# STUDYING ARTISANS IN THE MANUFACTURING, ENGINEERING AND RELATED SERVICES SECTOR

CLIENT REPORT PREPARED FOR THE
MERSETA/HSRC ARTISAN IDENTITY AND STATUS PROJECT:
*THE UNFOLDING SOUTH AFRICAN STORY*

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| | |
|---|---|
| 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 |

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|---|---|
| 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 | Manufacturing, Engineering 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 |

# PREFACE

Given extensive changes globally in the nature of training and employment of artisans over the last few decades, the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA) commissioned the Human Sciences Research Council (HSRC) to study changes in artisanal identity and status within the South African (SA) context. At its core, it was intended that the research should investigate qualitative dimensions of becoming and being an artisan generally, but specifically within the merSETA sector, through in-depth case studies of selected artisanal trades. In addition to this focus, merSETA requested a quantitative update of artisanal skills supply and demand in SA, in order to contextualise the sector-specific trends that would emerge from the case studies.

The first step of the project engages conceptually to develop and propose an appropriate research design and methodology to study changes in artisanal identity and status in the South African context. The next step lays a foundation for this research, by taking stock of artisanal skills supply and demand, using a quantitative lens. This aspect of the research describes analytically the size and nature of the artisanal population, in other words, the nature of artisanal skills supply and demand. This is an important step to contextualize and direct the qualitative case study research appropriately. Following this step, the research team conducted case studies of specific trades to interrogate what it means to be an artisan today and how this might have changed over time. The investigation aims to address critical questions about shifting artisanal identity and status highlighted through the analysis of the labour market and skills system, but also reflects back on the strategic research questions underpinning the project. This report highlights the trends in artisanal skills supply and demand, and investigates how the key shifts have impacted on changes in artisanal identity and status.

**Project Leader**

Dr. Angelique Wildschut (HSRC)

**Project Team**

Dr. Glenda Kruss (HSRC), Ms. Joan Roodt (HSRC), Ms. Mariette Visser (HSRC), Ms. Xolani Ngazimbi (HSRC), Mr. Thembinkosi Twalo (HSRC) and Ms. Tamlynne Meyer (HSRC)

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## CONTRIBUTORS TO THE REPORT

The report has multiple authors, working individually on a specific section or in teams. The following must be credited:

- Introduction: Angelique Wildschut, Xolani Ngazimbi and Tamlynne Meyer
- Technical Report 1: Joan Roodt, Mariette Visser, Angelique Wildschut and Glenda Kruss
- Technical Report 2: Angelique Wildschut, Tamlynne Meyer and Glenda Kruss

# INTRODUCTION: CONCEPTS AND RESEARCH DESIGN TO STUDY ARTISANS IN THE MANUFACTURING, ENGINEERING AND RELATED SERVICES SECTOR

The nature of work has changed extensively over the last few decades and is doing so much more rapidly than was the case in the past. There have been structural changes in the economy, technological developments (Christidis et al, 2002), increasing mechanisation of processes and increasingly globalised production systems, to mention but a few. These changes to the nature of work hold implications for our understanding of what work is and so the kind of activities that we conceptualise as important for different activities that constitute work. All these factors hold implications for work-related identity and given the close linkage between our conceptions of self and the central role of work in relation to that, also for our perception of status.

Artisanal occupations have been particularly affected by work related change over the last few decades (Scrase, 2003). The combined effect of globalisation and the increasing use of technology are hard to ignore. This is especially true for artisanal work which has traditionally been closely associated with manual labour. Our economies and forms of production over the world have shifted in favour of more knowledge-intensive forms. Where does this leave the artisan? This is a particularly important question to engage with, where issues around value and status are concerned. Maclean and Wilson (2009, xcvii) thus rightly identify the "challenges posed by the displacement of the traditionally strong focus upon manual work in favour of mental work, or at least the changing mixture of competencies required in the workplace" as key in defining our conceptions of artisanal work and training in the immediate future.

These global changes constitute an important context to our understanding of changes to artisanal training and work. Focusing on our own context, in South Africa, a radical impact in the organisation of artisanal training has occurred, as a result of the transition from apprenticeships to learnerships. This shift was followed by a provision of artisanal skilling through both systems, to the current system of artisanal skills provision that recognizes four main routes to qualified artisan status. At the same time, in the labour market, artisanal occupations have experienced dramatic change in the profile (age and race) of those employed. These key changes impact on the notion of the artisan in South Africa. This holds implications for identities and status that requires relevant stakeholders to engage with such shifts in relation to their mandates.

Given this context, merSETA commissioned the HSRC to examine current notions of artisans as they undertake their training and work, in order to reflect on what these notions might imply for

the future of artisanal skills development in South Africa, but particularly as is played out in the merSETA sector. Their key areas of interest are highlighted by six strategic questions:

1. What has happened to the notion of being an artisan over time, and what are the contributory factors?
2. How is identity and status determined?
3. How has training of artisans changed over time, i.e. apprenticeship to learnership?
4. How have changes in the labour market impacted on artisan-status in differing contexts.
5. Are there differences in which older and younger (white and black) artisans perceive their identity and status, given differing historical background, training and contexts?
6. How have FET Colleges impacted on the notion of being an artisan and the production of artisans?

We have attempted to respond to these strategic questions in the formulation of research questions as derived from the overall methodological framework and conceptual approach. Before we discuss the empirical findings, this introductory section describes the approach for the study and clarifies conceptually, what we understand under the terms artisan, identity and status. Such an exercise will assist in demarcating specific constructs that will be interrogated in relation to the object of study, in this case, change. Four questions emerge in relation to the overall research objective that we will first have to engage with conceptually: What is an artisan? What is identity? What do we understand by the term 'status'? What are the linkages between artisan identity and status against the background of occupational change? Once this step is completed, then we can consider an approach that might best support an investigation into the changes to artisan identity and status in the merSETA sector.

The first section of this introduction aims to provide a conceptual framing for the use of constructs, while the second section outlines the research design and methodology to be employed in the research. The last section will describe the selection of empirical cases.

# 1. TOWARD AN UNDERSTANDING OF ARTISAN IDENTITY AND STATUS IN A CHANGING LANDSCAPE

## 1.1 WHAT IS AN ARTISAN?

The most common and simplistic understanding of an artisan is that it is an individual that is skilled at practicing a particular trade or handicraft. A review of literature reveals these forms of work to have been closely associated with the more traditional and craft-related forms of production (Lass, 1998), conceptualised as very far removed from the dominant forms of production presently. There has traditionally also been a strong perception that an artisan is someone that has to be able to work with their hands to produce an artefact or product of high quality, as opposed to quantity (Shapiro, 2005). The association between artisanal work and an understanding of manual labour has consequently always been close. It thus follows that an artisan is conceptualised as a technically skilled person with the ability to create something of high quality.

Experiential learning has also traditionally been seen as a critical part of artisan training, and it is emphasised that one has to spend a considerable amount of time learning the trade under a qualified artisan/master (Loats, 1997) in order to gain the respect of peers. Some negative connotations remain the devaluing of manual as opposed to mental work and so there are pervasive ideas around an artisan being 'dirty' and 'unkempt'. This reality is illustrated by Freeman (2007) when commenting that the shortage of artisans is not unique to South Africa but a global phenomenon that permeates the Western world because young people are afraid to get their hands dirty. The relationship between mental work, so-called academic knowledge and artisanal work and training has often been neglected or downplayed. It is being increasingly recognised however, that we will have to re-examine our understanding of distinctions between for example, technical, academic and tacit knowledge in relation to artisanal knowledge and training. This is especially true, given the changes in the nature of work, which might render such distinctions arbitrary, possibly inaccurate or irrelevant.

We have acknowledged that these changes hold implications for our understanding of knowledge and skill, but surely it also affects an individuals' conception of their work and their identification with types of work.

## 1.2 WHAT IS AN IDENTITY?

Identity can be construed as predominantly an internal aspect linked to an individual's perception and description of him or herself. In this regard, Stets and Burke (2000: 224) assert that "through the process of self-categorization or identification, an identity is formed" (see also Turner & Tajfel, 1986). The act of identification or classification, however, may have both internal and external bases, allowing one to, for example, differentiate between a self-concept on the one hand and belonging to a social category on the other. In other words, while I might view myself positively based on my assessment of my abilities and knowledge, I might have a negative perception in relation to being classified as belonging to a certain race group or class. This introduces the aspect of social identity, which can be defined as "a person's knowledge that he or she belongs to a social category or group" (Stets & Burke, 2000: 2250).

Having a broad sense of how identity is formed, how would one understand the identity associated with being an artisan? What kind of identity would be relevant if we wanted to look at artisanal identity?

## 1.3 WHAT IS AN ARTISANAL IDENTITY?

Drawing from the preceding discussion, to study artisanal identity, we would have to focus on social identity, as we are concerned with a person's understanding of belonging to a certain grouping – artisans in this case. But also because the identity of belonging to this group is rooted in work related activities, arguably, an individual's work identity would be particularly paramount in such an investigation. This refers to "a work-based self-concept, comprised of a combination of organizational, occupational, and other identities that affects the roles people adopt and the corresponding ways they behave when performing their work" (Walsh & Gordon, 2008: 46).

Some might ask whether this would be equivalent to occupational or professional identity, terms most conventionally used in the Occupational Sciences. Cohen-Scali (2003: 239) offers a useful description, which clearly distinguishes professional identity from social identity, stating that "professional identity is not to be confused with social identity even if it is closely related. The former is work-related and linked to economic activities whereas the latter concerns social status". Considered in relation to the strategic questions raised by merSETA, which illustrate a particular interest in both societal status and identity in relation to artisanal work, the term 'work/ occupational identity' appears most suitable. The link between these constructs are also made explicit in work by sociologist such as Lamont and Molnar (2002) where they note,

particularly in the work context, the role that social identity plays in creating symbolic and social boundaries (see also Riesch, 2010 for further discussion).

Debates around the clear distinction between a social and professional identity aside, it should also be acknowledged that dentity construction is not a once off occurrence. While we acknowledge some forms of identity to be quite constant, one cannot deny that there is also an element of fluidity in identity. Solomon (2005) describes identity as produced through discursive practices where the self is continually subjected to but also contributing to the construction of a particular identity.

This fluidity is also explained somewhat through identity theory in its presumption that an individual will always continue to seek positive reinforcement. In other words, the extent of an individual's association with any type of identity will depend on the extent to which in different contexts this identity enhances the individual's distinction or status. As is shown by Walsh & Gordon (2008: 50) "group identities that are quite distinct or status-enhancing to individual members are more likely to be adopted and expressed by them, especially if these perceived qualities enhance members' self-image". It is clear that individuals have a strong desire to maintain a positive self-image (Hogg & White, 1995). Thus it has been noted that in low-status occupations, of which traditionally most artisanal trades might form a part, it is very likely that individuals form a strong occupational culture in order to "transform the meaning of their work, and in doing so construe an esteem-enhancing occupational identity (Ashforth & Kreiner, 1999 in Walsh & Gordon, 2008: 52). This continual seeking of positive reinforcement makes explicit the link between identity and status.

## 1.4 ARTISAN IDENTITY AND STATUS

Notwithstanding the mitigating processes that individuals might be engaging in to maintain a positive self-image or enhance their esteem, status is determined by society. The status associated with an occupation can be both ascribed (based on history in relation to class, race, gender) or achieved (through qualification, experience, regulated systems of practice). Silver notes, "social statuses encompass rights and duties towards others, and it is largely within the matrix of social interaction that the cultural significance of differing statuses emerges" (1980: 433). Thus the degree of status assigned to any occupation is linked to the perceived necessity and value of the collection of skills within that occupation, to society's survival and needs. This is quite clear in examples such as the medical profession, which traditionally has very high esteem due to its perceived salience to society's survival. In accordance with this high status it also has a highly regulated system of duties and roles towards society.

The role of society in our constructions of value is also illustrated by Brockmann (2010) who argues that the image of artisanal skilling as low status is reinforced firstly by societal conception of artisanal trades as requiring little underpinning knowledge as compared to 'professions' requiring academic learning (and thus are somehow inferior). Secondly, the current image of artisanal occupations is also a product of the national structure of vocational education and training that is perceived as fraught with inefficiencies resulting in a negative light cast on the associated modes of training (apprenticeships and learnerships).

Thus, we have to understand status and identity to be inextricably linked and both tend to impact on the nature of the other. This is not a matter to be underestimated. In this regard, Mooney, Knox and Schacht (2000) notes that a master status is considered the most significant status in a person's life, and one's occupational status is typically regarded as one's master status.

## 1.5 WHY IS IT IMPORTANT TO STUDY ARTISAN IDENTITY AND STATUS?

Solomon provides a poignant contribution that underscores the importance of such investigation,

> "all professional and vocational programmes, the aim of which is to produce lawyers, teachers, tilers, or whatever, have an identity focus. This is particularly the case if we take the view that gaining a qualification is not only about acquiring a licence to enter a particular profession, but is also giving a person a sense of who they are" (2005: 95).

Costin (1998: 4) offers another useful motivation when stating that "without attention to artisan identity, our reconstruction of production systems and explanations for their form and dynamic are destined to be unidimensional, lacking in key elements of social process and social behaviour". This emphasise particularly well the importance of such investigation in the South African case, where the nature and status of artisanal work and training is so profoundly informed by our historical context. We would not be able to disentangle the linkages between institutionalised racism and the state of our vocational education and training systems. We would not be able to adequately understand the nature of artisanal work without describing the gendered and racialised inequalities underpinning such work.

We have established that identity and status can be shaped by a variety of criteria, for example ancestry, marital status (Cavallo, 2008) training, contexts, gender (Costin, 1996; Loats, 1997) and race. In this study the primary focus of investigation would be that of the individuals' work/occupational identity, and their perceptions around the status of their work. As status, is highly prescribed by the prevailing norms and standards in a particular society at a historical juncture, to accurately understand status, the discourse surrounding an occupation needs to be interrogated. Similarly, the conditions in the relevant labour market would also impact on status and occupational structure and would need to form an integral part of the analysis.

# 2. PROPOSING A SOCIOLOGY OF PROFESSIONS APPROACH TO THE STUDY OF ARTISAN IDENTITY AND STATUS

We propose that an approach for the present study will need to offer a platform for the interrogation of occupational change and the impacts these have on identity and occupational status. Additionally, the approach should allow a consideration of implications for skills development in a sector. Here we argue that a completed set of studies of selected professions at the Human Sciences Research Council (HSRC) offers a methodological framework that can be usefully applied to the study of changes to artisanal identities and status in the South African context. The disciplines of Sociology of Work and Occupations will offer the conceptual and theoretical framing. Consequently, this section aims to conceptually extend the HSRC model from a focus on professions to study artisan occupations within a shifting context.

## 2.1 METHODOLOGICAL FRAMING

Between 2005 and 2009 in-depth studies were conducted at HSRC on four professions: medicine, nursing, social work and engineering. These studies established a methodology for mapping and understanding a profession at any particular point in time. The methodology prescribes in-depth and comprehensive investigations into four key areas that underpin an accurate analysis of the drivers of change in a profession. It proposes an investigation into the international and national professional labour markets and the national and international professional milieus of a selected profession. It allows an exploration of how changes and developments in each of these spheres interact to bring about outcomes in the relevant profession/occupation. The figure below illustrates the application of this approach to the nursing profession.

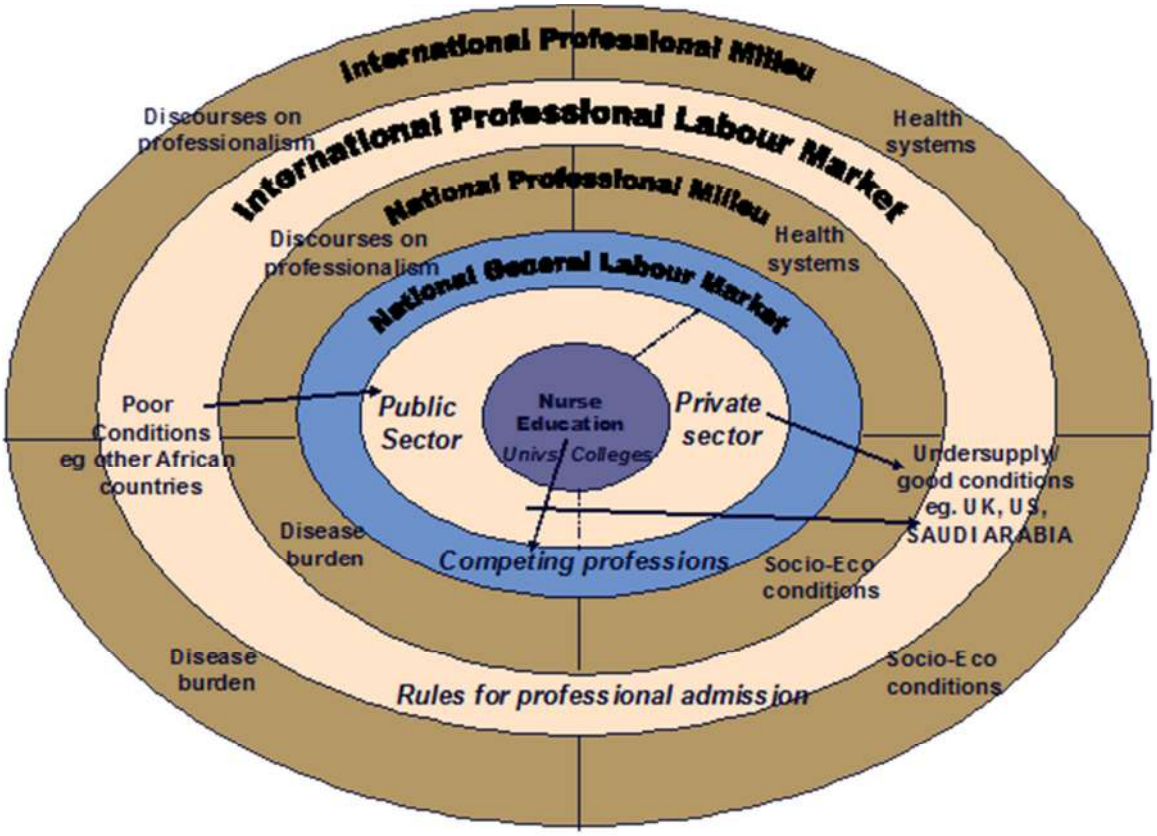



**Figure 1: A model for the analysis of a profession and professional education, applied to nursing in South Africa**

Source: Breier, Wildschut & Mgqolozana (2008)

A consideration of the *professional milieu*, requires investigation into the "socio-economic and political conditions that affect the practice of the profession, as well as the discourses of professionalism that determine what it means to be a professional behaving professionally in the particular profession concerned " (Breier & Wildschut, 2006: 3). Essentially this entails is a scan of the environment within which individuals apply their trade, or practice their occupation. It starts with "a consideration of the structural arrangements that underpin the practice of the profession: what it takes to become a professional and what rules, bodies and professional associations govern practice" (Breier & Wildschut, 2006: 3).

A consideration of the *professional labour market*, on the other hand, investigates the "extent to which the supply of professionals from the institutions that produce them meets or exceeds demand" (Breier & Wildschut, 2006: 3). This demand is of course influenced by the change in status and monetary rewards associated with competing professions or trades, both nationally and internationally. It is thus important here to consider the conditions in the local as well as international labour market, as these profoundly affect perceptions of the shortage, relevance and extent of demand for skills.

Applying this framework to the study of an artisanal trade/occupation would require then;

- a historical account of the development of the specific artisanal trade nationally, but also internationally,
- a review of the bodies and associations, if any, governing the practice of that specific trade
- a review of the current and changing conditions (socio-economic and political) associated with the practice of a particular trade
- an analysis of the supply of and demand for artisanal skills in the specific trade, in relation to competing trades/occupations

While this model allows distinction between different spheres of influence and investigation, of course, the interconnectedness between the spheres should not be dismissed. For example, it can be argued that changes in the international labour market and its influence through globalisation, impact on perceptions of the value and necessity of artisanal trades for production and society in general (Hallpike, 1968; Scrase, 2003). Such an approach provides a useful methodological framework to underpin a comprehensive investigation and understanding of the state, as well as the drivers of change, in relation to a specific artisanal trade.

## 2.2 ANALYTICAL FRAMING

To reiterate, the interest in this study is how the changing landscape surrounding the work of an individual impacts on a persons' conception of self, identification with a specific social group and its relation to status. Strategically, of particular concern to merSETA, is how these aspects impact on the quality and success of the learning and work experience to provide insight for the nature of future skills development structures in the sector.

While occupations are a major source of personal identity, they also serve to locate individuals according to other social roles (Mclean & Wilson, 2009) and so link society to individuals. The world of work encounters our social context in various ways. An example is how job titles serve as prominent social badges: when we meet new people we often ask what they do for a living and expect to be asked the same question in return (Ashcroft & Kreiner, 1999). Work occupies a substantial part of our lives (Pavalko, 1972) and a significant aspect of one's identity is formed through construction of meaning in the world of work. Consequently, identity, meaning and status that individuals obtain from work are significant issues in the study of work, and have traditionally been problematized in the Sociology of Work and related sub-disciplines of Occupations and Professions.

The Sociology of Work and Occupations may be defined as “the application of the principles and concepts of sociology to a particular social phenomenon – that of occupational life and people at work” (Maclean & Wilson, 2009: lxxv). Noscow and Form’s (1962: 3) description of the field’s five substantive themes, illustrates how it could offer a broad theoretical lens for this study:

- The social nature of work and its relation to leisure, for example
- Occupational structure and causes of change within it
- Study of individual occupations in terms of recruitment, training and careers
- Ways in which occupational structure and individual occupations articulate with other segments of society (social stratification, for example)
- Study of a particular occupation in order to highlight a problem in broader society

Reflecting on the substantive issues examined in this broad area of study illustrates how such an approach offers analytical categories to deepen our analysis and investigation into the nature of artisan identity and status in relation to a changing occupational landscape.

# 3. DESIGN OF THE RESEARCH

It is useful to reflect on the data collection methods and tools to be employed. This helps to clearly delineate, the advantages and limitations associated with using a specific research methodology. It also contextualises what research objectives realistically fall within the ambit of specific approaches.

## 3.1 DATA COLLECTION METHOD

The methodological approach allows the study of institutions, but also takes into account the link between institutions and individuals. Case studies are useful in such investigations, and can be defined as "intensive, holistic description and analysis of a single entity, phenomenon or social unit. Case studies are particularistic, descriptive and heuristic and rely heavily on inductive reasoning in handling multiple data sources” (Merriam, 1988). Because case studies are viewed to be particularistic, they are meant to focus on a particular situation, event, program, individual, institution or phenomenon.

In this specific study we would argue that we are interested in the phenomenon of change in artisanal identity and status over time in a sector. Constructs such as status and identity are best studied at the meso-level, so that while we are interested in the identity of individuals, this is in

relation to a social structure/institution, namely a trade/occupation. The selection of particular cases is thus of cardinal importance. Hence, the selection of trades to study in more depth, should be directed by the extent to which they can serve to facilitate a better understanding of the object of our investigation, in this case change.

### 3.2 DATA COLLECTION TOOLS

The case studies involve review of literature and statistics on artisans in the selected trades and nationally in the public domain, as well as individual interviews with apprentices, artisans, employers and training providers. Instruments were designed and adapted from interview schedules used for the professions studies on nursing and medicine. The interview schedules are all open-ended to allow for the respondent's own understanding and perspectives to be brought to the fore, but key questions are listed. See Appendix A for interview schedules.

### 3.3 SELECTION OF EMPIRICAL SITES AND PARTICIPANTS

The case study participants will be apprentices, qualified artisans, training providers and employers falling within the merSETA sector. A list of all the relevant training providers and employers will be obtained from merSETA. For the training providers and employers, all selected participants will be emailed and then telephoned and invited to participate, until the target response rate is reached. After training provider interviews have been secured, the research team will negotiate for the arrangement of individual interviews with apprentices and qualified artisans at firms and training institutions.

## 4. STRUCTURE OF THE REPORT

The findings and discussions in relation to the objectives of the research are presented and structured as a portfolio of two technical reports, one for each of the research components. Consequently some of the introductory sections will overlap, as each report is also an independent deliverable. However, considered together, both contribute to the overarching research questions in relation to artisan identity and status generally, but in the sector specifically as well. This introduction section set out the design and methodology for the project overall.

Technical Report 1 communicates the findings and questions emerging from the analysis of artisanal labour market and skilling data. The report sketches trends in the supply and demand for artisanal skills in South Africa over time. It highlights historical trends and considers how and whether these trends are reflected in the Manufacturing, Engineering and Related Services Sector, since 2005. This analysis raises key issues for further qualitative investigation.

Technical Report 2 communicates the findings from fieldwork conducted in the fitting and turning and electrician trades within the merSETA sector. It draws on the questions raised through the analysis in report 1 and elaborates on how this informed the selection of the empirical cases for qualitative study. The analysis of the interview transcripts shed light on how artisanal identity and status is determined and also the factors impacting most prominently on shifts in these notions.

The research team hopes that the analysis and findings will contribute to expanding the limited knowledge base on artisans in the country. At the same time we also hope that critical questions for further study that emerge through this investigation will serve as a sound and targeted basis for further study on artisans in the country. At the very least, we are confident that the findings will assist a more robust engagement with the notions of status, identity, knowledge, skills, and the continued impact of demographic variables on the work discourse within the South African context.

# TECHNICAL REPORT 1

# KEY TRENDS IN ARTISANAL SUPPLY AND DEMAND IN THE MANUFACTURING, ENGINEERING AND RELATED SERVICES SECTOR

# INTRODUCTION

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). However, the importance of creating a better understanding of qualitative issues in relation to artisans is increasingly being acknowledged (Wildschut et al, 2012). It is in this vain that this study aims to contribute.

Critical issues militate against creating a better overall picture of artisans in our country. 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 only on learnerships or apprenticeships in isolation, or on artisanal skilling in only one sector (Mukora 2008, Landelahni 2010), or in priority areas (Elliot 2009). On the demand side, similar issues are prevalent. Sources of labour market data exist, but without clear synergy, making it difficult to ascertain how many artisans we have working in our labour market, let alone how many of these are actually qualified as artisans (the methodology section elaborates on these).

To lay the foundation however, the first stage of the project takes 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 Manufacturing, Engineering 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.

# 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 however, a contentious issue. The term *labour supply* can be defined as the availability of suitable human resources in a particular labour market (Hall, 1991), 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.

In additional to the data difficulties alluded, the term 'artisan' itself is contentious, making it very difficult to measure changes in related skills supply and demand nationally, but also researchers' ability to compare across national systems. In the South African context the legal framework regulating artisans emanates from the Manpower Training Act (No. 56 of 1981) which defines what an apprentice is and provides that upon completion of an apprenticeship, the relevant individual is considered to be an artisan. Subsequently, with the promulgation of the Skills Development Act (No. 97 of 1998) provision was made for the inclusion of the concept of learnership as an additional artisanal skills development mechanism. Presently, artisanal skills development can occur through four main routes: a learnership, an apprenticeship, a learner in possession of a national certificate vocational (NCV) obtained at a Further Education College registering for an internship or skills programme, and lastly, through recognition of prior learning (RPL). While four routes to qualified artisan status are recognised in the country, all require registration for and successful passing of a trade test, upon which the status of artisan will be conferred.

However, when individuals are active in the South African labour market they can still be classified as working as artisans, without possessing the necessary qualification. Thus, while we do have data on trade test registration and completion, our labour force data is not linked to this dataset. Consequently, we can only use trade test data to indicate the available stock of artisanal skills across a specific period of time, while the labour force data can indicate those that are classified as working as artisans. It is well acknowledged that there is considerable room for research to consider all four artisanal skilling routes, as well as the labour market participation of individuals in possession of a successful trade test pass, in order to present a comprehensive

perspective on artisans in the country. But without the necessary data linkages, that remains a task for the future.

Consequently, 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 DEMAND FOR ARTISANAL SKILLS IN THE MERSETA 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).

As mentioned before, 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 multibillion-rand public infrastructure programme[1], 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.

[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. This section elaborates on these issues in detail.

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 (C&RT) 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 C&RT 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

[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.

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 challenging. Thus, in order to *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 however not sufficient, because not all companies submit WSPs.

To analyse MerSETA employment data according to 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 to SETA demarcation, because of the overlap. This technical report thus refers to *MerSETA-related industry* artisan employment data in comparison to *other SETA industry* artisanal employment data. Data trends reported might thus present an over-count for artisan employment in the Manufacturing, Engineering 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 individuals employed to work as artisans 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, in other word the individuals' prior highest qualification, was used to form four broad categories for the analysis, namely:

- *Category 1*: "No Schooling"; Grade 1 up to Grade 11 with no additional Certificate/Diploma
- *Category 2*: NI-NIII, Diploma/Certificate with less than Grade 12/Std 10/Matric
- *Category 3*: Grade 12/Std 10/Matric with no additional Certificate/Diploma or Degree
- *Category 4:* 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 Manufacturing, Engineering 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 challenging 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 the 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 C&RT Workers have completed a trade test in order to be classified as an artisan. We would assume however that 'qualified artisans' would most likely be found in Categories 2 and 4, where the individual indicates that they are in possession of a certificate/diploma/degree. As indicated before, 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 MERSETA 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

[4] This is the date on which the data was extracted from the MerSETA's information system.

