merSETA

MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

REGIONAL SECTOR SKILLS PLAN

Gauteng-North West Region

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Regional Sector Skills Plan for Gauteng-North West

Prepared for

Manufacturing, Engineering and Related Services SETA (merSETA)

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FOREWORD

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ABBREVIATIONS AND ACRONYMS

AATP	Accelerated Artisan Training Program
Asgi-SA	Accelerated and Shared Growth Initiative for SA
BER	Bureau of Economic Research
CETEMF	capital equipment, transport equipment, metal fabrication
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DoL	Department of Labour
dti	Department of Trade and Industry
EC	Eastern Cape
FET	Further Education & Training
FS	Free State
GDP	Gross Domestic Product
GDPR	Gross Domestic Product per Region
GET	General Education & Training
GP	Gauteng Province
GVA	Gross Value Added
GWM&E	Government-Wide Monitoring and Evaluation
HET	Higher Education & Training
HRDS	Human Resources Development Strategy
IDC	Industrial Development Corporation
IDS	Industrial Development Strategy
IDZ	Industrial Development Zone
IPAP	Industrial Policy Action Plan
KZN	KwaZulu-Natal
LP	Limpopo Province
merSETA	Manufacturing, Engineering and Related Services Sector Education and Training Authority
MP	Mpumalanga Province
NAAMSA	National Automotive Association of South Africa
NC	Northern Cape Province
NIPF	National Industrial Policy Framework
NGP	New Growth Path
NMBLP	Nelson Mandela Bay Logistics Park

NSC	National School Certificate
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NW	North West
OEM	Original Equipment Manufacturer
PERO	Provincial Economic Review and Outlook
PGDP	Provincial Growth and Development Plan
QLFS	Quarterly Labour Force Survey
RSSP	Regional Skills Sector Plan
SDA	Skills Development Act
SDI	Spatial Development Initiatives
SERO	Socio-Economic Review and Outlook
SETA	Sector Education & Training Agency
SEZ	Special Economic Zone
SIC	Standard Industrial Classification
SSP	Skills Sector Plan
StatsSA	Statistics South Africa
VWSA	Volkswagen South Africa
WC	Western Cape
W&RSETA	Wholesale and Retail SETA
WSPs	Workplace Skills Plans

EXECUTIVE SUMMARY

1. Introduction

The Manufacturing, Engineering and Related Services Education and Training Authority (merSETA) established through the Skills Development Act, (Act 97 of 1998). The merSETA facilitates skills development in the following five sub-sectors (or chambers); Metals, Plastics, Auto (including only the seven local assemblers of new vehicles), Motor (including automotive components manufacturers and the motor retail and service subsector), and New Tyre.

This Regional Sector Skills Plan (RSSP) is aimed at unpacking the regional specificity of the merSETA subsectors. The objectives of this RSSP is to identify and map key features, trends, forecasts and legislative initiatives at the regional level regarding skills development. This RSSP provides valuable insight into regional and local developments in the sector and links to skills development planning. To this end, the RSSP presents a regional socio-economic analysis, profiles regional companies, explores the labour supply and demand imperatives and offers regional scarce and priority skills analysis.

2. Research Methodology

The research methodology used for this Regional Sector Skills Plan (RSSP) included both primary research and secondary research which involved both quantitative and qualitative research methods. The documentary and literature review covered provincial Growth and Employment Development Strategies (GEDSs), Provincial Economic Review and Outlook (PERO), Socio-Economic Review and Outlook (SERO) and these highlight the performance of the provincial economy and the social changes occurring in each province.

Some of the main data sources are Stats SA, SARB, DHET, DoL, BER, SARB, NAAMSA, and Quantec among others. The demand projections are based on the merSETA Sector Skills Plan 2012/13 – 2017/2018 national estimations, as per the econometric modelling performed by EcoQuant.

The research study was designed to be as interactive as possible with the merSETA Regional Committees which have representatives from all chambers, labour and employers' associations. At the inception of the project the research team attended the Regional Committee meetings to introduce the project, initiate task teams and outline the objectives. The primary research aspect of the study involved in-depth interviews with employer representatives, labour union representatives, FET colleges, and provincial government representatives. Majority of interviews were conducted face-to-face and some were done telephonically.

Table 1: Stakeholder engagements conducted

Engagement	Number of participants
Introductory Meeting	10
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Task Team	4
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3. Profile of merSETA Sector in the Region

Gauteng is the smallest of South Africa's nine provinces; its 18 178 square kilometres are only 1.4% of the country's land area. It is the most populous with 12.3 million people (23.7% of total) and has the highest population density: 675 people per square kilometre. Gauteng is highly urbanised and 97% of its population lives in urban centres. The North West province also known as the 'Platinum Province' constitutes 8.7% of South Africa's land mass. North West has a population of 3.5 million which is about 6.8% of the total population. North West is mostly rural in nature and has an unemployment rate of 26.5% (Stats SA: Quarter 1 2013 Labour Force Survey).

Gauteng is the biggest contributor to GDP contributing 34% to the nations GDP. Its economy is more than twice that of the second biggest contributor, KZN, indicating the importance of this province to the national economy. In 2011, North West was the seventh largest contributor (6.5%) to the South African GDP. Gauteng dominates every economic sector except agriculture (KZN), and the mining and quarrying sector which is dominated by North West. In 2011, 40.5% of manufacturing GDP was from Gauteng and North West contributed 20.5%.

Nationally, the merSETA has 53 150 companies in their database. Its biggest subsector is motor with 18,729 companies followed by metal (18,381), unknown (13,084), plastics (2,632), auto (256) and lastly new tyre (68). As the economic hub of South Africa most manufacturing companies are in Gauteng. 43% of the companies on the merSETA database fall under the Gauteng-North West region.

4. Major Policy Drivers in the Region

4.1. National Programmes

A. *New Growth Plan (NGP) and National Development Plan (NDP)*

The two documents position SA as a 'developmental state' and give the government an important role in the development of the economy, especially employment creation. The policy focus is to increase labour-absorbing activities, promote economic growth, and

equity (which is to be measured by decreasing inequality and poverty). The targeted 'job-drivers' are the labour absorbing sectors such as mining, agriculture, manufacturing and services. Some of the SETA related specific targets in the NGP include:

- at least 30 000 additional engineers by 2014,
- at least 50 000 additional artisans by 2015,
- improve skills in every job and target 1,2 million workers for certified on-the-job skills improvement programmes annually from 2013;
- expand enrolment at FET colleges, targeting a million students in FET colleges by 2014; and
- Create 250 000 jobs a year in infrastructure (energy, transport, water, communications) and housing through 2015.

B. *National Industrial Policy Framework (NIPF) and Industrial Policy Action Plan (IPAP)*

National Industrial Policy Framework (NIPF), sets out government's broad approach to industrialisation while IPAP 2 acknowledges the important role of sector-specific training programmes and skills facilitation that emerge directly from industry demands in relation to detailed Customised Sector Programmes.

C. *Metals Customised Sector Plan (CSP)*

The strategic vision of the plan is that "by 2014, SA will have a globally competitive metal sector, optimally utilising the comparative advantages of abundant mineral resources, skilled labour force and world-class technologies to produce and market high value-added products in the prioritised industries." Programmes in the plan include the promotion of local metal beneficiation, maximising local content through backward linkages, and upgrading production capabilities in downstream industries.

D. *Industrial Development Corporation (IDC) Jobs Scheme*

In 2011 the IDC launched a R10 billion scheme to tackle the country's chronic unemployment problem. The scheme was aligned with the government's New Growth Path and the Industrial Policy Action Plan (IPAP2). Funding would be available to entrepreneurs across the IDC's mandated sectors over a five year period. The scheme aims to create an additional 40 000 to 50 000 employment opportunities.

E. *National Foundry Technology Network (NFTN)*

NFTN is the culmination of a significant government and industry association-led effort to develop a globally competitive South African foundry industry through appropriate skills training, technology transfer, and diffusion of state-of-the-art technologies. Its main

outcome is to reduce import leakage, increase investments in key manufacturing processes and activities, employment and exportability.

F. *Automotive Production and Development Programme (APDP)*

The programme aims to increase local production to 1.2 million vehicles by 2020. It provides assistance to the component manufacturers so that they can provide cost competitive components to the Original Equipment Manufacturers (OEMs) and to international markets via exports.

G. *Special Economic Zones (SEZs) and Industrial Development Zones (IDZs)*

The KwaZulu-Natal province has the Richards Bay Industrial Development Zone (RBIDZ) which was incorporated in 2002. Its aim is to attract export oriented manufacturing investment, value-adding and productivity improvements.

H. *National Infrastructure Plan (NIP) and Strategic Integrated Projects (SIPs)*

National Infrastructure Plan (NIP) is aimed at transforming the economic landscape, creating significant numbers of new jobs, and strengthening the delivery of basic services in South Africa. Some of this investment is earmarked for the construction of ports, roads, railway systems, electricity plants, hospitals, schools and dams with the ultimate aim of contributing to faster economic growth. Under the plan, 18 strategic integrated projects (SIPs) were identified. The total costs of the 18 SIPs is estimated at about R4-trillion over the next 15 years.

4.2. Regional Economic Growth and Development Strategies

A. *Gauteng Employment, Growth and Development Strategy (GEGDS)*

The GEGDS outlines the strategic priorities and programmes for the provincial government. The vision of this GEGDS is: *"An inclusive and sustainable Gauteng City-Region that promotes a developmental and equitable society"*, and advocates for building a provincial economy that is based on *"innovation", "green growth" and "inclusivity".* One of the seven GEGDS strategic drivers is skills development and capacity building.

B. *Gauteng Industrial Policy Framework*

The Gauteng Provincial Government (GPG) has an Industrial Policy Framework (2010-14), which is located within National Government's efforts to promote a new economic growth path and the National Industrial Policy Framework (NIPF) and Industrial Policy Action Plans (IPAPs)[1]. Some of the sectors which have been identified by industrial policy

[1]Gauteng Department of Economic Development (2010).*Gauteng Industrial Development Framework (2010-2014).*

framework include; food and beverages, furniture, textiles and clothing, construction, machinery and equipment and the automotive and components sectors.

C. *Gauteng Human Resource Development Strategy*

The Gauteng Provincial Government (GPG) launched the Gauteng Human Resource Development Strategy (GHRDS) in September 2006[2]. The key focus of the GHRDS is human resource development and in particular providing a quality supply of skills for key economic and social sectors, promoting shared growth through building social capital and expanding the opportunities available to the poor.

D. *North West Provincial Growth and Development Strategy (PGDS)*

The North West Provincial Growth and Development Strategy provides a framework for integrated and sustainable growth and economic development for the province. The strategy is prescribes to balanced development of economic sectors and spatial localities in accordance with the demands and potential of the people[3].

