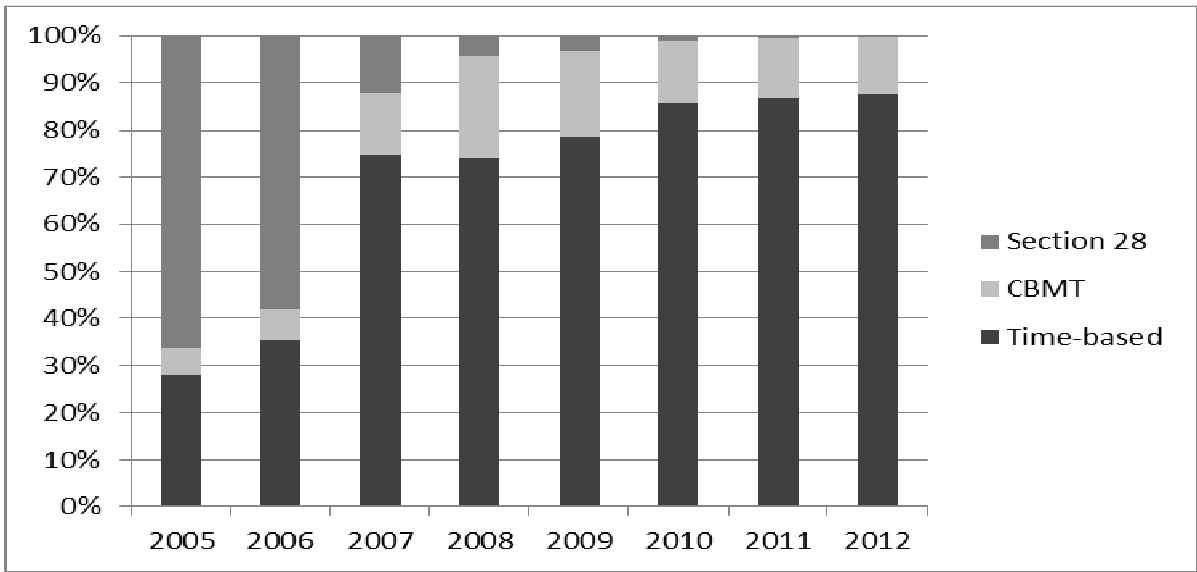
Figure 37: Completed apprenticeship participants by type of apprenticeship and year

Figures 36 and 37 depict the distribution of registered and completed apprenticeship participants by apprenticeship type across the years. According to this categorization, there has been an increasing trend of time-based apprenticeships, a decreasing trend of participation in CBMT and Section 28 apprenticeships. Whether this reflects a change in the nature of apprenticeship participation in this sector should be further interrogated, as the trends might only reflect the change in categorization of apprenticeship qualifications over time.

3.4 Merseta's contribution to artisanal skills supply: Participants passing the trade test

A further source of information on artisanal skills supply is the trade test data recorded by INDLELA. Any route to becoming an artisan requires registration for and successful passing of a trade test, upon which the status of artisan will be conferred. Thus, whereas the data on registration and completion gives an indication of artisanal skills in the pipeline, the trade test data should provide a more accurate indication of the production of qualified artisans, and better indicate the available stock of artisanal skills.

Consequently, this section provides an analysis of a cohort of apprentices who registered for and completed a trade test at INDLELA in a single year, from 1 April 2009 until 31 March 2010. It presents the data for MerSETA and compares it to the total population recorded by INDLELA during the same period. In so doing, we provide an indicative analysis of the final step towards full artisanal qualification.

3.4.1 Background to INDLELA

INDLELA is the acronym used for the previous Central Organization for Trade Testing (COTT). In the past it was the only national centre where apprentices could do the trade test and qualify as artisans. Various private decentralized trade test centres have since been established as private providers can acquire trade testing status by applying for accreditation through the different SETAs offering the specific trades. Between 2000 and 2006, INDLELA together with SETAs accounted for the qualification of 8 000 artisans annually (DoL, 2007), and INDLELA was responsible for about 30% to 40% of the total number of artisans who qualified during this period (Kruss, et al, 2011). Significantly, the various private trade testing centres combined thus accounts for more than half of all certifications, but INDLELA remains the biggest *single* testing centre.

The decentralization of data and inconsistencies in the provision of quality standardized trade tests lead to the establishment of a National Artisan Moderation Body (NAMB), which was launched by minister of the Department of Higher Education and Training (DHET), on 30 November 2010. The functions of the NAMB, according to the act, are to:
- monitor the performance of accredited artisan trade test centres;
- moderate artisan trade tests;
- develop, maintain and apply a national database of instruments for assessing and moderating artisan trade tests;
- develop and maintain a national database of registered artisan trade assessors and moderators;
- record artisan achievements;
- attend to appeals against assessment decisions; and
- make recommendations to the quality council for trades and occupations (QCTO) on the certification of artisans.

The new body is located at INDLELA within the DHET, in order to leverage the existing state resources and artisan development experience. It coordinates artisan development in the country as contemplated in Section 26A (2) of the Skills Development Act 97 of 1998, and addresses the qualitative challenges of the national system. These changes are hoped to have a significant impact on artisanal data challenges in the future.

3.4.2 Overview of INDLELA population in Year 5 of NSDS II

Table 19 provides a summary of tests arranged and passed at INDLELA over the period. 9 449 trade test arrangements were made of which 8 014 were met, but only 41% of these were successful. It also indicates that the majority of arrangements derived from apprentices from Physical planning and Construction field, with the minority of arrangements from Services/Manufacturing and Process. These figures refer to the number of *arrangements* and not the actual number of persons or headcounts. For example, up to 6 appointments could have been arranged for the same candidate (see Table 20). Of those who actually took the test, the highest pass rates were achieved in the Electrical Engineering field.

Table 19: Total number of appointments arranged, met and passed at INDLELA

Sections	Arranged	Absent	Tested	Passed	Pass%
Automotive engineering	1 666	321	1 345	499	37%
Electrical engineering	2 360	330	2 030	977	48%
Mechanical engineering	1 111	145	966	227	23%
Services / Manufacturing and Process	972	146	826	360	44%
Physical Planning and Construction	3 337	490	2 847	1 258	44%
Total	9 446	1 432	8 014	3 321	41%

Source: INDLELA

3.8.2 The nature of trade test registrations

According to the database, INDLELA arranged appointments for trade tests for a total number of 5 608 apprentices (headcounts) within the year 2009/10. Among the 5 608 candidates, 22% (1 215) registered more than once, as depicted in Table 16.

Apprentices who registered through the DoL (*government* component) accounted for 82% of all registrations, while MerSETA accounted for second most (11%) of all registrations at INDLELA over the given period. Within this period 11% (617 headcounts) of the appointments were arranged for MerSETA candidates, of which 21% (129 candidates) registered more than once. This is in line with the trend for the rest of the population.

Table 20: Trade test registrations at INDLELA (2009/10)

Registrations	MerSETA		Other industries		All industries	
	Headcount	%	Headcount	%	Headcount	%
Registered once	488	79.1	3905	78.2	4393	78.3
Registered twice	111	18.0	895	17.9	1006	17.9
Registered 3 times	13	2.1	174	3.5	187	3.3
Registered 4 times	5	.8	14	0.3	19	.3
Registered 5 times	_	_	1	0.0	1	.0
Registered 6 times	_	_	2	0.0	2	.0
Total	617	100	4991	100	5608	100

Source: INDLELA

94% of individuals, who registered for a trade test through MerSETA, were younger than 40 years of age. This is much higher than what is found for the total population, where 80% were younger than 40 years of age (Table 21). This is in line, and extends the trend towards younger artisans in employment, observed earlier, as well as by others (Mukora, 2008[16]).

Table 21: Trade test registrations by age

Age group	MerSETA		Other SETA industries		All industries	
	N	**%**	**N**	**%**	**N**	**%**
Younger than 20	6	1.0	50	1.0	56	1.0
20-29	425	68.9	2118	42.4	2543	45.3
30-39	149	24.1	1756	35.2	1905	34.0
40-49	26	4.2	793	15.9	819	14.6
50-59	10	1.6	252	5.0	262	4.7
60 and older	1	.2	22	0.4	23	.4
Total	617	100	4991	100	5608	100

Source: INDLELA

The racial distribution of registrations on INDLELA indicates that the majority (70%) of these are for black candidates (Table 22). Comparing MerSETA candidates to the rest of the population, shows that in this sector white candidates are over-represented in terms of registration, while black candidates are under-represented.

Table 22: Trade test registrations by race

Race	MerSETA		Other industries		All industries	
	N	%	N	%	N	%
Black	417	67.6	3533	70.8	3950	70.4
White	200	32.4	1458	29.2	1658	29.6
Total	617	100	4991	100	5608	100

Source: INDLELA

Disaggregating this picture by gender illustrates continuing disparity (Table 23). The gender profile in the total population shows the continued dominance of males in artisanal trades, and the proportional distributions are reflected almost exactly in the MerSETA sector as well.