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 was 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 (*DateOf Brith_rw*) was created through amalgamation. The process of constructing a new variable by using the *learner identity* number as a 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.

[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.

*INDLELA dataset*

Another valuable dataset that can be utilized in the analysis of the artisanal skills supply side is the INDLELA database on trade test registrations and completions. This is a useful tool towards a better understanding of the size of our licensed artisan population in the country and that is why a great deal of effort has been instituted in the past few years to improve the dataset by putting mechanisms in place to centralize such information.

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). It has to be noted ed that INDLELA is not a centralized database and although it is the main test centre, it does 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 worked 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*

It is important to note that race was not recorded systematically across SETAs in 2009/10, thus analysis can only reliably differentiate between "Black" and "White". Consequently, for the purposes of this report, those described as "Black" include persons of African, Indian and mixed descent. This is an important limitation to be addressed by SETAs specifically in research investigations that concern the changes in the nature of those preparing for and in employment, given the country's history of job reservation. In this report, we ask the reader to remain cognisant of the fact that using Black and White as an analytical category might conceal the legacies of policies that reserved particular jobs for coloured/asian individuals. We were thus forced in many instances to revert to this dichotomy, where the data did not allow a more disaggregated analysis.

The datasets evaluated in this report are thus 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 Manufacturing, Engineering and Related Services Sector.

# 2. KEY TRENDS IN DEMAND FOR ARTISANAL SKILLS IN SOUTH AFRICA

Mukora's (2009) quantification of the demand for artisans in South Africa spanned over a 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 Manufacturing, Engineering and Related Services Sector will concentrate on the more recent period 2005–2011. Here we will be able to compare artisanal 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 ARTISANAL EMPLOYMENT

Between 1996 and 2011 an overall modest positive growth (2.12%) in artisanal employment in South Africa is evident. 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 E&B trades in providing artisanal employment, while also showing that the minority of all artisanal work is found in the 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 artisanal employment, 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. This trend serves as support for assertions that the nature of work has shifted

dramatically to be more technologically oriented and as a result of this shift, the labour market appears to demand less of these kinds of artisanal skills.

**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)

Analysis of the sectoral distribution of this employment (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%).

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 ARTISANAL EMPLOYMENT TRENDS IN MERSETA-RELATED INDUSTRIES (2006 – 2011)

### *2.2.1 VIRTUALLY STATIC EMPLOYMENT GROWTH TREND*

A decline in the overall employment of C&RT workers since 2006 is evident. Employment in MerSETA related industries experienced a virtually static growth trend (0.46%). While this is surely not an overwhelmingly positive trend, it is notable in contrast with 'other SETA industries' which showed a marked decline. In general terms though, it is clear that the total artisanal employment has experienced 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 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.

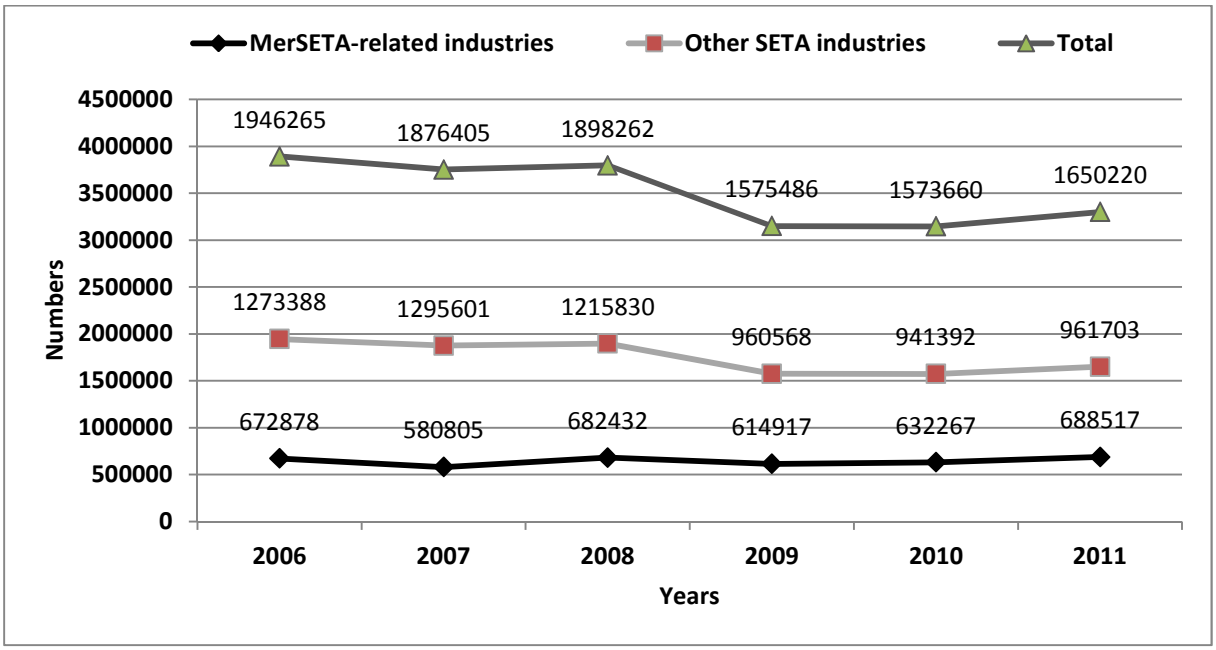



**Figure 1: Artisan employment trends in MerSETA-related industries, 2006-2011**

### *2.2.2 GROWTH IN ARTISANAL EMPLOYMENT OF WORKERS WITH HIGHER QUALIFICATIONS*

If we consider the levels of qualification that appears most desirable for artisans (category 4[6]), we find a modest growth in other SETA industries (1.89% average annual growth) (Figure 2 and 3), in comparison to a more pronounced trend in merSETA-related industries (14% average annual growth). Figure 2 provides the real employment *numbers*, while Figure 3 (indexed, 2006 = 100) illustrates the stronger *growth trend* in merSETA-related industries.

[6] These are individuals with a Grade 12/Std 10/Matric plus Diploma/Certificate or Degree.

The data suggests that it is increasingly important for individuals employed as 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). This is an interesting point to pursue in the case studies, where it will be important to investigate the perceived relevance of this qualification for entry into artisanal work or training.

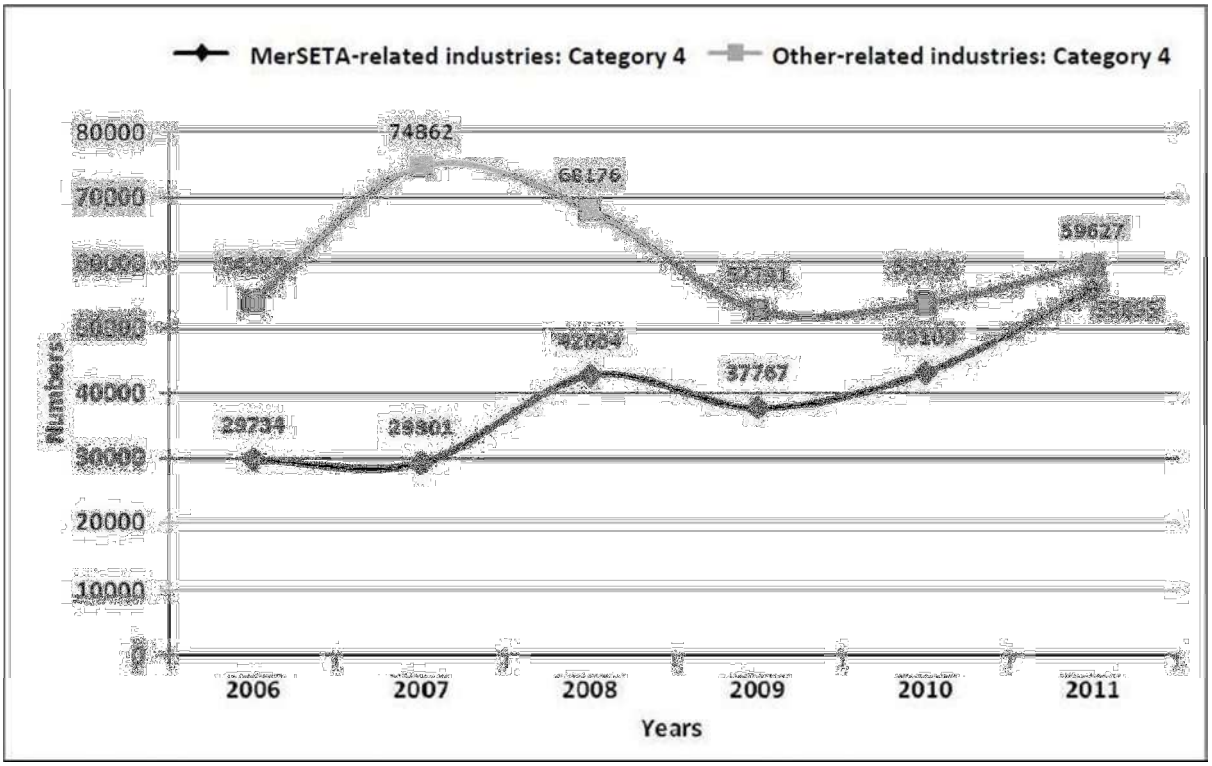



**Figure 2: Employment trends of Category 4[7] artisans (numbers), 2006-2011**

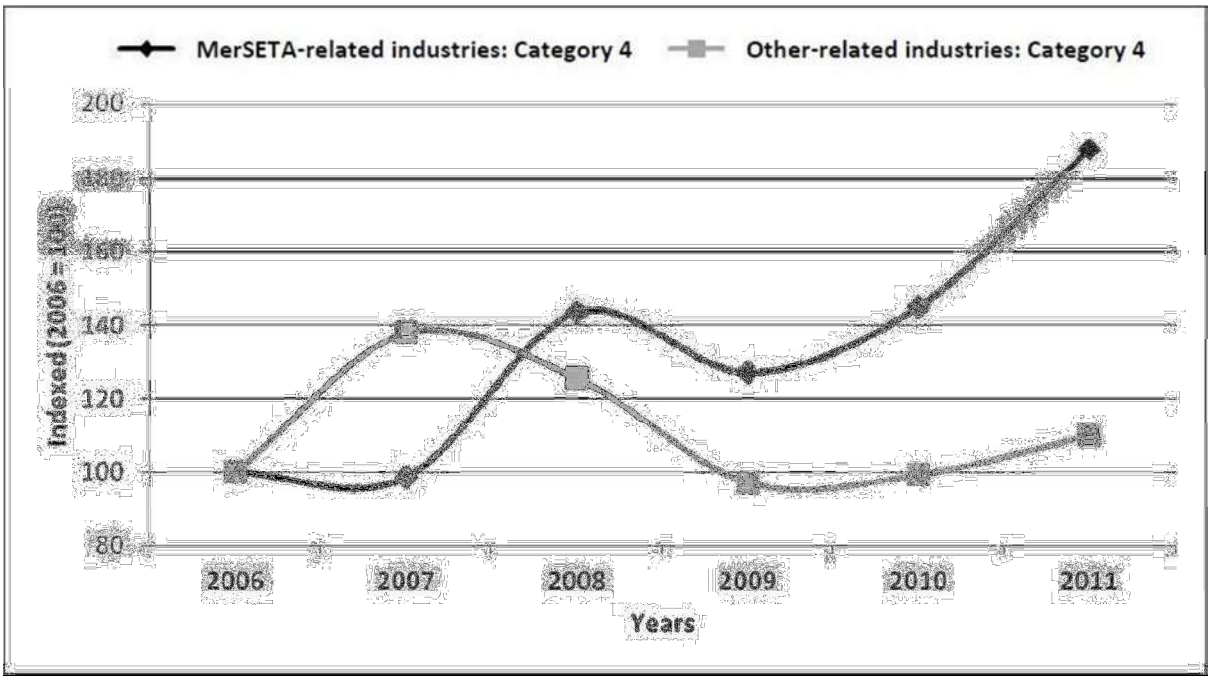



**Figure 3: Employment trends (indexed, 2006 = 100) of Category 48 artisans, 2006-2011**

[7] Refer to page 14 for category explanations

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 category 4 artisans, together with an overall decline in the employment of category 1 artisans. Relatedly, the growth in the employment of category 4 artisans is largely attributable to the increase in employment of younger (under 40) category 4 individuals (Figure 4). In contrast, the increase in the employment of category 4 individuals in other SETA industries is mostly attributable to growth in the employment of older category 4 individuals (over 40). Simply put, the higher qualified artisans in the merSETA sector are younger individuals, while other industries still appear to increasingly employ older individuals with higher qualifications to artisanal employment.

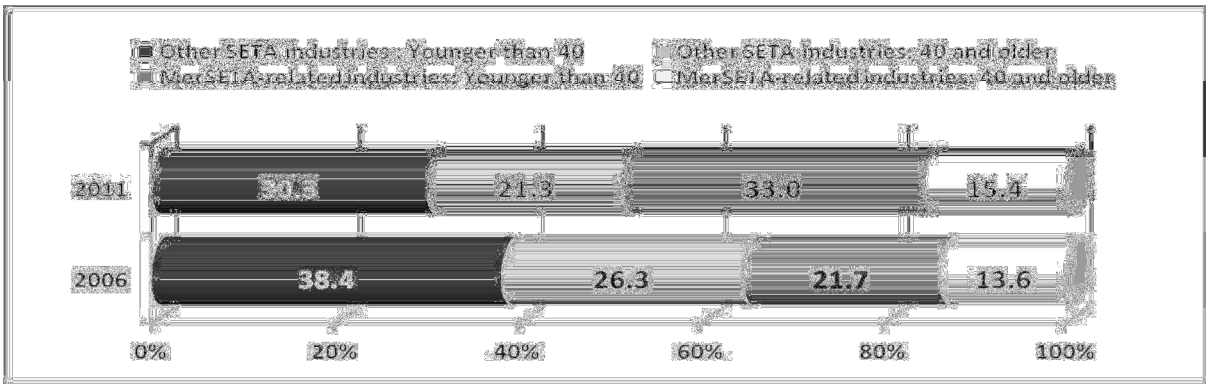



**Figure 4: Age distribution of category 4 artisans, 2006 and 2011**

Second, within the merSETA sector we also find a trend towards the increasing employment of category 3 and category 2 artisans (Table 4), again, a trend that stands in contrast to what is observed for the rest of the population.

**Table 4: Education levels of artisans, 2006 – 2011**

| Highest qualification level | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|
| | merSETA-related industries | | | | | |
| Category 1 | 435760 | 353451 | 422974 | 369011 | 360346 | 403026 |
| Category 3 | 168133 | 166590 | 181691 | 168234 | 190953 | 178597 |
| Category 2 | 29854 | 27239 | 18712 | 28643 | 23802 | 30248 |
| Category 4 | 29734 | 29301 | 42664 | 37767 | 43109 | 55895 |
| Unspecified | 9397 | 4225 | 16391 | 11263 | 14058 | 20750 |
| Total | 672878 | 580805 | 682432 | 614917 | 632267 | 688517 |
| | Other SETA industries | | | | | |
| Category 1 | 925656 | 886825 | 856822 | 619934 | 628494 | 656999 |
| Category 3 | 256130 | 281587 | 237904 | 225946 | 224023 | 205467 |
| Category 2 | 29280 | 39932 | 31153 | 31485 | 16503 | 19881 |
| Category 4 | 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)

[8] Refer to page 14 for category explanations

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 category 3 individuals 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 employment of women since 2005*

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. In 2011 women represented only 12.09% of all artisanal employment, down from 15.52% in 2006 (Table 5). This translates into a positive average annual growth in employment for males (0.66%), with an average annual decline of 3.42% for females. This highlights the continued gendered nature of artisanal employment, which is an important aspect to be further pursued in the case studies. The continued dominance of males in artisanal work might not be viewed as concerning by all, but the strengthening of this trend across time, especially in the light of concerted government programmes to change these trends, at the very least requires further attention.

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 females in artisanal employment has decreased more (from 20.95% – 16.29%) in other SETA industries than in merSETA-related industries (from 5.25% – 4.31%), the proportion of women (4.31%) in merSETA-related industries represents a profound under-representation in comparison to other SETA industries (16.29%) over the period and the population as a whole (12.09%) in 2011.

**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)

Disaggregation to determine whether there are noticeable gender differences within the sub-industries employing C&RT workers does not reveal a clear picture (Table 6).

**Table 6: Artisanal employment 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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)

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 (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 artisanal employment virtually unchanged since 2005*

The racial profile of artisanal employment has not shown much change between 2006 and 2011 (Table 7), 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 Coloureds (16.2% to 11.3%), Asians (4.5% to 2.0%) and Whites (18.5% to 11.1%) 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, 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 all race groups, except Africans are consistently over-represented, in comparison with the entire population of individuals in artisanal employment. Comparison with the racial representation in the total population is required to assess the full extent of these trends.

**Table 8: Racial distribution of artisanal employment 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 relatively 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, Coloureds 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 artisanal 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 BLACK*

Age is increasingly becoming a critical indicator, in the face of the extensive problem of unemployed youth in the country, but this is also an international issue. Is artisanal employment perceived as offering a viable option for the youth? In this regard, it is positive to find that the total population of employed C&RT workers appear to be relatively young, and getting even younger. Mukora (2008) reported that in 1996, 60.51% of employed C&RT workers were younger than 40 years of age and in 2011 this proportion has increased to 63.53%.

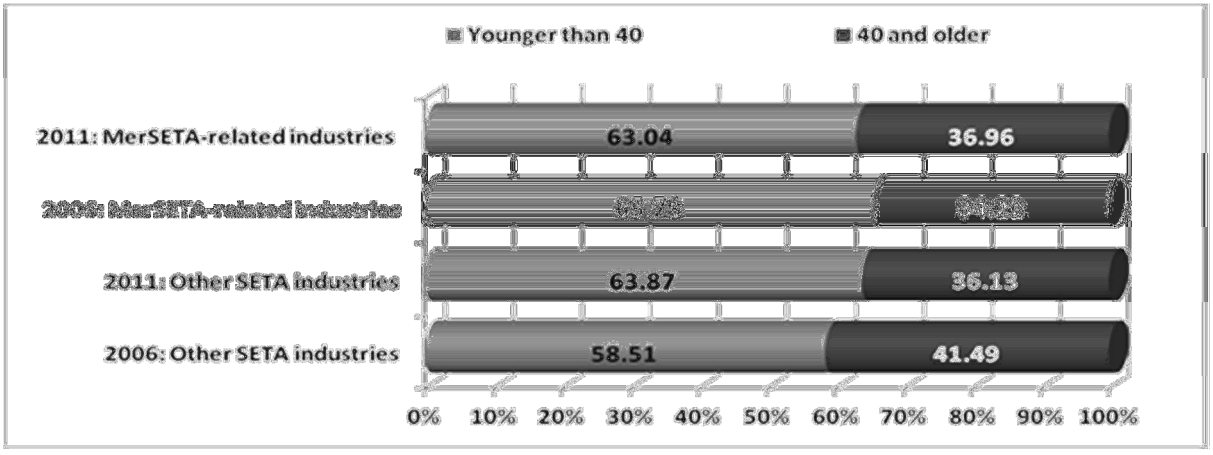



**Figure 5: Age distribution of artisans, 2006 and 2011**

Disaggregation by *industry* indicates a more nuanced picture (Figure 5). Contrary to the trends observed for the total population, individuals in artisanal employment 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, individuals employed as artisans in the sector are becoming older, but the individuals with higher qualifications tend to be younger. These trends may be signs that increased certification or higher levels of qualification are becoming increasingly important for younger 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 6).

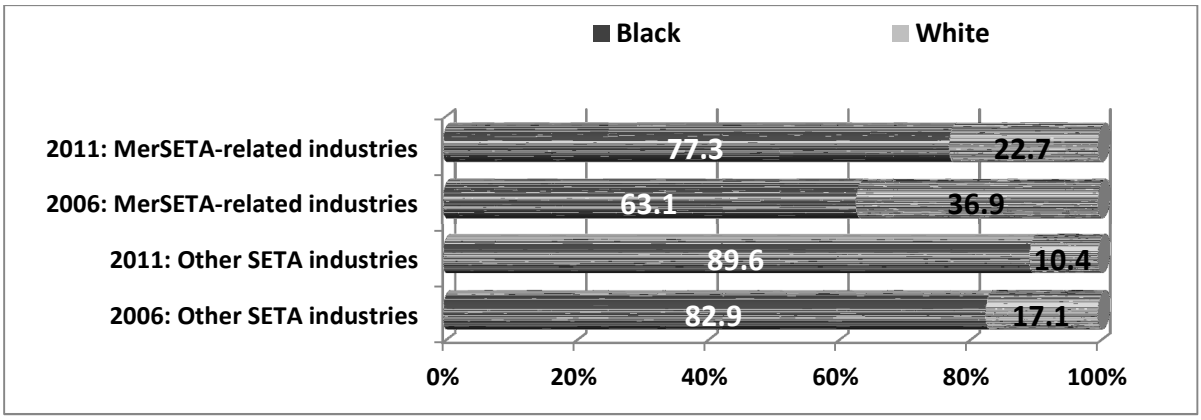



**Figure 6: Population group distribution of young qualified artisans, 2006 and 2011**

Taken together, the data trends now show that proportionally, the artisanal employment of *black,* young (under 40) higher qualified individuals 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, and higher qualified individuals in artisanal 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 7 reflects that C&RT workers in merSETA-related industries made up around 42% of all individuals in artisanal employment in the country in 2011. This underscores the big role for the sector in relation to national transformational objectives. The figure shows that in all cases, except Gauteng (53.2)%, C&RT workers employed in the merSETA industries form a smaller proportion than those

employed in other SETA industries. Conversely, the minority of those employed in merSETA related industries can be found in Limpopo (25%) and the Northern Cape (25.4%).

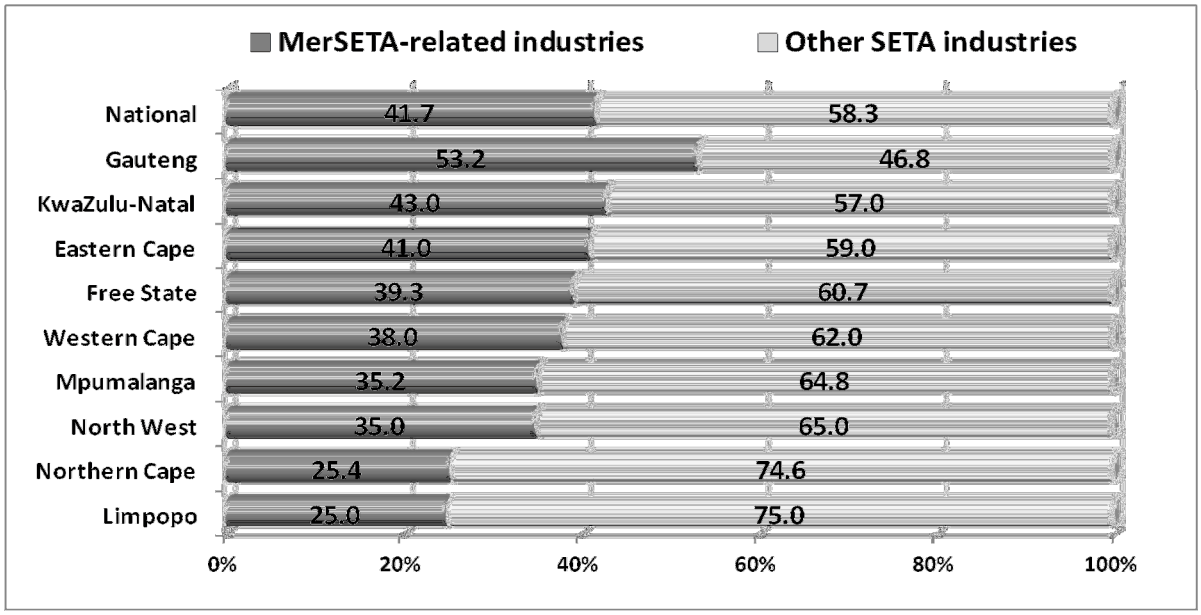



**Figure 7: Spatial distribution of artisans, 2011**

Furthermore, individuals employed as 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 8). A minority are employed in *rural formal areas*, while larger proportions were employed in *tribal areas*[9], as opposed to urban informal areas. The proportional distribution of those employed as artisans 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 less formal. This can of course also be a function of the lack of comprehensive data on the size and shape of the informal sector in the country.

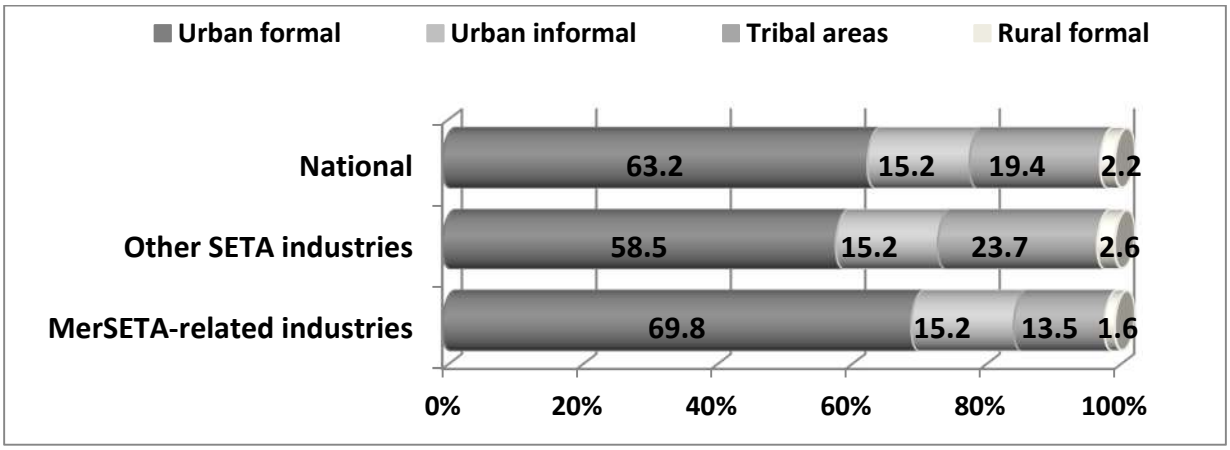



**Figure 8: Type of areas where artisans are working, 2011**

[9] 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 those in artisanal employment that raise critical questions for our investigation of the changes in identity and status.

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

The trend towards the increasing employment of *Category 4* individuals 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 artisanal employment of young (under 40), and black individuals. 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 those employed as artisans in the sector are getting slightly older combined with the trend to increasingly employ *Category 3* individuals, is also significant.

Investigation of the potential impact of these shifts on the work-related identities of artisans is thus required. How does older artisans perceive the increasing employment of particularly young and higher qualified black 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 females overall, accompanied by their concentration 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 Manufacturing, Engineering 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 the case studies in the next phase of the project.

# 3. KEY TRENDS IN SUPPLY OF ARTISANAL SKILLS IN SOUTH AFRICA

The Department of Higher Education and Training (DHET) 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 and reiterate 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[10], apprenticeship[11], internship/skills programme[12], or through recognition

[10] 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.
[11] 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.
[12] 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.

of prior learning[13]. 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[14]) 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 (for an elaboration of this limitation, please refer back to section 1.2), 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 the extent of participation (Figure 9).

[13] 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.

[14] Section 13 pertains to the registration of an apprentice who is formally indentured - has signed an apprenticeship contract with an employer. Section 28 refers to a person who is not formally indentured - does not have a signed apprenticeship contract with an employer, but after gaining sufficient work experience can apply to write the trade test.