5. Regional Scarce and Critical Skills

The regional scarce skills list (below) was developed through review of the merSETA national SSP (2012/2013); current chamber projects; in-depth interviews with labour representatives, employer organisations, provincial government officials and other stakeholders; and discussed through the regional committee and regional SSP task team workshops.

Table 2: Gauteng-North West Scarce Skills

Plastics Sector	Metal Sector	Motor and Auto Industry	New Tyre Sector
Plastics Manufacturing Machine Setter and Minder	Welders	Motor mechanics	Sales, Marketing and Development Managers
Rubber, Plastic and Paper Products Machine Operators	Moulders	Automotive machinist	Supply, Distribution and Related Managers
Rubber Products Machine Operators	Boilermakers	Diesel Mechanic	Supply and Distribution Manager
Rubber Production Machine Operator	Patternmakers	Spray-painters	Business and Administration Professionals
Plastic Cable making Machine Operator	Toolmaker	Motorcycle Mechanic	Finance Professionals
Plastics Fabricator or Welder	Fitter and Turner	Diesel Mechanic	Accountants

[2] http://www.info.gov.za/speeches/2006/06092610451006.htm(Accessed: 14 January 2013)
[3] North West Provincial Growth and Development Strategy 2004-2014

Plastics Production Machine Operator (General)	Electrician	Assessment Officers for Motorcycle Mechanics	Accountant (General)
Production / Operations Manager (Manufacturing)	Millwright	Suspension Fitter	Occupational Instructor / Trainer
Industrial Engineer	Manufacturing Machine Setter and Minder	Diesel Fuel Injection Pump Mechanic	Assessment Practitioner
			Retail Buyer
			Fitter and Turner
			Millwright
			Rubber Products Machine Operators
			Rubber Production Machine Operator
			Tyre Fitters

6. Regional Strategic Plan

The RSSP aimed to identify interventions which the merSETA regional and national offices can implement in line with the National Skills Development Strategy III Priorities. Recommendations and input was obtained from stakeholders in the region.

Table 3: Regional Strategic Plan Linked to merSETA Priorities

NSDS III Priorities	merSETA Priorities	Regional Strategic Plan
Priority 1: develop a labour market intelligence system and facilitate sector specific research initiatives	– To effect best practice in line with King III, – Establish capacity for research and skills planning, – Implement partnerships for credible skills planning, – Intermediate skills needs are identified and addressed in all merSETA sub-sectors, – High-level national scarce skills need to be identified and addressed, – Relevant R&D and innovation capacity is developed and implemented, – To implement a research programme to identify current and future interventions to support productivity improvements.	i. Short to Medium Term Priorities – Develop a database of all merSETA trained artisans that is accessible to employers – Collaboration with the Department of labour to ensure the (Employment Services of South Africa) ESSA is working effectively for the sector – Ensure feedback mechanism from employers to supply institutions is in place to ensure employability of learners.
Priority 2: promote artisan and sector-specific priority skills	– A total of 20 000 artisans qualified over the five-year period	i. Short to Medium Term Priorities – Encourage employers to: ○ Take up more learners for experiential learning, ○ Retain trained artisans to help them get experience.

			○ Release employees to get up-skilled with artisans standing in to reduce potential production downtime – Address the legislative and financial stumbling blocks that hinder employers from taking on apprentices and providing workshop experience to FET students
Priority 3: establish and facilitate strategic partnerships	– To ensure sector participation in the revision and development of the relevant curricula and qualifications offered by FET colleges – Establish partnerships that result in increased capacity to meet industry needs throughout the country – To enter into partnerships with organisations involved in youth skills development. – To establish cross-sectoral partnership projects to address skills needs in support of local economic development – Develop mechanisms and models to support skills development in the community-based- and small-enterprise sector through a range of partnerships, programmes, grants and incentives, – Identify and establish partnerships with international-, national- and provincial career-resources agencies	i. ii.	Short to Medium Term Priorities – Encourage partnerships and collaboration between employers and FETs so that FETs can have: ○ Modern training equipment ○ Curriculum review, development and upgrade ○ Qualified lecturers with industry know-how, and ○ More learners being taken up by industry for experiential learning Long term – Greater cohesion and communication in all spheres of government is necessary. This will ensure that the intake at supply institutions (HEI) is informed by priorities of the nation.
Priority 4: increase the flow of appropriately skilled new entrants into the system	– Implement mechanisms aimed at bridging the gap between industry and academic provision – To contribute towards the support and encouragement of initiatives for young learners and educators to achieve maths, science and technology results for entry into the sector – Establish a merSETA career gateway innovation network to market and communicate career pathways and opportunities – To promote comprehensive career development to support sector growth.	i.	Short to Medium Term Priorities – Develop and strengthen partnership with GET schools to increase pass rates especially in Maths, English and Science – Intensify career guidance, orientation and awareness in schools regarding careers in the manufacturing, engineering and related services industry – The merSETA Mobile Career Bus will be going around the province to ensure informed choices are made from grade 8. – Provide correct and relevant information to career advisors at schools – Forging stronger partnerships with HET institutions – Incorporate soft skills training to ensure learners and artisans develop holistically i.e. they can be able to take on supervisory and management roles – Use of trainers and facilitators who have industry experience i.e. use qualified artisans with experience in the skilling of learners – Refresher courses and up-skilling of trainers and facilitators required to ensure learners get up to date knowledge – Concerted efforts must be made to ensure there is no creation of oversupply of

		particular skills in the region – Mechanisms must be established to ensure artisans who have obtained training but are currently unemployed can be up skilled to plug the skills gaps in the region – Artisans must be equipped with a core skills set which enables them to be flexible and adaptable to learning other trades in the event that there is a shortage of employment opportunities for them – Training institutions must be quick to adapt to changes in industry requirements – Expose learners at GET level to manufacturing, engineering and related services in order to stimulate interest in the trades
Priority 5: develop the skills of the existing workforce	– To ensure sound financial accountability – Capacity building of stakeholders – To implement skills development initiatives in the workplace through the effective utilisation of the levy grants system – Intermediate skills needs are identified and addressed in all merSETA sub-sectors, – High-level national scarce skills need to be identified and addressed. – To address low levels of literacy and numeracy amongst workers and new entrants – Identify and implement sector projects to address specific skills gaps and skills imbalances to contribute towards transforming the workplace	i. Short to Medium Term Priorities – To address the lack of fundamental basics; bridging courses for unskilled possibly through ABET programmes must be implemented – Address the growing demand for individuals who have practical and theoretical experience to function within the supervisory roles in the sector – Constant up-skilling of employees to ensure continuous professional development and career progression

In order for the RSSP to contribute to the skills development needs of the Gauteng-North West province, the identified regional strategic plan needs to be implemented. Although there are some specific issues raised in the Gauteng-North West task team and interviews with regional stakeholders, most of the inputs mirror those given in other regions.

1. INTRODUCTION AND BACKGROUND

1.1. Introduction

The Manufacturing, Engineering and Related Services Education and Training Authority (merSETA) was established through the Skills Development Act, (Act 97 of 1998). The merSETA facilitates skills development in the following five sub-sectors (or chambers); Metal, Plastics, Auto (including only the seven local assemblers of new vehicles), Motor (including automotive components manufacturers and the motor retail and service subsector), and New Tyre.

The merSETA sub-sectors are demarcated on the basis of the three-digit Standard Industrial Classification (SIC) codes that are used in capturing the for the National Accounts, these activities cover: basic iron & steel, non-ferrous metals, and metals products manufacturing (SIC codes 351 to 355); machinery manufacture (SIC codes 356 to 357); rubber products manufacturing (SIC code 337); plastics products manufacturing (SIC code 338); motor vehicles, parts and accessories manufacturing (SIC codes 381 to 383); and sale, maintenance and repair of motor vehicles, and fuel station operations (SIC codes 631 to 635). It is important to note that revised SETA landscape associated with NSDS III (and thus applicable from 1 April 2011 to 31 March 2016) led to the transfer of petrol retail subsector from the merSETA to the Wholesale and Retail SETA (W&RSETA)[4]. However, it is not possible at this stage to separate fuel station operations from the data for the rest of the group.

The merSETA National Sector Skills Plan (SSP 2012/13-2017/18) notes that geographically, the merSETA sector is clustered in four main regions: Gauteng (including sections of the North West Province, which has the most significant concentration of firms and employment); Western Cape (mostly Cape Town and surrounds); the central Eastern Cape coast including Port Elizabeth and East London; and the Durban/Pietermaritzburg region of KwaZulu-Natal. Regardless of domestic location, a key characteristic of firms in almost all of the merSETA's subsectors is their high level of global integration. This factor impacts at many levels, including the adoption of technology and growth in production volumes and, through this, on employment levels and skills needs.

This Regional Sector Skills Plan (RSSP) is aimed at unpacking the regional specificity of the merSETA subsectors. To the best of our knowledge, merSETA is the first SETA to develop region or provincial specific SSPs.

[4]Dr Blade Nzimande (2010). *Press briefing the new SETA landscape for the period April 2011 till March 2016,* 09 November 2010. Online: http://www.dhet.gov.za/portals/0/documents/SETA%20Landscape.pdf (Accessed on 10 January 2013).

1.2. Background

SETAs are expected to facilitate the delivery of sector specific skills interventions that help achieve the goals of the NSDS III, address employer demand and deliver results. SETAs should be the authority on labour market intelligence and ensure that skills needs and strategies to address these needs are set out clearly in SSP. Thus, SETAs must be able to:

- coordinate the skills needs of the employers; both levy-paying and non-levy paying in their respective sectors,
- undertake sector-based initiatives, and
- Collaborate on cross-sector skills areas to enable collective impact.

Developing SSPs is core to the SETAs' mandate. The SSPs must:

- outline current and future learning and qualifications needs of workers and their employers,
- develop interventions that are agreed on with stakeholders and can improve the match between education and training supply and demand, and
- Outline the current and projected needs of the sector and sector employers.

The SSPs are also a critical instrument for building a connected labour market information system across all the sectors, which is an important evidence base for skills development and its impact.

The objective of developing a Regional Sector Skills Plan (RSSP) is to identify and map key features, trends, forecasts and legislative initiatives at the regional level regarding skills development. This RSSP provides valuable insight into Gauteng-North West and local developments in the sector and links to skills development planning. To achieve this, the RSSP undertakes a regional socio-economic analysis, profiles regional companies, explores the labour supply and demand imperatives and offers regional scarce and critical skills analysis.

1.3. Research Methodology

The research methodology used for this Regional Sector Skills Plan (RSSP) included both primary research and secondary research which involved both quantitative and qualitative research methods.

- Secondary (desktop) research was conducted on each region's economic, social and development status and strategies. The regional socio-economic analysis was done by doing a literature review of existing data and research papers. merSETA has

done a range of research projects; these were reviewed and helped in understanding the chambers that make up merSETA.