Table 23: Registrations by gender

Gender	MerSETA		Other industries		All industries	
	N	**%**	**N**	**%**	**N**	**%**
Unspecified	2	0.3	13	0.3	15	0.3
Male	590	95.6	4747	95.1	5337	95.2
Female	25	4.1	231	4.6	256	4.6
Total	617	100	4991	100	5608	100

Source: INDLELA

Trends in trade test registration in the MerSETA sector is not out of line with what is found in the population, but artisanal trades as a whole need to evaluate the sustainability and the suitability of the continued dominance of males, and the over-representation of whites particularly.

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[16] He found that in 2005, 67% of artisans were younger than 40 years.

3.8.3 The nature of trade test completions

Table 24 presents the percentage of successful completions disaggregated by SETA during the period. Candidates of the Local Government SETA (52%) and the Construction SETA (50%) had the highest pass rates. *MerSETA* had the fourth highest pass rate of 40%. MerSETA is not under-achieving in comparison to the rates in the rest of the population, but considered within a context of an overall dismal pass rate, this is not a positive finding.

Table 24: Trade Test Completions at INDLELA by SETA (2009/10)

Industry	Arranged	Competent	% passed
GOVERNMENT	4 615	1 903	41.2
MERSETA	617	249	40.4
TETA	165	58	35.2
LGSETA	128	66	51.6
ESETA	54	19	35.2
CETA	14	7	50.0
CHIETA	4	0	0.0
MQA	4	0	0.0
Unspecified	7	1	14.3
Total	5 608	2 303	41.1

Source: INDLELA

With a focus on the trends within the Metals and Related Services Sector specifically, Table 25 depicts the trades in which more than ten candidates were found *competent*. The table is sorted in descending order according to the number of candidates found competent from MerSETA.

Table 25: Trades where more than 10 candidates were found competent

Trade	MerSETA				All industries			
	Competent	%	Registration	%	Competent	%	Registration	%
Boilermaker	40	16.1	51	8.3	436	18.9	694	12.4
Spray painter	37	14.9	81	13.1	37	1.6	81	1.4
Welder	36	14.5	38	6.2	296	12.9	479	8.5
Automotive body repair	33	13.3	75	12.2	33	1.4	76	1.4
Motor mechanic	15	6	29	4.7	223	9.7	351	6.3
Tool, jig & diemaker	11	4.4	23	3.7	12	0.5	24	0.4
Plumber					336	14.6	724	12.9
Electrician					202	8.8	537	9.6
Diesel mechanic					150	6.5	568	10.1
Fitter(incl machining)					129	5.6	477	8.5
Carpenter					78	3.4	183	3.3
Unspecified					69	3	113	2
Bricklayer					48	2.1	293	5.2
Fitter & Turner					35	1.5	148	2.6
Automotive electrician					26	1.1	186	3.3
Electrician construction					19	0.8	48	0.9
Rigger					17	0.7	38	0.7
Gunsmith					17	0.7	22	0.4
Turner & machinist					16	0.7	61	1.1
Millwright					14	0.6	32	0.6
Painter & decorator					11	0.5	71	1.3
Millwright(Electromech)					11	0.5	27	0.5
Total	172	69.2	297	48.2	2215	96.1	5233	93.4

Source: INDLELA

Most candidates were found to be competent in *Boilermaking*, in both MerSETA (16.1%) and in the total population (18.9%). *Spray painting* (16.7%) was the trade with the second most competent in MerSETA, while *Plumbing* (14.6%) had the second most competent in the total population. *Welding* was the trade in which third most were found competent in MerSETA and the total population, 16.3% and 14.5% respectively. *Automotive body repair* (13.3%) ranked fourth in MerSETA while *Motor Mechanics* (9.7%) ranked fourth in the total population. *Motor mechanics* (6.8%) were fifth most competent in the MerSETA, as opposed to *electricians* (8.8%) in the total population. In the MerSETA only 5% were found to be competent *tool, jig and diemakers,* while 6.5% were found to be competent *diesel mechanics* in the total population. In each of the other remaining trades, less than 5% were found competent in either MerSETA or the total population.

The Joint Initiative on Priority Skills Acquisition (JIPSA[17]) proposed 16 trades as priority occupations for training (Elliot 2009), based on the 2006 National Scarce and Critical Skills List. Four of the trades (boilermakers, welders, motor mechanics and toolmakers) in which more than 10 MerSETA candidates were found competent, are within the JIPSA priority areas, while 13 of the trades (boilermakers, welders, motor mechanics, toolmakers, electricians, diesel mechanics, fitters, carpenters, fitter and turners, automotive electricians, electricians, turners, and millwrights) in which more than 10 other industry candidates were found competent, are JIPSA priority areas.

Table 26: JIPSA priority areas

Automotive electrician	Electrician (light)	Motor mechanic
Boilermaker	Electrician (heavy)	Sheet metal trades workers
Carpenter and joiner	Fitter	Toolmakers and
Diesel mechanic	Fitter and turner	patternmakers
Earth moving equipment	Instrument mechanician	Turners
mechanic	Millwright	Welder

Source: Elliot (2009)

To gain a sense of whether certain types of qualifications result in better completion rates, we would have to look at completions and registrations more closely disaggregated by qualification types. At this point, such analysis would be highly unreliable, given that in the dataset distinction was only made by types of apprenticeship and no learnership information was included. For the MerSETA specifically, the type of qualification upon which the registration for a trade test was based, was not indicated for more than half of the candidates, while no section 13 apprentices were indicated to have registered for the trade test. Thus, while the available data suggests Section 28 apprentices to be most successful, too many caveats exist in this assertion.

Looking more closely at the profiles of those participating in trade tests, some trends emerge. More than a third of black and more than half of white apprentices within the total population have completed their trade tests over this period (Table 23). For *MerSETA*, 42% of black candidates and 38% of white candidates successfully completed their trade test. This is an over-representation of black, and under-representation of white completions in comparison to the population of those who registered for a trade test.

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[17] Figures were determined by the DoL based on SETA 5 Year Sector Skills Plan data, and were then verified in a process undertaken by the Skills Committee (consisting of DTI, DST, DPE, Home Affairs, DoE and DEAT) under government's Economic Cluster.

Table 27: Completions according to race and gender

Race	Gender		MerSETA		Other industries		All industries	
			Competent	Total	Competent	Total	Competent	Total
Black	Unspecified	N	0	2	1	13	1	15
		%	0.0	100	7.7	100	6.7	100
	Male	N	156	390	1186	3295	1342	3685
		%	40.0	100	36.0	100	36.4	100
	Female	N	17	25	88	225	105	250
		%	68.0	100	39.1	100	42.0	100
	Total Black	**N**	**173**	**417**	**1275**	**3533**	**1448**	**3950**
		%	**41.5**	**100**	**36.1**	**100**	**36.7**	**100**
White	Male	N	76	200	776	1452	852	1652
		%	38.0	100	53.4	100	51.6	100
	Female	N	0	0	3	6	3	6
		%	0.0	0	50.0	100	50.0	100
	Total White	**N**	**76**	**200**	**779**	**1458**	**855**	**1658**
		%	**38.0**	**100**	**53.4**	**100**	**51.6**	**100**
Total	Unspecified	N	0	2	1	13	1	15
		%	0.0	100	7.7	100	6.7	100
	Male	N	232	590	1962	4747	2194	5337
		%	39.3	100	41.3	100	41.1	100
	Female	N	17	25	91	231	108	256
		%	68.0	100	39.4	100	42.2	100
	Total	**N**	**249**	**617**	**2054**	**4991**	**2303**	**5608**
		%	**40.4**	**100**	**41.2**	**100**	**41.1**	**100**

Source: INDLELA

The race and gender distribution in completions still highlights the overwhelming predominance of male artisans, but also a higher completion rate for female candidates. The situation in MerSETA constitutes an over-representation of women in comparison to the population, while the converse is true for male trade test completion. This suggests that although women form the minority of registrations they might be more successful in completing.

While the numbers of black females are very small in comparison to their male counterparts, the numbers of white female candidates are nominal. More white females thus need to be encouraged to embark on an artisan career in future, even more so in MerSETA.