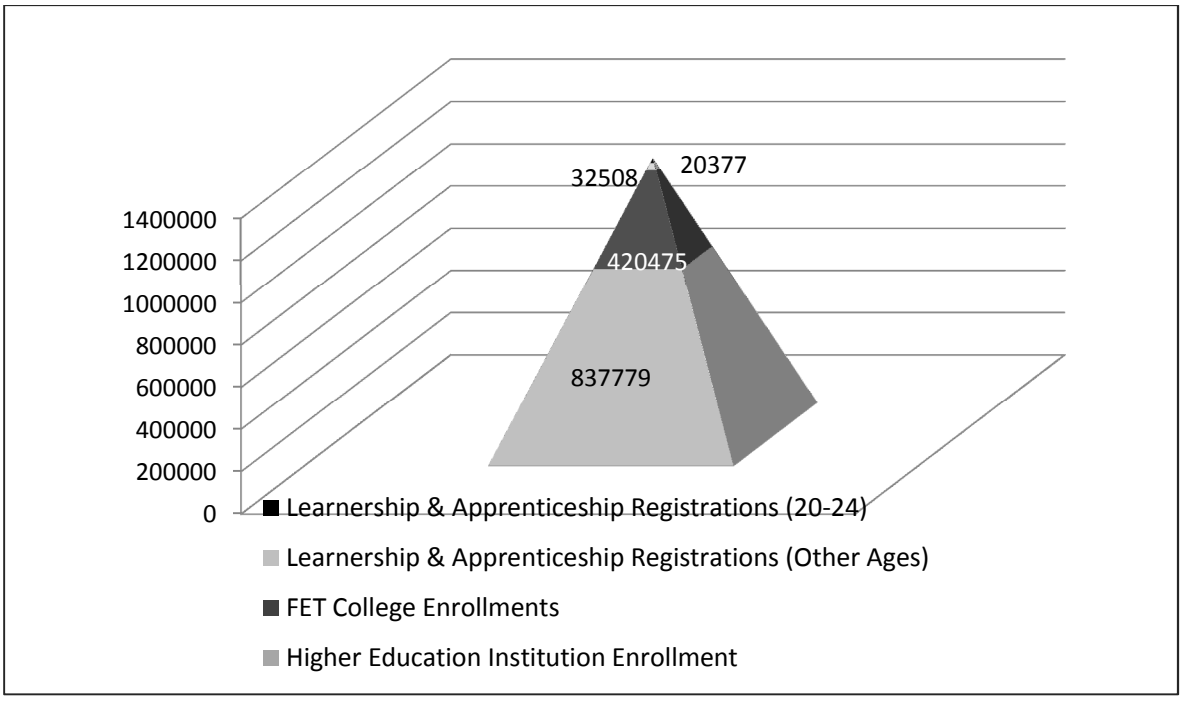



**Figure 9: Contrasting enrolments in other educational systems to learnership and apprenticeship registrations**

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. A different way of comparing the extent of participation, the total learnership and apprenticeship registrations are compared to the total enrolment in public higher education institutions and FET Colleges in Figure 9. The learnership and apprenticeship registrations are divided into two cohorts: the 20- 24 age cohort and the remainder of the cohort, predominantly older than 24 years. 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). The result illustrates the extremely low rate of participation 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[15].

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).

[15] 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)

Bearing all these issues in mind, 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 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[16]. 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 |

[16] 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.

| | | | |
|---|---|---|---|
| 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)

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. 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). However, in the absence of such data, completion rates are widely used as an indication

of success (Carpenter et al., 1998) and is a generally accepted method of calculating graduation rates in the higher education sector (DoE 2009, CHE 2010).

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 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 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 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%[17] | 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

[17] Learners who registered and the ones who completed are not the same learners. Also the time or duration (years / months) in which the learners completed their studies differed. So it can be possible in a given year that more learners completed a learnership qualification than the number that registered for a learnership.

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 10. 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*).

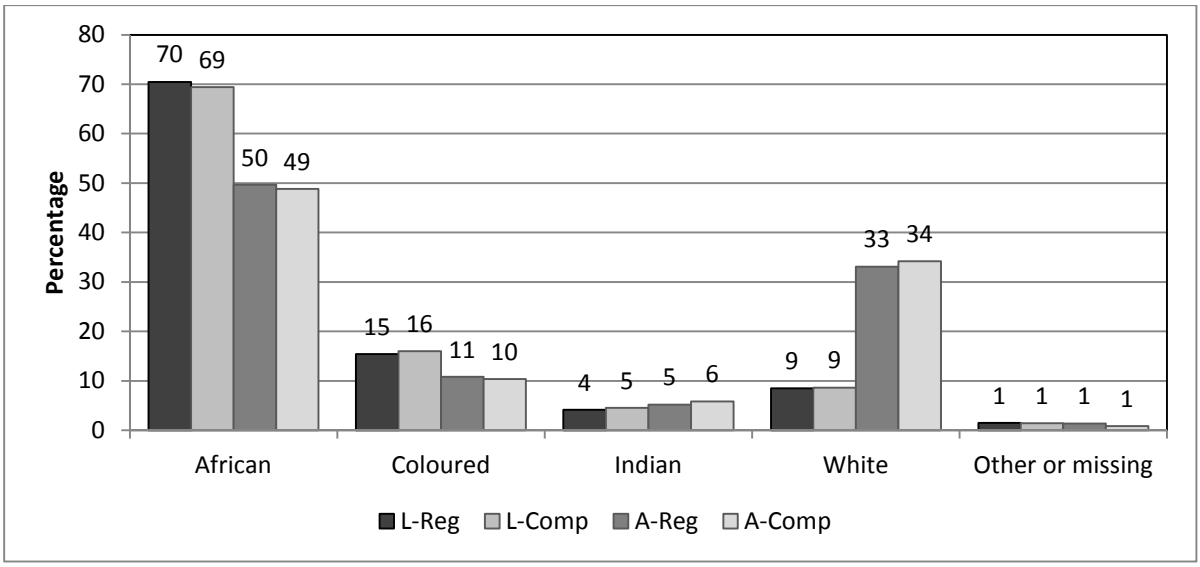



**Figure 10: Learnership and apprenticeship registrations and completions by race (%)**

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[18]. Furthermore, 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 on the other hand, still 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 11 – 14, 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 in 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

[18] 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).

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.

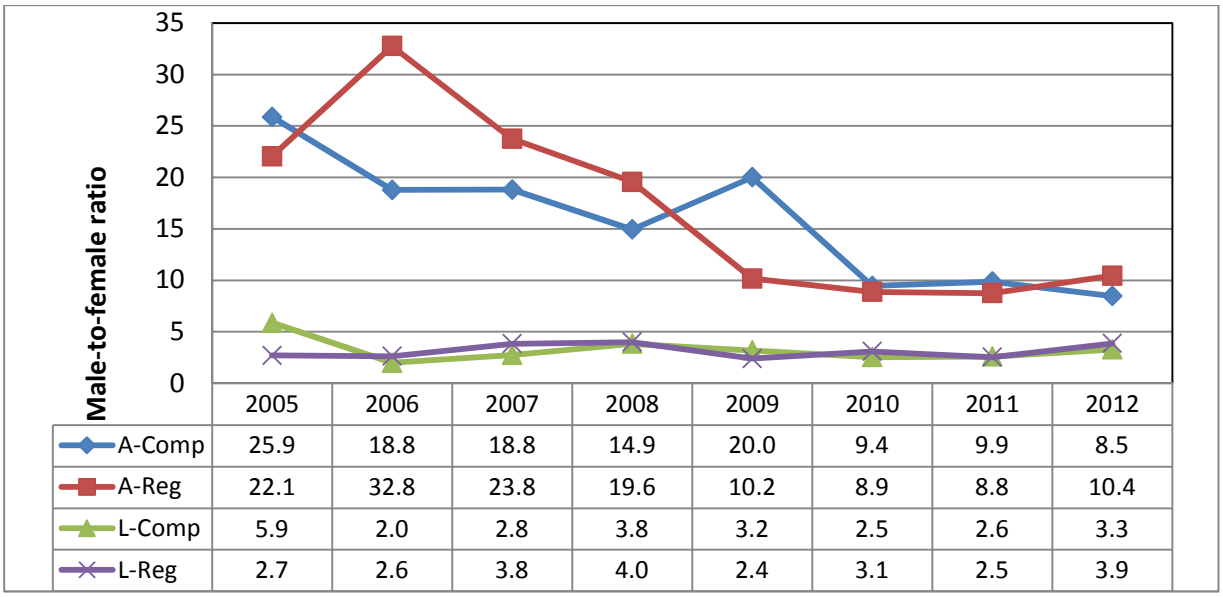
The tables[19] show that although the racial distribution of those participating in learnerships and apprenticeships is not yet totally reflective of the distribution in the population, there have been shifts towards transformation. This is more evident in registration trends, rather than completion 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 15 (see also Appendix B for Figures 16 – 19) 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.

[19] Also see Appendix A for Figures 11 – 14, which illustrates the registered and completed learnerships and apprenticeships by race from 2005 to 2012.




| | 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 15: Comparison of the male-to-female ratios of the subgroups of the skills development system**

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 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.

### *3.3.3. AGE DISTRIBUTION OF PARTICIPANTS*

To ascertain whether artisanal training in the Manufacturing, Engineering and Related Services Sector is providing more opportunities for our youth, it is important to ascertain the age of participants. Figure 20 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.

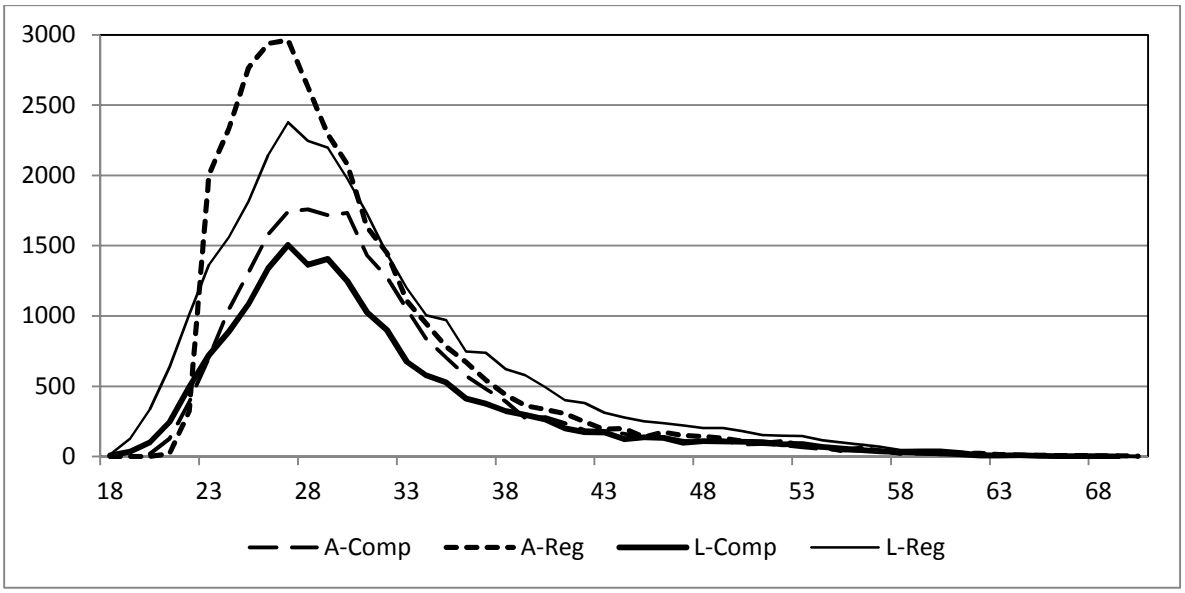



**Figure 20: Age distribution of the four groups across the years 2005 to 2012**

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 21 to 24 (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 26 – 29 (see Appendix D) depict the distribution of registered and completed learnership and apprenticeship participants over the period, according to the five chambers constituting the Manufacturing, Engineering and Related Services Sector. The figure below illustrates the composition of sub-sectors/chambers in the sector in relation to the classification of the labour market.

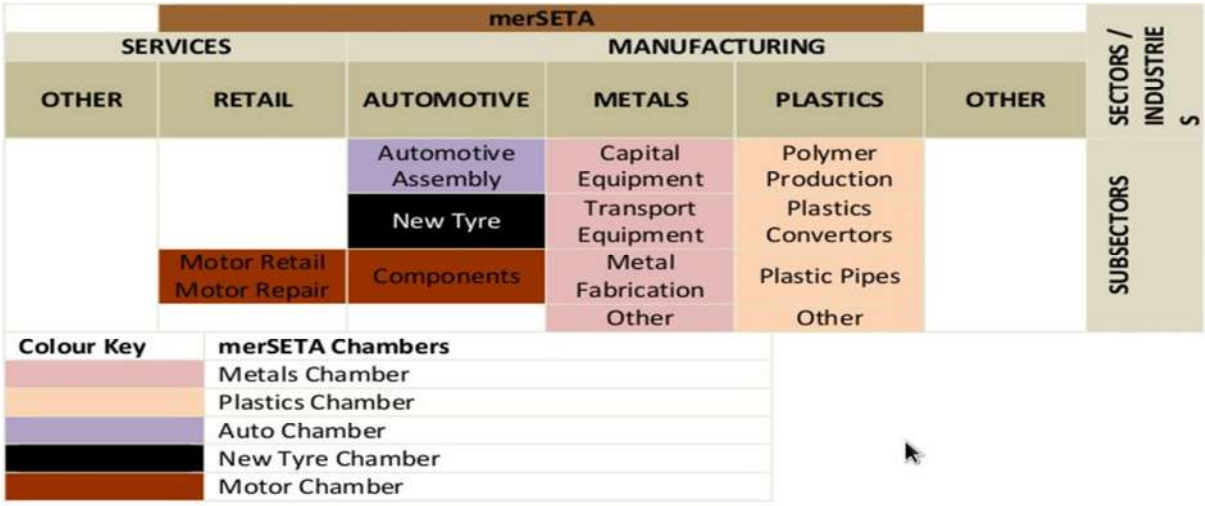



**Figure 25: Conceptual map of chambers in the merSETA sector**

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 30 (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.

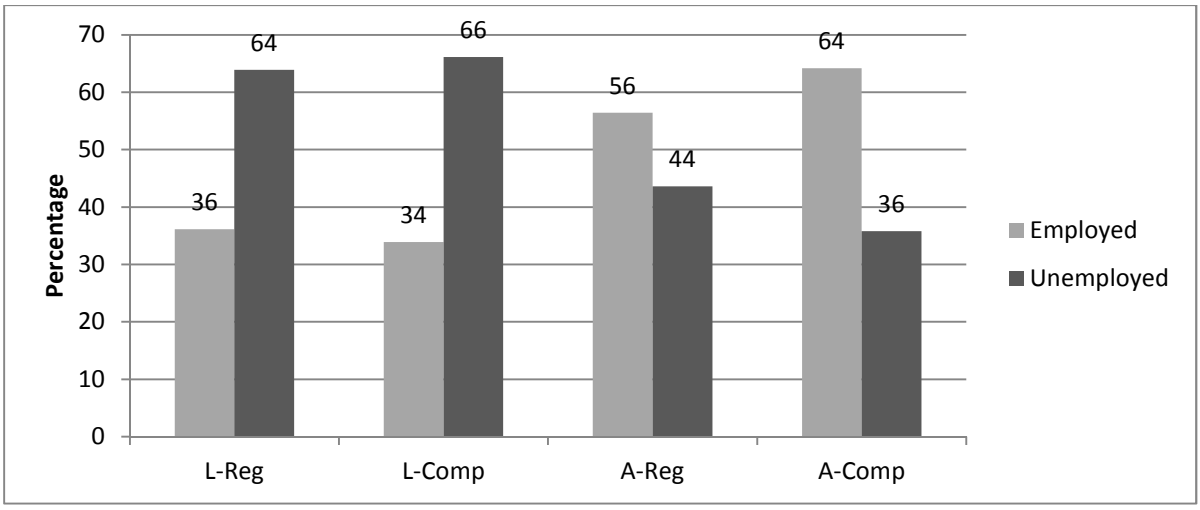



**Figure 30: Employment status of each group at registration**

Figures 31 to 34 (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 35 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.

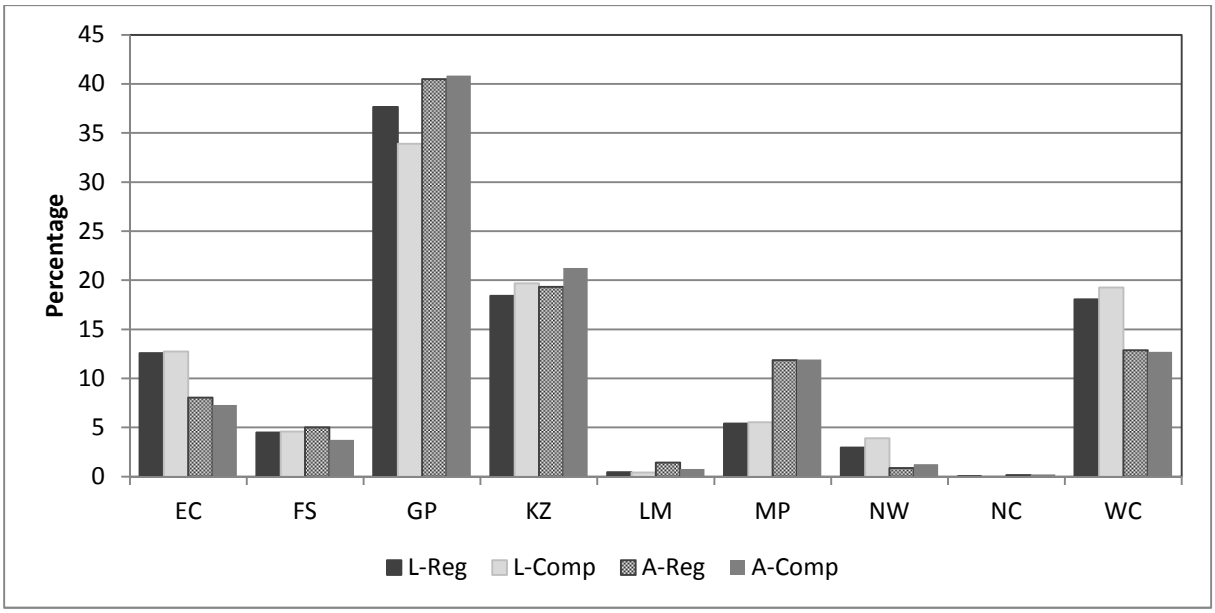



**Figure 35: Overall provincial distribution of participants of the four groups**

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 36 – 39 for a more detailed view). Gauteng on the other hand, illustrates an increase in registration and completion through both skills development mechanisms. The Manufacturing, Engineering and Related Services Sector needs to reflect on whether these trends are in line with their objectives as well as the country's overall transformative ideals.

### *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[20], and Competency Based Modular Training (CBMT) apprenticeships.

Figures 40 and 41 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

[20] The Manpower Training Act (No. 56. of 1981) Section 28 provides for a person who is not formally indentured. In other words he/she does not have a signed apprenticeship contract with an employer, but after gaining sufficient work experience can apply to write the trade test. It also provides for Section 13, which pertains to the registration of an apprentice who is formally indentured - has signed an apprenticeship contract with an employer.

apprenticeship participation in this sector should be further interrogated, as the trends might only reflect the change in categorization of apprenticeship qualifications over time.

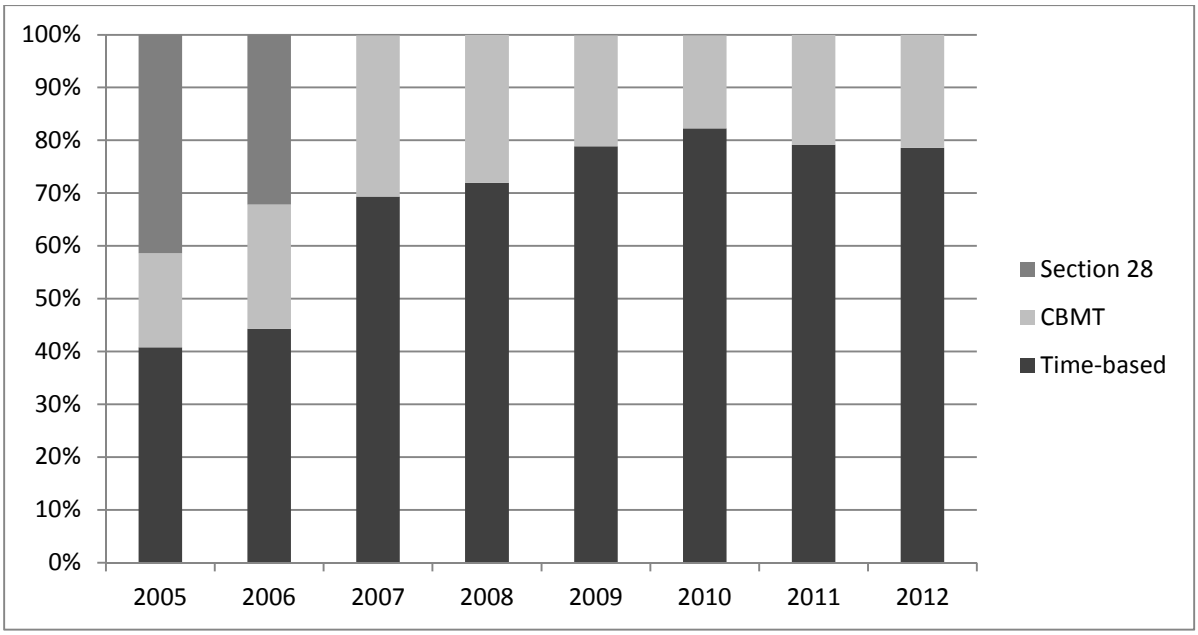



**Figure 40: Registered apprenticeship participants by type of apprenticeship and year**

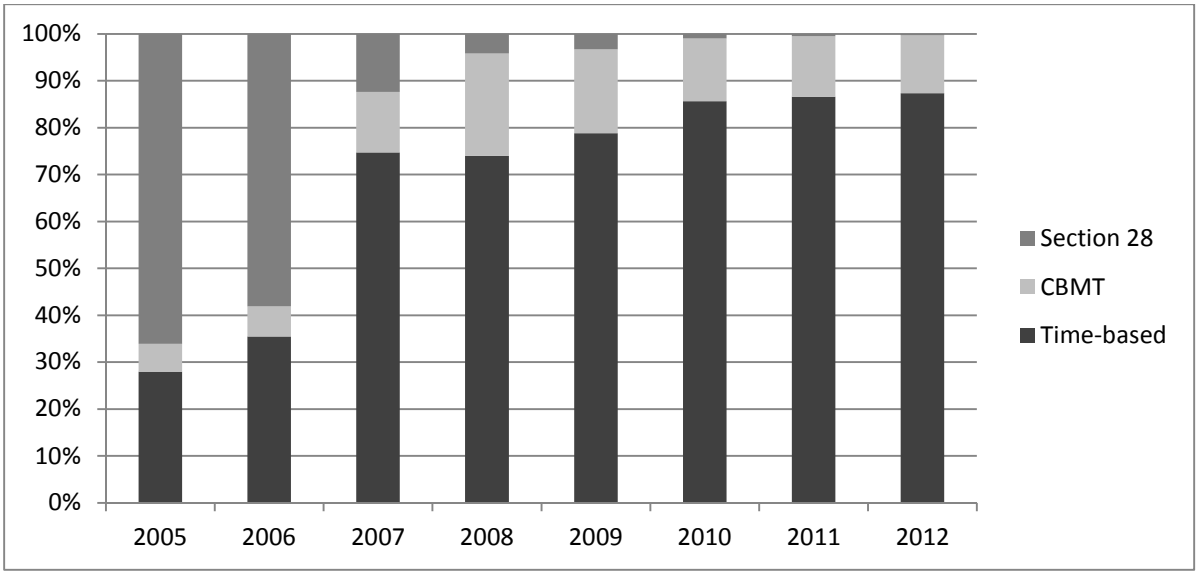



**Figure 41: Completed apprenticeship participants by type of apprenticeship and year**

## 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. As mentioned, 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. 9 446 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 the 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 20.

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[21]).

**Table 21: Trade test registrations by age (2009/10)**

| 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

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

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.

### *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%, and is not under-achieving in comparison to the rates in the rest of the population, but considered within a context of an overall low pass rates, this is not an encouraging 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 merSETA sector specifically, Table 25 depicts the top six trades according to the number of successful trade test candidates – in other words the top six trades in which the most candidates were found *competent*. The table is sorted in descending

order according to the number of candidates found competent from merSETA and compares it to what was found for all the labour market sectors.

**Table 25: Top six trades 2009/10, ranked according to successful trade test completions**

| MerSETA | | | | | All industries | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Trade | Comp | % | Reg | % | Trade | Comp | % | Reg | % |
| Boilermaker | 40 | 16.1 | 51 | 8.3 | Boilermaker | 436 | 18.9 | 694 | 12.4 |
| Spray painter | 37 | 14.9 | 81 | 13.1 | Plumber | 336 | 14.6 | 724 | 12.9 |
| Welder | 36 | 14.5 | 38 | 6.2 | Welder | 296 | 12.9 | 479 | 8.5 |
| Automotive body repair | 33 | 13.3 | 75 | 12.2 | Motor mechanic | 223 | 9.7 | 351 | 6.3 |
| Motor mechanic | 15 | 6 | 29 | 4.7 | Electrician | 202 | 8.8 | 537 | 9.6 |
| Tool, jig & diemaker | 11 | 4.4 | 23 | 3.7 | Diesel mechanic | 150 | 6.5 | 568 | 10.1 |

Source: INDLELA
Key: Comp – Competent, Reg - Registered

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[22]) 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,

[22] 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.

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 patternmakers** |
| **Diesel mechanic** | **Fitter and turner** | **Turners** |
| **Earth moving equipment mechanic** | **Instrument mechanician** | **Welder** |
| | **Millwright** | |

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 27). 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.

**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 42 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).

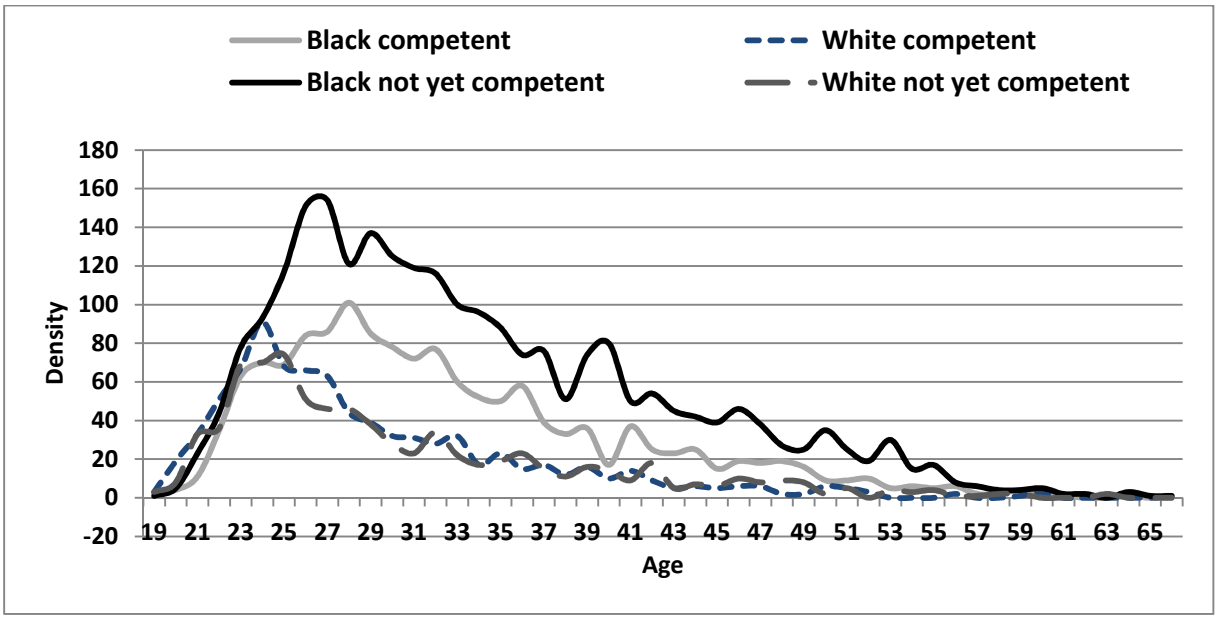



**Figure 42: All apprenticeship registrations and completions by race and age**

Source: INDLELA

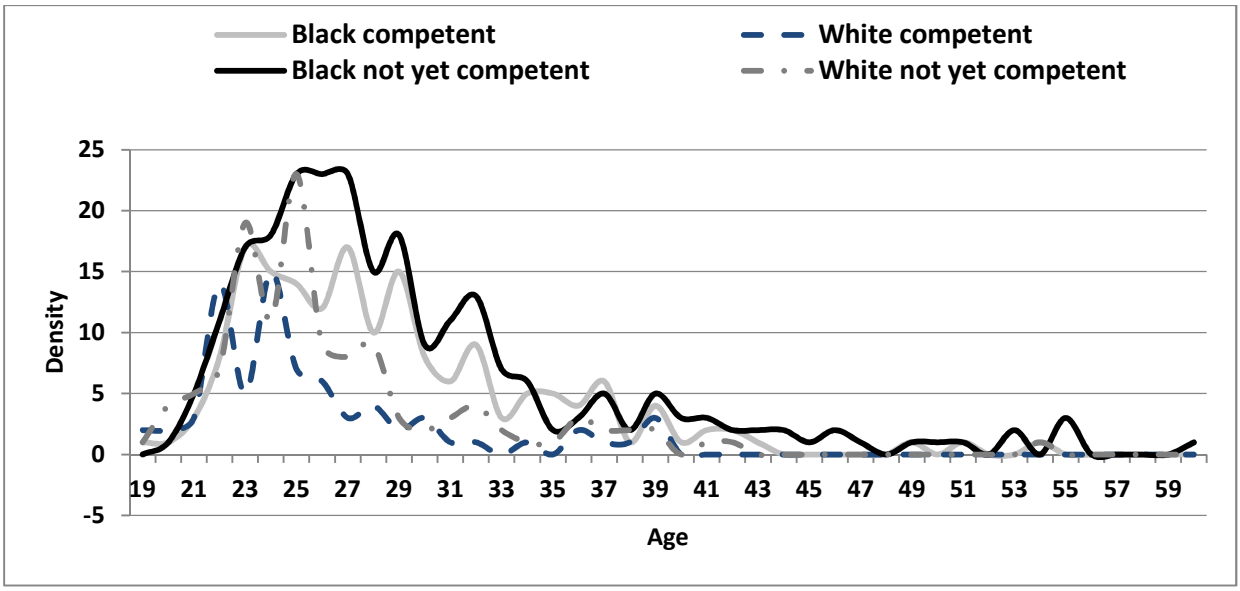



**Figure 43: MerSETA apprenticeship registrations and completions by race and age**

Source: INDLELA

The age at which apprenticeship registrations peaks for the entire population, is about 26 (figure 42) and 25 (figure 43) for merSETA candidates. As deduced from the trends illustrated in the figure, on the one hand it 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 merSETA 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. It illustrates that the majority of those that completed their trade tests were 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 completed their trade tests at INDLELA over this period.