- Research conducted by government departments, national research institutions, industry publications and the media was used extensively in the report. Provincial governments publish annual reports such as the Provincial Economic Review and Outlook (PERO) and the Socio-Economic Review and Outlook (SERO) and these highlight the performance of the provincial economy and the social changes occurring in each province.
- The merSETA workplace skills plans (WSPs) were analysed to provide data on sector employment by chamber, demographic profile of employees and occupations by province. Although the database provided was only for 8% of the companies on merSETA's database it represents 35% of levy-paying companies. The WSPs represent the majority of the employees in the sector because there is a direct relationship between levies paid and employment. The data was assumed to be a representative sample of the merSETA sector and was analysed as is.
- Regional and municipal economic data was obtained from Quantec and this was used extensively in the report. National Accounts data is not captured according to the merSETA chambers; Quantec data that most closely resembled the merSETA chambers was used.
- National data sources and a range of statistical publications by Statistics South Africa (Stats SA), the DHET, the Department of Labour and data from industry associations.
- The demand projections in Chapter 4 were based on the merSETA Sector Skills Plan 2012/13 – 2017/2018 national projections. The demand projections are based on new demand resulting from economic growth and economic creation – as well as for replacement demand that will occur because of mortality, emigration, and the retirement of employees. The employment growth figures used in the model were derived from econometric modelling performed by EcoQuant. The econometric modelling was based on the sectoral demarcations found in the National Accounts data. Based on the distribution of manufacturing employment per province for Quarter 1 of 2013, the projections in the national SSP were proportioned to give a regional outlook. In essence, 35% of manufacturing employment was from Gauteng and 35% of the projected demand was assigned to Gauteng. The customisation was limited as it assumed the distribution of manufacturing employment will remain the same in the foreseeable future.

The research study was designed to be as interactive as possible with the merSETA Regional Committees which have representatives from all chambers, labour and employers. At the

inception of the project the research team attended the Regional Committee meetings to introduce the project, initiate task teams and outline the objectives. The primary research aspect of the study involved in-depth interviews with employer representatives, labour union representatives, FET colleges, and provincial government representatives. Majority of interviews were conducted face-to-face and some were done telephonically. Information obtained from the primary research was used extensively to determine:

- Factors affecting the skills development in the region
- Scarce and priority skills
- Implementation strategies and recommendations to address challenges faced

A draft report was presented at the Regional Committee meeting and further discussions were done to refine the report and formulate region specific strategies. The draft report was put on the merSETA website for two weeks for stakeholder's comments and inputs.

1.3.1. Limitations and Areas of Further Research

Limitations

The research project for regional skills sector plans was initiated in the fourth quarter of 2012 with the base year being 2011. Major statistical data sources used for the report were StatsSA and Quantec. Apart from labour data which is updated quarterly, most of the data still available is up to 2011; hence some figures and tables have 2011 data instead of 2012/13.

The database which was used for the WSP analysis of company employee data for merSETA was not complete. There were 4,800 companies on the database which was provided. Although the total should be around 53,150, the companies which were on the database were said to constitute around 70% of the employment in the merSETA chambers. Analysis of the occupational breakdowns and the age, gender and race analysis must therefore be taken with the above caveat in mind.

Identification of scarce and priority skills via primary research was conducted by engaging with stakeholders from different chambers in the region. Companies within the same chamber (sector) might have different specific skills needs which might get glossed over or overemphasised depending on respondents interviewed. Assent of the final scarce and priority skills lists are given with the need to take the aforementioned into account.

Areas of further research

Research into the readiness of FET colleges in delivering the identified skills required for the region must be conducted to ensure the region is not caught unawares when the skills are required.

This current study did not give exact numbers of the people needed to be skilled in particular areas; further research can be conducted to determine this.

1.4. Policy Context for Skills Planning

Each SETA is required to develop a SSP within the framework of the National Skills Development Strategy (NSDS) as prescribed by the Skills Development Act of 1988, Section 10 as amended (2008). Sector skills planning in South Africa must take into account a wide range of policy imperatives that seek to support inclusive sectoral growth paths that advance economic growth and the social development and transformation agenda. These policies include those that relate directly to skills development, those that focus more directly on economic growth and social development, and those that focus on monitoring and evaluation.

These policies and strategies are briefly discussed below.

1.4.1. Skills development legislation and strategies

Constitution of the Republic of South Africa

The Bill of Rights, contained in the Constitution of the Republic of South Africa (1996), stipulates that everyone has the right to basic education, including adult basic education and further education, which the State, through reasonable measures, must progressively make available and accessible. The Constitution legitimises the need for quality education and training, human resources development (HRD) and human development (HD) for all South African citizens[5]. As a result, HRD and HD are important items on South Africa's developmental agenda to improve the quality of life for all its citizens.

Human Resources Development Strategy for South Africa (HRDSA II)

The first Human Resource Development Strategy of South Africa (HRDSA) was approved and started to be implemented in 2001. This first National Human Resource Development Strategy

[5] Republic of South Africa (RSA). (1996). Constitution of the Republic of South Africa Act 108 of 1996. Pretoria: Government Printer. 1996:14.

(herein referred to as HRDSA I) was a national strategic response to HRD challenges, led by both the National Department of Education and the Department of Labour.[6]

According to the Revised Human Resource Development Strategy of South Africa, 2010-2030 (herein referred to as HRDSA II), HRDSA provides an over-arching framework to improve and reinforce alignment, coordination, planning, management, monitoring, evaluation and reporting of all HRD imperatives in collaboration with all social partners, professional bodies and research communities[7].

The HRDSA is a coordinated framework intended to combine key levers of the constituent parts of the HRD System into a coherent strategy[8]. Therefore, much of the implementation of the HRDSA's strategic priorities will be resourced and implemented by the constituent parts and national strategies such as the Occupational Learning System, which includes Sector Education and Training Authorities (SETAs), the Further Education and Training (FET) Sector, the HRDS (steered by the DPSA), and the Technology and Innovation System of the public service (steered by the Department of Science and Technology)[9].

One of the HRDSA II strategic objectives is to audit and establish a policy framework on the level of planning capacity required in the Skills Development Act (SDA) institutions, namely Department of Labour (now DHET), SETAs, NSA); GET;FET and HET for the optimal implementation of their mandates.

Skills Development Act

The Skills Development Act, 1998 (SDA) and the Skills Development Levies Act, 1999 (SDLA) created an enabling regulatory framework for the development of the skills of the South African workforce. The two Acts, together with the other regulations published in terms of them (and the amendments thereof[10]), constitute a single regulatory structure and deal with funding of skills development and the allocation of grants by SETAs.

The SDA mandates the SETA to, among others:

- develop a SSP within the framework of the NSDS,
- implement its SSP,

[6] Republic of South Africa (RSA). (2001). *Human Resource Development Strategy of South Africa*. Pretoria: Government Printer.
[7] Revised HRDSA, 2009:30.Online. Available: http://www.info.gov.za/view/DownloadFileAction?id=117580 (Accessed: 11 January 2013)
[8] Republic of South Africa (RSA). (2009:31-32). *Revised Human Resource Development Strategy of South Africa 2010 - 2030*. Pretoria: Government Printer.
[9] Republic of South Africa (RSA). (2009:31-32). *Revised Human Resource Development Strategy of South Africa 2010 - 2030*. Pretoria: Government Printer.
[10] Skills Development Amendment Act, No. 37 of 2008.

- liaise with the provincial offices and labour centres of the Department and any education body established under any law regulating education in the Republic to improve information—
    - about [employment] placement opportunities; and
    - between education and [training] skills development providers and the labour market; and
- Liaise with the skills development forums established in each province in such manner and on such issues as may be prescribed;

National Skills Development Strategy (NSDS) III

The National Skills Development Strategy (NSDS) is the overarching strategic guide for skills development and provides SETAs with direction for sector skills planning and implementation that is in line with wider national goals and objectives. The new NSDS III (2011-2015) was launched in January 2011. It draws on lessons learned from NSDS I and II. The key driving force of this strategy is improving the effectiveness and efficiency of the skills development system. It represents an explicit commitment to encouraging the linking of skills development to career paths, career development and promoting sustainable employment and in-work progression.

The emphasis is particularly on those who do not have relevant technical skills or adequate reading, writing and numeracy skills to enable them to find employment.

The NSDS III emphasised that developing SSP is core to the SETAs' mandate, and that the SSP must outline current and future learning and qualifications needs of workers and their employers and develop interventions that are agreed on with stakeholders and can improve the match between education and training supply and demand - the current and projected needs of the sector and sector employers.[11]

1.4.2. Monitoring and evaluation strategies

The need for a monitoring and evaluation (M&E) system is a constitutional requirement as per Section 195 of the Constitution of South Africa (Act 108 of 1996)[12], which compels government departments (and other organs of state) to promote efficient, economic and effective use of resources and directs public administration to be developmentally oriented and accountable.

The Policy Framework for Government-Wide Monitoring and Evaluation (GWM&E) System is the overarching policy framework for monitoring and evaluation in the South African Government. It

[11] DHET (2011) *National Skills Development Strategy III*.
[12] As amended: No. 61 of 2001: Constitution of the Republic of South Africa Second Amendment Act, 2001

sketches the policy context for supporting frameworks, such as National Treasury's Framework for *Managing Programme Performance information* and Statistics South Africa's *South African Statistics Quality Assurance Framework*[13].

1.5. Conclusion

The regional skills sector plan is aimed at assisting merSETA in mapping out strategies to tackle the education, training and development needs within the different provinces. All skills development related interventions have to be aligned with the Skills Development Act and within the framework of the National Skills Development Strategy. South Africa's NSDS provides guidance as to how skills development programs can be formulated and implemented in alignment with national goals and objectives.

[13]The Presidency (2007).Policy framework for the Government-wide Monitoring and Evaluation Systems Pretoria, South Africa.

2. ECONOMIC ANALYSIS OF GAUTENG-NORTH WEST REGION

2.1. Socio-economic profile

According to Census 2011 results, South Africa had a population of 51.7 million people in 2011. The provinces of Gauteng and KwaZulu-Natal account for 42% of South Africa's population. Gauteng is the most populous with 12.3 million people. The third most populous province is Eastern Cape which accounts for 12.7% of the population and the fourth is Western Cape with 11.3%. The Northern Cape has the largest land area (30.5%) but is the least populous with 2.2% of the population. North West has a population of 3.5 million which is about 6.8% of the total population. North West is the third least populous province after Northern Cape and Free State.