Figure 38 depicts the age distribution of apprenticeship registrations and completions on INDLELA from 1 April 2009 to 31 March 2010. The average age of those in the population that have completed their trade test (artisans) was 31 years of age. Black artisans were found to be on average older (33 years) than white artisans (29 years). While overall artisans in MerSETA are found to be on average younger than the total population, the trend where black artisans are found to be generally older than white artisans also held (black artisans on average were 29 and white artisans were 26 years of age).
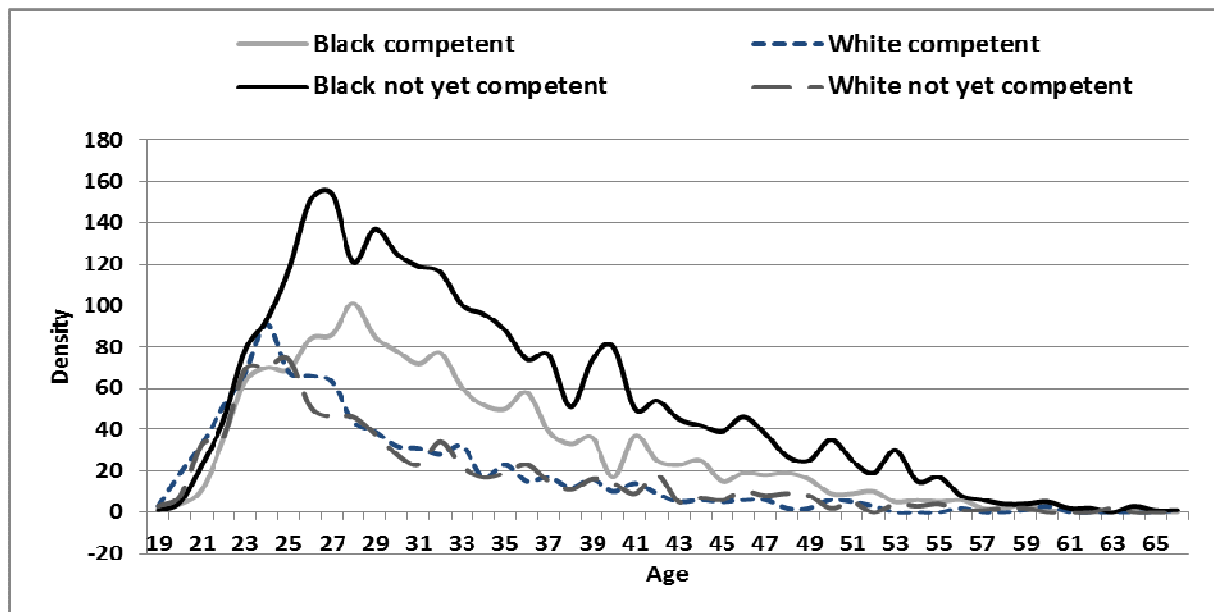
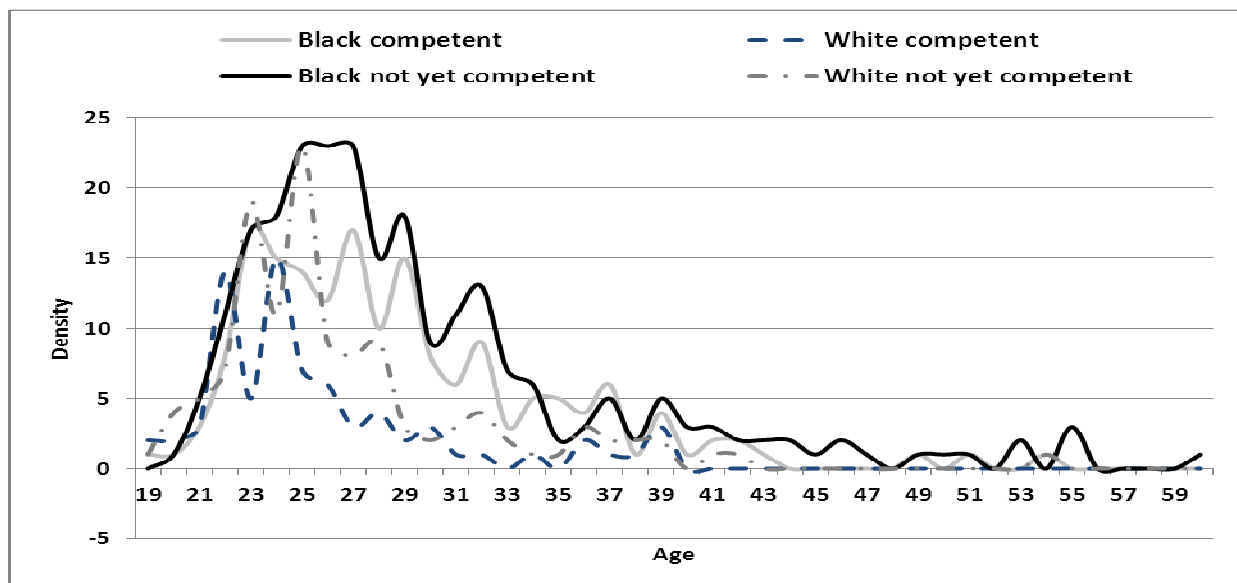**Figure 38: All apprenticeship registrations and completions by race and age**

Figure 39: MerSETA apprenticeship registrations and completions by race and age

Source: INDLELA

The age at which apprenticeship registrations peaks for the entire population, is about 26 and 25 for MerSETA candidates. As deduced from the trends illustrated in the Figure, on the one hand the data suggests that white apprentices are prone to complete earlier in comparison to black apprentices. However, it could also be interpreted as promising for transformation, in that more black apprentices still need to qualify in future than have completed trade tests. This is true for the total population as well as for the Metals and Related Services Sector.

3.8.4 Overview of completions

Table 28 presents an overview of the demographic profile of those who have successfully completed their trade tests (artisans) over the relevant period, disaggregated by SETA. The majority of those that have completed their trade tests are men with an average age of 31, two-thirds of which were black. The majority of completions were apprentices in GOVERNMENT, and 11% in MERSETA, 3% each in LGSETA and TETA, 1% in ESETA, and less than 1% in CETA. No apprentices in CHIETA and the MQA at INDLELA completed their trade tests over this period.

Table 28: Profile of apprenticeship completion

Seta	Age	Gender		Race		Total	
	Average	F:M	Unspecified	Black	Unspecified	N	%
CETA	32	0.00	0.00%	14.29%	0.00%	7	0.30%
CHIETA	_	_	_	0.00%	0.00%	0	0.00%
ESETA	25	0.00	0.00%	10.53%	0.00%	19	0.83%
GOVERNMENT	32	0.04	21.65%	50.13%	21.54%	1903	82.63%
LGSETA	28	0.14	24.24%	31.82%	24.24%	66	2.87%
MERSETA	28	0.14	49.00%	42.97%	49.00%	249	10.81%
MQA	_	_	_	0.00%	0.00%	0	0.00%
TETA	27	0.37	3.45%	86.21%	3.45%	58	2.52%
Unspecified	_	0.00	_	100%	0.00%	1	0.04%
Total	31	0.06	23.97%	49.33%	23.88%	2303	100%

Source: INDLELA

The trends in trade test registration and completion through INDLELA highlight dismal success rates in the population overall, with MerSETA candidates performing in line with these low rates. The pattern largely confirms the trends observed in the learnership and apprenticeship participation data. First, it indicates the continued dominance of male artisans, although women appear to be more successful in completion. Second, success in certification for different trades has been highlighted, which points to the need for further research on why some trades appear to be more successful. What are the ways in which they prepare artisans? Does this differ substantially from other trades? What do these bottlenecks imply for the future preparation of qualified artisans, for their status and identity in the workplace?

Lastly, the fact that white apprentices reach qualified artisan status earlier highlights the continued racial disparities in training. It raises important questions on identity and the extent to which assimilation into an artisanal work identity might be easier for certain individuals, given the history of our country.

SECTION 4: CONCLUSION - THE MORE THINGS CHANGE, THE MORE THEY STAY THE SAME

The close interplay between supply and demand is clear, while the nature of that interplay is complex and remains opaque. The analysis in this technical report highlights key trends characterizing the supply and demand for artisanal skills more broadly, and how MerSETA compares to this national picture. The purpose was to identify shifts in the nature of, and profiles of those participating in, artisanal skilling and employment. This closing section thus summarises key trends, as a foundation for a wider discussion and evaluation of the shifts in artisanal identity and status, within a changing context.

4.1 DEMAND CHARACTERIZED BY A GROWTH IN THE EMPLOYMENT OF QUALIFIED ARTISANS

In the context of an overall decline in artisanal employment since 2005, it is significant to find that there has been growth in artisanal employment in MerSETA related industries. Not only has there been growth in artisanal employment in the sector, but also a large increase in the employment of qualified artisans.

A closer look at the trends within the sector reveals critical nuances that might have implications for the perceived status of artisanal employment, and related identities. We find the growth in employment of qualified artisans in the MerSETA industries to be driven mostly by young (under 40 years old) and specifically African, artisans. This is combined with the fact that artisans in the sector are getting slightly older, and a trend towards also increasing employment of *matriculants* and *under-qualified* artisans. These intersecting trends constitute a major shift in the profile of older, white individuals traditionally found in the South African artisanal labour market, and points to a complex potential mix of identities. How would an older group of employed artisans perceive the growing employment of young qualified and african artisans? Will there be differences in either group's perception of what it means to be an artisan? Will this affect perceptions of status across industry sectors? If the sector, relative to other industries, is employing more under-qualified artisans how will this affect the qualified artisans in the sector? How will it affect their conceptualisation of their work identity and status?

4.2 SUPPLY CHARACTERIZED BY THE DOMINANCE OF THE APPRENTICESHIP PATHWAY

It is clear that artisanal skilling through the apprenticeship pathway system dominates supply in this sector. This in itself is not necessarily negative, but it is notable that participation in a specific pathway system appears to inform participation in different sub-industries, as well as the entry (whether as employed or unemployed) into the system.