**Table 28: Profile of apprenticeship completion**

| Seta | Age | Gender | | Race | | Total | |
|---|---|---|---|---|---|---|---|
| | Average | F:M | Unspecified | Black | Unspecified | N | % |
| **CETA** | 32 | - | - | 14.29% | - | 7 | 0.30% |
| **ESETA** | 25 | - | - | 10.53% | - | 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% |
| **TETA** | 27 | 0.37 | 3.45% | 86.21% | 3.45% | 58 | 2.52% |
| **Unspecified** | _ | - | _ | 100% | - | 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 low success rates in the population overall, with merSETA candidates performing in line with these 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, and 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 and entry into certain pathway systems. 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.

# 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

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 growth in the employment of higher qualified artisanal workers

In the context of an overall decline in artisanal employment since 2005, it is significant to find that there has been a virtually static growth trend in artisanal employment in merSETA related industries. Not only has there been modest growth in artisanal employment in the sector, but also a large increase in the employment of individuals with higher qualifications.

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 higher qualified artisanal workers in the merSETA industries to be driven mostly by young (under 40 years old) and specifically black, individuals. This is combined with the fact that those in artisanal employment in the sector are getting slightly older, as well as a trend towards the increasing employment of category 3 individuals. 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, predominantly white, artisans perceive the growing employment of young, higher qualified black artisanal workers? 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? How will these changes affect their conceptualisation of their work identity and status?

## 4.2 Artisanal skills 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 and key shifts 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 Manufacturing, Engineering 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 to add to the already identified strategic question in the project, is empirically derived and contributes to a sound basis for the qualitative investigation that follows.

# TECHNICAL REPORT 1 ANNEXURE 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** |

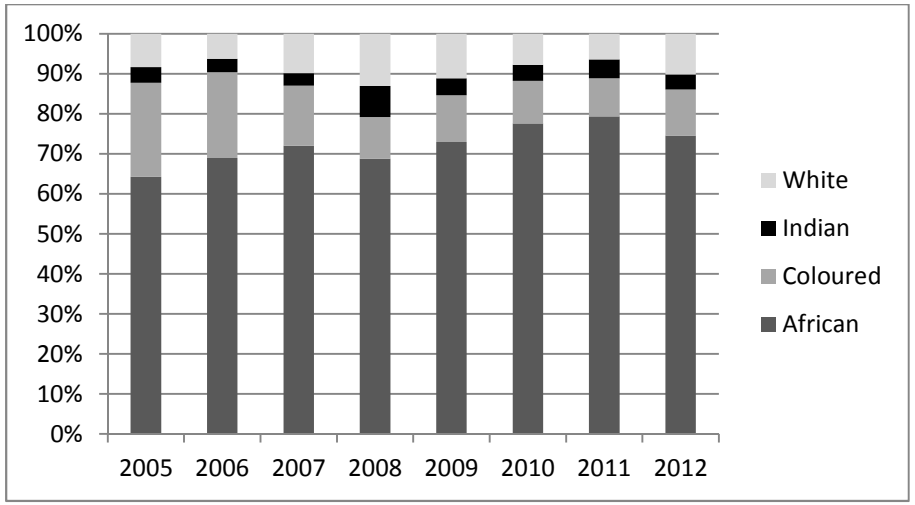



**Figure 11: Registered learnership participants by race group, 2005 – 2012**

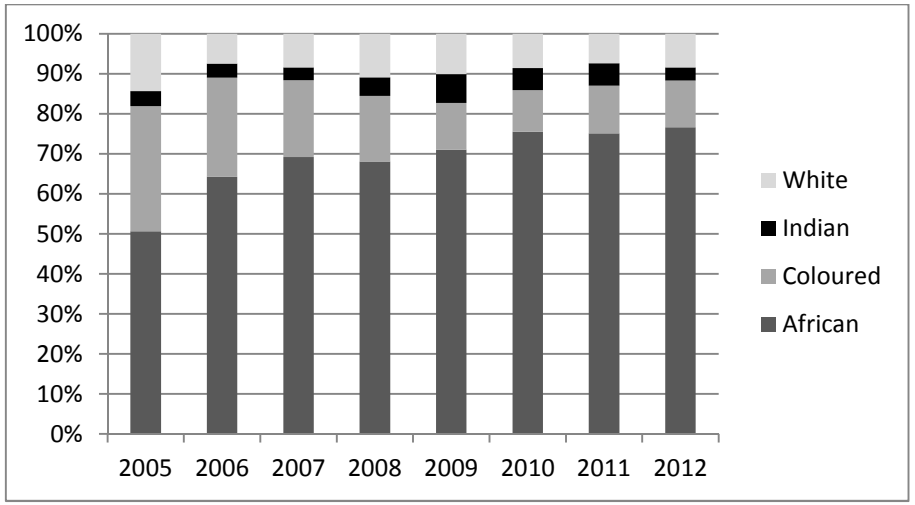



**Figure 12: Completed learnership participants by race group, 2005 – 2012**

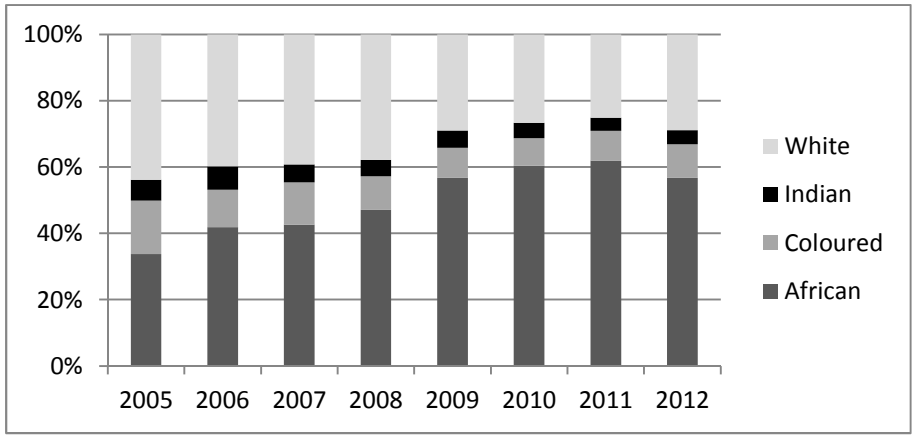



**Figure 13: Registered apprenticeship participants by race group, 2005 – 2012**

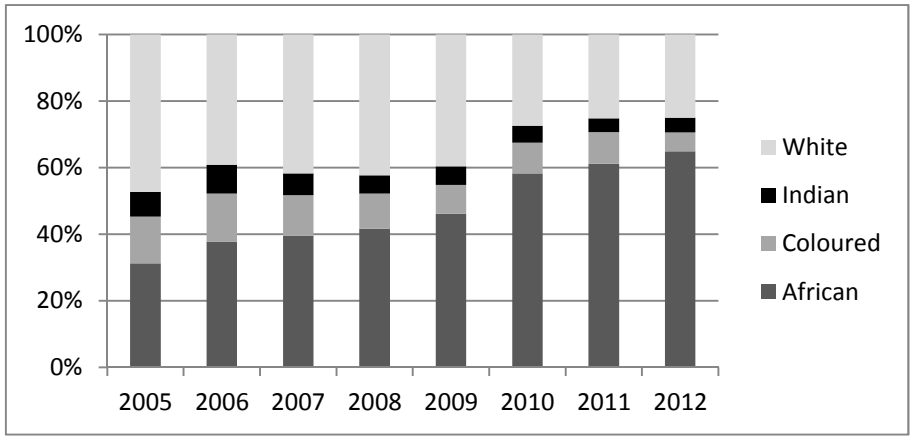



**Figure 14: Completed apprenticeship participants by race group, 2005 – 2012**

# TECHNICAL REPORT 1 ANNEXURE B: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY GENDER (2005–2012)

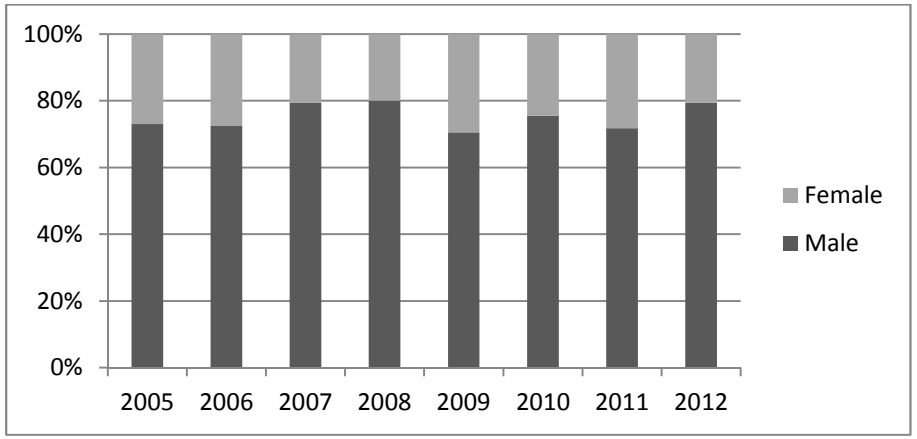



**Figure 16: Registered learnership participants by gender, 2005 – 2012**

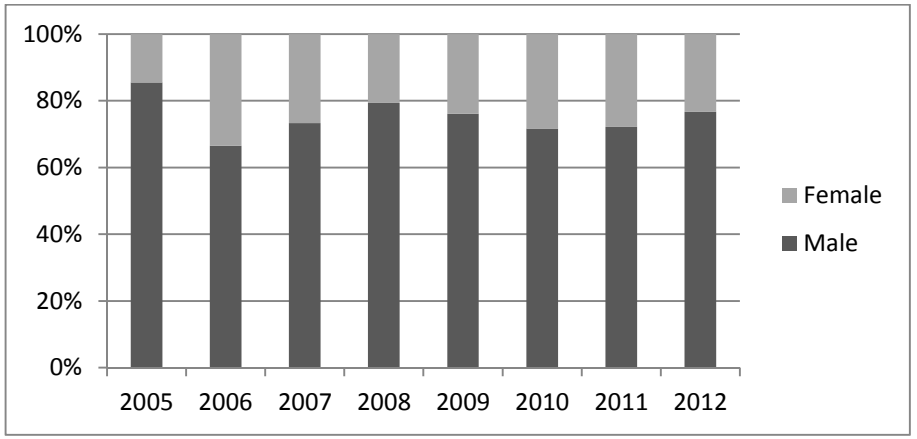



**Figure 17: Completed learnership participants by gender, 2005 – 2012**

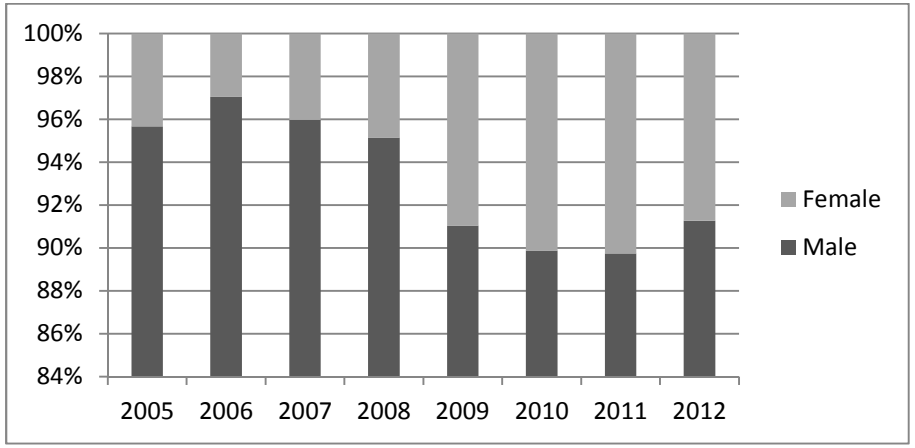



**Figure 18: Registered apprenticeship participants by gender, 2005 – 2012**

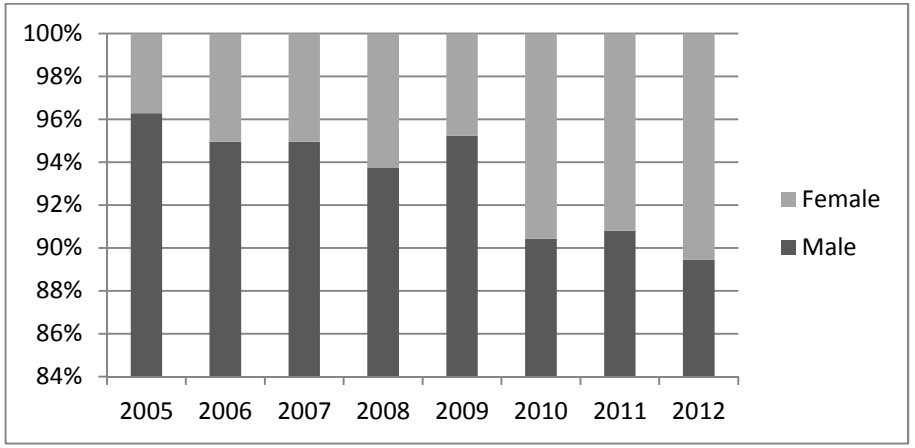



**Figure 19: Completed apprenticeship participants by gender,2005– 2012**

# TECHNICAL REPORT 1 ANNEXURE C: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY AGE (2005 – 2012)

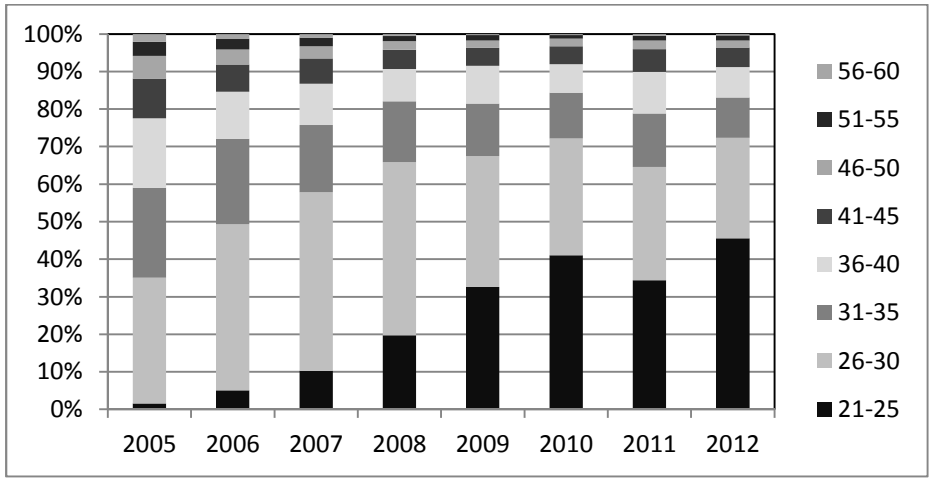



**Figure 21: Registered learnership participants by age group, 2005 – 2012**

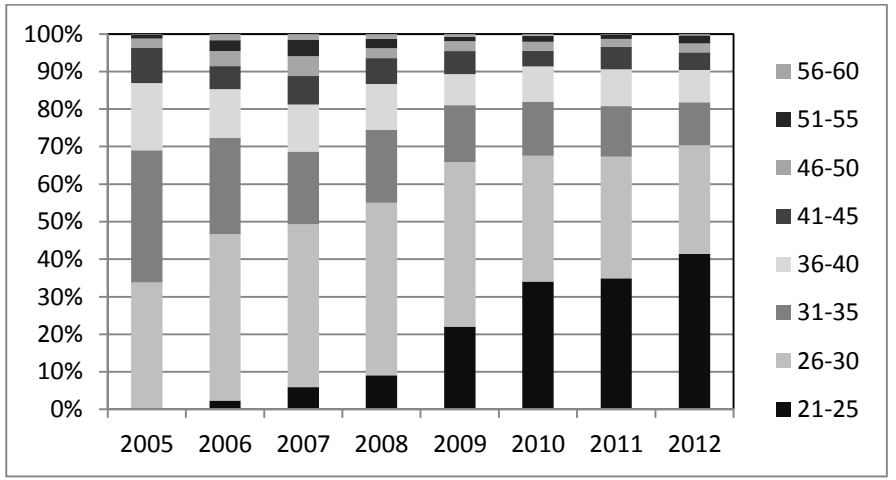



**Figure 22: Completed learnership participants by age group, 2005 - 2012**

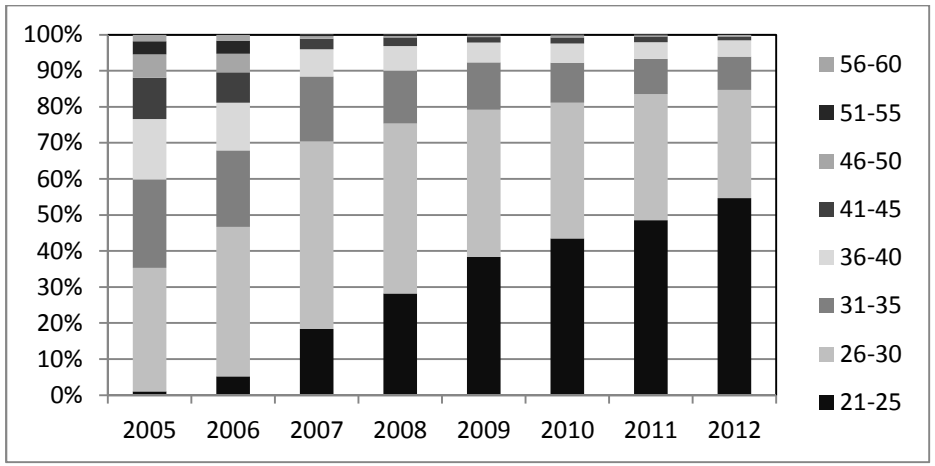



**Figure 23: Registered apprenticeship participants by age group, 2005 – 2012**

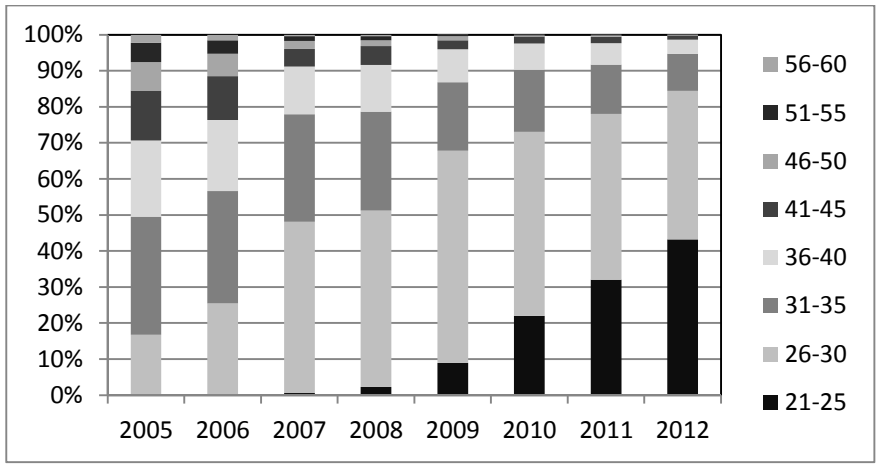



**Figure 24: Completed apprenticeship participants by age group, 2005 - 2012**

# TECHNICAL REPORT ANNEXURE D: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY CHAMBER, 2005–2012

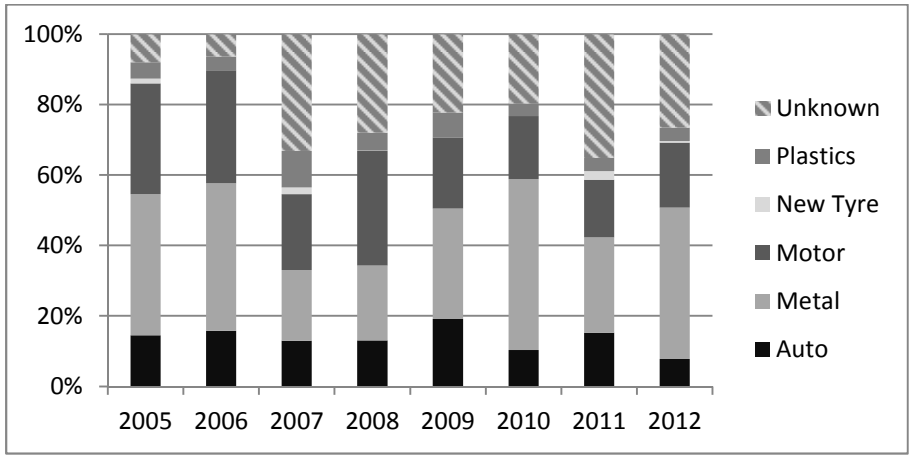



**Figure 26: Distribution of registered learnership participants across chambers**

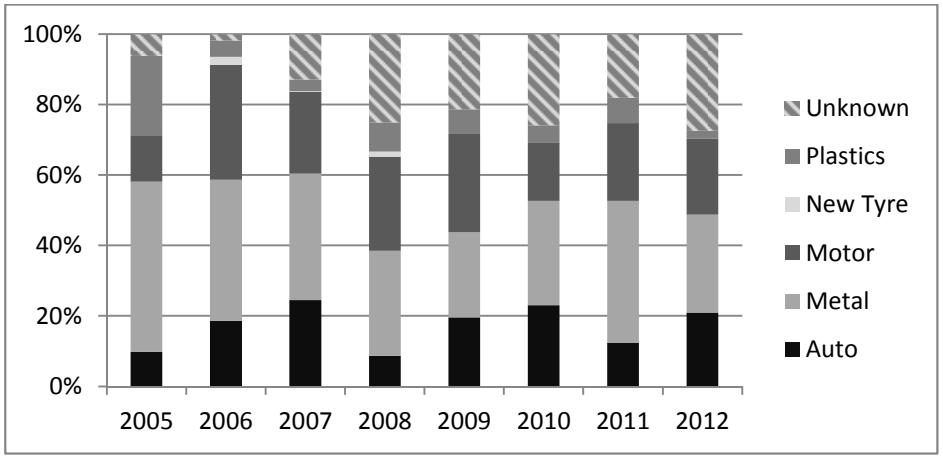



**Figure 27: Distribution of completed learnership participants across chambers**

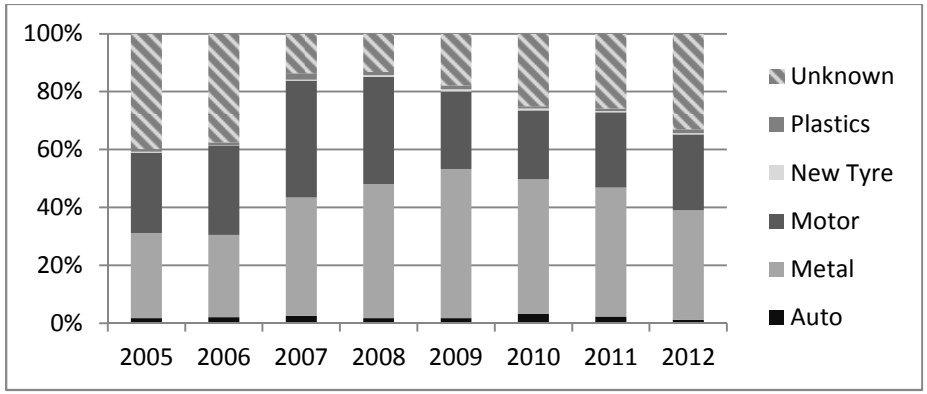



**Figure 28: Distribution of registered apprenticeship participants across chambers**

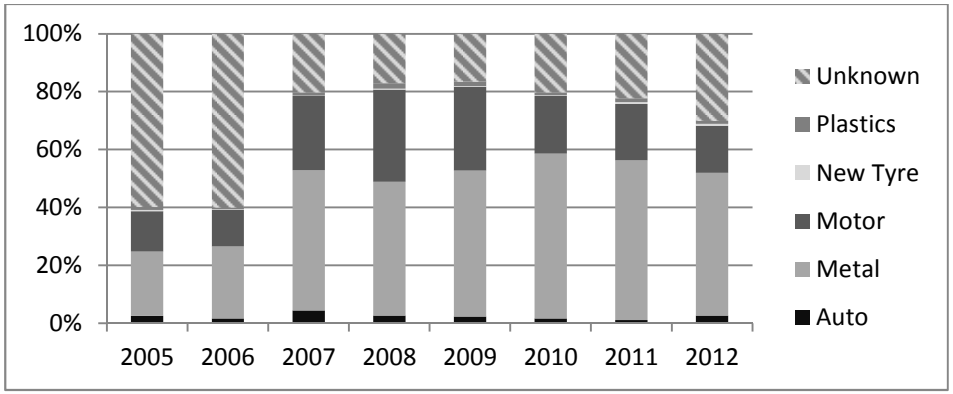



**Figure 29: Distribution of completed apprenticeship participants across chambers**

# TECHNICAL REPORT 1 APPENDIX E: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY EMPLOYMENT STATUS AT REGISTRATION, 2005 - 2012