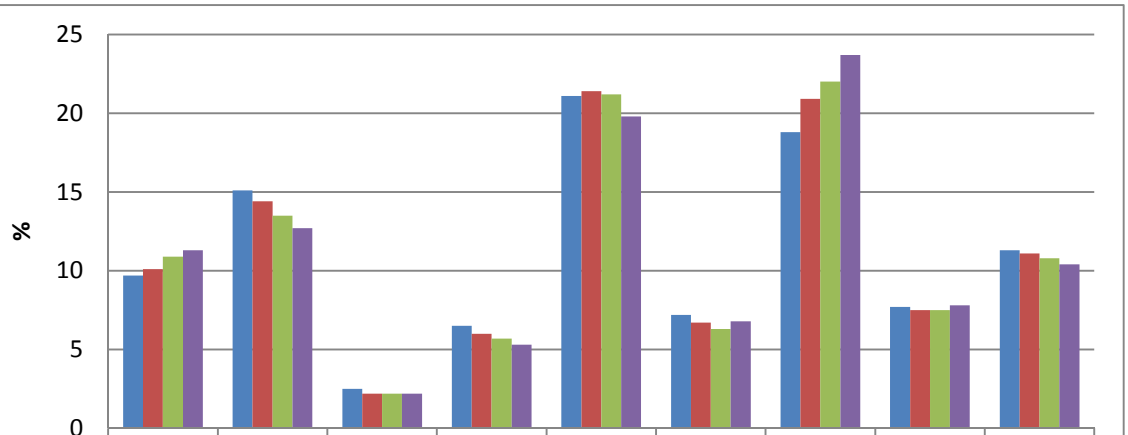
Table 1: Population by province, 2011

Province	Population	% of total
Eastern Cape	6 562 053	12.7%
Free State	2 745 590	5.3%
Gauteng	12 272 263	23.7%
KwaZulu-Natal	10 267 300	19.8%
Limpopo	5 404 868	10.4%
Mpumalanga	4 039 939	7.8%
Northern Cape	1 145 861	2.2%
North West	3 509 953	6.8%
Western Cape	5 822 734	11.3%
TOTAL	**51 770 560**	**100%**

Source: Stats SA

Gauteng's population grew by 31% to 12.2 million people by 2011 up from 9.4 million a decade ago. Comparing the three sets of census data, the provincial share of the total population has fallen in the Eastern Cape (from 15.1% in 1996 to 12.7% in 2011). The fastest growing province is the Western Cape, growing by 29% between 2006 and 2011. The population of North West has grown 14.9% since 2007.

Figure 1: Percentage distribution of population by province, 1996-2011



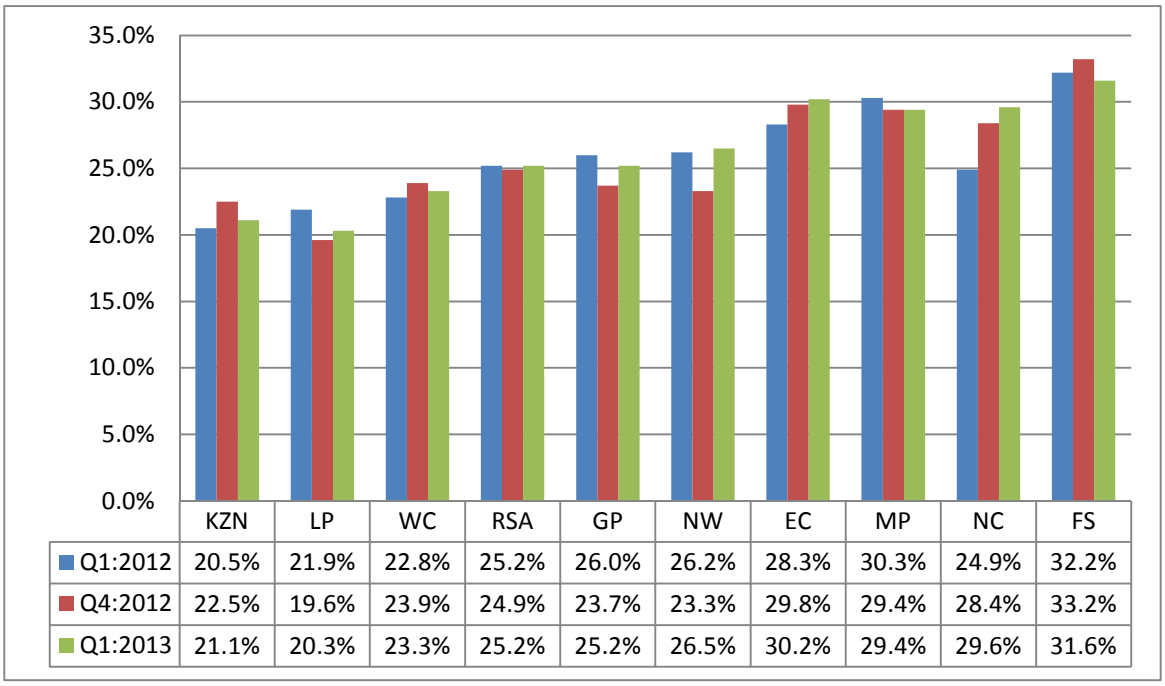
	WC	EC	NC	FS	KZN	NW	GP	MP	LP
1996	9.7	15.1	2.5	6.5	21.1	7.2	18.8	7.7	11.3
2001	10.1	14.4	2.2	6	21.4	6.7	20.9	7.5	11.1
2007	10.9	13.5	2.2	5.7	21.2	6.3	22	7.5	10.8
2011	11.3	12.7	2.2	5.3	19.8	6.8	23.7	7.8	10.4

Source: Stats SA,

A total of 166,008 people migrated out of North West and 273,117 migrated into the province based on the 2011 Census results. More people migrated into North West than out of North West and it had the third highest in-flow migration figures after Gauteng and Western Cape. Gauteng has the highest in-flow migration patterns of all the provinces. Around 1-million people have moved to Gauteng in the past decade, highlighting the flow of people from rural to urban areas. Only 56% of people living in Gauteng in 2011 were born in Gauteng in contrast to North West where 89% of residents were born in North West.

South Africa has a very high unemployment rate of 25.2% according to the Quarterly Labour force Survey, Quarter 1 2013 report. The figure below shows the unemployment rates for all the provinces and for the nation as whole.

Figure 2: Unemployment rate by province, 2013



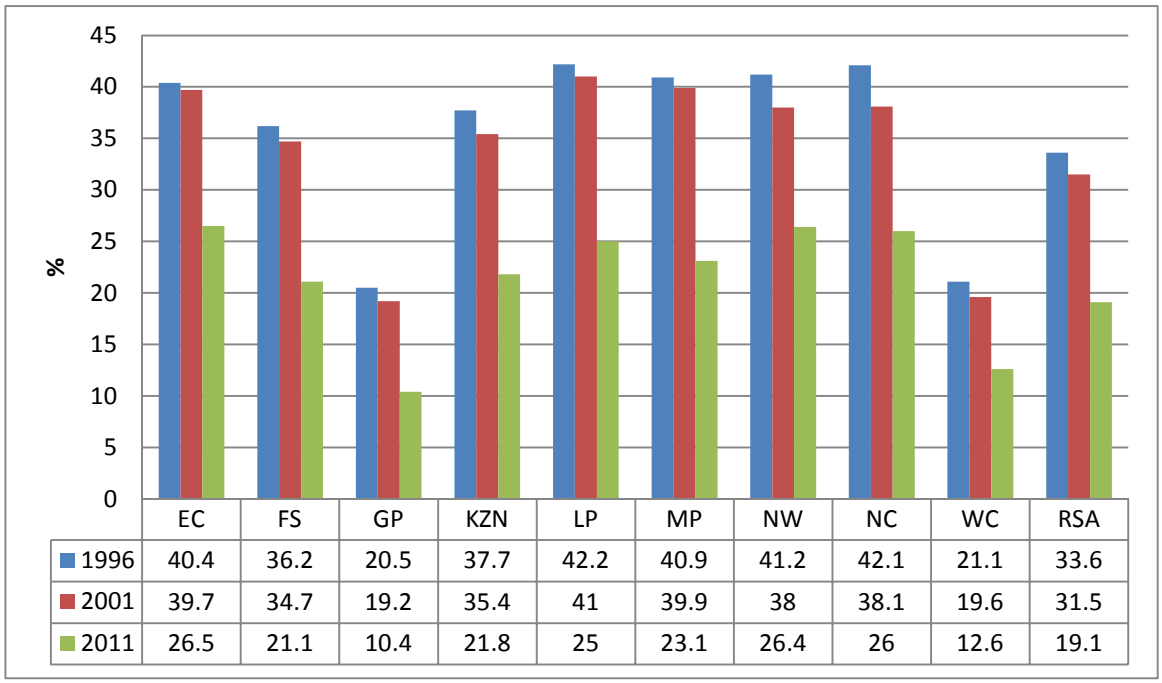
	KZN	LP	WC	RSA	GP	NW	EC	MP	NC	FS
Q1:2012	20.5%	21.9%	22.8%	25.2%	26.0%	26.2%	28.3%	30.3%	24.9%	32.2%
Q4:2012	22.5%	19.6%	23.9%	24.9%	23.7%	23.3%	29.8%	29.4%	28.4%	33.2%
Q1:2013	21.1%	20.3%	23.3%	25.2%	25.2%	26.5%	30.2%	29.4%	29.6%	31.6%

Source: Stats SA Quarterly Labour Force Survey, Q1 2013

As can be seen in the graph above, for Q1 2013 Limpopo had the lowest unemployment rate amongst the provinces. North West, Eastern Cape, Mpumalanga, Northern Cape and the Free State province are a cause for concern because for the period under review their unemployment rates have been higher than the national average.

An analysis of those aged 15 years and above with no education or highest level of education less than Grade 7 shows the provinces of Eastern Cape, North West, and the Northern Cape with the highest percentages.

Figure 3: Percentage of people (>15 years) with no education or less than Grade 7, 2011



	EC	FS	GP	KZN	LP	MP	NW	NC	WC	RSA
1996	40.4	36.2	20.5	37.7	42.2	40.9	41.2	42.1	21.1	33.6
2001	39.7	34.7	19.2	35.4	41	39.9	38	38.1	19.6	31.5
2011	26.5	21.1	10.4	21.8	25	23.1	26.4	26	12.6	19.1

Source: Stats SA, Census 2011

Only 10.4% of the population of Gauteng (aged 15 and above) had no education or highest level of education less than grade 7 which is lowest of all the provinces. Nationally progress has been made with this percentage decreasing from 33.6% in 1996 to 19.1% in 2011. For North West 26.4% of the population aged 15 and above had no education or have a level of education less than grade 7 and this was higher than national average.

2.2. The Gauteng-North West Region's Economy

2.2.1. Gauteng Province

Gauteng is the smallest of South Africa's nine provinces; its 18 178 square kilometres are only 1.4% of the country's land area. It is the most populous with 12.3 million people (23.7% of total) and has the highest population density: 675 people per square kilometre. Gauteng is highly urbanised and 97% of its population lives in urban centres.