Moreover, participation in the different pathway systems are highly gendered and racialised. While participation in artisanal skilling closely reflects the racial distribution of our national population, some disparities are still apparent. Participation in learnerships is dominated by Blacks, while participation by Whites dominates apprenticeships. It is also clear that apprenticeships continue to be heavily dominated by males, while the male to female ratio is less radical in learnership participation.

From a historical point of view, it is understandable that some pathway systems might be associated with certain locations, race, gender and age groups. Nevertheless, it is concerning that the propensity for success still appears to be prescribed by demographic and spatial factors. The fact that the group of competent artisans are getting younger in general, and more so in the MerSETA sector, might indicate change for the future.

However, important questions remain unanswered. Might it be appropriate to further interrogate the identities associated with artisanal training in different spatial and geographical areas? How does this vary? How is this influenced by race, gender and age? What are the factors contributing to the persistence of such trends? How do these trends impact on the status associated with different education and training pathway systems?

4.3 THE NEXT STEPS

In conclusion, the broad objective of the study is to investigate and explore the changing nature of artisanal identity and status in South Africa. This report completes the first step of the project by sketching trends in the supply and demand for artisanal skills in South Africa over time. It highlights historical trends, and contextualises how and whether these trends are reflected in the Metals and Related Services Sector, since 2005.

The next step of the project will involve case studies of key trades in MerSETA. We will interrogate what it means to be an artisan today, and how this has changed over time. The case studies will draw on the critical questions relating to shifting artisanal identity and status highlighted through the data analysis in this report. In this way, research questions can be empirically derived, and form a sound basis to frame the investigation that follows.

REFERENCES

Adams, T.L. 2005. "Feminization of Professions: The Case of Women in Dentistry." *Canadian Journal of Sociology,* 30(1): 71 – 94.

Carpenter, P., Hayden, M., & Long, M. 1998. Social and economic influences on graduation rates from higher education in Australia. *Higher Education*, 35, 399-422.

Construction Industry Development Board (CIDB) (2007) *Skills for infrastructure delivery in South Africa: The challenge of restoring the skills pipeline*. A discussion document.

Council on Higher Education. 2010. Higher Education Monitor: Access and throughput in South African Higher Education: Three case studies. *HE Monitor No. 9, March 2010*

Department of Education. 2009. Trends in Education Macro-Indicators: South Africa.

Department of Basic Education. 2010. National Examinations and Assessment: Report on the National Senior Certificate Examination Results 2009.

Department of Basic Education (2012) Notes for Debate on the 2012 State of the Nation Address by Mrs Angie Motshekga, Minister of Basic Education, Parliament, Cape Town: 15 February 2012.

DHET (Department of higher Education and Training) (2011) *National Skills Development Strategy III, 2011-2016.* Pretoria.

DHET (Department of higher Education and Training) (2012) *Green Paper for Post-school Education and Training.* Pretoria: DHET.

DoL (Department of Labour) (2005) *State of Skills in SA*. Pretoria: DoL.

Economic Development Department (2010) *New Growth Path framework.* Pretoria: EDD.

Elliot, G. (2009) *Joint Initiative on Priority Skills Acquisition. Consolidated Report: Artisan Development for Priority Skills.* Commissioned on behalf of the Joint Initiative on Priority Skills Acquisition (JIPSA). National Business Initiative.

Government. 2011. Skills Development Act, 1998, Listing of occupations as trades for which artisan qualifications are required. Department of Higher Education and Training.

HSRC (2011) *Developing skills and capabilities through the learnership and apprenticeship pathway systems.*

Jordaan, N. & Barry, M.L. (2010) Investigating the reasons for lack of skilled artisans in South Africa: The perspective of artisans. *South African Journal of Industrial Engineering*, Vol. 20(1): 173 – 184.

Kruss, G., Wildschut, A., Janse van Rensburg, D., Visser, M., Haupt, G. and Roodt, J. 2011. Impact Assessment of National Skills Development Strategy II: A Technical Report on Learnership and Apprenticeship Population Databases in South Africa: Patterns and Shifts in Skills Formation. January 2012. HSRC.

Landelahni Business Leaders (2010) Fast facts mining research report: Local mining industry mirrors global skills crisis.

MerSETA (Manufacturing, Engineering and Related Services Education and Training Authority) (2006-2011) *Work Skills Plans*. Johannesburg: MerSETA.

Mukora, J. (2008) *Scarce and Critical Skills Research Project: Artisans / Trades.* Research commissioned by the Department of Labour, South Africa. Pretoria: HSRC.

Murcko, T. 2012. BusinessDictionary.com. http://www.businessdictionary.com/definition/. [Accessed on 15 March 2012].

National Planning Commission (2011) *National Development Plan.*

Scott, I, Yeld, N & Hendry, J, 2007. Higher Education Monitor 6: a case for improving teaching and learning in South African higher education. Council on Higher Education, Pretoria. http://www.che.ac.za/documents/d000155/ [Accessed on 19 March 2012].

Solanki, S.S. (2008) Unorganised sector of workers: Rural Artisans. *India, Science and Technology.* http://www.nistads.res.in/indiasnt2008/t6rural/t6rur5.htm [Accessed May 2012].

South African Revenue Service (SARS) (2012) *SIC Code List for Publication.* http://www.teta.org.za/documents/Documents/2012Jan24/List_of_SETA_s_and_SIC_Codes.pdf [Accessed March 2012].

South Africa Government Information (2012), President Jacob Zuma: State of the Nation Address.

StatsSA (Statistics South Africa) (2006-2007) *Labour Force Survey*. Pretoria: StatsSA.

StatsSA (Statistics South Africa) (2008) *Guide to the Quarterly Labour Force Survey August 2008*. Pretoria: StatsSA.

StatsSA (Statistics South Africa) (2008-2011) *Quarterly Labour Force Survey*. Pretoria: StatsSA.

StatsSA (Statistics South Africa) (2011a) *Statistical release P0302. Mid-year population estimates 2011*. http://www.statssa.gov.za/ [Accessed on 27 March 2012].

StatsSA (Statistics South Africa) (2011b) *The Dwelling Frame project as a tool of achieving socially-friendly Enumeration Areas' boundaries for Census 2011*, *South Africa* . Pretoria: StatsSA

Steyn, G & de Villiers, P, 2006. The impact of changing funding sources on higher education institutions in South Africa. Council on Higher Education, Pretoria. http://www.che.ac.za/documents/d000117/ [Accessed on 19 March 2012].

Visser, M. & Kruss, G. (2009). Learnerships and skills development in South Africa: A shift to prioritise the young unemployed. *Journal of Vocational Education and Training, 61,*3 (357-374).

Wildschut, A., Kruss, G., Janse van Rensburg, D., Haupt, G. and Visser, M. 2011. Learnerships and Apprenticeships Survey 2010 Technical Report: Identifying Transitions and Trajectories through the Learnership and Apprenticeship Systems

APPENDIX A: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS, BY RACE (2005 – 2012)

Table 14: Racial distribution of registered learnership participants, 2005 – 2012

Year	Number of participants						Percentage distribution					
	Afr	Col	Ind	Whi	Other/ missing	Total	Afr	Col	Ind	Whi	Other/ missing	Total
2005	4 803	1 758	294	623	30	7 508	64	23	4	8	0	100
2006	2 864	891	141	260	2	4 158	69	21	3	6	0	100
2007	1 919	401	83	264	26	2 693	71	15	3	10	1	100
2008	1 663	252	188	316	10	2 429	68	10	8	13	0	100
2009	1 741	279	102	266	166	2 554	68	11	4	10	6	100
2010	3 350	459	172	336	210	4 527	74	10	4	7	5	100
2011	3 315	396	197	270	0	4 178	79	9	5	6	0	100
2012	2 250	349	114	307	15	3 035	74	11	4	10	0	100
Total	21 905	4 785	1 291	2 642	459	31 082	70	15	4	9	1	100

Table 15: Racial distribution of registered apprenticeship participants, 2005 - 2012

Year	Number of participants						Percentage distribution					
	Afr	Col	Ind	Whi	Other/ missing	Total	Afri	Col	Ind	Whi	Other/ missing	Total
2005	2 001	956	371	2 602	18	5 948	34	16	6	44	0	100
2006	1 676	454	283	1 594	12	4 019	42	11	7	40	0	100
2007	1 167	350	147	1 074	59	2 797	42	13	5	38	2	100
2008	1 282	277	133	1 032	32	2 756	47	10	5	37	1	100
2009	2 723	434	253	1 391	214	5 015	54	9	5	28	4	100
2010	2 928	400	226	1 292	116	4 962	59	8	5	26	2	100
2011	3 085	448	196	1 252	3	4 984	62	9	4	25	0	100
2012	2 148	380	162	1 094	5	3 789	57	10	4	29	0	100
Total	17 010	3 699	1 771	11 331	459	34 270	50	11	5	33	1	100

Table 16: Racial distribution of participants who completed a learnership, 2005-2012