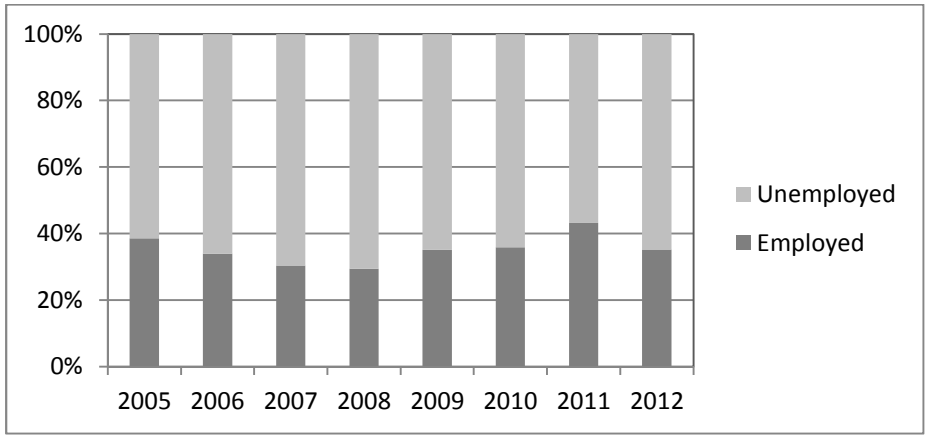



**Figure 31: Registered learnership participants by employment status at registration**

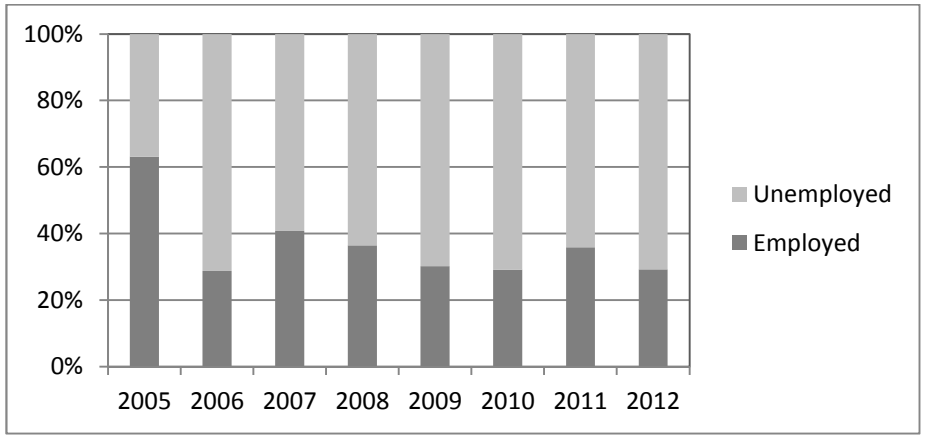



**Figure 32: Completed learnership participants by employment status at registration**

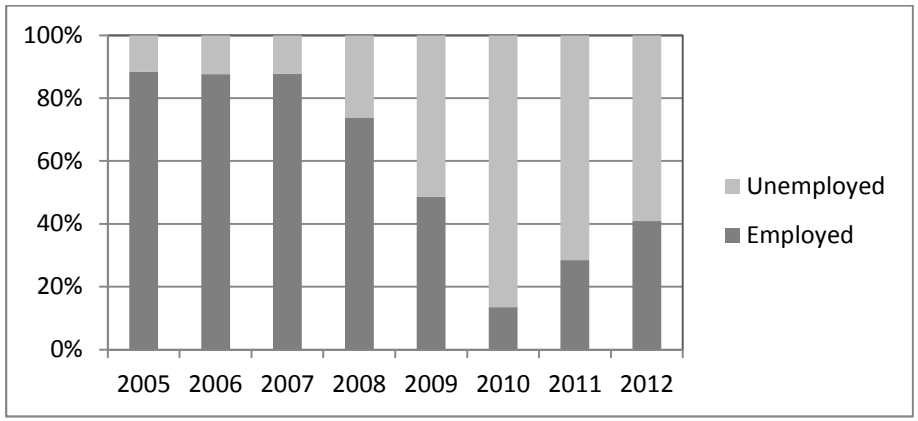



**Figure 33: Registered apprenticeship participants by employment status at registration**

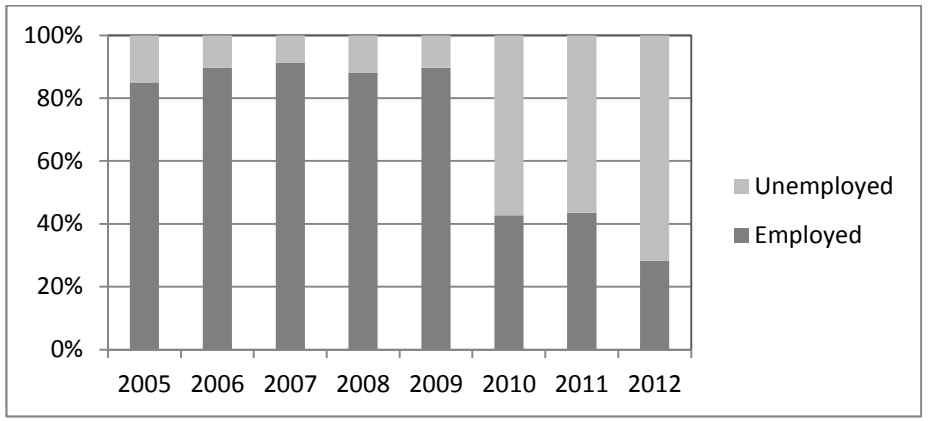



**Figure 34: Completed apprenticeship participants by employment status at registration**

# TECHNICAL REPORT 1 APPENDIX F: REGISTERED AND COMPLETED LEARNERSHIPS AND APPRENTICESHIPS BY PROVINCE (2005 – 2012)

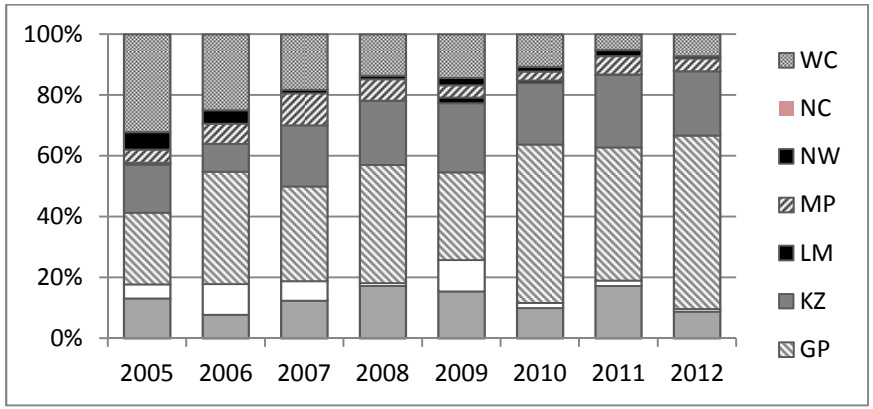



**Figure 36: Provincial distribution of registered learnership participants**

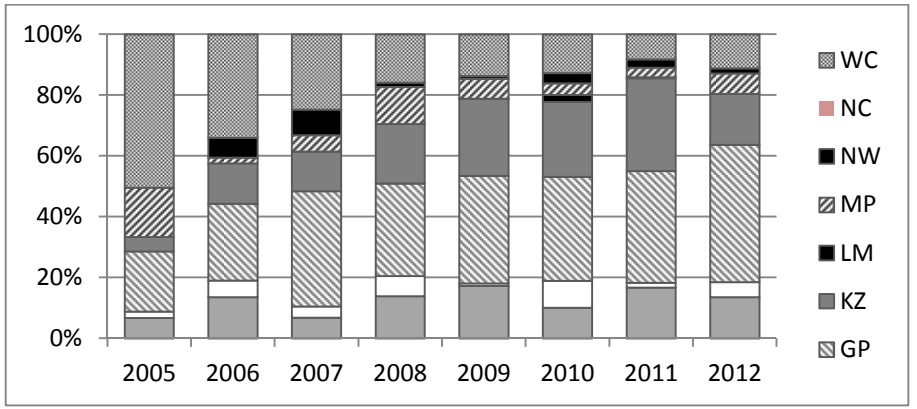



**Figure 37: Provincial distribution of completed learnership participants**

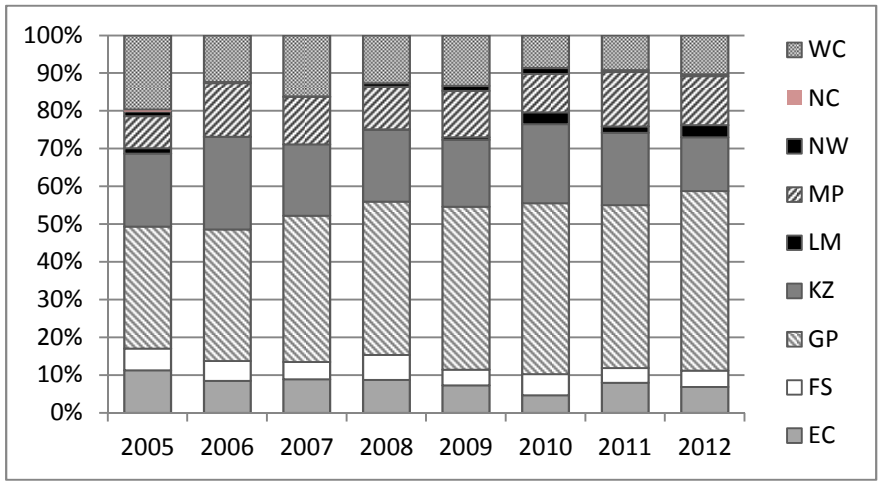



**Figure 38: Provincial distribution of registered apprenticeship participants**

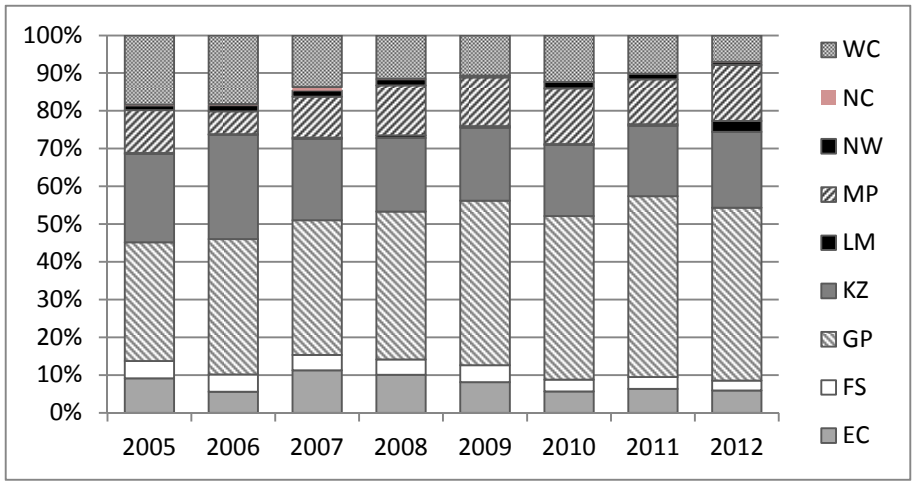



**Figure 39: Provincial distribution of completed apprenticeship participants**

# TECHNICAL REPORT 2

# ARTISANAL IDENTITY AND STATUS IN THE MANUFACTURING, ENGINEERING AND RELATED SERVICES SECTOR: KEY FINDINGS FROM QUALITATIVE RESEARCH

# INTRODUCTION

The broad objective of the study is to investigate and explore the changing nature of artisanal identity and status in South Africa. The quantitative analysis contributed to this objective by sketching trends in the supply and demand for artisans in South Africa over time, but particularly since 2005. This highlighted key dimensions of change in the profile of those involved in artisanal skilling and employment nationally, but also in the merSETA sector specifically. The key findings capture a major shift in the profile of those traditionally working as artisans in the merSETA sector, from a mostly older, white constituency, to a largely younger (under 40 years), black artisanal worker most probably with a higher qualification. Furthermore, some key features of the artisanal skilling system in the sector points to the continued impact of race and gender on the chosen route to artisanal status and propensity for success. These constitute major shifts in supply and demand and points to a complex potential mix of artisanal identities.

The quantitative analysis completed the first step of the project and also raises critical questions that could be pursued in qualitative component as well as further research. The qualitative analysis presented in this chapter presents case studies of key trades in the merSETA sector and attempts to answer the questions raised by the quantitative analysis. For example, while the quantitative evaluation highlighted the trend in the labour market towards the increasing employment of younger artisanal workers, the qualitative investigation aims to delve deeper into questions of how such changes are perceived by older artisans in employment.

Out of this analysis key questions emerged for further research, but not all were appropriate for further investigation in the qualitative case study research. For example, one of the questions raised the importance of further interrogation into the identities associated with artisanal training in different spatial and geographical areas? To do justice to such a research question would require a larger sample across geographical areas, and would be more appropriate for a survey research design and quantitative analysis, for example.

Consequently, the analysis in the chapter is structured mainly, in relation to the six strategic questions framing the research project (described in the design and methodology section), with the discussions bearing in mind the questions raised in the quantitative analysis. At the end of the project it will be critical to reflect back on which questions were adequately addressed through the various components, and which ones were not. At that stage it becomes imperative

to identify the questions that will require more robust engagement with policy stakeholders responsible for the skilling and employment of artisans in the sector, but also in the country.

This report then in essence, presents a descriptive analysis of key themes emerging from the interview data that could be useful in understanding the changes to artisan identity and status in South Africa.

# 1. DESCRIBING THE SAMPLE

The nature of work and its organisation has changed extensively in the past two decades and this has had a profound impact on all trades to varying degrees (Burns, 2007). Artisanal occupations have been particularly affected in terms of the pace, nature (Scrase, 2003) and location of production in a globalised market. Maclean and Wilson (2009, lxxviii) usefully sum this up, stating that the field has had to respond to "changes in demand over time for skills and technologies used in workplaces, the globalisation of production, the increasing utilisation of information and communication technologies (ICTs) and related matters".

As we are interested with the phenomenon of change (in artisanal identity and status over time) in the sector, our selection of a trade or trades, to study in more depth, should be directed by the extent to which these could facilitate a better understanding of the object of our investigation. Case studies are useful in such investigations, and can be defined as "intensive, holistic description and analysis of a single entity, phenomenon or social unit. Case studies are particularistic, descriptive and heuristic and rely heavily on inductive reasoning in handling multiple data sources" (Merriam 1988). Because case studies are viewed to be particularistic, they are meant to focus on a particular situation, event, program, individual, institution or phenomenon. It is then critical to select trades that will offer the best vantage point for a consideration of the extent to which change has taken place. Thus trades were selected as the unit of analysis and entry point, to offer the opportunity for in depth consideration to assess possible change in artisanal identity and status within these selected trades.

But what trade in merSETA would represent the best example of the impact of such changes? While, the case itself is important for what it reveals about the phenomenon under question Merriam (1988), equally important is a consideration of the extent to which the cases are reflective of the population.

Analysis of the Sector Skills Plan 2011 shows that, artisan occupations that occur most frequently in the merSETA sector include: fitters, fitters and turners, electricians, metal machinists, toolmakers, millwrights, precision repairers, and air conditioning and refrigeration technicians. Drawing on this list of trades should provide a good reflection of the largest proportion of artisans in the sector.

Moreover, because some of these trades/qualifications offered by MerSETA (44 in all) are classified in more than one chamber, we should be able to obtain a sub-sectoral view of changes in artisan identity and status (Table 1).

**Table 1: List of designated trades/qualifications offered by merSETA**

| Metal & Plastics Chambers | Motor Chamber (time-based) | Motor Chamber (CBMT) | Auto Chamber (time-based) |
|---|---|---|---|
| Armature Winder | Automotive Electrician | Motor Mechanic | Automotive Electrician |
| Boilermaker | Automotive Engine Fitter | Automotive Body Repairer | Electrician (Engineering) |
| Diesel Fitter | Automotive Trimmer | Automotive Machinist | Electronics Equipment Mechanician |
| Domestic Appliance Mechanician | Diesel Mechanic | Spray Painter | Fitter |
| Domestic Radio Mechanician | Fitter and Turner | | Machine Tool Setter |
| Domestic Radio and Television Mechanician | Diesel Fuel Injection Mechanic | | Motor Mechanic |
| Earthmoving Equipment Mechanic | Motor Mechanic | | Turner Machinist |
| Electrician | Motorcycle & Scooter Mechanic | | |
| Electronics Equipment Mechanician | Vehicle Body Builder | | |
| Fitter | Tractor Mechanic | | |
| Fitter and Turner | | | |
| Forklift Mechanic | | | |
| Instrument Mechanician (Industrial Instrumentation and Process Control) | | | |
| Lift Mechanic | | | |
| Millwright | | | |
| Motor Mechanic | | | |
| Moulder | | | |
| Patternmaker | | | |
| Plastics Mould Maker | | | |
| Refractory Mason | | | |
| Refrigeration Mechanic (Commercial) | | | |
| Refrigeration Mechanic (Industrial) | | | |
| Rigger | | | |

| | | | |
|---|---|---|---|
| Roll Turner | | | |
| Scale Fitter | | | |
| Sheet Metal Worker | | | |
| Telecommunications Mechanician | | | |
| Tool, Jig and Die Maker | | | |
| Tractor Mechanic | | | |
| Turner | | | |
| Welder | | | |

Source: www.merseta.org.za

Based on all these considerations, and in relation to the project objectives, the following trades were selected as entry point and unit of analysis for further case study research:

- **Fitter and Turner** (OFO code – 652302) (in the metal, plastics, motor and auto chambers): Fits, assembles, grinds, and shapes metal parts and sub-assemblies to fabricate production machines and other equipment.
- **Electrician** (OFO code – 671101) (in the metal, plastics, motor and auto chambers): Installs, tests, connects, commissions, maintains, and modifies electrical equipment, wiring, and control systems.

## 1.1 SAMPLE SELECTION

It was decided that four 'types' of respondents would be interviewed: qualified artisans, trainees, employers and training providers and thus purposive sampling was employed (Babbie and Mouton, 2001). The team felt it important to include all the stakeholders that are directly involved in the training and employment of artisans, as arguably, they most directly contribute to the construction and maintenance of an artisanal identity and status. Participants were asked to reflect on their experiences and views in relation to their specific trade, but also as is relevant to the more general context of artisanal work and training.

Contact details were secured through merSETA and used to identify possible participants. The database lists companies in relation to the five chambers (metals, new tyre, plastic, auto and motor chambers) constituting the merSETA sector, as well as their geographic location and whether these are accredited as workplaces or training providers. The database as of 2012 contained 1819 records – of these, 1026 companies were listed as employing or training electricians and 783 fitter and turners. This information was sufficient to identify training providers and employers in relation to the two trades, while trainee and artisan interviews were secured once a company agreed to be part of the study.

**Table 2: Distribution of the company records constituting the merSETA database**

| Electrician Trade | 1026 | Fitter and Turner Trade | 783 |
|---|---|---|---|
| | | | |
| **Auto** | **9** | **Auto** | **4** |
| Employer | 4 | Employer | 2 |
| Training Provider | 5 | Training Provider | 2 |
| **Metals** | **450** | **Metals** | **541** |
| Employer | 314 | Employer | 357 |
| Training Provider | 37 | Training Provider | 184 |
| **Motor** | **125** | **Motor** | **99** |
| Employer | 81 | Employer | 74 |
| Training Provider | 44 | Training Provider | 25 |
| **New Tyre** | **6** | **New Tyre** | **0** |
| Employer | 3 | Employer | 0 |
| Training Provider | 3 | Training Provider | 0 |
| **Plastics** | **428** | **Plastics** | **145** |
| Employer | 278 | Employer | 96 |
| Training Provider | 150 | Training Provider | 49 |

Table 2 provides an overview of the number of records for employers and training providers in the merSETA database across each chamber. This information was used to filter the database by the four provinces in which the majority of merSETA industries fell (Western Cape, Gauteng, Eastern Cape and Kwa-Zulu Natal). Based on the outcome of the filtering, interviews were sent to all companies matching these criteria.

A letter of invitation, detailing the scope and purpose of the project, was sent to companies. Of the 124 requests sent out (53 in the electrician trade and 71 in the fitter and turner trade), 28 companies agreed to participate in the study and generated 53 participants (24 under the electrician and 29 under the fitter and turner trade). Upon agreement to the interview, a date and time was secured.

## 1.2 DATA COLLECTION

Qualitative interviews were used as the data collection method. Semi-structured interview schedules were considered necessary to allow participants to express themselves and so that their own understanding, views and experiences might come to the fore. At the same time, key questions could be covered. As Mason (2002: 62) notes, semi-structured interviews should be seen as *conversations with purpose,* that allow for a thematic, topic centred approach to facilitate an in depth understanding of the phenomenon of interest (Babbie and Mouton, 2001; Landman, 2000), in this case, changes to artisanal identity and status. For accuracy purposes, interviews were tape recorded and transcribed verbatim. All participants were informed of the ethical

considerations as well as given an opportunity to ask questions around the project, before commencement.

The interview schedule was designed to collect a wide range of data related to themes such as background and motivation for entering into the specific artisanal trade, major issues in artisanal education and training, and the nature of artisanal work and its associated changes, as well as perspectives on artisanal identity and status. Three slightly different interview schedules were used in the study. Each interview schedule had a common set of questions with regards to gauging the general sentiment on artisanal training and the labour market. However, for training providers more specific questions around the education and training of artisans were added, while for employers more specific questions were asked in relation to their perceptions on changes in the labour market. Similarly, for qualified artisans more in-depth questions could be asked about their experiences in the labour market, while this would not be appropriate to put to trainees (See Appendix A).

The interviews were designed to take about 45 minutes. Some interviews were longer than 45 minutes, but the average duration of interviews was 30 minutes. The length of responses varied, some individuals purely responding to the questions asked, while others were very content to elaborate. Interviews were conducted in a conversational manner, which also allowed additional issues to be explored.

## 1.3 NATURE OF INTERVIEWS

It is very important to convey the context when conducting qualitative research and that is why Miles and Huberman (1984) cited in Cresswell (1994) identify four parameters that have to be considered in qualitative research – 1) setting, 2) actors, 3) events and 4) processes. It is important to convey these parameters, as useful to understanding the context within which artisans practice their trade and how this could contribute to the way in which they engage with the notion of artisan and the related issues of status and identity.

Setting: The majority of interviews were conducted at the workplace of participants and three interviews were conducted via telephone. The date, time and venue were arranged according to what was most suitable to participants, which arguably allowed respondents to be comfortable throughout the process. Some companies allowed us to visit their workshops and explore the environment. This allowed for a glimpse into the daily routine of artisans, characterised by loud noise, heavy machinery, a wide range of tools and equipment, the threat of danger (as illustrated by countless signs in this regard) and often very dirty surroundings.


GEVAAR

Furthermore, although the times for the interviews were agreed upon, there were often continuous interruptions, which the participant entertained, especially if it was an employer. There were countless telephone calls, people entering the interview room and delays in waiting for participants to arrive. This reflects the busy nature of the work environment. We were made well aware that the respondents viewed partaking in the research as a time consuming process and not the primary mandate of companies. There was however, a noticeable difference between bigger and smaller companies, with the latter, presumably, having less resources and time to commit to non-core business.

The actors: The total sample consisted of 53 participants; however there was often an overlap between employer, training provider and qualified artisan. For example, the majority of employers were found to also be qualified artisans and while much of their opinions were in relation to their roles as employers, many of them tended to reflect and respond to questions in relation to being an artisan. Even before the more systematic analysis, this served, at the initial stages of reflection on the interview, as an indication of the strong identification with the notion of 'artisan' that exists in the labour market. While this made it difficult to establish whether there were critical differences between different kinds of stakeholders in relation to their views on artisan status and identity, it does reflect the reality and complexity of artisanal training and employment. However, a few of the respondents were human resource practitioners and could reflect on artisanal training and employment more from an institutional perspective – which aided triangulation.

The process: The fieldwork process was time consuming. Much time was spent on gaining access, although the project was fully supported by merSETA. Some refusals were a direct result of incorrect information on the database. For example, one company was unable to take part in the study, because although they were listed as offering workplace training, they were no longer taking part in artisan training. While many companies were eager to participate and were intrigued by the project, many employers were quite negative as a result of the global economic downturn and felt very defensive when asked about their efforts to train artisans. A process of 'member checking' (Babbie & Mouton, 2001: 275-276) was agreed upon at the interview in instances where the quotes used could possibly identify the participant.

The interview process was furthermore determined by a participant's character. During the interview process it was observed that some respondents, especially the trainees, were uncomfortable and hesitant to respond, thus making it difficult to conduct the interview. This could be due to English not being their primary language or they may have felt overwhelmed by the formality of the interview, given that this was not part of their daily work activities. On the other hand, in general, the more senior artisans appeared more comfortable and were more outspoken. What was clear across the entire spectrum of respondents was the passion with which they spoke of being an artisan and in relation to their chosen trade.

## 1.4 CODING

Coding is a process of organizing and sorting that allows a synthesis of the data and so becomes the basis for analysis. Both pre-set and emergent codes were used in this analysis. Pre-set codes were developed from the research questions and observations during the fieldwork. Emergent codes were developed from the interview transcripts. This process involved reading through the interview transcripts, identifying units of meaning in the data, and then grouping these units into a theme or themes, which one uses to analyse the data. The coding process proceeded as follows. Firstly, all interviews were tape-recorded and transcribed verbatim allowing for accurate capturing of information. The study used a mixed-method approach in that structured interview questions were used, but also that interviews were conducted in a conversational manner allowing for other questions to arise. Secondly, the interview schedule was structured into themes based on research questions and thereby allowing for a start list of pre-set codes. Lastly, the coding process was also reflexive, as themes emerging from the data were constantly edited and reviewed.

The data was organised and analysed using Nvivo software. Nvivo is a computer software package produced by QSR International, supporting qualitative and mixed method research. It

has been designed to assist qualitative researchers with rich text-based or multimedia information, requiring in-depth analysis on small or large volumes of data. It allows researchers to collect, organise and analyse content from non-numerical or unstructured data in the form of interviews, focus group discussions, surveys, audio, pictures, memos, etc. The interview transcripts were electronically uploaded, stored and individually coded and analysed in relation to codes and emerging themes. The main variables in relation to each respondent were also recorded (gender, trade, chamber, etc) and this information is illustrated in the sample distribution section.

Below is an excerpt of what the software packages looks like (Figure 1) and Table 3 illustrates the kind of information stored in relation to pre-set and emergent codes. Figure 1 shows the kind of information captured in the node view of the programme. Essentially nodes are words or phrases that the researcher uses to analyse the qualitative data. For example, if he/she is interested in finding out how the respondent views the status of an artisan, every time the respondent speaks about status, this will be coded under the theme/node of artisan status. Once all relevant quotes are coded in this way, it is possible to analyse the qualitative data in relation to these themes. It is possible to investigate how many people have views on a particular theme, or even whether views in relation to a specific theme were primarily negative or positive, for instance.

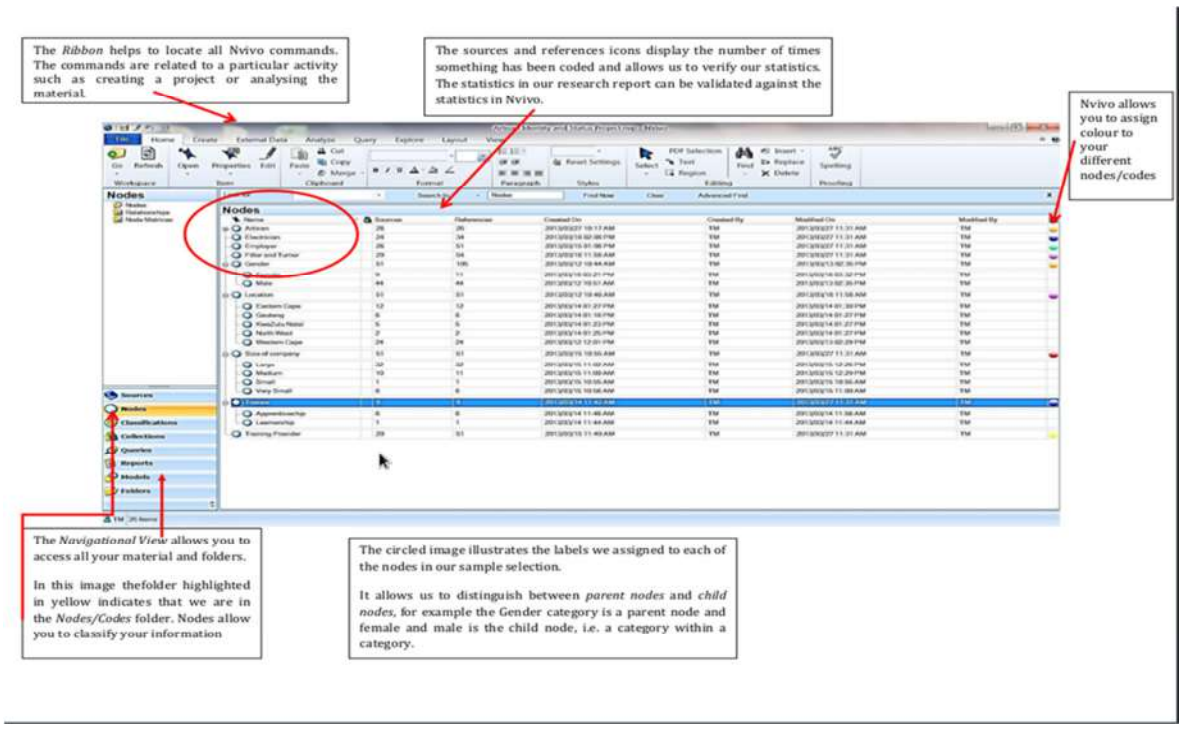



**Figure 1: Screenshot of node view in the Nvivo software package**

Table 3 indicates how many sources (respondents) the quotes coded at a specific theme represents, and how many references (or quotes) were recorded in relation to a specific theme. This shows for instance, that *perceptions on the quality of newly qualified artisans* attracted comments from the majority of respondents (46), while *aspects comprising an artisanal identity,* was the theme most commented on as the majority of quotes (references) were coded at this theme (581).

**Table 3: Summary information on codes constructed through Nvivo**

| Parent Nodes/Themes | | Sources[23] | References[24] |
|---|---|---|---|
| **Pre-set** | | | |
| 1 | Views on the role of FETs | 21 | 47 |
| 2 | Views on apprenticeship | 30 | 64 |
| 3 | Views on learnership | 33 | 82 |
| 4 | Changes to the image associated with an artisan | 34 | 113 |
| 5 | Status associated with an artisan | 37 | 118 |
| 6 | Aspects comprising an artisanal identity | 45 | 581 |
| **Emergent** | | | |
| 7 | Perspectives on migration | 9 | 16 |
| 8 | Views on AATP | 12 | 20 |
| 9 | Perceptions on the quality of theoretical training | 16 | 28 |
| 10 | Aging artisans | 31 | 58 |
| 11 | Perceptions on the quality of workplace training | 38 | 90 |
| 12 | Views on the trade test | 35 | 103 |
| 13 | Views on the role of business | 36 | 148 |
| 14 | Obstacles to increasing artisanal skills | 45 | 221 |
| 15 | Perceptions of the quality of newly qualified artisans | 46 | 353 |

Nvivo also allows one to evaluate the links between different themes, based on word similarity. This is a way in which to investigate possible relationships between different themes, based on word-, coding- or even attribute values similarity (not appropriate in this study). It uses correlation methods to assess the relation in the use of words, similar to the way in which a quantitative data analysis package would use statistical formula to ascertain the relation between different variables. As the example below illustrates, judged on the similarity of words used in the responses, it shows that views on *aging artisans* are related to the *status associated with artisanal occupations*, *changes to the image associated with artisans*, *aspects comprising an artisanal identity* and *perceptions of the quality of newly qualified artisans.* The relation between

[23] This refers to the number of respondents that the quotes coded at the particular theme, reflects.
[24] This refers to the number of quotes coded at a specific theme.

*aspects comprising an artisan identity* and *perceptions of the quality of newly qualified artisans* are shown in the diagram to be strongest (a Pearson correlation co-efficient score of 0.837455).