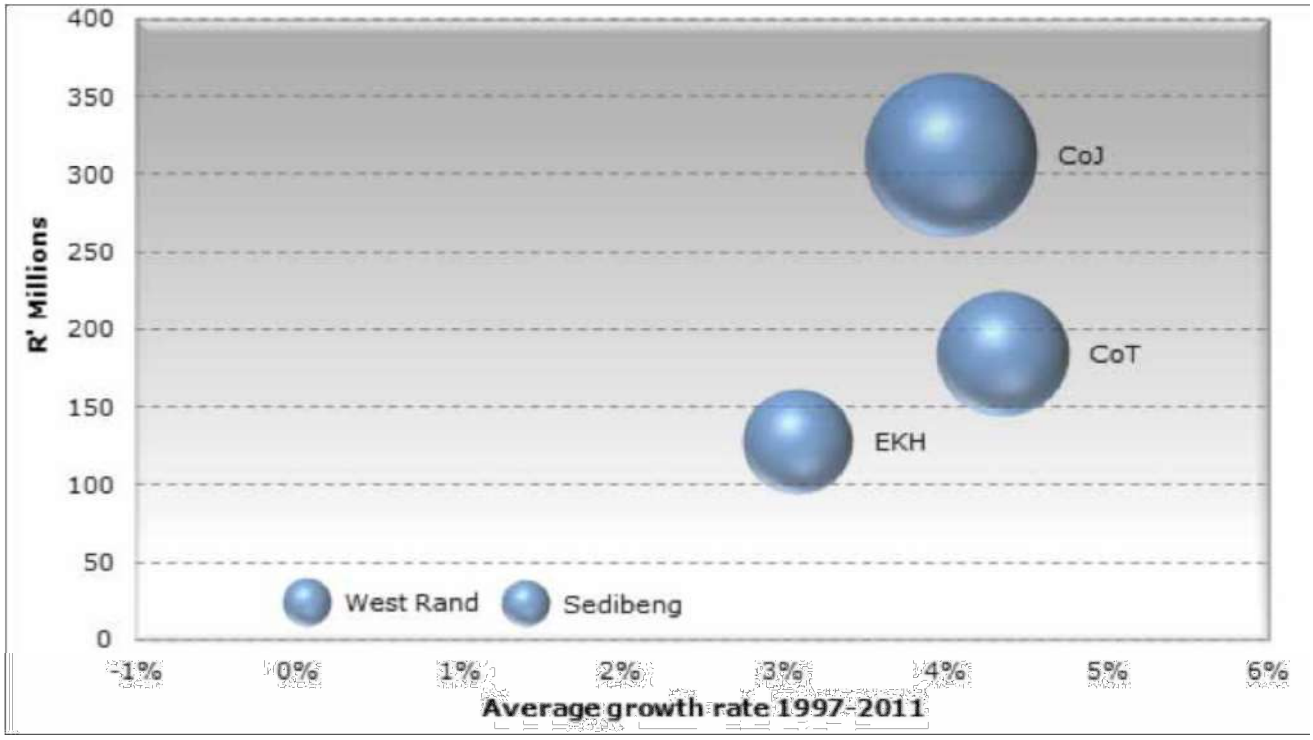
The province of Gauteng has three metropolitan provinces namely: City of Johannesburg (CoJ), City of Tshwane (CoT) and Ekurhuleni and two district municipalities, West Rand and Sedibeng. The CoT is the administrative capital of the country and is the fastest growing municipality in the country with its economy growing by an average annual growth rate of 4.4% between 2007 and 2011[14]. The CoJ is the largest city in the country; it is dominated by finance and commerce

[14] http://www.politicsweb.co.za/politicsweb/view/politicsweb/en/page71619?oid=341654&sn=Marketingweb+detail

and contributes the most to the regional GDP of Gauteng. Ekurhuleni has the third biggest economy amongst the municipalities in the province and has the largest concentration of manufacturing firms in the country ranging from heavy to light industry. The economies of the district municipalities, West Rand and Sedibeng, are relatively small compared to the three metropolitan municipalities.

The figure below shows the GDPR for the municipalities and their average growth rates between 1997 and 2011. The bubble size is an indication of the size of the economy of the respective municipalities. The bigger the bubble, the bigger is the GDPR, and the opposite is true. The CoJ had the largest GDPR OF R313 Billion in 2011. The CoT had the second largest GDPR of R184 and the fastest growth rate of 4.4%. The high growth rate is attributed to the growth in the construction and transport sub-sector which both grew by an average 7.8% percent in the period.

Figure 4: GDPR & Average Growth Rates, Municipalities, 2011



Source: Gauteng Provincial Economic Review Outlook 2012

The table below breaks down the sectoral composition of Gauteng's Gross Value Added per Region (GVAR) into the municipalities. This provides an indication of the largest and smallest contributions of the municipalities in the respective sub-sectors.

Table 2: Sectoral composition of Gauteng economy by municipalities, GVA 2011

	Ekurhuleni	CoJ	CoT	Sedibeng	West Rand	Total
Primary Sector						
Agriculture, forestry & fishing	23,1%	39,0%	25,8%	5,3%	6,8%	100%
Mining & quarrying	26,4%	31,7%	13,2%	8,5%	20,2%	100%
Secondary Sector						
Manufacturing	35,6%	32,0%	20,8%	7,5%	4,1%	100%
Electricity, gas & water	25,0%	37,4%	25,2%	8,1%	4,2%	100%
Construction	23,2%	38,2%	29,0%	5,3%	4,4%	100%
Tertiary Sector						
Wholesale & retail trade	25,6%	41,9%	23,6%	4,8%	3,8%	100%
Transport & communication	27,0%	39,3%	26,9%	2,9%	4,1%	100%
Finance & business service	20,2%	48,1%	25,6%	3,1%	3,9%	100%
Community, social and personal services	24,0%	41,7%	26,5%	3,9%	4%	100%
General government	19,7%	30,4%	40,6%	4,9%	4%	100%

Source: Quantec 2013

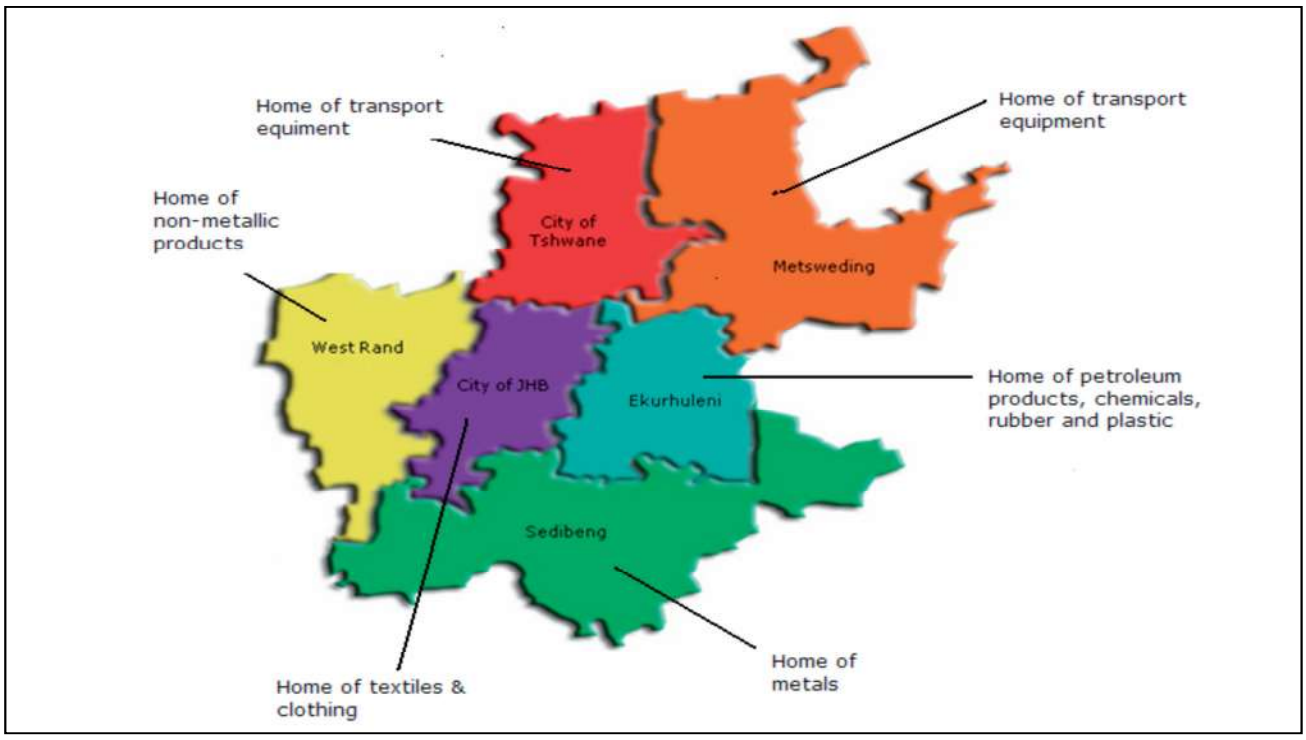
The CoJ contributes the most in all subsectors except for manufacturing (Ekurhuleni) and government services (City of Tshwane). 48.1% of GVAR from the finance & business services subsector came from CoJ, 25.6% from CoT, 20.2% from Ekurhuleni and less than 5% each from West Rand and Sedibeng. This dominating trend by the metropolitan municipalities is evident in the secondary and tertiary sectors but differs slightly in the primary sector. About 90% of the total economic contribution of the province is generated by the metropolitan municipalities.

Gauteng GDP constitutes about 35% of South Africa's GDP. The GDP of Gauteng is estimated to be around 10% of the total GDP of the entire African continent. Although its economy is dominated by tertiary sectors it is highly diversified and has a strong secondary sector. The 2011 Stats SA census shows that Gauteng has the highest figures of in-flow migration amongst the other provinces because the unemployed flock to Gauteng to look for job opportunities.

A research study carried out by the Wits-Ekurhuleni Symposium on Sustainable Manufacturing indicates that Ekurhuleni accounts for around one-third of national manufacturing output[15].The map below gives the comparative advantages of each municipality for the manufacturing sector.