Year	Number of participants						Percentage distribution					
	Afr	Col	Ind	Whi	Other/ missing	Total	Afri	Col	Ind	Whi	Other/ missing	Total
2005	240	148	18	68	0	474	51	31	4	14	0	100
2006	2 069	800	111	242	10	3 232	64	25	3	7	0	100
2007	1 920	532	89	233	5	2 779	69	19	3	8	0	100
2008	1 452	351	99	232	12	2 146	68	16	5	11	1	100
2009	1 247	204	127	177	12	1 767	71	12	7	10	1	100
2010	1 959	269	144	223	141	2 736	72	10	5	8	5	100
2011	2 134	339	160	210	31	2 874	74	12	6	7	1	100
2012	1 338	204	58	147	42	1 789	75	11	3	8	2	100
Total	**12 359**	**2 847**	**806**	**1 532**	**253**	**17 797**	**69**	**16**	**5**	**9**	**1**	**100**

Table 17: Racial distribution of participants who completed an apprenticeship, 2005-2012

Year	Number of participants						Percentage distribution					
	Afr	Col	Ind	Whi	Other / missing	Total	Afr	Col	Ind	Whi	Other/ missing	Total
2005	1 013	456	241	1 533	9	3 252	31	14	7	47	0	100
2006	1 171	446	268	1 214	6	3 105	38	14	9	39	0	100
2007	555	170	92	586	4	1 407	39	12	7	42	0	100
2008	662	168	87	674	3	1 594	42	11	5	42	0	100
2009	845	159	102	725	18	1 849	46	9	6	39	1	100
2010	1 680	266	146	791	94	2 977	56	9	5	27	3	100
2011	2 259	350	155	931	1	3 696	61	9	4	25	0	100
2012	2 279	200	155	878	40	3 552	64	6	4	25	1	100
Total	**10 464**	**2 215**	**1 246**	**7 332**	**175**	**21 432**	**49**	**10**	**6**	**34**	**1**	**100**
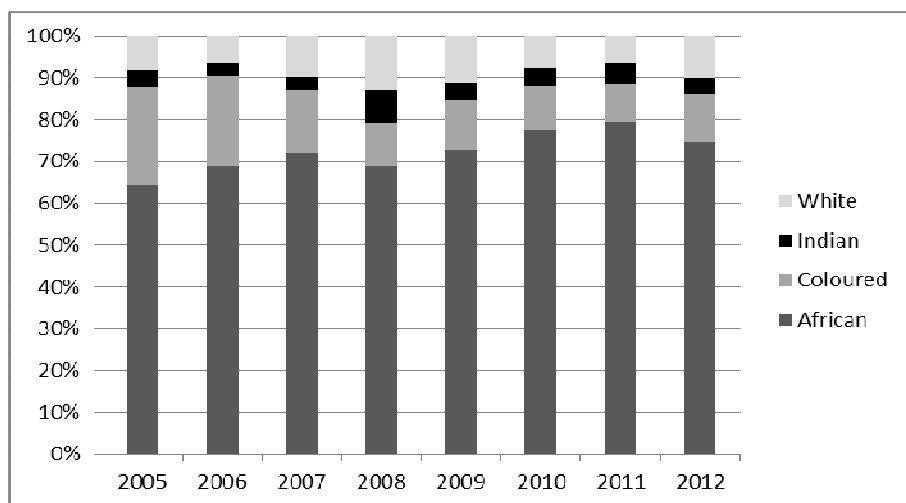
Figure 12: Registered learnership participants by race group, 2005 - 2012
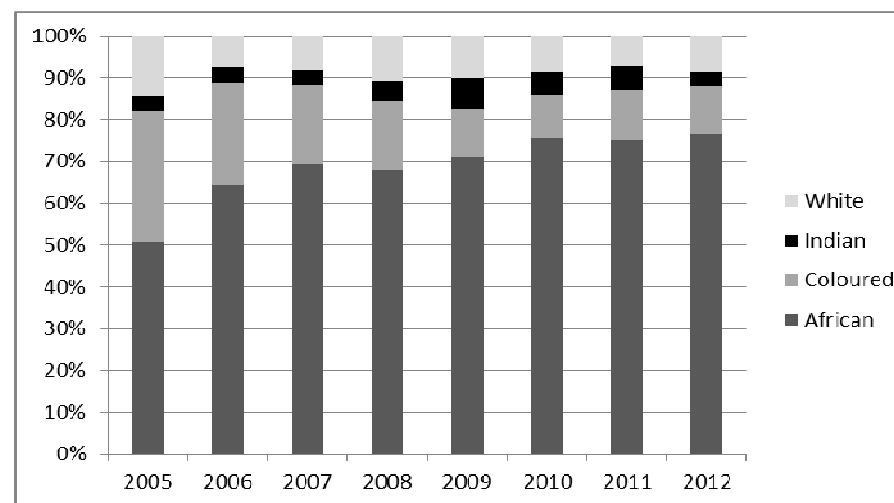
Figure 13: Completed learnership participants by race group, 2005 - 2012
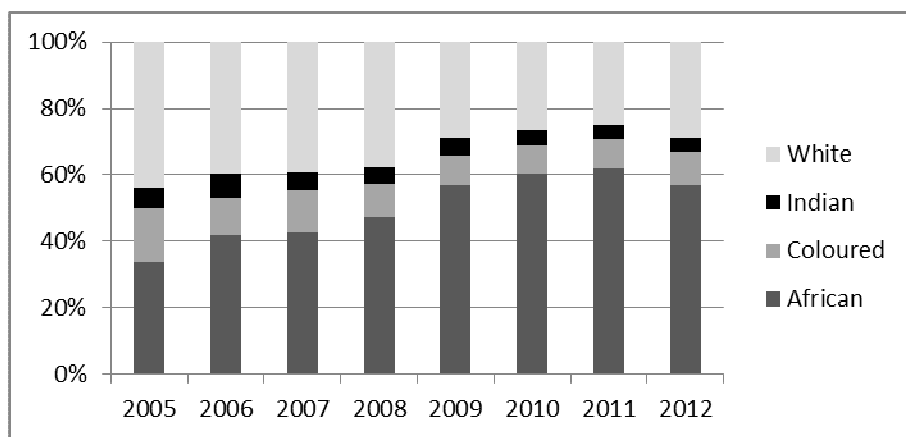
Figure 14: Registered apprenticeship participants by race group, 2005 – 2012
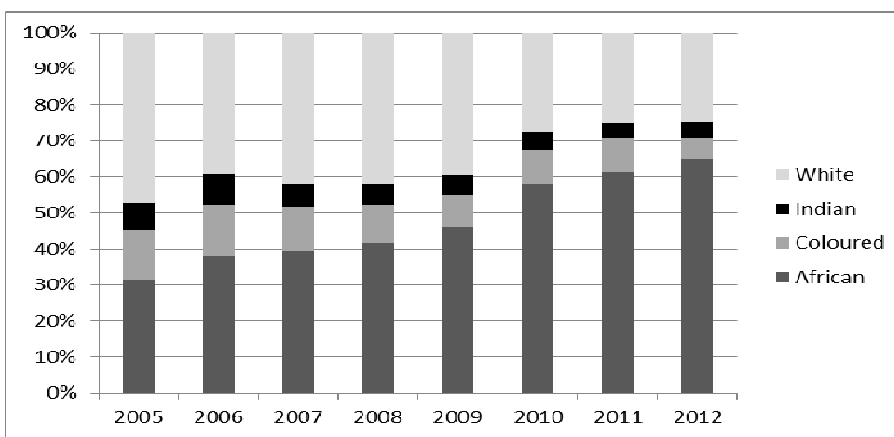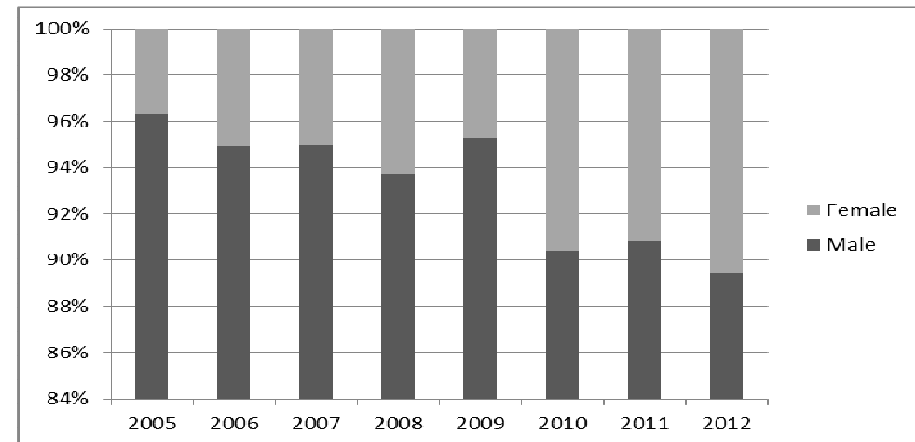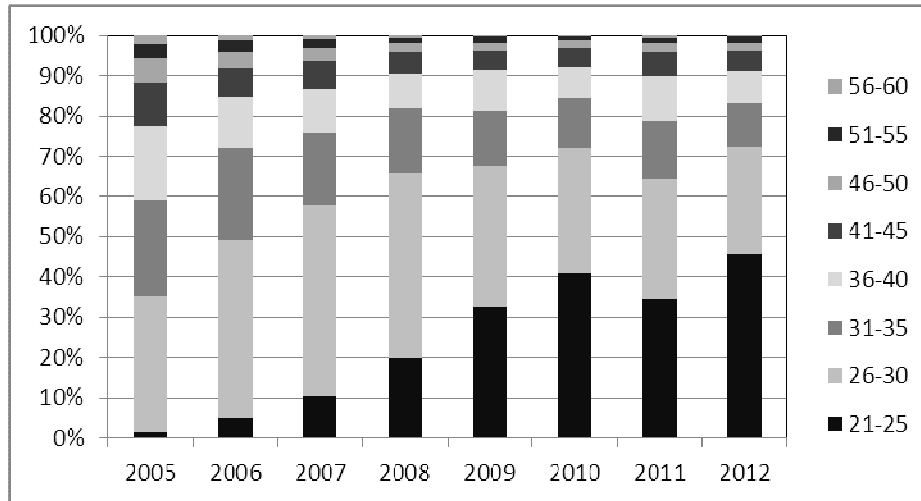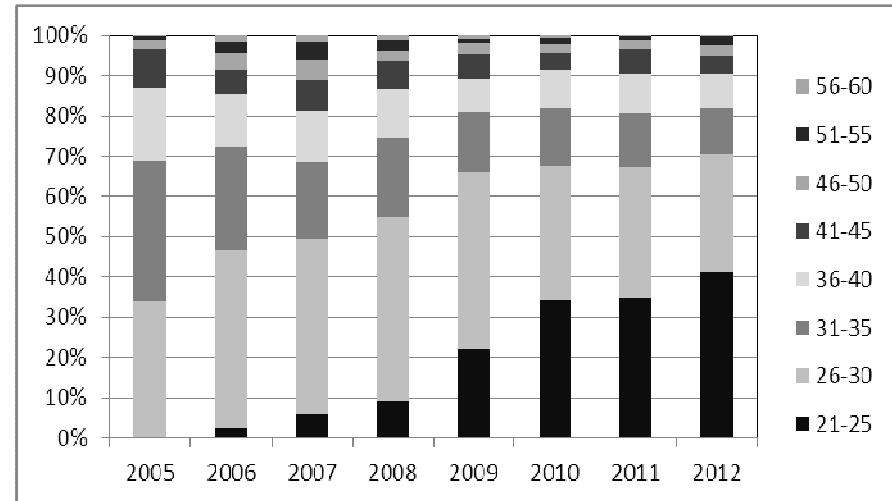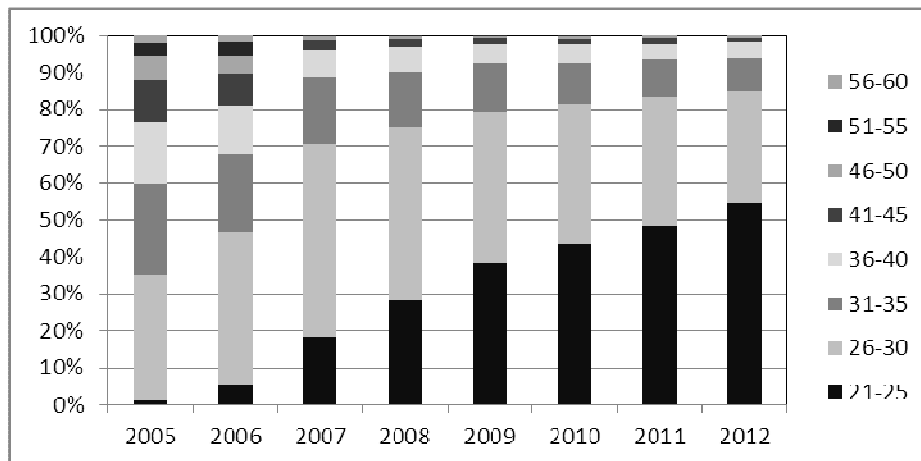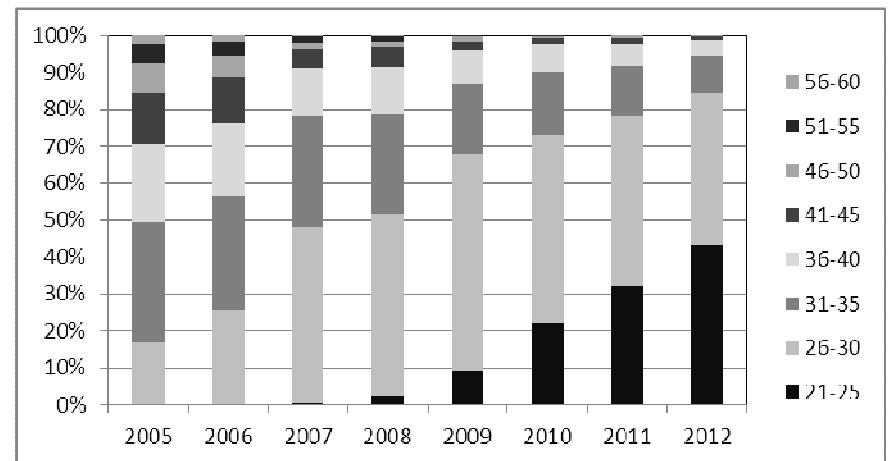