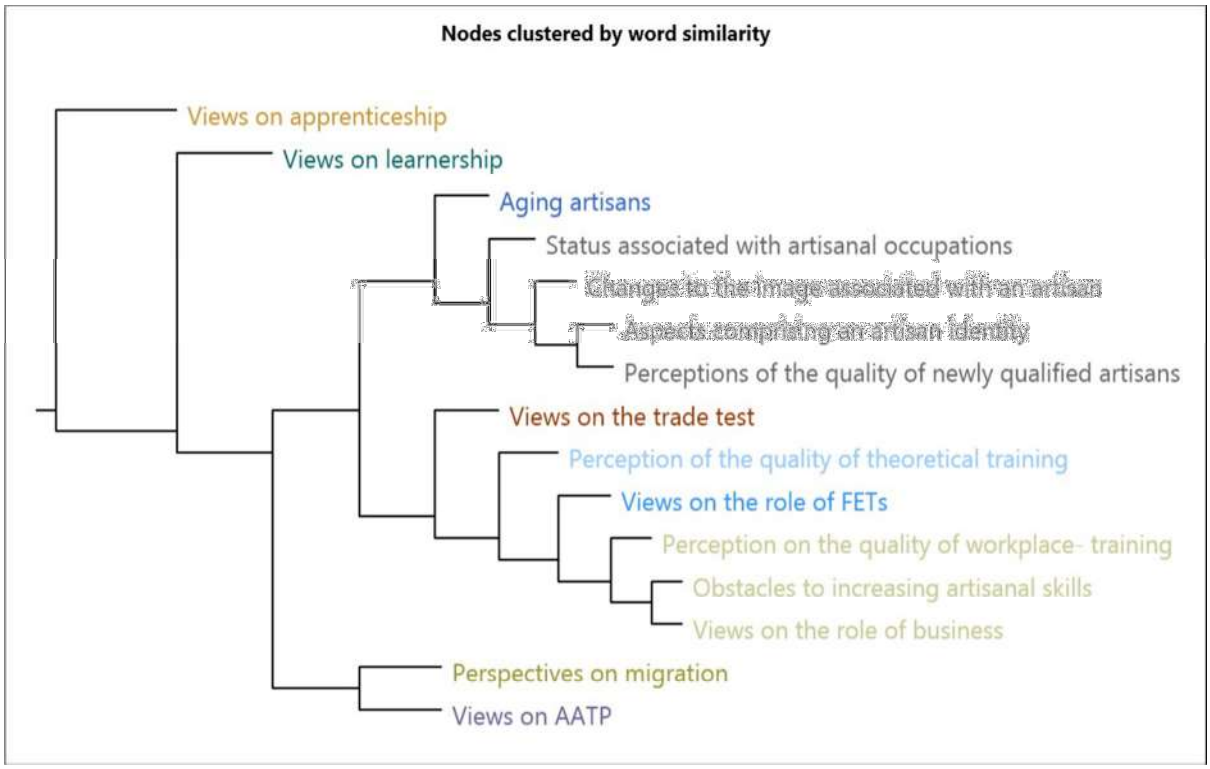



**Figure 2: Themes clustered by word similarity**

In this project, NVivo was used in conjunction with traditional manual coding and analysis methods. The main contribution of the tool however, is that it organises and structures a large amount of qualitative data for easy retrieval of quotes to serve as illustration or evidence in relation to themes, as well as allowing easier numerical analysis of qualitative data.

# 2. SAMPLE DISTRIBUTION

## 2.1 GENDER

The sample consisted of 53 participants, of which 83% were male and 17% female. This is in line with the gender distribution of employees within the merSETA sector, where about 79% are male and 21% female. However, in relation to artisanal employment in the sector, we are aware that the gender distribution is even starker. As indicated in the merSETA SSP (2011: 16), "for the other major occupational categories the proportion of women ranges from a low of 5.6% for technicians and trades workers [or artisans] to a high of 27.8% for professionals". Only one of the women interviewed was training to be an artisan, the others were all commenting

from their capacities as human resources (HR) practitioners and therefore mainly reflecting from either the training provider or employer perspectives. There were also 10 male respondents who were not artisans or trainees and were also interviewed from an HR perspective. Bearing in mind that these percentages reflect very small numbers, this translates into roughly 3% of the sample being female – a slight under representation in relation to the sector more generally.

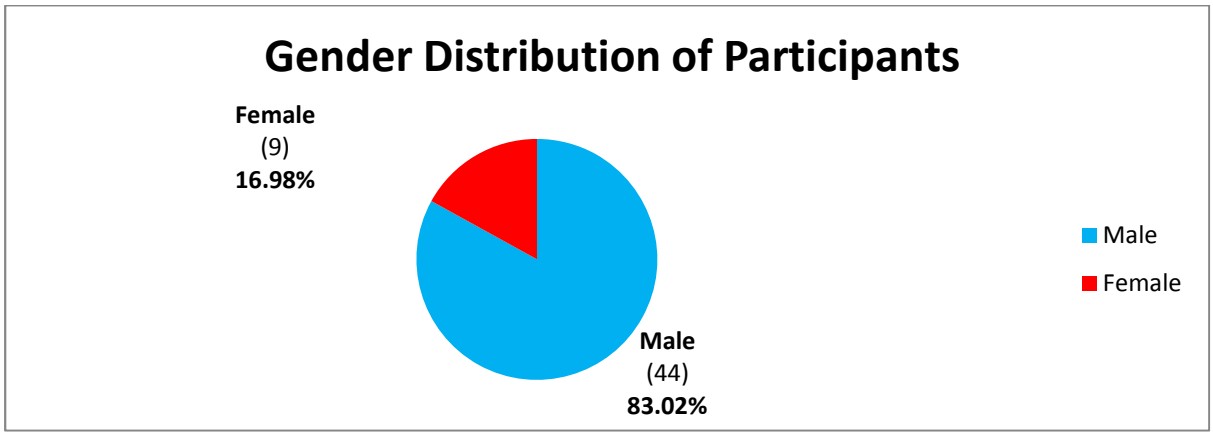



**Figure 3: Gender distribution of participants**

## 2.2 SPATIAL DISTRIBUTION

In terms of the spatial distribution of the sample, interviews were secured and conducted across five of the nine provinces in South Africa. Four of the provinces (Western Cape, Eastern Cape, Gauteng and Kwa Zulu Natal) were purposely selected as the majority of artisanal training and employment in the merSETA sector was found to be located in these provinces (Roodt et al, 2012 and merSETA, 2011). The majority of manufacturing employment is concentrated in Gauteng (35.3%), Kwa Zulu Natal (21.9%), Western Cape (21%) and Eastern Cape (7%). One interview was conducted telephonically with a company in the North West province.

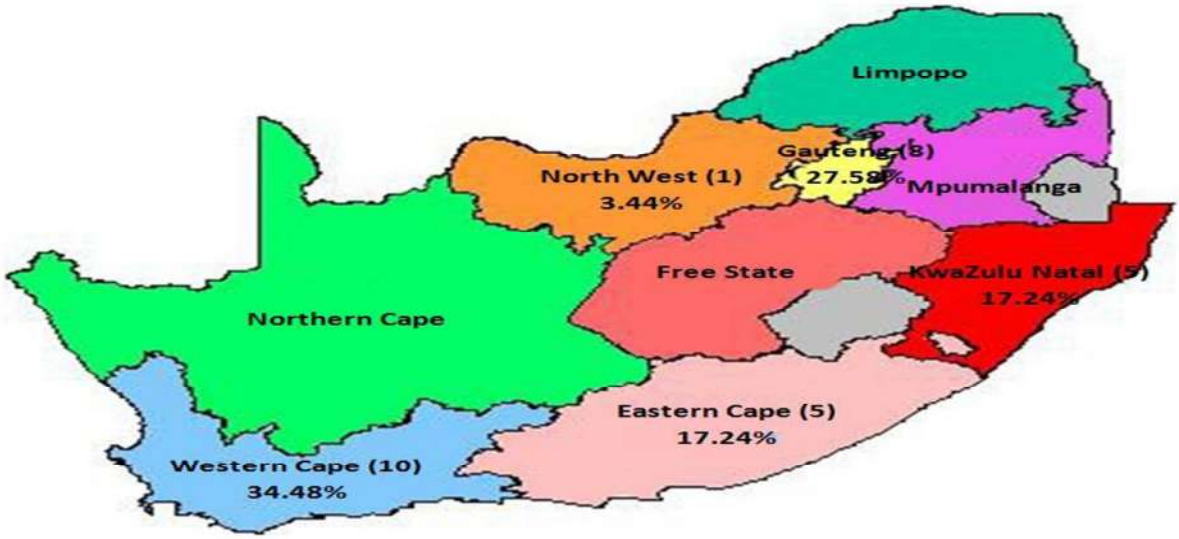



**Figure 4: Spatial distribution of sample**

## 2.3 COMPANY SIZE

To reflect on the extent to which the findings illustrate the views of different types of companies in the sector, we also show the distribution of the sample in terms of company size. Based on the prescriptions of the *National Small Business Act*, No. 102 of 1996, and the Standard Industrial Classification for the Manufacturing sector[25], the majority of the sample is found to consist of large companies, employing more than 200 staff (64% of the sample). This is in line with the predominance of large companies in the merSETA sector, but proportionally constitutes an over-representation of large companies and under-representation of medium-sized companies in the sector. 2007 data indicate 41% of manufacturing employment to be located in larger companies and 20% in medium companies (merSETA, 2011: 34).

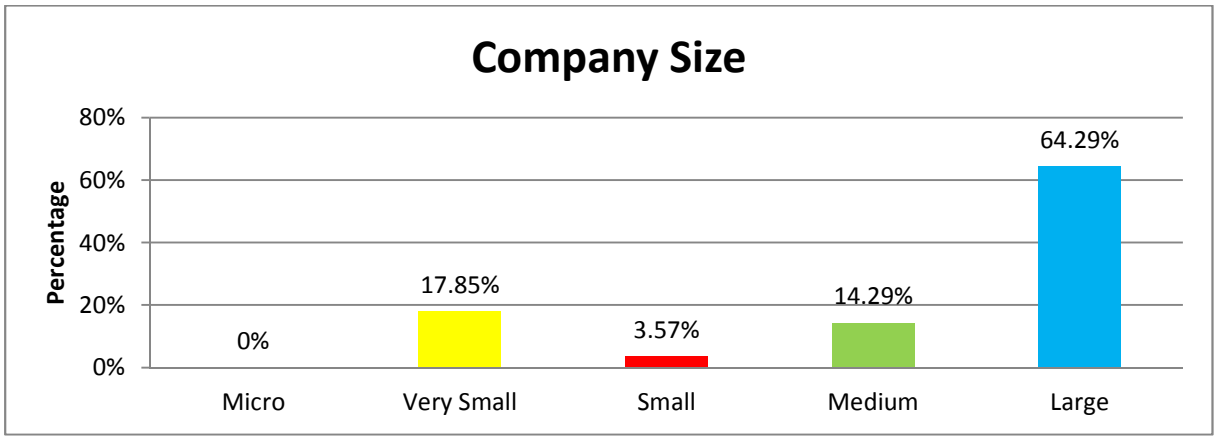



**Figure 5: Sample distribution according to company size**

[25] Micro: >5 employees, Very Small: > 20 employees, Small: >50 employees, Medium: >200 employees, and Large: <200 employees.

## 2.4 CHAMBERS

Figure 6 illustrates the composition of sub-sectors/chambers in the merSETA sector in relation to the classification of the labour market.

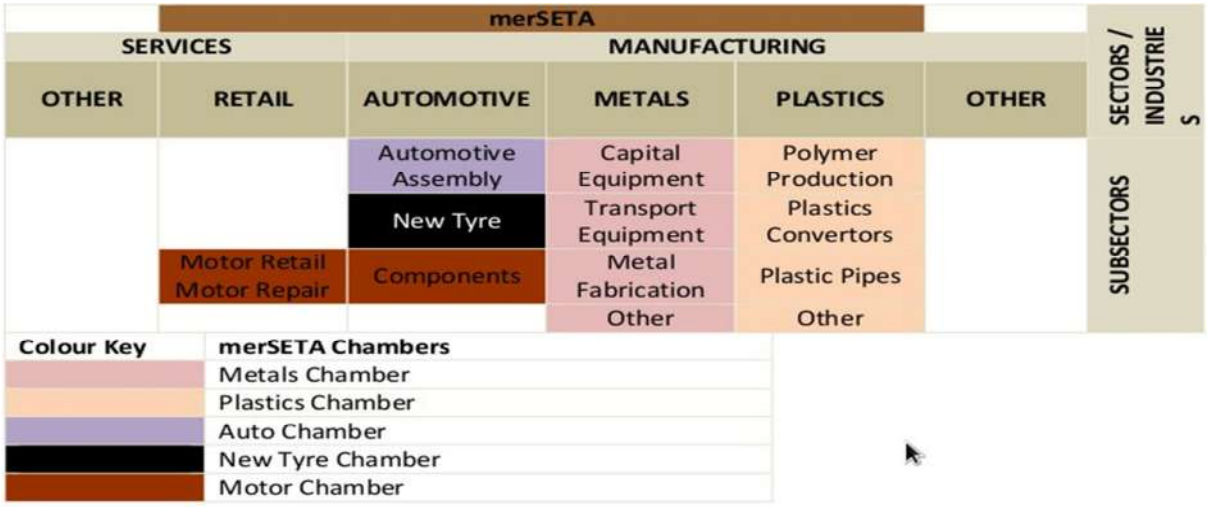



**Figure 6: Conceptual map of chambers in the merSETA sector**

Table 4 reflects the size of merSETA sector chambers, as well as each chambers' contribution towards the skills levy. The metals chamber is the largest sub-sector in the merSETA sector and contributes the largest share of levies. The motor chamber is the second largest and contributes 26% of all levies. The plastics, auto and new tyre chambers constitutes the smallest chambers.

**Table 4: Size of merSETA chambers/sub-sectors**

| Chamber | Number of companies | Levy contribution |
|---|---|---|
| Metals | 24 475 | 57% |
| Motor | 17 798 | 26% |
| Plastics | 1 873 | 7% |
| New Tyre | 40 | 1% |
| Auto | 7 | 7% |
| **Total** | 44 193 | 100% |

Source: merSETA SSP (2011)

Figure 7 reflects the sample distribution in terms of chambers. It shows that most of the participants in the study were employed or training in the metals and motors chambers, in line with the characteristics of the merSETA sector, although the percentages reflected an under-representation in relation to proportions in the overall sector.

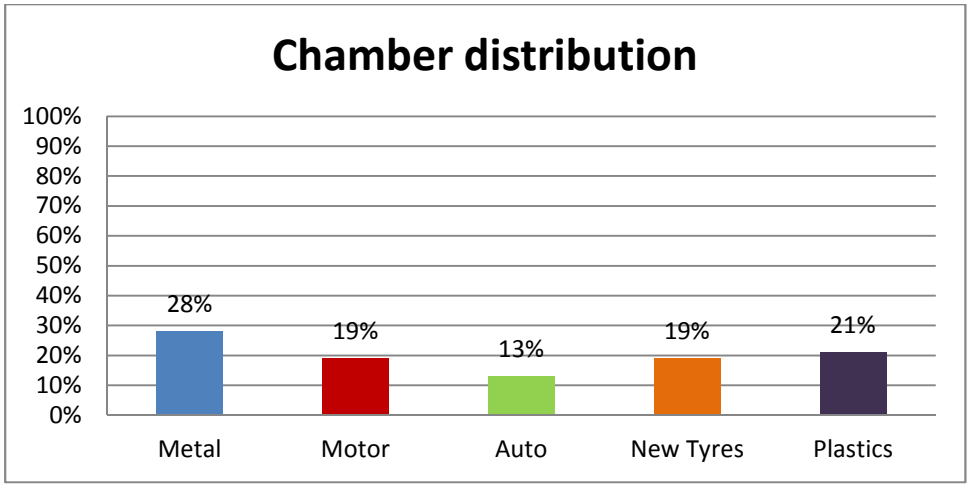



**Figure 7: Sample distribution by chamber (2012)**

## 2.5 Routes to artisanal status

We are aware that four routes to artisan status have been recognised in South Africa and constitute an important variable that has to be considered (please refer back to Technical Report 1). However, the interviews focused specifically on the changes from apprenticeship to learnership and thus these two routes are emphasised in the analysis.

**Table 5: Distribution of sample by status and training route**

| Qualified artisans | | Trainees | |
|---|---|---|---|
| Apprenticeships | 22 | Apprenticeships | 8 |
| Diploma | 4 | Learnerships | 1 |
| Degree | 1 | | |
| **Total** | **27** | **Total** | **9** |

The majority of artisans (trainees and qualified) in this sample, were involved in an apprenticeship. It is clear that apprenticeships continue to be a popular and trusted route towards artisan status (Roodt et al, 2012).

## 2.6 Research challenges

A number of challenges were experienced during the research process. It is important to reflect on these, to facilitate further research on artisans in the country, but also to highlight to merSETA the possible avenues for intervention to better support research on artisans in the sector.

Data inaccuracies: During the fieldwork process it emerged that the merSETA database was not accurate as many companies were not operating in the chambers suggested by merSETA, and contact details were in many instances out-dated.

Overlap: It was also found that a significant overlap exists between employers and training providers and it should be investigated how this could be illustrated in the database or clarified.

Timing: Responses to the research was also in many respects over-shadowed by the recent economic downturn which had many companies, especially smaller firms, still struggling to make a profit and keep their employees. Many felt persecuted in relation to their inability to prioritise training of artisans in an environment, where they were all struggling just to remain viable.

Taking all of these variables into consideration, the main implication of the sample distribution is that it best reflects the views of those stakeholders with substantial experience in the artisanal labour market (qualified artisans and employers) and is less reflective of those preparing for and newly entering into the artisanal labour market (training providers and trainees). This could partly be a function of the selection procedure, as firms were used as the entry point. However, in the main, the distribution of the sample is in line with that of the sector distribution, and reflective of the sector in relation to most variables (gender, chambers, employees and company size). Furthermore, while it was expected that the specific trade a respondent was involved in would be significant, the location in a specific sub-sector/chamber appeared to have a greater impact on respondents' experiences of their work and in turn their views. In other words, responses to questions were found to be differentiated more by the sector within which they applied their trade, rather than the specific trade they were involved in. Consequently, the analysis concentrates on reflecting the chamber in which a respondent was located, but in the instances where the responses were differentiated more clearly by their trade, this was reflected in the analysis as well.

Now with a broad sense of how, and the context within which, the findings of the interviews should be understood, let us consider the main issues emerging from the interviews that can assist us to understand changes to artisanal identity and status in the merSETA sector.

# 3. EMERGING FINDINGS IN RELATION TO RESEARCH QUESTIONS

Following Babbie and Mouton (2001), interview data are evaluated not only for content but for also for their reflection of the cultural norms, values and conceptions held by this occupational grouping. Through analysing how respondents voice their understanding of identity and status we can reflect on how as an occupational grouping, artisans conceptualise these constructs.

As explained before, the analysis in this chapter is structured mainly, in the relation to the six strategic questions of the research project and evaluates artisans, as a social/occupational group (Jones, 1999, Maphalala, 1966, Mclean, 2000).

1. How is an artisan identity and status determined?
2. How has training of artisans changed over time, i.e. apprenticeship to learnership?
3. How have changes in the labour market impacted on artisan-status in differing contexts.
4. Are there differences in which older and younger (white and black) artisans perceive their identity and status, given differing historical background, training and contexts?
5. How have FET Colleges impacted on the notion of being an artisan and the production of artisans?
6. What has happened to the notion of being an artisan over time, and what are the contributory factors?

As stated before, while the analysis is done in relation to these questions, the discussion also bears in mind the questions raised in the quantitative analysis. All quotes coded under the themes explained earlier, are analysed in relation to these questions. While all themes were evaluated to find answers to each question, some codes can be more readily related to the object of the specific question. This is set out in the beginning of each section. In this way, the research team tries to find answers to the research questions, based on the evidence for the themes of interest, provided by the interview data. The analysis is arranged firstly and broadly in terms of these research questions, but secondly, in terms of the strength of the emergent themes in relation to the questions.

## 3.1 How is artisanal identity and status determined?

merSETA was interested firstly, in understanding how artisanal identity and status is determined. Here the analysis focused on the quotes coded under the themes: *status associated with artisanal occupations* and *aspects comprising an artisanal identity.*

While the exact terms were not used by interviewees in all instances, the analysis of the interview data suggests that an artisanal identity is often captured in describing the aspects that respondents perceive as important for an artisan to have. In other words, respondents' views in relation to the specific attributes that are critical for an artisan to possess, reveal the aspects comprising an artisanal identity. In relation to status, what emerged strongly from the respondents was that while they themselves might hold positive views in relation to the status associated with artisanal occupations, this appears not to be reflected in society. Another aspect that was clear in relation to identity and status was the interlinked nature between these conceptions, in support of academic literature in this regard (Hogg & White, 1995; Ashforth & Kreiner, 1999 in Walsh & Gordon, 2008: 52). Some differences in the conceptualisation of identity and status was evident between fitters and turners and electricians, and thus the trade is reflected more in the analysis in this section.

### *3.1.1 Artisanal identity*

The following 15 terms were used most frequently by respondents to describe the aspects that were important either for an artisan to have or develop in their journey to becoming a real artisan;

- ability to apply knowledge
- ability to work with hands
- analytical ability
- aptitude
- commitment
- common sense
- discipline and drive
- fault–finding ability
- mechanical
- practical
- precision
- pride

- problem-solving ability
- technical ability
- understanding the different parts that make a whole

It is not surprising to find an individual's manual ability conceptualised as paramount in understanding an artisanal identity. Here a training provider indicated "if you want to be a fitter and turner you must be practical minded. You must like to work with your hands". In her explanation of the way she views an artisan, an employer in the motor chamber stated that, "a person that is hands on, willing to get dirty and always looking to do something with his hands". But even in cases where the ability to work with one's hands is emphasised, the ability to translate a theoretical idea into a practical outcome is always mentioned. An employer in the metals chamber, for instance, described an artisan as "a man who takes pride in his ability to put a design into practice". A practical sensibility was often mentioned as key, "when you look at something you must basically analyse it and see how it comes apart, different angles and take it apart in your head and figuring out in your head" (employer in the metals chamber). An employer in the motor chamber summarised the linkages between these attributes, in stating that an artisan must be able to,

> "do a lot of fault-finding – that is to trouble shoot something takes a little skill to identify what went wrong. It goes through a sequence of things….you must be able to interpret drawings and understand equipment".

It was interesting that while an individuals' manual ability was still referred to and emphasised as important by most respondents, increasingly the ability to apply knowledge and analytical ability was stressed. As one training provider/employer indicated,

> "you must be able to grasp what they (trainer) say and apply it….is there something like applying skills? You must know your materials and understand why this material reacted this way in water. You must know how to select material and distinguish it from others".

This shows how the respondent is not merely valuing an artisan's ability to work with their hands, but also that they must have a theoretical understanding of the materials to be used and the interactions these may have with certain processes and tools. The importance of understanding 'how things fit together', as well as 'the interactions between things', are continually highlighted by respondents. A qualified fitter and turner, reflecting on what he enjoyed about being an artisan, asserts in this regard "working with my hands and thinking three dimensional…more technically minded…taking things apart and seeing how they worked

motivated me". An electrician supported this notion "the only way I will know how its working is to take it apart and understand the dynamics and reassemble it". An employer in the new tyres chamber elaborated on this notion and stated that an artisan requires "analytical ability in the sense that you must be able to use your hands… [and] an artisan must be able to reason things through". Thus, while manual ability is still considered to be very relevant to an artisanal identity, analytical skills are increasingly being emphasised.

### *3.1.2 ARTISANAL STATUS*

Turning to a focus on status, a review of quotes coded under the theme – *status associated with artisanal occupations* is looked at more closely. The first aspect emerging from the responses is the sentiment that while they feel proud of being an artisan, this status is not reflected in the societal perceptions, and secondly, the status of artisans is perceived to be undergoing positive change.

The low societal view is starkly illustrated by a training provider when reflecting on his experience, "I remember one day we sat in class and somebody was working on a Telkom line and there was a naughty child in class. The teacher said – if you don't listen to me, you are going to end up like that guy. That was an electrician…". This reflects a low status assigned to artisanal work, however this is not a historical view shared by all. An employer in the motor chamber states, for instance, "in the old days to be an artisan was a respectful thing…these days younger people tend to not want to be an artisan". The impact of perceived societal perspectives on the value assigned is also clearly indicated by an employer in the auto chamber stating that

> "artisans have been marginalised. People see a doctor or nurse or social worker with more respect. The artisan is disrespected when he is so important in the running of everything. People would have more respect for the doctor or accountant."

An artisan in the new tyres chamber, concurs, "when I think of when I qualified as an artisan it was something, today it's so…the respect levels for artisans are not there". These respondents thus clearly perceive the status of artisans to be low at present. The reasons advanced for this state of affairs are varied, but the general lack of knowledge that society has in relation to artisanal work and trades, is often emphasised. As one training provider/employer indicates "most of the people don't know what fitting and turning is. You must explain to them". Another employer in the new tyres chamber supports this, "people look down on this whole artisan thing. All they know is that you fix stuff and you get dirty. They don't know the brains behind it and what you need to know". Another trainee, in an electrical apprenticeship in the motor

chamber reflects the same view, “if you tell them I am an artisan, then when you tell them you are an electrician, then they think you change light bulbs. So they think you do something that you can at home”.

Shifting societal perceptions through education is critical to increase the status of artisans. This is highlighted by an employer in the new tyres chamber, “you got all these titles, ‘grease monkey’. Nobody goes out and thinks it’s a respected job”. An employer in the metals chamber concurs, “in the industry, people, children don’t, or students or matrics don’t want to become artisans. You know why? Because, they wear an overall, a blue overall. It’s like the lowest of lowest…”

While the societal perceptions are seen to play a key role in relation to artisanal status, there are some respondents who feel that the value society assigns is merely a reflection of the lack of pride that artisans themselves have in their work today. This is emphasised by an employer in the metals chamber, “artisans don’t have the same sense of pride in their profession and career. They used to be proud people – knew what they were about… It is now seen as something to do to earn some money. No pride in the job at all”. An artisan in the metals chamber supports this view by adding,

> “once you’ve done a job you should be able to say, listen I did that job…. A lot of them [referring to younger artisans] have got no pride in their work…quite often I find out that they don’t clean the machine when they finish, they leave their tools lying around, things like that”.

So, while statements by respondents reflect a low image of the notion of artisan, this appears to predominantly be perceived to be emanating from society and business. An employer in the motor industry highlights this perception, “I don’t know if it’s a mind-set thing or the perception people have of artisans. They rather want to be managers, they don’t want to do a trade and get their hands dirty”. This is also illustrated by an artisan in the new tyres chamber, “they are underpaid, they are undervalued. School leavers do not want to work in overalls and be dirty in a factory…there is no incentive for someone to do it”. Artisans feel that they are not valued by society, although they feel they have a critical role to play in the economy. Another artisan in the new tyres chamber indicates, “they don’t see you as value adding; they see you as an expense. I have to pay you because you have to fix something, that attitude demoralise the artisan…the respect level is not there”. The extent of society’s lack of respect is further illustrated by an employer in the metals chamber, “the majority of people don’t want to work with their hands, they want to sit behind a desk and do a 9-5 job”.

While this notion of a low level of respect in relation to the artisan appears to be a reality, what was strongly emerging from the interviews as well, was a perception that there has been a shift in recent years. An employer in the motor chamber illustrates this perspective well,

> "there was a time when training for an artisan was not considered a high status career and people would ask why you would not go to university…but I think it's changed and people realise if you go to do a trade your chances of employment are better than going to a university in many instances. I think there is a swing back to focus on trades and that will change the perception people have of artisans".

Another artisan in the new tyres chamber reflects a similar view, "my son is an artisan and they walk around with dirty overalls and you may frown upon them but I can tell you they are earning far more than a teacher with a degree from a university, they are better off as artisans…". The perceived increase in demand for artisans in the labour market appears to be shifting notions in relation to the artisan. This is starting to illustrate the strong link between the scarcity of certain skills in the labour market and increase in the status associated with having those skills.

Those that disagree with this overarching narrative of a low status are in the minority. The view can be summarised as such – while the status of artisans is indeed lower that in the past, this is not the view of all groups in society and in fact it is a view that is changing towards the positive. An employer in the metals chamber states in this regard, "there is much more exposure of an artisan in general. People actually see now their worth". An employer in the motor chamber concurs, "an artisan is in a position of status because he comes in and fixes machines when the line stops. Your artisan is someone with skill and flexibility in terms of their work environment". Respondents do seem to increasingly emphasise the importance of artisans and thus their importance in society. This view is related by an artisan in the metals chamber, "you take the artisans out of this factory, it will run a little bit and then eventually it just stops…it [referring to an artisan] is quite an important cog in the whole wheel of the economy…".

### *3.1.3 LINKAGES BETWEEN ARTISANAL STATUS AND IDENTITY*

The first point to highlight with regards to these constructs is the confirmed relation in the analysis of the interview data, illustrated by a strong score on the Pearson correlation co-efficient (0.726903), where these two nodes were clustered according to word similarity. What further emerged as important in the respondents' perceptions around artisan identity and status is the gendered and racial construction of these perceptions. Interestingly the gendered

construction is often described in relation to different trades, similar to gendering work taking place in other occupations, but is also evident within trades (what has been referred to as internal segregation). This occurs where women are associated and tend to predominate in areas/fields within an occupation that is more easily sex-typed feminine (Adams, 2005; Wildschut, 2011).