[15]Gauteng Provincial Economic Review and Outlook 2010

Map 1: Gauteng Manufacturing Comparative Advantage, 2010



Source: Gauteng Provincial Economic Outlook, 2010

2.2.2. North West Province

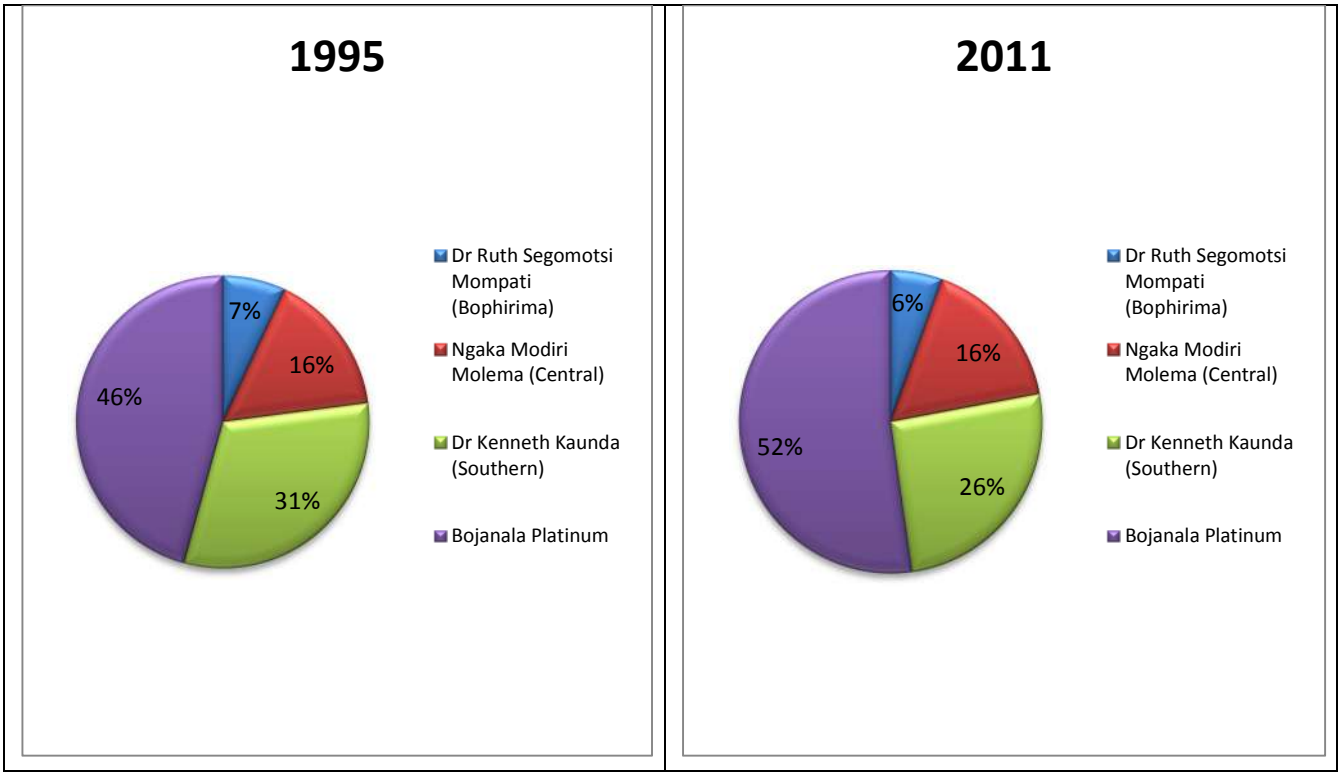
The North West province also known as the 'Platinum Province' constitutes 8.7% of South Africa's land mass. The province is mostly rural in nature and has an unemployment rate of 26.5% (Stats SA: Quarter 1 2013 Labour Force Survey). According to National Development Agency statistics 35% of the population is illiterate and 60% are living below the poverty line[16].

The economy of North West province is driven by mining, which generates more than half of the domestic product and provides jobs for a quarter of its workforce. The province currently relies on commodity exports; it plans to move towards higher value-added manufacturing and manufactured exports in order to broaden its economic base. The North West province contributed 6.5% to the national GDP.

North West is made up of 4 district municipalities namely: Bojanala Platinum, Ngaka Modiri Molema District (formerly Central), Dr Kenneth Kaunda District (formerly Southern) and Dr Ruth Segomotsi Mompati District (formerly Bophirima). Most economic activity is concentrated in the southern region between Potchestroom and Klerksdorp as well as Rustenburg and the eastern region, where more than 80% of the province's economic activity takes place. The capital Mahikeng is situated in the Ngaka Modiri Molema district municipality.

[16]http://www.nda.org.za/index.php?option=3&id=1&com_id=198&parent_id=158&com_task=1

Figure 5: Municipal contributions to GVA- North West Province, 2011



Source: Quantec

As shown in the graph above the Bojanala Platinum district contributed more than half of North West's regional GDP in 2011. The table below breaks down the sectoral composition of North West's Gross Value Added per Region (GVAR) into the municipalities. This provides an indication of the largest and smallest contributions of the municipalities in the respective sub-sectors.

Table 3: Sectoral composition of North West economy by municipalities, 2011

	Bojanala Platinum	**Ngaka Modiri Molema**	**Dr Ruth Segomotsi Mompati**	**Dr Kenneth Kaunda**	**Total**
Primary Sector					
Agriculture, forestry & fishing	26%	28%	15%	31%	100%
Mining & quarrying	84%	1%	1%	14%	100%
Secondary Sector					
Manufacturing	51%	18%	4%	26%	100%
Electricity, gas & water	21%	26%	9%	43%	100%
Construction	43%	20%	7%	31%	100%
Tertiary Sector					
Wholesale & retail trade	38%	25%	6%	32%	100%
Transport & communication	53%	17%	6%	24%	100%
Finance & business service	46%	21%	6%	28%	100%
Community social & personal service	36%	19%	10%	34%	100%
General government	33%	25%	9%	32%	100%

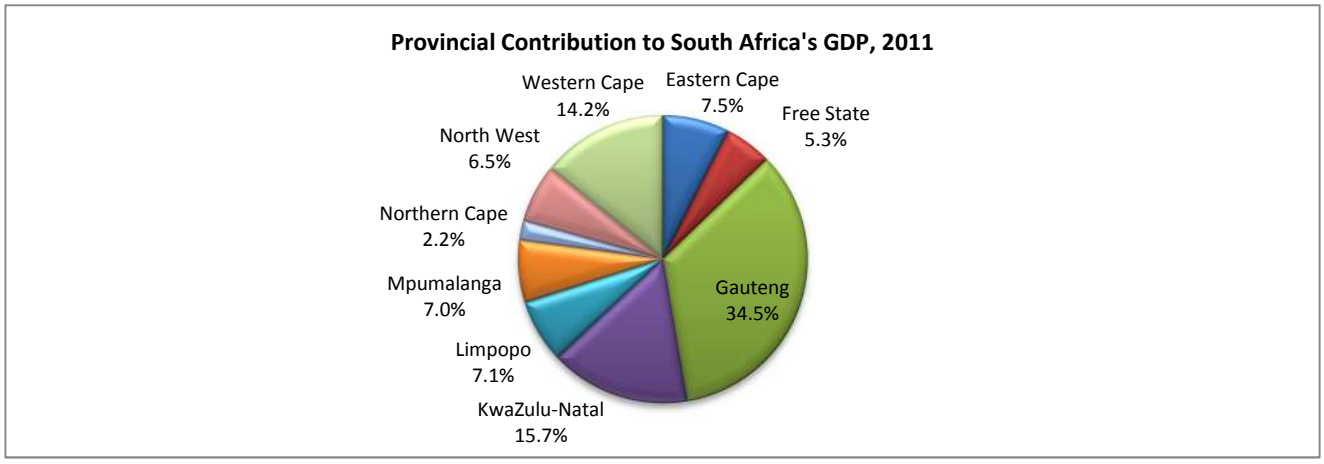
Source: Quantec

The Bojanala Platinum district contributes the most to the majority of subsectors except for the electricity, gas & water and the agriculture sector. The Bojanala Platinum district contributes 84% to the total mining and quarrying output of the district. The district contains the towns of Rustenburg, Phokeng, Brits, Skeerpoort and Koster. Brits, Hartbeespoort and Skeerpoort are central to the provinces manufacturing sector, with the automotive and automotive supply sectors prominent[17]. Manufacturing makes up more than a quarter of Brits' contribution to regional GDP, and the sector contributes significantly to employment.

2.3. Developments and Structure of the Economy

Gauteng is the biggest contributor to GDP contributing 34% to the nation's GDP. Its economy is more than twice that of the second biggest contributor, KZN, indicating the importance of this province to the national economy. In 2011, North West was the seventh largest contributor (6.5%) to the South African GDP contributing more than only two provinces Free State (5.3%), and Northern Cape (2.2%).

Figure 6: Provincial contribution to South Africa's GDP, 2011

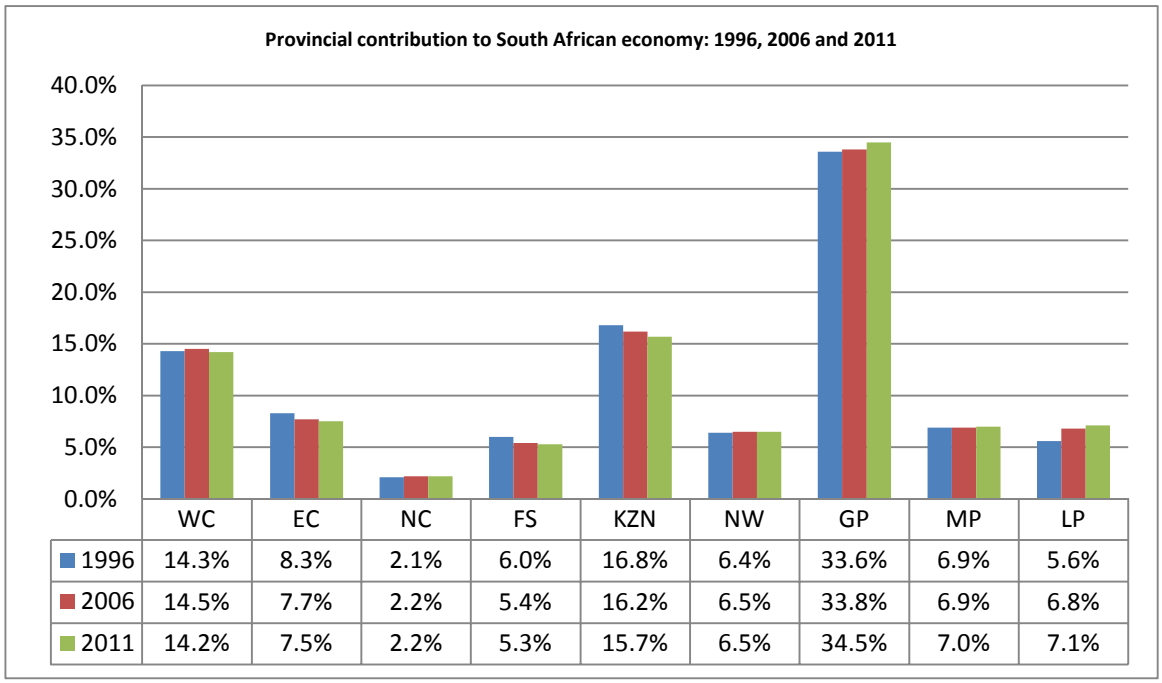


Source: Stats SA, P0441 2012

Gauteng has always been the economic powerhouse of South Africa, the figure below shows the province has been contributing more than a third of South Africa's GDP since 1996. The province of KwaZulu-Natal is the second biggest contributor followed by the Western Cape. The province contributing the least to South Africa's GDP is Northern Cape (2.2%). The contribution of North West has remained stable over the period from 6.4% in 1996 to 6.5% in 2011.