Figure 15: Completed apprenticeship participants by race group, 2005 – 2012

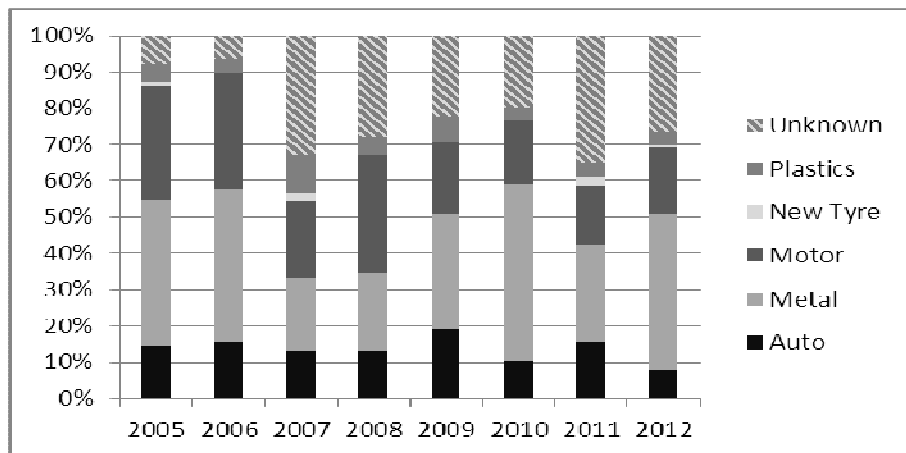# APPENDIX B: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY GENDER (2005–2012)
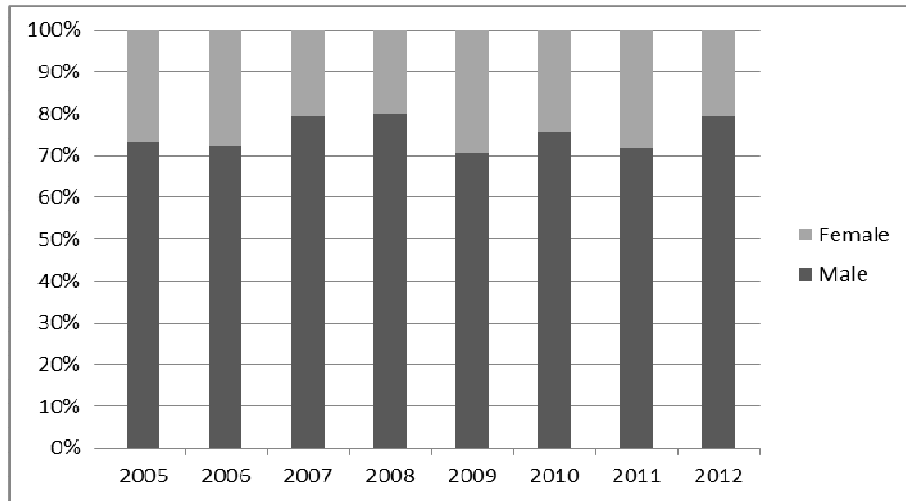
Figure 13: Registered learnership participants by gender, 2005 – 2012
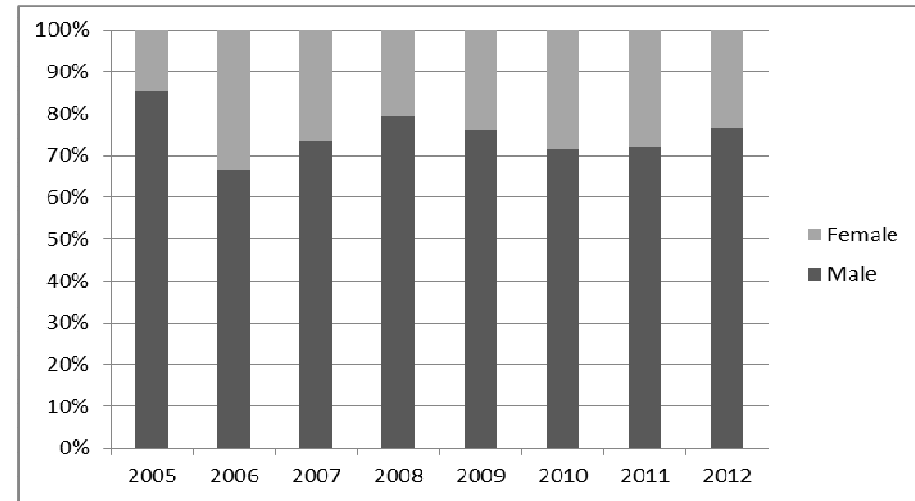
Figure 14: Completed learnership participants by gender, 2005 - 2012
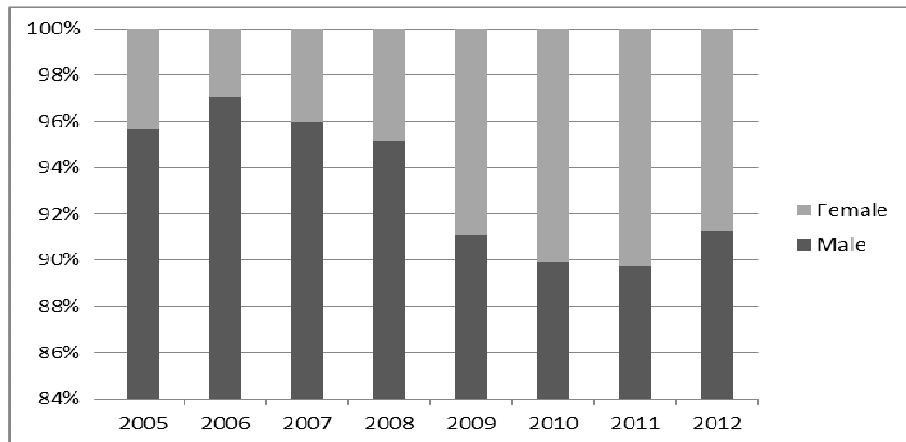
Figure 15: Registered apprenticeship participants by gender, 2005 - 2012