Making this distinction in relation to different artisanal trades, a trainee states that he does not

> "see how males and females are equal. In some stuff like electrical then yes. Here (referring to the fitting and turning trade), even I battle sometimes – you really need to be strong. There are certain jobs women can't do. There is no way they can do it".

Another trainee indicates, "there are not a lot of girls who will do fitting and turning, but in boiler-making there will be more girls". These assertions illustrate how one of the important bases upon which an occupation or trade is constructed as male remains to be a biological discourse which concentrates on women's physical capacities (size, shape, strength) to assert that certain work tasks are more appropriately performed by males (Messing et al, 2000).

Assertions by an employer/training provider in the fitting and turning trade, further illustrates the gendered construction of tasks within a trade (internal segregation). He states,

> "what we do find is that the components are heavy so when a female is smaller framed – to actually pursue the trade it is difficult for example, to tighten chucks. What we do is when that person becomes qualified we put them in the inspection department where they still required the basics. We also have a lot of females who operate the CNC machines because that is just loading… we are talking about repetitive work. We do find that our females are better and more productive. The female copes better with repetition – the male gets quickly distracted".

The assumption underlying this statement is that women are better at repetitive and focused tasks, whereas a man would get bored with such tasks. This is also a common claim upon which occupations are constructed in relation to gender and has been noted to be the case in other occupations such as police work (Martin, 1996) and physiotherapy (Mclean & Rozier, 2009).

It is clear that trades and tasks within trades are not only constructed by gender, but race still plays a significant role in artisanal status and identity. The interview data illustrates the impact of the racial legacy as a result of apartheid to be a factor continuing to define status across trades as well as the extent to which individuals can identify with a trade. This sample of respondents reflect on the fitting and turning trade as having higher status in comparison to electricians and also illustrated the confluence of race in the validation. An artisan in the metals

chamber reports, “in the past coloured people were not given the opportunity to be a fitter and turner. It was given to the whites… the white people were the people for the engineers and fitting and turning. Coloured people were the builders and the blacks, labourers”. While this statement reflects the past, it does impact on the extent to which individuals of certain races feel that they can identify with a trade.

However, now the higher validation of fitting and turning in relation to electricians is changing, purely based on supply and demand in the labour market that sources higher rates for electricians. It appears that the scarcity of electricians has increased their wages and concomitantly the status associated with the electrician trade. An employer in the new tyres chamber supports this assertion in stating “we pay different rates for fitters, electricians and electronics. The electrician gets more than a fitter and electronics more than electrician - in relation to supply and demand”. An employer in the motor chamber further indicates the scarcity of electrical skills in stating,

> “well qualified electricians – there is not a whole lot and we battle to source them. The problem is not so much with fitters and mechanics. With electricians we have had huge problems especially the right electrician who meet the skills set and not your ordinary construction electrician.”

Another employer in the motor chamber supports the interlinked nature between status and scarcity of specific artisanal skills, “because of our battle to find electricians it does have high status.” It appears that there is a strong link between the scarcity of skills and the status assigned to those skills. This appears to be strongly related also to the specific sector within which these specialised skills are required. An employer in the new tyres chamber, similar to the assertions made by the employer in the motor chamber, makes a distinction between the types of electrical skills most sought after in their labour market, which demands different rates of remuneration, “in the market the construction electricians are getting half than that of manufacturing electricians”.

While the status in relation to the fitting and turning trade is shifting, the racial and gendered connotations still appear to be intact. As an artisan (fitter and turner) in the new tyres chamber notes, “there are glass ceilings you need to penetrate. If you want to move up and you black you have to really excel. There is definitely a certain culture in engineering – it is dominated by males”. An apprentice (fitter and turner) in the metals chamber reflects on his perception in relation to how he feels he is viewed by society and older artisans,

> "as an apprentice, an artisan is like your boss or whatever. I'll say from management, as a black person, and the customers because normally we go do a job and the customer, I mean if he sees you as a black fitter, you know, looks down on you, whatever, and [it's like] you can't do the job or whatever".

Based on a review of the interview data there are two assertions that can be made in relation to the specific research question. The analysis suggests artisanal identity to be constructed in relation to the attributes considered important for an artisan to possess. These attributes emphasise manual ability, but increasingly analytical ability is being foregrounded. Artisanal status appears to be determined mostly by the extent of demand in the relevant (sectoral and/sub-sectoral) labour market as well as the perceived societal view on artisans, and not necessarily by the types of skills employed in a specific trade. There are signs towards changes in both artisanal identity and status, but status appears more susceptible to change as it is constructed strongly in relation to what the labour market demands, while identity appears to be more resistant to the changes. Identity is found to still be constructed very strongly in relation to race and gender, as well as age (evident in the often generational character of remarks in relation to the youth or younger artisans). Thus, we would argue that while status is more volatile, identity is more resistant to the changes in the profile (in terms of race and gender) of those increasingly gaining access to artisanal employment and training. This is in line with assertions by others, which notes artisanal culture to be ultimately conserving in its nature (Gamble et al, 2013).

While this section was concerned with ascertaining how artisan identity and status is determined, the next question was concerned with assessing whether perceptions on identity and status is differentiated by age.

## 3.2 DIFFERENCES IN WHICH OLDER AND YOUNGER ARTISANS PERCEIVE IDENTITY AND STATUS

Attempts to find answers to this research question necessitated the further analysis of quotes coded under the themes: '*aging artisans*' and '*perceptions of the quality of newly qualified artisans*'. Because we did not record the age of respondents at the time of the interview, we could not investigate empirically whether older versus younger artisans perceived identity and status differently. However, we did record whether respondents were qualified artisans and trainees, so this could serve as a proxy for age. Furthermore, we found that all respondents referred to difference that exists between younger and older artisans, so we could analyse the instances where these differences were mentioned. It is important to attempt a better

understanding of the characteristics of this generational difference, because it influences how we attract the younger generation into such occupations. Furthermore, given the close interaction required between older qualified artisans and younger trainees, because of the way that artisanal training is structured, it is important to understand the dynamic informing such interaction, to ensure success in the future.

The very real impact and relevance of considering generational differences is illustrated by an employer in the motor chamber,

> "the development of artisans is disturbed by the bad mentality of 'the old white artisan system was better' and the new artisan system is bad. This mentality dominates the industry because many artisans are from the old artisan tradition of Olifantsfontein and anything that is not from there is bad. This mentality is resistant to transformation, change and new ways of doing things. There has to be a mind shift that embraces positive aspects of both the old and new traditions, because not everything about the old system was good and not everything about the new system is bad".

This illustrates how issues in relation to race and age in the country and the linkages with different training systems are still very relevant considerations and continue to influence the cultures in different organisations. The impact is illustrated by a young black electrical apprentice in the motor chamber, when asked to reflect on his experiences with older artisans,

> "I think its age or race. Maybe they have never worked with a black guy before. They speak Afrikaans more than English, to me that is a barrier. If he says it in Afrikaans then I ask him to explain then he says 'los ma', as if why must he explain. There are people in my workshop I won't go close to because he will speak Afrikaans and I won't understand... now it looks as if I don't want to do it. To me it's not nice. Now that happens with the old toppies, grandpas – the younger artisans are used to black people, they find it easier even though they Afrikaans".

This shows how racial and generational barriers are still very real influences on the experiences of artisans. A training provider in the metals chamber also illustrates a certain lack of resistance noted especially in older artisans, to transfer knowledge, "you find today that there are people who don't want to pass on [referring to their knowledge] because you have this stigma because they afraid they going to lose their job". This appears to be quite a widespread perception, as an employer in the motor chamber indicates, "there is a threat when younger guys come through with a perceived advanced qualification, maybe it could lead to negativity on the part of older artisans". A trainee in the metals chamber for instance indicates,

> "you can go to certain artisans that you can go to and they will teach you certain things, but a lot of the time it's not that way, you basically have to steal with your eyes…they should actually be more relaxed around trying to train people instead of trying to bottle everything up, they're trying to keep all their knowledge".

The generational differences between older and younger artisans appear to also be evident in the way in which each group is perceived to approach their job. Arguably this constitutes different ideas/identities held in relation to their job as an artisan. As an employer in the plastics chamber points out in reference to older artisans,

> "they know they've got the skills, they can figure it out, whereas with the younger guys we sometimes hear them say, no, but I can't do that for you, we've got this problem and I don't have the right tools, whereas the older guys will say, okay I'll make do with what I have, I'll make a plan".

Here the employer is implying a stronger work ethic with older artisans in comparison to younger ones. To illustrate a little more coherently the typical experience of a young apprentice in this sector we include two vignettes below.

***A fitter and turner apprentice***

*Respondent 17 is a black male doing his apprenticeship in the fitting and turning trade. He attended a technical high school at the insistence of his parents. He feels that attending a technical high school gave him an advantage as he had already learnt some basics at school and at college, so he was able to grasp what he was taught, whereas those learners who attended an academic school would struggle. After school he decided to study mechanical fitting and turning as it intrigued him. In his experience, those who are involved in an apprenticeship have been exposed to the theoretical aspect of training tend to adapt quicker to the practical aspect as opposed to an individual still completing a learnership. In his opinion, society frowns upon artisanal employment and views it as a 'dirty' job. He is pleased that he made the decision to go into artisanal employment and feels that the salary is adequate and he is getting the right exposure to assist him in the labour market. He feels that there is a tendency amongst artisans to hold onto their skills and knowledge and not wanting to impart it to younger artisans. He feels that experienced artisans would deliberately speak Afrikaans knowing he does not understand the language very well and it poses a daily challenge to his apprenticeship training.*

***An electrical apprentice***

*Respondent 23 is a black female apprentice in the electrical trade. She is the only female that we interviewed directly involved in artisanal training. Her interest is in electrical engineering and the male dominance of the trade motivated her to enter the electrical trade. She wanted to break the cycle of a male dominated occupation and found it to be challenging to herself as a woman. She completed her N6 theoretical training in electrical engineering and is now focusing on her practical training with one of South Africa's leading tyre manufacturing companies. She feels that her theoretical training and practical training balances well and now she is able to see how everything fits into place. She feels her theoretical training and practical exposure will prepare her for the labour market. She indicated that in her community she is well respected as she is a female electrician – a trade dominated by men. She also notes that while some artisans are willing to provide information and assist younger artisans or trainees with the tricks of the trade, there are also those who are not willing to impart their knowledge and skills.*

The next question tries to assess the impact of changes to the training of artisans, specifically the change from apprenticeship to learnership on artisan identity and status in the merSETA sector.

## 3.3 HOW THE TRAINING OF ARTISANS HAVE CHANGED OVER TIME

The main data analysed in this section, reflect the quotes coded under the themes, *'views on apprenticeship*' and *'views on learnership'*.

### *3.3.1 APPRENTICESHIPS VIEWED POSITIVELY*

What emerges very prominently, from the analysis of data coded at these two themes, is the strong and positive association with the concept of apprenticeship (in its traditional form) as opposed to learnership. This is firstly illustrated by the fact that a slight majority of views on apprenticeship were positive (56%), while a much stronger proportion of views on learnerships were negative (80%).

**Table 6: Number of sources and references for apprenticeships and learnerships**

| Parent Nodes | Child Nodes | Sources | % | References | % |
|---|---|---|---|---|---|
| Views on learnership | | 40 | | 65 | |
| | Positive views | 5 | 12.5% | 6 | 9.2% |
| | Neutral views | 7 | 17.5% | 7 | 10.8% |
| | Negative views | 28 | 70.0% | 52 | 80.0% |
| Views on apprenticeship | | 38 | | 50 | |
| | Positive views | 22 | 57.9% | 28 | 56.0% |
| | Neutral views | 5 | 13.2% | 5 | 10.0% |
| | Negative views | 11 | 28.9% | 17 | 34.0% |

A more qualitative consideration of the narratives indicate that respondents still identify with, and respect apprenticeships as a pathway to artisanal status and the majority have not been able to shift their views in this regard. This is illustrated by the response of one employer in the metals chamber, when asked why he only offers apprenticeships, "I had faith in the apprenticeship route for artisans". This strong association with the notion of quality and apprenticeship, is illustrated by a respondent who talks fondly about artisans coming from the traditional apprenticeship route, "that's the old red seal, probably you know the apprenticeship, which the guys have gone through your proper training" (employer in the plastics chamber). It has to be acknowledged that there might be a degree of romanticising in these accounts (especially the older respondents), but what cannot be refuted is a continuing strong sense of trust in the concept of apprenticeship.

It is not that respondents do not acknowledge problematic aspects in relation to apprenticeship, indeed these are also reflected. In fact, some respondents had a particularly negative view of the time-served aspect of the traditional apprenticeship, as well as complaints that even this route does not guarantee proper practical exposure. As one qualified artisan notes, "when I did my apprenticeship you did a lot of nonsense jobs. You were used. In my apprenticeship I only got actually 18 months of proper training anyway….". Another employer/training provider recounts the "perception that the time-based was not working and limited and could not reward competent people". A qualified artisan in the metals chamber further supports the movement away from a time-based system in asserting that especially the safety aspects are neglected where artisans have reached qualified status through tenure, which in the current training programme is not the case. He states,

> "I walk into the welding bay, he's using a high speed steel tool, and he's sort of grinding it on the side of a cutting disk. It's not allowed. It's unsafe. That disk can explode. Why's

he doing that? He was taught that way by another fitter…The older people have gotten away with that, they do that, it's unsafe".

### *3.3.2 AATP STILL NOT WELL UNDERSTOOD*

Many respondents also commented on the Accelerated Artisan Training Programme (AATP) when asked about learnerships and apprenticeship. Those that understood the concept reflected on it as a modern form of apprenticeship.


**Figure 8: AATP Model in the metals related trades**

The working structure of the AATP may resemble the traditional apprenticeship route, however they differ in that the artisanal qualification can be obtained in a more condensed and expedited approach to the apprenticeship (Mummenthey, et al, 2012). Figure 8, briefly illustrates the structure of this programme in the metals related trades[26] in comparison to the traditional four year apprenticeship model.

[26] The AATP model for metals related trades is done over 80 to 90 weeks or a total of 18 months until certification as an artisan and completion of the trade test. In the motors related trade, training is done over four competency-based phases: (1) theory, (2) simulated practical, (3) workplace experience and (4) the phase tests, of which all are completed in 26 week intervals totalling 104 weeks.

The general response to the AATP is not very positive, because respondents do not appear to understand the programme clearly. As one employer in the motor chamber notes, "the feedback we get from the maintenance department is that because our apprentices spend so much time on the plant and your AATP so little time on the plant is that they prefer the apprenticeship model". There is a perception that those trained through this model do not have nearly enough exposure and practical experience. Another employer in the metals chamber asserts "qualifying in 18 months is too short. The company will never employ someone who did the AATP because there is nothing a person can know in 18 months". Employers particularly had strong reservations about the quality of the artisans coming from the AATP, here an employer in the motor chamber supports this statement by asserting that "proper artisans can get a job anytime….conversely, AATP graduates struggle to find jobs, because they do not know anything".

The responses indicate resistance to the validity of this program largely based on the shortened period of training. An employer in the motor industry has strong feelings and resentment in this regard stating that "government is trying to address the shortage of artisans by creating further problems through the AATP. This program is a quick fix solution to a very deep problem". These sentiments are shared by employers in other sub-sectors. An employer in the plastics chamber adds, "merSETA must do away with AATP. It is dis-servicing the country by supplying lower grade artisans…".

The general acknowledgement from employers is that the

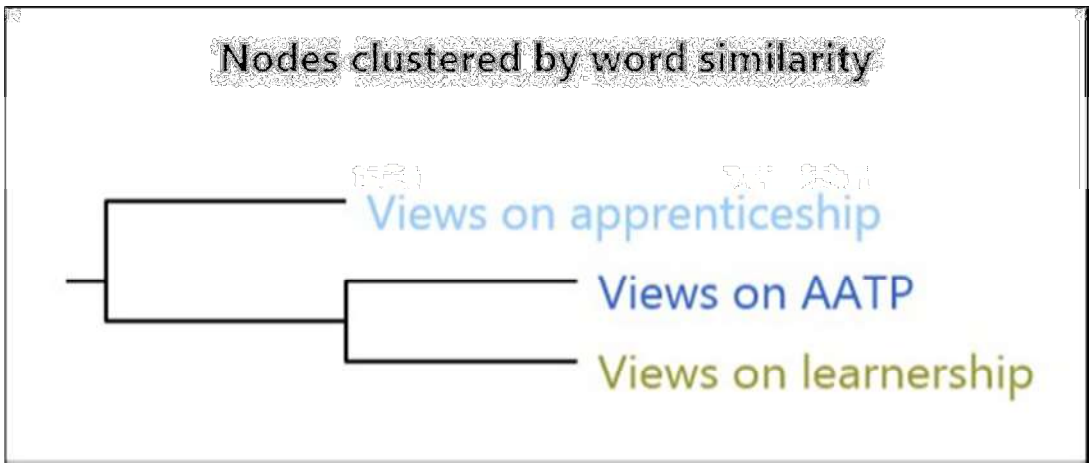
> "AATP is just not working as it does not enable adequate technical development of the artisans. Therefore the AATP is very costly because each incompetent artisan needs to have someone who is watching them because they can hurt themselves with the equipment they use or damage the machines" (employer in the metals chamber).

This highlights the very serious practical implications of the perceptions surrounding the quality and the ability of artisans coming from this programme. While these are perceptions might not in all cases accurately reflect the merits of the programme, it is concerning that in this sample of respondents, qualified artisans and especially employers are not convinced of its advantages. This finding is also in line with assertions by Akoojee & Brown (forthcoming) that one of the challenges to the success of the AATP is to build "an institutional framework within the current stakeholder environment that sustains the implementation of the programme into the future".

While the general sentiment is negative, some employers/training providers maintain that the AATP can work, given that some conditions are met. One employer in the motor chamber, for instance asserts that their company uses the AATP programme and it works well because

> "the artisans were mostly recruited internally and had already 3-4 years' experience at the plant….. [and also] artisans from this program must be given an additional year at the plant to gain more experience after qualifying and getting their certificate".

This links well with empirical evidence from others (Akoojee & Brown, forthcoming), asserting that the selection of appropriate candidates is crucial to the success of such a programme. This quote illustrates that the AATP might work best as a skills-upgrading mechanism. However, what was of concern in the analysis is that this model of training was often confused with the learnership. The analysis illustrates this in the stronger correlation in terms of word similarity, between views on AATP and views on learnership (0.43564), as opposed to no correlation being evident between the terms apprenticeship and learnership. This suggests that while the concept of learnership is now understood as very different to an apprenticeship, the same cannot be said about the AATP.




All of these factors have implications for the way in which the reader should reflect on the analysis of responses from this sample. While it is important to show and illustrate what respondents felt about the AATP, it should be borne in mind that much of the negativity could be confounded by firstly, the fact that the concept appears to not be well understood by respondents, and secondly, in many cases were equated to the learnership, which is also negatively viewed by the sample.

### *3.3.3 LEARNERSHIPS DISTRUSTED*

A review of the data in relation to learnerships evoked similar responses to those associated with the AATP. It appears that learnership as a concept has yet to gain respect and trust. An employer in the plastics chamber articulated this assertion very clearly, "the company has no confidence in the learnership route of artisan development". One employer even went as far as stating that "learnerships are a downgraded from of apprenticeship", while another stated bluntly that "the learnership will never work". An apprentice echoed this sentiment, "learnerships is a flop". Most respondents articulated a perception that the learnership training process is not rigorous enough. An employer in the auto chamber asserted, "my feeling is that the whole process that the artisan is going through, is too easy", while others simply have an aversion to learnerships because of the perceived over-complicated beauracratic processes involved in offering them. An employer in the metals chamber stated "we don't offer learnerships, because learnerships can be complicated. It's a lot of paperwork". This view is not only held by employers, but even a training provider added that "learnerships' continuous assessment element causes a lot of work".

Notwithstanding all the issues mentioned before, the concerns mostly centre on a perceived lack of practical exposure in learnership training. As one employer/training provider pointed out "the guy doing a learnership only gets exposed to it here at the plant and he does not know when you have to apply it practically or working stuff out". Another employer commented on the lack of integrated training received in this pathway, "he goes through the learnership and they teach him each module individually – he fails the module five times and the sixth time he passes and he gets qualified after two years and expects an artisan salary".

Also, some are of the view that learnerships works better in some trades, reporting on their experiences in the auto chamber, an employer asserted

> "mechatronics [to be] different – the guys with the learnership would end up more highly skilled from the mechatronics – a very important field in the motor industry so there is more of a demand. But in the traditional maintenance environment there is a higher level of comfort with the apprentice who does his time in the workshop".

However, while the majority of responses in relation to learnerships were negative, there was a tendency to link this to structural problems, rather than the programme in and of itself. A training provider illustrates this by stating that "learnerships need a fully-fledged system, infrastructure, administrators and trainers". Another employer in the motor chamber elaborated,

> "learnerships can produce the right artisans on condition that there is enough infrastructure, support, monitoring and quality assurance [and because they] do not lead to a qualifying trade test, employers saw them as inferior qualifications".

This suggests that while there are assertions around the lack of quality of the trade test, in the labour market it is still viewed as an important yardstick to judge the quality of an artisan. This is where the learnerships appear to have fallen short, because until recently, it has not been a requirement for individuals that have completed the learnership to pass the trade test.

While learnerships as a concept might not be as highly valued in relation to artisanal training, there does appear to be value purely in the fact that it provides a link and exposure to the labour market. As one employer in the new tyres chamber stated "the only reason we employed them is because they had knowledge of [the particular company] processes". Another employer supported this in saying that "such people serve as an employment pool…. thus the company does not have to go through the trouble of recruitment from outside".

Some respondents however, do appear to understand the broader objectives underpinning learnerships and support them based on these underlying imperatives. Here an employer in the auto chamber stated "while apprenticeship only focused on the core…learnerships are broad and seek to address the worker holistically in that is also involves life skills". A training provider added to this by stating that "a learnership equips you with the tools to be able to do a job".

Overall though, what emerged from the analysis of relevant interview data was a story of newer pathways to artisan status not being well understood in relation to others and this is partly why they are viewed as producing lower quality artisans. In relation to the research question though, the change from apprenticeship to learnership and also the AATP appears to have had a negative impact on the perceived expertise of artisans, according to this sample of respondents. As summed up by an employer in relation to the AATP program,

> "in the old days or days before the SETAs your apprenticeship was in the region of 3-4 years, now it's reduced to 80 weeks – 1.5 years. How much can you learn a person in a timeframe like that? I think that has reduced the quality of the artisan".

Another major change to the artisan training environment was positioning FET Colleges as the main institutional arrangement for the provision of artisanal training. That is why one of the strategic questions is concerned with ascertaining what has been the impact of FET Colleges on the notion of artisan.

## 3.4 WHAT HAS THE IMPACT OF FET COLLEGES BEEN ON THE NOTION OF ARTISAN?

To answer this research question the following themes were evaluated: '*views on FET Colleges*' and '*perception of the quality of theoretical training'*.

The overarching theme emerging from the evaluation of the narratives of this sample is the perception of the poor quality of artisanal skilling through FET Colleges. This appears to be another factor contributing to the general sense that the quality of artisans have dropped. The perception that FET Colleges deliver poor quality training, can be simplified as those relating to internal issues (the quality of teachers, lack of appropriate resources), but also external issues (the current structure of artisanal training, accusations of corruption and criticisms on the mismatch between college and the workplace).

In relation to issues associated with the institutions themselves, there are widespread assertions from industry (employers and qualified artisans) that the quality of trainers and resources at FET Colleges leaves much to be desired. An employer went as far as saying that "FETs are dis-servicing the industry, FETs are characterised by under-qualified lecturers and inadequate resources for teaching". Another employer in the metals chamber reported the same concerns about the quality of the resources for training, and states that "the machinery that the guys has got, that the colleges has and that, it's all cracked…and they [fitter and turner trainees] need to, these okes need to, machine or to mill to a certain tolerance". These quotes reflect FET colleges as institutions that cannot deliver on the quality of artisanal skills required, due to structural or resource linked deficiencies.

However, some respondents felt that the poor quality of artisanal preparation through the FET colleges are outside of the control of the colleges themselves and relate more to the flawed structure of artisanal training itself. This led many to feel that the structure of training is actually counter-intuitive in that it produces a lower quality of training. Some purely feel that the colleges are not doing their jobs and not even providing the student with the basics to build from. An employer in the metals chamber shared his frustration in this regard, reflecting on the additional work he had to do to get fitter and turner trainees ready for the trade test,

> "I had to do it with one, I had to do it with another one, I had to physically buy him the material, do the full trade test, type, finishes, speed and feeds, grooving, how to get good finishes, where is this in the colleges?"

A qualified artisan, also in the metals chamber, shared this frustration, "some of the colleges, the guys go, their logbooks get signed off and they come here if I ask them show me a first, second,

third tap, they don't know. They don't know what it looks like, but it was signed off!". Some even allude to possible corruption fuelling the requirements from government that artisans must fulfil a certain amount of training through the colleges. An employer asserted in this regard that

> "they must make the colleges non-profit, because I am feeling that they're taking us for a ride now with this. We're sending a welder for a 10 week course, for 10 Saturdays and it cost me ten thousand bucks. So I think they're ripping us off now".

One employer in the auto chamber blamed the "controlled learning environment in FETs and testing centres. In the work environment things are not straightforward due to inter alia, production pressure, operational changes and challenges". While parts of this argument might be valid and indeed supported by the academic literature in debates around the need for colleges to be responsive to the labour market, the extent to which the theoretical training and simulation exercises at college can ever replicate the work environment completely remains questionable. In some respects this is a very unrealistic expectation, but it is a sentiment held throughout the sample. This was very well articulated by a private training provider (training electricians and fitters and turners),

> "the role of the industry (*referring to training industry*) is to say that you are training on this thing to get the basic skills but you will work on this thing (*referring to what will be in the work environment*). We can only help with simulation but the workplace should carry some of the responsibility".

While negative views dominate, there are those who assert that artisanal training in FET colleges have some value in that they assist in covering the basic knowledge requirements that due to the pressures of the working environment, workplace training cannot cover. Because they "teach you the theory and yeah, the stuff that we don't have time to teach, they would teach the theory of how and why this is happening and that's happening" the same respondent goes on to assert "a lot of what happens in the trade test, we don't do here… that is why the guys go for trade test prep, to teach him stuff that we can't teach him" (qualified artisan in the metals chamber).

Often, when a respondent remarked positively about an FET college, it was in relation to a specific college and also specific trades. For example, some will send their fitters and turners to a specific college because they know the quality of the training in relation to fitters and turners are good there. A statement from one of the respondents illustrated this,

> "I must also say that there are good strong candidates coming from places like Northlink and also the College of Cape Town…I think they are doing the best they can to ensure

> that the guys have what is needed in terms of basic knowledge" (employer, metals chamber).

Another employer supported this in stating that "the quality of training and the trainers at the FET Colleges is not the same. Consequently, some employers are prepared to pay more for artisans from specific colleges where the quality is better".

There also appears to be a difference in perception of the quality of training from qualified artisans and employers in comparison to trainees, who had very positive responses with regard to questions on their experiences of the theoretical training received in colleges. In fact some remarked very positively about how this training facilitated for them, the link between theory and practice. One fitting and turning apprentice asserted,

> "it balances a lot – when I was at the college I would look at the speed of motor etc. and now I am doing it. I am doing it in practice. For example now I know the reference of speed, what is a conductor, etc. now when something is being explained to me I understand because I have the background of the theory".

Another trainee added "at the college my training was actually much better than what it is here because the college does give it to you in more detail". In total contradiction to what has been the view from most employers, on respondent reports the equipment available for training at the colleges is often of better quality than what is found in firms. This trainee asserts

> "what happens is, when you go to a college they've got everything, they've got all the tools, they've got, they just have everything, they're kitted out to give you training. But now you come to a company that's an entry-level apprentice company, but they don't have the right tools, you struggle with getting the right skill development".

Overall, the interview data suggests a general negative perception around the quality of the training coming from FET Colleges. Although this seems to be the main recurring sentiment across the sample, there appears to be a slightly more positive perspective from trainees currently involved in apprenticeships and learnerships. To summarise it would appear that especially from employers there exists a perception that the current structure that places FET colleges central to the production of artisans, has negatively impacted on the notion of artisan.

The next issue focuses on how particularly changes in the labour market has impacted on artisan status and identity in differing contexts. This has been touched on in a previous section, but in the next section will be more closely evaluated in relation to capturing the impact of change.

## 3.5 How has changes in the labour market impacted on artisanal status?

Answering this question involved the review of quotes coded under the themes: '*changes to the image associated with an artisan*', '*status associated with artisanal occupations'* and '*views on the role of business'*. While these were the themes reviewed in the main, some of the same issues also emerged in discussions with the respondents throughout. This already was an indication of the pervasiveness of this theme and also links to previous comments made in the limitations section. The specific time that the interviews occurred very much reflects the impact of a global labour market and the changing nature of work. While there have been debates about the impact of a globalised labour market for artisans, we did not expect the extent of its impact. The respondent's views indicate changes to the work environment and the broader labour market and how this holds implications for the perceptions around the status of artisanal work and its related identities, but also on the role of business in artisanal development in this changing environment.