[17] http://www.northwestbusiness.co.za/special-features/1202782.htm

Figure 7: Provincial contributions to SA economy, 2011



Source: Stats SA (2012)

As shown in Table Gauteng dominates every economic sector except agriculture (KZN), and the mining and quarrying sector which is dominated by North West. Though Gauteng's agricultural output is only 6% of the nation's agricultural output it is still higher than that of Eastern Cape (5%), which is 10 times its size.

An estimated 40.5% of South Africa's manufacturing is done in Gauteng; a third of its electricity, gas and water output; 43% of the country's construction; 41% of its finance, real estate and business activity; 35.5% of its wholesale, retail, motor trade and accommodation; 34% of transport, storage and communication; and 39.7% of general government services. North West contributed almost a quarter (24.8%) of the nation's GDP from mining and quarrying. It is the only sector in which North West's contribution reaches double-figures.

Table 4: Regional distribution of economy activity, 2011

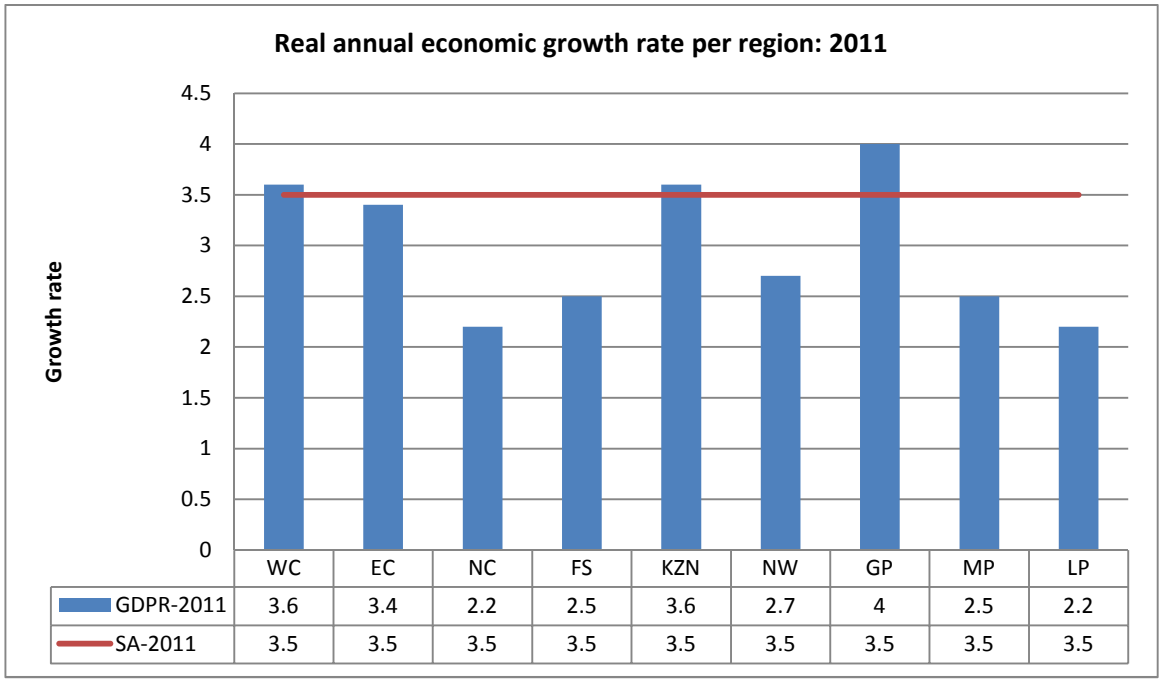
Industry	WC	EC	NC	FS	KZN	NW	GP	MP	LIM	SA
Agriculture, forestry and fishing	22.6	5	6.1	10.3	26.8	6.2	6	9	8.1	100
Mining and quarrying	0.4	0.2	6.8	7.9	3.4	24.8	12.8	20	23.7	100
Manufacturing	14.6	8	0.4	3.9	21.6	2.5	40.5	7.1	1.5	100
Electricity, gas and water	11.2	4.1	2.7	6.4	15.9	3.6	33	15.	8.1	100
Construction	17.9	4.7	1.1	3.1	13.	4.8	43.3	6.8	5.1	100
Wholesale ,retail and motor trade; catering and accommodation	17.4	8	1.6	4.7	17.6	4.4	35.5	5.2	5.5	100
Transport storage and	15.4	7.1	2.1	4.5	22.4	4.8	34.2	4.9	4.6	100

communication										
Finance, real estate and business services	19.7	7.3	1.4	3.9	13.6	3.8	41.1	4	5.2	100
Personal services	13.7	12,9	3.4	10.	17.	8.5	23.5	5.7	5	100
General government services	9.8	11.2	1.9	5.2	14.2	5.3	39.7	5	7.7	100

Source: Stats SA (2012)

Gauteng had the highest real annual growth rate per region as measured by the gross domestic product per region (GDPR) at 4% which was higher than the real annual economic growth rate for South Africa which was 3.5%. The economic performance of Gauteng is attributed to the growth in the wholesale, retail and motor trade; catering and accommodation industry (4.7%), general government services (4.4%), the finance, real estate and business services (4.3%) and the manufacturing industry (4.1%)

Figure 8: Real annual economic growth rate per region, 2011



Source: Stats SA, P0441 2012

Despite the near stagnancy of North West's contribution to GDP, its economy has grown as the whole of South Africa's economy has grown. Figure 8 shows that the economy of North West grew by 2.7% in the 2011; this was lower than the real economic growth rate of the entire country which was 3.5%.

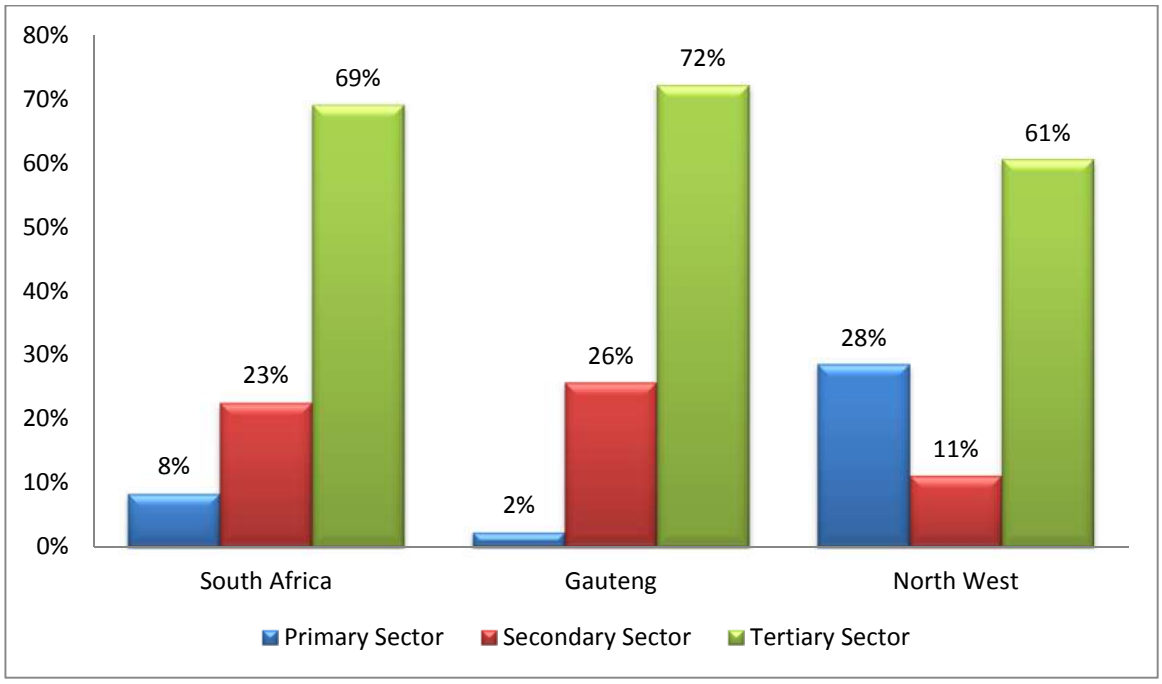
For the period 2001 to 2011 the South African economy recorded an average growth rate of 4.0%, Gauteng and Western Cape were the only two provinces which were above this national average recording growth rates of 4.6% and 4.1% respectively. The Gross Value Added (measured at 2005 prices) of North West province in 1995 was 71.3 billion and this has since

grown 102.1 billion in 2011. In the decade 2001-2011 the average real annual economic growth rate for North West was 3.1%[18].

2.3.1. Economic Sector Performance

The structure of Gauteng economy closely resembles that of the national economy which is also dominated by the tertiary sector which continues to grow in relative size. Although the primary sector is in decline in Gauteng, across the country it still accounts for 8% of output. Gauteng's economy is clearly dominated by the more knowledge-intensive secondary and tertiary sectors as shown in the figure below. The structure of North West's economy is markedly different from the national economy with the primary sector playing a more significant role in North West province than in the national economy.

Figure 9: Broad sectoral composition based on GVA, 2011

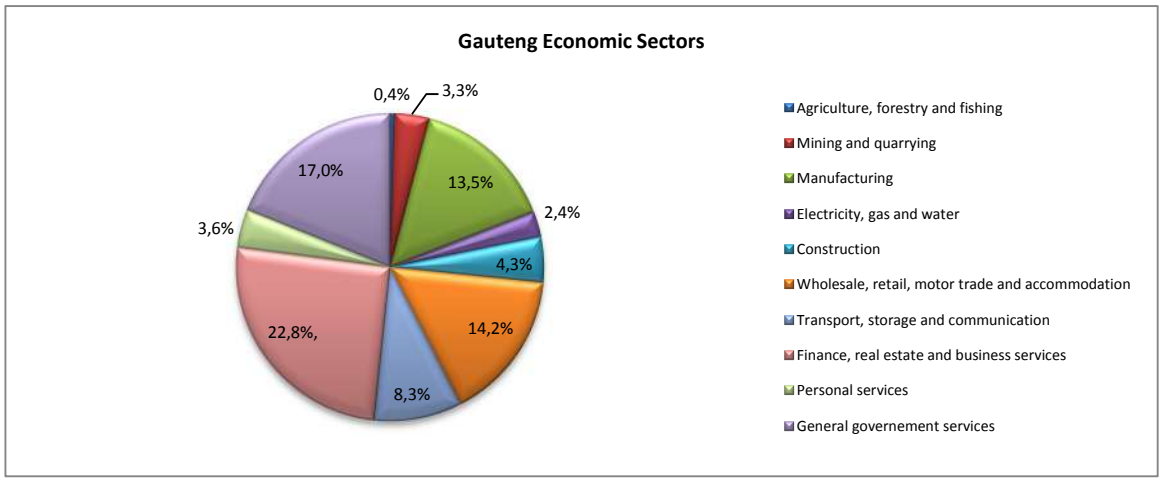


Source: Quantec, 2013

Gauteng's economy is dominated by tertiary industries which contributed 66% to its regional GDP. The finance, real estate and business services sector makes up 22.8% of the province's gross domestic product, with manufacturing contributing 13.5%, government services 17%, and the wholesale, retail, motor trade and accommodation sector 14.2%.