Figure 16: Completed apprenticeship participants by gender,2005– 2012

APPENDIX C: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY AGE (2005 – 2012)

Figure 17: Registered learnership participants by age group, 2005 – 2012

Figure 18: Completed learnership participants by age group, 2005 - 2012

Figure 19: Registered apprenticeship participants by age group, 2005 – 2012

Figure 20: Completed apprenticeship participants by age group, 2005 - 2012

APPENDIX D: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY CHAMBER, 2005–2012

Figure 22: Distribution of registered learnership participants across chambers
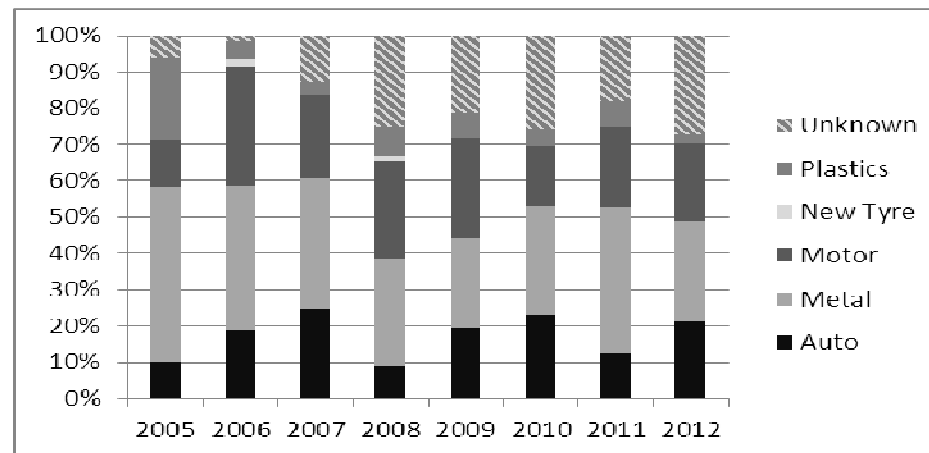
Figure 23: Distribution of completed learnership participants across chambers
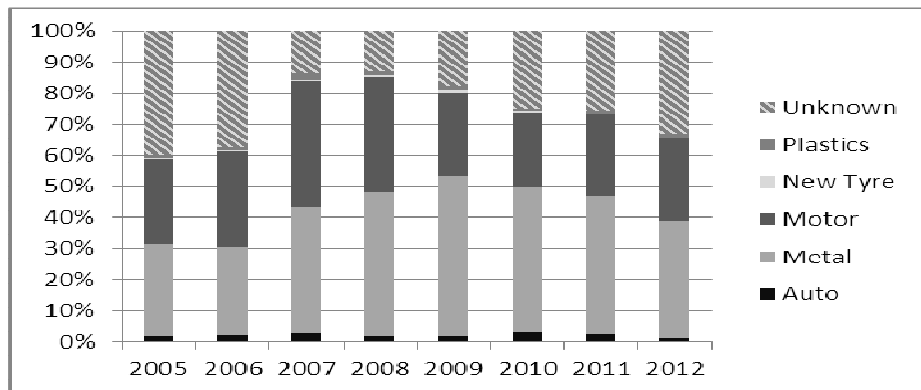
Figure 24: Distribution of registered apprenticeship participants across chambers
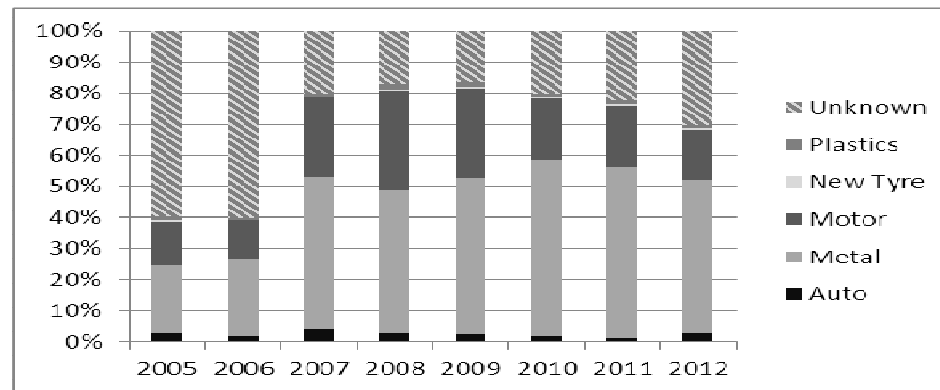
Figure 25: Distribution of completed apprenticeship participants across chambers