Three main themes of argument emerged from the analysis. The conventional view is that artisan development is seen by industry as too much of a burden financially, as well as being too time-consuming. Then there are various complaints in relation to a lack of support from government (financial and administrative). Some feel that artisan development will always take place regardless of the extent of government support and therefore should be directed by company needs and not by government imperatives. Lastly, some see the value in artisan development and recognise the role of industry to contribute and thus call for industry to take up this role more seriously.

There appears to be an increased recognition that industry needs to view their role and responsibility in relation to the training of artisans differently. An employer remarked in this regard,

> "the industry culture and mentality needs to change so that artisan development and training may not be left in the hands of the colleges. If employers come on board in the whole process, that would streamline employer demands and supply and get the learning institutions and employers to be on the same page with regard to the nature and extent of skills demands".

This employer clearly sees a pivotal role for business to change their perspectives so that a better linkage between employer skills needs and supply can be established.

Many of the respondents share this perspective and view the training of artisans as not only part of their responsibility to the country, but also central to the success of their business and

productivity. As an employer in the plastics chamber remarked, "we found that training our own people is a lot more productive than getting outside people". Another employer in the metals chamber shared this perspective,

> "the guys are actually a value for the company… they might not have the top skills that we require but we're using them to do more the basic work until they then get more skill and they improve and they get better…so we're not losing productivity out of them".

What emerged as a strong and consistent theme was the different rhythm and cycles of work at present that heavily impact on the ability of industry to do artisanal development in the same way in which it was done in the past. There appears to be a general recognition of the quality of artisans coming out of the past era and also the central role that state owned enterprises played in the production of these artisans. However, repeatedly industry stakeholders reflect on the realities of current business requirements and that within current contexts it will be difficult to train artisans in the same way. An employer/qualified artisan recalled,

> "when we were training we had a specific guy who trained us. I was the only apprentice there I got my full attention. Today if you take the cost then companies can't afford to put a trainer onto an apprentice because it costs the company money".

Another employer shared this frustration, "we will have to do our training ourselves. It's difficult to do it on the job because it affects production". The organisation and pace of work has a big impact on a company's ability to train well. An employer in the metals chamber indicated "we're in the maintenance field, so most of our work is breakdown work. So if the paw-paw strikes the fan, the guys are going under pressure and they're not in the office working lekker". An employer in the plastics chamber also stated that

> "in the environment that we are in everything happens very quickly, customers want their order quickly, you've got to just supply very quickly so everything is very rushed. We comment often on this microwave era".

Another employer/training provider also added to this sentiment when reflecting on how trainees are currently being exposed in their company,

> "it doesn't mean that he's going to be working with that subject matter expert the whole time. In fact, those people that we have in those positions, they have to manage other people. So they just spend a limited time. Whereas what I understand from the previous structure, you would have had one artisan with two appies basically working only with him almost full-time".

A trainee in the plastics chamber, also reflected on the pressured work environment that impacts on the company's ability to offer proper training,

> "I don't want to say we're understaffed here, but there's lots of responsibility given to one person and even though you are an apprentice, you do a qualified guy's work, but the qualified guys are too busy to help you out".

That is why many employers have recommended that different initiatives be applied, given the realities of the current business environments. One employer in the new tyres chamber suggested a move back to the more traditional forms of apprenticeship, where companies had their own training centres, and apprentices were trained more closely to workplaces,

> "I think what should happen is they should start having proper training centres for apprentices, be it in companies or outside companies where young people can go and be properly trained. There should be a proper training period; it cannot be less than three years… The only way to learn is to work with qualified artisans and technicians, proper training facilities who knows and understand the trade and the needs of industry".

The impact of the labour market on the extent to which companies can contribute to quality artisan development has been starkly illustrated by the 2008 global financial recession. One employer in the auto chamber illustrated this point clearly, "we have not had an apprenticeship programme for a long time because of the 2008 recession". Another employer in the auto chamber asserted

> "we pay our levy because we have to…we have done no training…nothing in the last three years has happened. It's kind of economic factors. We pay our levies but we don't have money. We have been doing the statutory things like health and safety, first aid, certificates – training is going on every day but not formal training of merSETA".

The labour market is also increasingly characterised by shorter employment periods, contracts instead of permanent employment for instance. This also impacts on a company's willingness to invest in the training of artisans, if they feel they cannot be assured of a return on investment. An employer in the plastics chamber asserted,

> "we employed a lot of guys that have worked on three-month contracts, their own lifestyle begins to fit into a contract basis… so companies won't invest and develop into and spend vast amounts of money on training when they know they're going to lose them in a year's time. You don't get the skill based that have got the 10, 15 year experience anymore…So you've got to work with people who have very short life spans

of skill sets and that's often very difficult, which often means they don't hang around to develop further…".

We have now considered the narratives of this sample of respondents to assist us in understanding how artisanal identity and status is determined, how it is impacted by aspects such as race, gender and age, and how changes in training and the labour market has impacted on its conceptualisation. The last strategic question is answered by synthesising these findings in respect of each of these aspects, to reflect on how these have impacted on the notion of artisan over time.

## 3.6 HOW HAS THE NOTION OF AN ARTISAN CHANGED OVER TIME?

Investigation into this question required the review and analysis of quotes coded under the themes, '*changes to image associated with artisan'* and '*the notion of artisan'*.

While many reasons have been offered to explain these apparent shifts in perceptions around the notion of artisan, arguably the most notable change has been due to changes in the nature and organisation of work. This is strongly reflected in the narrative of employers and artisans in this sample. Many respondents emphasise the impact of higher levels of automation, information technology, the increasing use of computers and also different materials that requires different kinds of skills. What makes an evaluation of this shift important is that it serves to illustrate a changing discourse around artisans, making some question the relevance of the notion at all.

As an example, an artisan in the plastics industry asserted, "the term artisan, I don't, to be honest, in all due respect it doesn't exist anymore". An employer in the new tyres chamber elaborated, "most of our machines are fully automated, you need an operator. In the past an operator did 50 operations to build a tyre, on the new machine they barely touch the tyre". The impact of technology and increasing automation on the notion of artisan, was indicated by another artisan in the metals chamber,

> "I think automation inside the workshop, like the CNC machines where you have programmers who programme and make the component on a machine. Give that guy the same component to make on a conventional machine then he is useless…he has a theoretical skill but no practical skill".

These assertions highlight how the changes to the nature of work hold implications for the skilling of artisans. At the same time that some view this as deskilling, others feel that there is a shift towards the validation of higher levels of skills. An employer in the motor industry asserted in this regard, "artisanship is shifting towards occupational qualifications". This illustrates a perceived shift towards more knowledge intensive forms of work organisation, where technical and manual work is increasingly becoming professionalised as such.

Fundamentally though, the changes to the nature of work have impacted on the nature of demand for artisanal skills as well. An employer in the new tyres chamber commented on the need for electrical skills for example, "back then it was a future. Less so now that there is more IT. In the 80s there were still repairs for electronics. Now less so, if something is faulty you throw it away". Another employer in the metals chamber elaborated,

> "the old electricians where all things were hard wired, contactors and relays had to come in - has all been taken out and now has a computer inside it. Now you have to train this guy how to fault find in the computer. In the past he had a piece of paper which was an electric or mechanical drawing and he used to take that and do fault finding. Now he has a laptop and takes it to the machine and plugs it in and goes online. The drawing is online and he has to do fault finding electronically online on the machine".

An employer in the new tyres chamber offered his view of the impact of such changes,

> "we found that we have moved away from electrical to electronics, so you have the electrician who can't solve the problem then you must call the electronics technician guy then he can't fix it then you must call the electronics specialist who has vast experience and expertise. We find then if your electrician was of the calibre that could work more with the latest technology with PLCs, the electrician could do time-saving where he could fix minor electronic problems and not wait for an electronics technician".

What these quotes are highlighting is the need to reflect on the relevance and nature of future artisanal training given the realities of the current working environment. This is reflected by a qualified artisan,

> "when I started my apprenticeship the world and country was in a mellow stage. The company I worked for when I did my apprenticeship could afford to take 20 people to train them as artisans and not have them in the work environment for four years. I don't think we can do that anymore. Companies cannot afford it anymore".

The impact of this very high-paced production driven environment needs to be emphasised, as one artisan highlighted

> "a fitter doesn't have a chance when he's working with an apprentice and he's using an imperial fitting and he asks him, why is this imperial, he doesn't have time to explain to him. He's probably under pressure with a breakdown, so he can't still, "oh yeah, hmm". The client's standing behind him….he doesn't have time."

In sum, the respondents in this study emphasise that the reality of the changing working environment (knowledge intensification for eg.) and the nature of the globalised labour market, requires stakeholders to engage with the relevance of the notion of artisan within a contemporary context.

# 4. DISCUSSION AND CONCLUSION

While the reporting of the main findings from the fieldwork occurred in relation strictly to the six strategic questions of the project, the conclusion structures the findings systematically as parts of a puzzle leading eventually to what can be seen as the overarching storyline. Three key findings emerge from the analysis and will be highlighted in this section.

## 4.1 ARTISAN IDENTITY DETERMINED STRONGLY BY RACE, GENDER AND AGE, WHILE STATUS APPEARS MORE CLOSELY LINKED TO LABOUR MARKET DEMAND

The first key finding relates to the intersection of race and gender with generational differences in the way in which artisanal identity is constructed. Thus, changes in the profile of those increasingly accessing the labour market have not yet had a significant impact on traditional notions on artisans. In comparison to race, gender appears to more strongly construct artisanal identity. Based on the interview data age is considered an important factor, but impacts more on a perceived difference in identity, rather than an actual difference in approach to work.

Artisan status on the other hand, appears to be less dependent on the profiles of those involved in artisanal training and employment, but is strongly constructed by the perceived demand in the labour market. Because of this factor, we argue that artisanal status is characterised as being more volatile in comparison to identity, which appears to be more resistant to change.

## 4.2 CHANGES TO ARTISANAL TRAINING VIEWED AS ATTEMPTS AT A QUICK FIX SOLUTION TO A VERY DEEP PROBLEM

The second key finding relates to the overall perceived negative impact of the changes to the training of artisans (in terms of the routes and institutional arrangements) to the development of a more positive artisanal identity and status. The findings under this theme strongly support assertions that incremental changes are needed instead of big institutional change, which has characterised the South African artisanal landscape over the last 20 years. During this period, the learnership system was adopted, without clear indications of how it would relate to apprenticeships, and then without giving the system enough time to adjust to the change – re-introducing apprenticeships and programmes such as the AATP. It is evident from the narratives of the respondents that many are not even clear on what kind of route the apprentices under their supervision are taking, many confusing AATPs with learnerships and vice-versa. Structuring FET Colleges at the centre of artisanal training provision has also not contributed to constructing a positive notion of artisan. In short, the data cautions against big structural adjustments to the system without giving sufficient time for systems to mature and produce quality results. This is important not only for garnering support for artisanal skills development, but also to inculcate stronger positive artisanal identities and associated status.

## 4.3 CHANGES TO THE NOTION OF ARTISAN: GREASE MONKEYS TO SKILLED ANALYSTS

The last finding emerged as the strongest theme in the review of the narratives of this sample of respondents. The changes to the nature of work and its organisation is pervasive in that it holds implications not only for the type of artisanal skills we will require in the future, how and where those skills will be developed, but also whether the traditional notion of artisan will still be relevant in the future organisation of work. The strength of this theme is evident in the fact that it impacted on each area of interest/theme of investigation. But also in its own right suggests probably the most far-reaching consequence for artisans in that it requires a re-evaluation of the relevance of the traditional system of training, not only because of the difficulties noted in the system, but also the realities of the current nature of work. By extension what would also be required is a reconceptualization of what the notion of artisan means and how this relates to identity and status. No longer can we be comfortable with the notion of 'grease monkey' and we have to move to conveying an image of artisans as 'skilled analytics'. This will be critical to ensure that the artisan remains an integral part of the nature of production in an increasingly technologically driven world of work.

# TECHNICAL REPORT 2 APPENDIX A:
# INTERVIEW SCHEDULES

# ARTISAN IDENTITY AND STATUS PROJECT
# GUIDE QUESTIONS FOR INDIVIDUAL INTERVIEWS WITH
# **EMPLOYERS**

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1. **Please could you give me a brief resumé of your career –**

    - where do you come from? where did you study (college, university etc; institution and location)? did you work as an artisan and if so, where? how did you come to be in your present job?

2. **What do you think are the major issues in artisanal occupations today?**

3. **Do you feel these issues are being taken up in artisanal education?**

    - If so, how?

    - If not, should it be?

4. **What do you think are the major issues in artisanal employment?**

    - Do you think these issues are being dealt with?

    - What do you think about the status of artisans in South African society today, for instance? Do you think there are certain identities that can be associated with working as an artisan, for instance?

5. **Do you have any views about artisanal education and training?**

    - What are your views on the nature of the workplace component of training in general, and that offered by your institution?

    - Do you feel there are certain identities associated with being an artisan that might influence the success of the workplace component of training?

    - Do you feel that the training you are providing will appropriately prepare an artisan for the changing world of work? If so, what kind of skills are you teaching and practicing now that you did not employ before? Why are such skills important for an artisan today? Would these changes have any impact on the identity and status of an artisan today?

6. **Do you feel that the nature of artisanal work has changed significantly over the past decade? If so, how?**

    - Do you think this has any implications for the identity of an artisan?

    - Do you think this has implications for the status of artisanal occupations?

7. **Are there any other matters which you would like to bring to our attention?**

# ARTISAN IDENTITY AND STATUS PROJECT
# GUIDE QUESTIONS FOR INDIVIDUAL INTERVIEWS WITH
# **APPRENTICES/EMPLOYED ARTISANS**

---

*Briefly introduce yourself, and also, briefly explain your motivations to enter into the specific artisanal training programme/trade.*

**Issues in labour market**

1. What are your views on artisanal employment in general, and in your specific trade?
2. What are your views on the salaries associated with artisanal occupations in general and in the specific occupation you are training for? What are your views on the differences between a salary for an electrical technician and an electrical engineer for instance?
3. What do you think about emigration?
4. What do you think about the culture of your chosen occupation? Would you say it is more favourable to certain genders, age groups and racial categories, for instance?
5. What are your views on entrance criteria into artisanal employment and training? Do you feel the current requirements are too high or low?
6. What do you think about the status of artisans in South African society today?

**Artisanal Education and Training**

1. Do you feel that the training you are receiving will appropriately prepare you for the world of work?
2. Those of you that have had exposure to the world of work through workplace experience, would you say that this was a positive or negative experience? And also, how would you say this compares to the theoretical training you receive?

**Investigate motivation to succeed**

1. How much did it cost to study – all the way - from reg to completion
2. Can you work and earn money before qualifying? How much compared to after you have qualified? Is it worth qualifying through the test?
3. How much do you expect to earn when you qualify fully? When do you expect to qualify fully?

**Other issues of concern**

1. Are there any other issues we have not discussed that are of concern to you? In terms of the training you are receiving/have received and in terms of your expectations/experiences of employment?

# ARTISAN IDENTITY AND STATUS PROJECT
# GUIDE QUESTIONS FOR INDIVIDUAL INTERVIEWS WITH
# **TRAINING PROVIDERS**

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1. **Please could you give me a brief resumé of your career –**

    - where do you come from? where did you study (college, university etc; institution and location)? did you work as an artisan and if so, where? how did you come to be in your present job?

2. **What do you think are the major issues in artisanal employment today?**

- Do you think these issues are being dealt with? If not, what do you think should be done about them?

- What do you think about the status of artisans in South African society today, for instance? Do you think there are certain identities that can be associated with working as an artisan, for instance?

- Are these issues being taken up in artisanal education? If so, how?

3. **Business sense/budget information:** To work out what the apprenticeship/ learnership costs the institution and how much they get from government and student fees for running it per year per student

    - How much does the qualification cost your institution per year and per student (materials/running cost/ salaries)

    - How much government and private sector support do you get per year per student

    - How much do you charge per student per year

4. **What are your views on the quality of artisanal training?**

    - Do you have any views about artisanal education and training?

    - What are your views on the nature of the theoretical component of training in general, and that offered by your institutions?

    - What are your views on the workplace component of training in general?

    - Do you feel that the training you are providing will appropriately prepare an artisan for the changing world of work? If so, what kind of skills are you teaching now that you did not teach before? Why are such skills important for an artisan today? Would these changes have any impact on the identity and status of an artisan today?

5. **Do you think there is a culture that can be associated with artisanal occupations in general and in certain artisanal occupations specifically?**

6. **Do you feel that the nature of artisanal work has changed significantly over the past decade? If so, how?**
    - Do you think this has any implications for the identity of an artisan?
    - Do you think this has implications for the status of artisanal occupations?
7. **Are there any other matters which you would like to bring to our attention?**

# TECHNICAL REPORT 2 APPENDIX B:
# ETHICAL CLEARANCE

HSRC
Human Sciences Research Council

Human Sciences Research Council
Lekgotla la Dinyakisišo tša Semahlale tša Setho
Raad vir Geesteswetenskaplike Navorsing
Umkhandlu Wezokucwaninga Ngesayensi Yesintu
Ibhunga Lophando Ngenzulu-Lwazi Kantu

**HSRC Research Ethics Committee**
FWA Registration: Organisation No. 0000 6347
IRB No. 00003962
NHREC No. REC-290808-015

RESEARCH ETHICS COMMITTEE ADMINISTRATION

Room 1418 - HSRC Building
134 Pretorius Street, Pretoria
Gauteng, South Africa
Tel: 27 12 3022012 - Fax: 27 12 3022005
Email: ksithole@hsrc.ac.za - Website: www.hsrc.ac.za
REC tollfree no 0800 212 123

29 September 2012

Dr Angelique Wildschut
Education and Skills Development (ESD)
Human Sciences Research Council

Dear Dr Wildschut

**Ethics clearance of HSRC Research Ethics Committee Protocol No REC 8/19/09/12: Artisan Identity and Status: The unfolding South African story**

Thank you for your application for ethics approval of the above study. This was considered by the Research Ethics Committee at its meeting on 19 September 2012.

Ethics clearance of the study is hereby.

**Date of expiry of protocol approval:** 29 September 2015.

The Committee wishes you success in your research.

Yours sincerely,

Prof. D R Wassenaar PhD
Chairperson: HSRC REC

**Pretoria Office**
Room 1411, 134 Pretorius Street, Pretoria, 0002, South Africa. Private Bag X41, Pretoria, 0001, South Africa. Tel: +27 12 302 2800 Fax: +27 12 302 2828

**Cape Town Office**
Plein Park Building, 69-83 Plein Street, Cape Town, 8001, South Africa.
Private Bag X9182, Cape Town, 8000, South Africa. Tel: +27 21 466 8000 Fax: +27 21 466 8001

**Durban Office**
750 Francois Road, Intuthuko Junction, Cato Manor, Durban, 4001, South Africa.
Private Bag X07, Dalbridge, 4014, South Africa. Tel: +27 31 242 5400 Fax: +27 31 242 5401

www.hsrc.ac.za

**Port Elizabeth Office**
44 Pickering Street, Newton Park, Port Elizabeth, 6055, South Africa.
PO Box 34115, Newton Park, 6055, South Africa. Tel: +27 41 399 8700 Fax: +27 41 399 8711

# CONCLUSION

To lay the foundation for the overarching research aims, the first stage of the project took stock of artisanal skilling with a quantitative lens to describe analytically the size and nature of the artisanal population, in South Africa. This investigation highlighted key trends in relation to the supply and demand of artisans that might hold implications for changes to artisanal identities and status. In this regard, the labour market evaluation (between 2005 and 2012) showed demand in the sector to be characterised particularly, by the increasing employment of artisanal workers with higher levels of qualification, mostly younger (less than 40 years old) and specifically black, individuals. In comparison to the national picture however, the merSETA sector showed an increase in the employment of older (over 40 years old) individuals. Relative to other sectors as well, it was interesting to find a trend towards the increasing employment of lower qualified artisanal workers in the merSETA sector.

On the artisanal skills supply side, analysis showed the continued dominance of the apprenticeship pathway as a route to artisan status in the merSETA sector. While this is not necessarily negative, 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 were found to be highly gendered and racialised, where participation in learnerships were dominated by Blacks, Whites dominated participation in apprenticeships, during the period of evaluation. It is also clear that apprenticeships continue to be heavily dominated by males, while the male to female ratio is less extreme 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. These trends constitute important shifts in the nature of artisanal skills supply and demand over time that must hold implications for the conceptualisation of artisanal identity and status. The project attempted to find such answers in a qualitative manner through in-depth case studies in the fitting and turning and electrician trades in the merSETA sector.

Three key findings emerged from this qualitative investigation. Firstly, an analysis of the interview transcripts reveal artisan identity to be determined strongly by race, gender and age while status appears more closely linked to labour market demand in relation to a specific trade within a sector. The second key finding relates to the overall perceived negative impact of the changes to the training of artisans (in terms of the routes and institutional arrangements) to the

development of a more positive artisanal identity and status. The last finding emerged as the strongest theme in the review of the narratives of this sample of respondents. It shows that changes to the nature of work and its organisation is pervasive in that it holds implications not only for the type of artisanal skills we will require in the future, how and where those skills will be developed, but also whether the traditional notion of artisan will still be relevant in the future organisation of work. This analysis used the interview data to shed light on how artisanal identity and status is determined and also the factors impacting most prominently on shifts in these notions.

It is clear that while the quantitative analysis showed us the key features of the changes to supply and demand for artisanal skills in the merSETA sector and nationally, the qualitative analysis highlights the perceived impacts of these changes to constructing an artisanal identity and status. The next step after the conclusion of the project should be a reflection on which research and strategic questions were adequately addressed through the various research components, and which ones were not. This is critical firstly, to identify how the findings emanating from this project relates to extant research in the sector and nationally. Secondly, it is also important to identify the issues that will require more robust engagement with policy stakeholders responsible for the skilling and employment of artisans in the sector, but also in the country.

# REFERENCES


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

Akoojee, S. & Brown, H. (forthcoming) Accelerated Artisan Training at the Manufacturing Coalface: Responding to the Skills Challenge in South Africa. Paper to be presented at …..

Ashton, B. & Kreiner, G. (1999) "How Can You Do It?": Dirty Work and the Challenge of Constructing a Positive Identity. *The Academy of Management Review,* 24 (3): 413-434.

Babbie, E. & Mouton, J. (2001). *The practice of social research.* Cape Town: Oxford University Press.

Breier, M. & Wildschut, A. (2006) *Doctors in a Divided Society: The profession and education of medical practitioners in South Africa.* HSRC Research Monograph. Education, Science and Skills Development Research Programme. HSRC Press: Cape Town.

Breier, M., Wildschut, A. & Mgqolozana, T. (2008) *Nursing in a new era: The profession and education of nurses in South Africa.* HSRC Research Monograph. Education, Science and Skills Development Research Programme. HSRC Press: Cape Town.

Brockmann, M. (2010) Identity and apprenticeship: the case of English motor vehicle maintenance apprentices. *Journal of Vocational Education and Training*, 62 (1): 63 – 73.

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

Cavallo, S. (2008) Bachelorhood and masculinity in Renaissance and Early Modern Italy. European History Quarterly 38 (3): 375 – 397.

Christidis, P., Hernandez, H. & Lievonen, J. (2002) Impact of technologicial and structural change on employment: Prospective analysis 2020. Background Report. Study for the Committee on Employment and Social Affairs of the European Parliament IPTS – ESTO. March.

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

Costin, C.L. (1996) Exploring the Relationship among Craft Production, Gender, and Complex Societies: Methodological and Theoretical Issues of Gender Attribution: In *Gender and Archaeology,* edited by R. Wright, pp. 111-142. University of Pennsylvania Press.

Costin, C.L. (1998) Introduction: In Craft and Social Identity, edited by C. Costin and R. Wright. *Archaeological Papers of the American Anthropological Association,* Number 8. Washington D.C.

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*

Creswell, J.W. (1994) *Research design.* Thousand Oaks, CA: Sage Publications.

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.

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

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

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.

Freeman, J. (2007) Skills Development: Young people don't want to be artisans - it just isn't sexy enough. 23 May. Accessed online: 30 October 2012. http://cms.privatelabel.co.za/pls/cms/iac.page?p_t1=2877&p_t2=0&p_t3=0&p_t4=0&p_dynamic=YP&p_content_id=894807&p_site_id=69

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

Hall, R.E. (1991) Labour demand, labour supply, and employment volatility. In: NBER Macroeconomics annual. Olivier Jean Blanchard & Stanley Fisher (Eds). MIT Press.

Hallpike, C.R. (1968) The status of craftsmen among the Konso of South-West Ethiopia. *Journal of the International African Institute,* 38(3): 258 – 269.

Hogg, M.A., Terry, D.J. & White, K.M. (1995) A tale of two theories: A critical comparison of identity theory with social identity theory. Social Psychology Quarterly, 58: 255 – 269.

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

Jones, S. (1999). Singlehood for security: Towards a review of the relative economic status of women and children in women-led households. *Society in transitions*. 30 (1), 13-27

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.

Lamont, M. & Molnar, V. (2002) The study of boundaries in the Social Sciences. *Annual Review of Sociology*, 28: 167 – 195.

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

Landman, T. (2000). *Issues and methods in comparative politics: an introduction.* London: Routledge.

Lass, B. (1998) Crafts, chiefs, and commoners: Production and control in precontact Hawaií. *Archeological papers of the American Anthropological Association*. Special Issue: Craft and Social Identity, 8 (1): 19 – 30.

Loats, C.L. (1997) Gender, guilds and work identity: Perspectives from sixteenth-century Paris. *French historical studies,* 20(1): 15 – 30.

Maphalala. T. (1996). Street children in Swaziland. *Africa Insight*, 26 (3), 282-287.

Martin, S.E. (1996) Doing gender, doing police work: An examination of the barriers to the integration of women officers. Paper presented at the Australian Institute of Criminology Conference. First Australasian Women Police Conference. Sydney, 29 – 31 July.

Mason, J. (2002). *Qualitative researching,* SAGE Publications Limited.

McLean, M. (2000). A personal file of some informal collectors in central Durban – a case study. *Society in transitions*. 31 (1), 1-9.

Mclean, R. & Wilson, D.N. (ed) (2009) *International Handbook of Education for the changing world of work: Bridging academic and vocational learning.* Netherlands: Springer.

Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco: Jossey Bass.

MerSETA (2010). *Annual Report 2009/2010. Forging the future.* Johannesburg: MerSETA.

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

MerSETA. (2011). *MerSETA Sector Skills Plan 2010/11-2015/16*. Johannesburg: MerSETA.

Messing, K., Lippel, K., Demers, D. & Mergler, D. 2000. "Equality and difference in the workplace: physical job demands, occupational illnesses and sex differences." *Feminist Formations,* 12(3): 21 – 49.

Mooney, L. A., Knox, D., & Schacht, C. (2000) *Understanding social problems* (2nd ed.). Cincinnati, OH: Wadsworth.

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

Mukora, J. (2009) "Artisans", In: Erasmus, J & Breier, M. *Skills shortages in South Africa: Case studies of key professions.* Education, Science and Skills Development Research Programme. Research Monograph. Cape Town: HSRC Press.

Mummenthey, C., et al. (2012). *Skills development for the Metals and Related Services sector. A case study for the Department of Labour research project: Assessing the impact of Learnerships and Apprenticeships under the NSDSII*. Cape Town: HSRC Press.

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

NBI. (2009). External *Review of the Accelerated Artisan Training Project (AATP)*. Johannesburg: National Business Initiative (NBI).

Noscow, S & Form, W.H. (1962) *Man, work and society: A reader in the sociology of occupations*. New York, NY: Basic Books.

Pavalko, R. (1972) *Sociological perspectives on occupations.* Itasia, IL: Peacock.

Riesch, H. (2010) Theorising boundary work as representation and identity. *Journal for the Theory of Social Behaviour*, 40(4): 452 – 473.

Roodt, J., Visser, M., Wildschut, A. & Kruss, G. (2012). *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 story.

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].

Scrase, T.J. (2003) Precarious Production: Globalisation and artisan labour in the third world. *Third World Quarterly*, 24(3): 449 – 461.

Shapiro, E.D. (2005) J.D. Chalfant's clock maker: The image of the artisan in a mechanised age. *American Art*. 19(3): 40 – 59.

Silver, H.R. (1980) The Culture of Carving and the Carving of Culture: Content and Context in Artisan Status among the Ashanti. *American Ethnologist,* 7(3): 432-446.

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

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].

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

Stets, J.E. & Burke, P.J. (2000) Identity theory and social identity theory. *Social Psychology Quarterly*, 63(3): 224 – 237.

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).

Walsh, K. & Gordon, J.R. (2008) Creating an individual work identity. Human Resource Management Review, 18: 46 – 61.

Wildschut, A. 2010. 'Exploring Internal Segregation in the South African Medical Profession'. *Journal of Workplace Learning* 22(1/2): 53–66.

Wildschut, A., Gamble, J., Mbatha, N. & Ngazimbi, X. (2012) Understanding changing artisanal occupational milieus and identities: Conceptualising the study of artisans. Paper prepared for the project: Towards credible institutional mechanisms for skills planning. A Department of Higher Education and Training commissioned project. June.

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