APPENDIX E: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY EMPLOYMENT STATUS AT REGISTRATION, 2005 - 2012
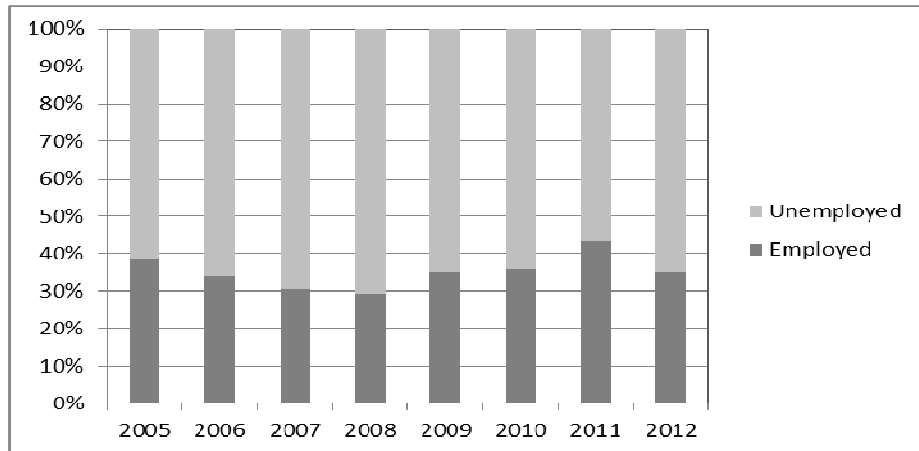
Figure 27: Registered learnership participants by employment status at registration
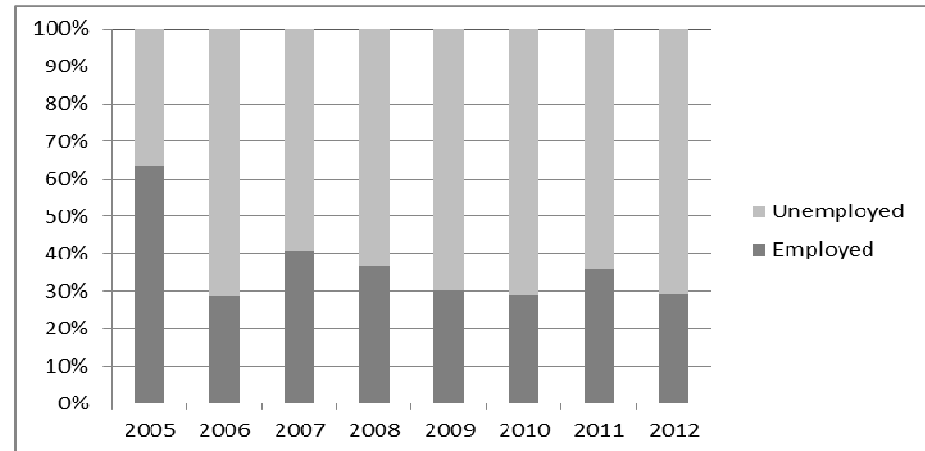
Figure 28: Completed learnership participants by employment status at registration
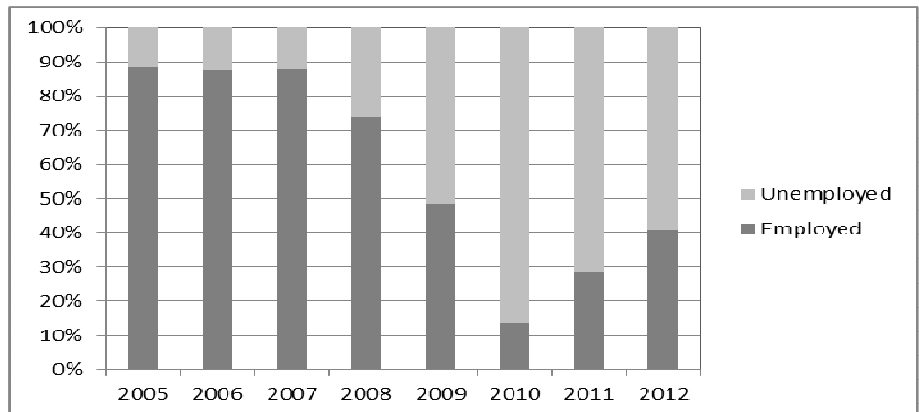
Figure 29: Registered apprenticeship participants by employment status at registration
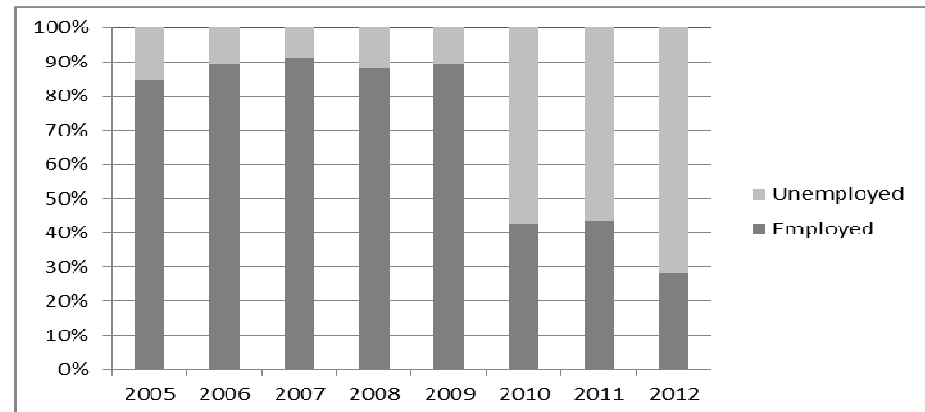

Figure 30: Completed apprenticeship participants by employment status at registration

APPENDIX F: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY PROVINCE (2005 – 2012)
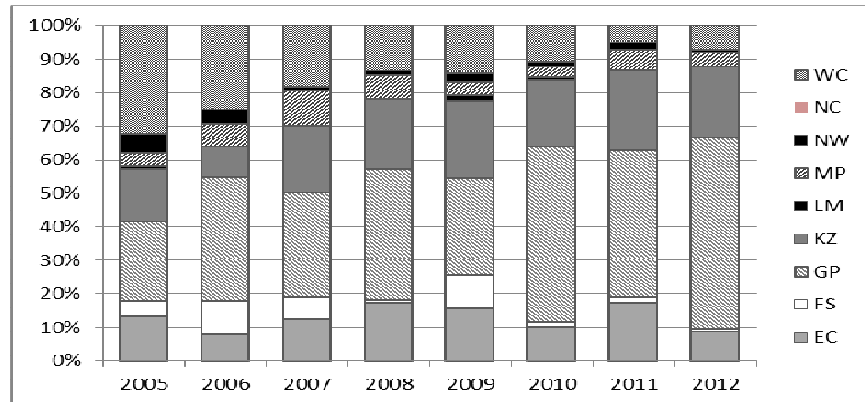
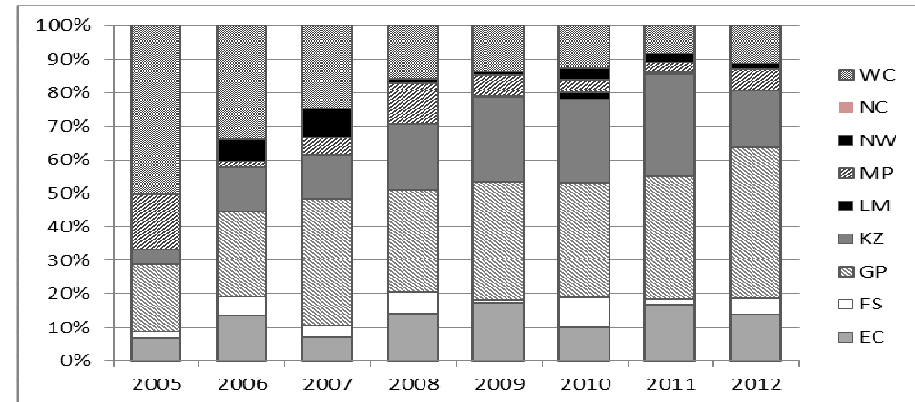Figure 32: Provincial distribution of registered learnership participants

Figure 33: Provincial distribution of completed learnership participants
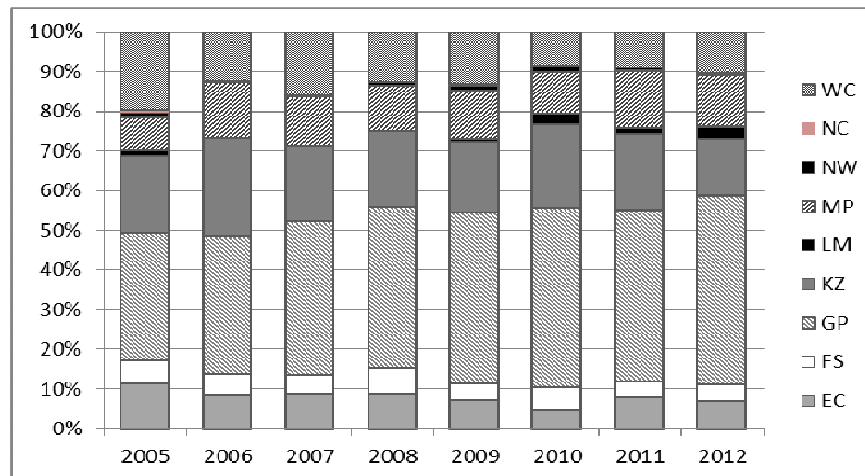

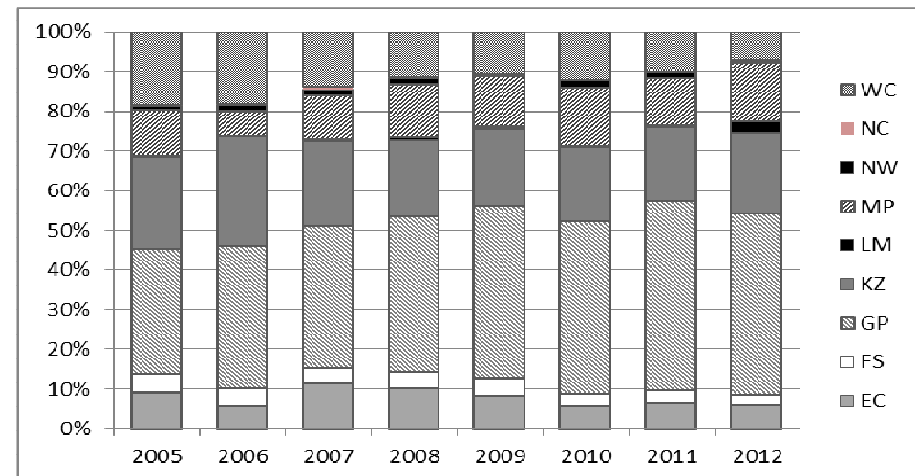Figure 34: Provincial distribution of registered apprenticeship participants

Figure 35: Provincial distribution of completed apprenticeship participants