[18] Quantec 2013

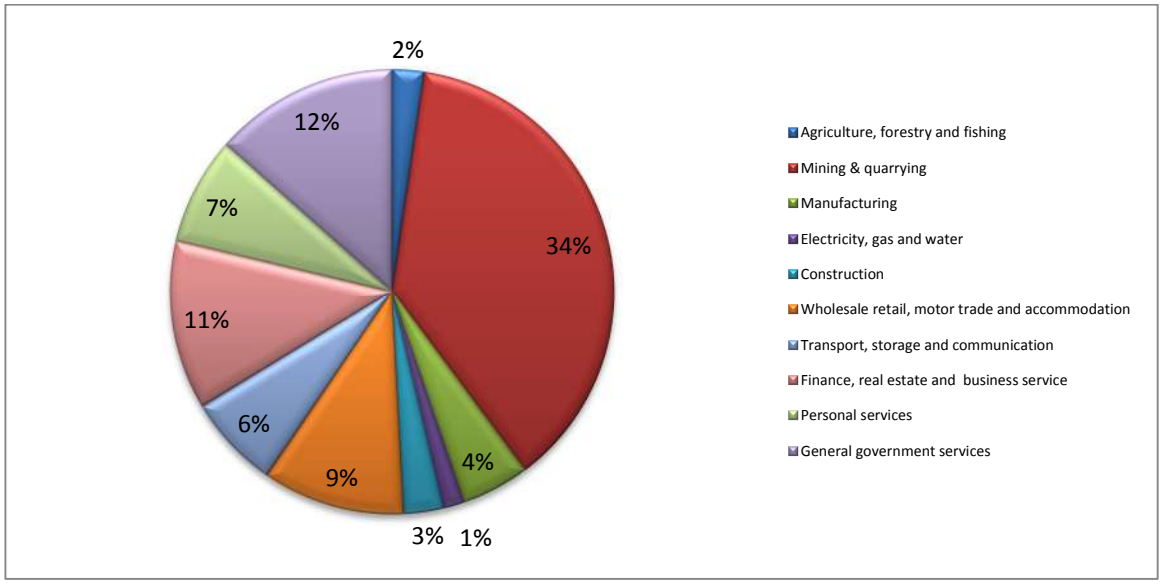
Figure 10: Gauteng's Economic sectors GDP, 2011



Source: Stats SA (2012)

Based on the 2011 GDP statistics, Figure 11 shows the sectoral contribution to the economy of North West province and shows the clear dominance of the mining and quarrying sector. The manufacturing sector only contributed 4.4% to North West 2011 GDP figures; a drop from the 2002 figure of 6.7%.

Figure 11: North West's Economic sectors GDP, 2011



Source: Stats SA, P0441 2012

The table below shows the sectors which drove the Gauteng economy from 2002-2011. This sectoral analysis also identifies the sub-sectors that are growing and those that are shrinking in terms of their economic contribution.

Table 5: Sectoral Composition of the Economy GDP figures- Gauteng, 2011

Industry	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Primary Industries	**4.5**	**3.5**	**3.2**	**3.0**	**3.5**	**3.6**	**3.9**	**3.7**	**3.7**	**3.7**
Agriculture, forestry and fishing	0.8	0.6	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4
Mining and quarrying	3.7	2.8	2.7	2.5	3.0	3.2	3.4	3.2	3.3	3.3
Secondary Industries	**25.5**	**25.8**	**25.3**	**24.5**	**23.8**	**23.6**	**24.2**	**23.3**	**21.9**	**20.2**
Manufacturing	20.9	20.9	20.5	19.5	18.5	18.0	18.2	16.5	15.3	13.5
Electricity, gas and water	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.4	2.3	2.4
Construction	2.3	2.5	2.7	2.9	3.3	3.6	4.1	4.4	4.3	4.3
Tertiary industries	**61.0**	**61.6**	**61.3**	**61.5**	**61.6**	**61.6**	**61.7**	**63.5**	**64.9**	**66.0**
Wholesale, retail and motor trade, catering accommodation	12.8	12.9	13.0	12.9	12.5	12.0	12.4	12.6	13.9	14.2
Transport, storage and communication	7.8	8.0	8.1	8.2	8.1	7.6	7.9	7.9	8.0	8.3
Finance, real estate and business services	20.7	20.5	20.7	21.1	22.0	23.4	22.7	22.6	22.5	22.8
Personal services	3.9	4.1	4.0	3.9	4.0	3.9	3.8	3.9	3.6	3.6
General government services	15.7	16.1	15.5	15.4	15.1	14.8	15.0	16.6	16.9	17.0

Source: Stats SA (2012)

As shown in the table above, the contribution of the tertiary industry to the GDPR has increased from 61% in 2002 to 66% in 2011. The manufacturing sector which dominates the secondary industries has seen its contribution to the GDPR declining from 20.9% in 2002 to 13.5% in 2011. It is however interesting to note that although the manufacturing sector in Gauteng only contributes 13.5% to the GDPR it nevertheless constitutes 40.5% of the national manufacturing output as seen in Table

The primary industries (mining and quarrying; agriculture, forestry and fishing) contribute the least to the GDPR of Gauteng at 3.7% and this declining trend is expected to continue as the tertiary sector grows. Although mining no longer drives Gauteng's economy, Gauteng's contribution to the country's gold and diamond production is still significant, and the province's mines account for about 21% of employment in the sector nationally.

An analysis of the sectoral composition of North West's economy from 2002 shows that the manufacturing sectors contribution to the GDPR has decreased from 6.7% in 2002 to 4.4% in 2011.

Table 6: Sectoral Composition of the Economy GDP figures-North West, 2011

Industry	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Primary Industries	**32.5**	**28.0**	**27.4**	**29.1**	**30.8**	**31.8**	**34.5**	**32.5**	**33.0**	**35.7**
Agriculture, forestry and fishing	6.2	2.8	2.7	2.8	2.7	2.7	2.6	2.5	2.2	2.1
Mining and quarrying	26.3	25.3	24.8	26.3	28.0	29.1	31.6	30.0	30.8	33.6
Secondary Industries	**9.5**	**10.0**	**10.4**	**9.5**	**9.2**	**9.3**	**8.8**	**9.6**	**9.1**	**8.4**
Manufacturing	6.7	7.2	7.6	6.6	6.3	6.2	5.2	5.5	5.2	4.4
Electricity, gas and water	1.0	1.1	1.0	1.0	0.9	0.9	0.9	1.2	1.3	1.4
Construction	1.8	1.7	1.8	1.9	2.0	2.2	2.7	2.9	2.7	2.6
Tertiary industries	**48.9**	**52.7**	**51.9**	**50.8**	**49.0**	**47.8**	**46.9**	**48.4**	**48.3**	**45.6**
Wholesale, retail and motor trade, catering accommodation	10.3	10.8	11.0	10.5	9.7	9.7	9.9	10.3	10.7	9.3
Transport, storage and communication	7.9	8.6	8.2	7.8	7.8	7.1	7.3	7.3	7.3	6.1
Finance, real estate and business services	11.9	12.8	12.5	13.0	12.3	12.5	11.8	11.8	11.5	11.1
Personal services	7.4	8.1	8.1	7.9	7.5	7.3	7.0	7.3	6.9	7.0
General government services	11.7	12.4	12.1	11.5	11.3	11.3	10.9	11.7	11.9	12.1

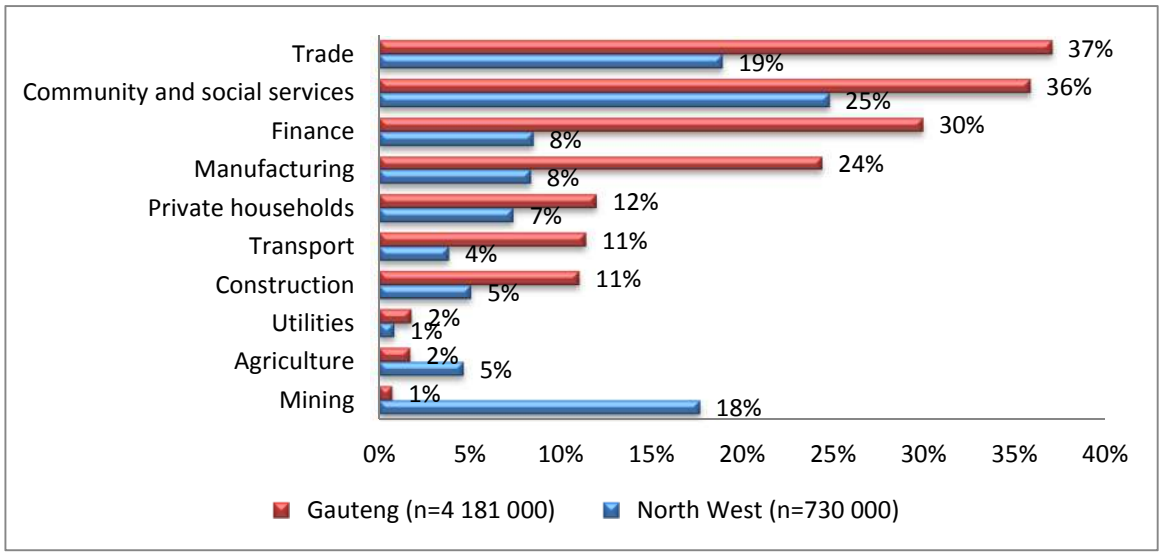
Source: Stats SA, P0441 2012

As can be seen in the table above the primary sector has always been making a significant contribution to GDPR which, except for the period 2003-2005, has been above 30%. The secondary sector has been contributing between 8 and 10 percent to the regions GDPR in the period.

2.3.2. Employment Share

As the commercial hub of the country Gauteng also has the largest share of national employment at 31% followed by KZN (19%) and Western Cape (13%). North West has 5% of South Africa's workforce and in absolute figures this was 730 000 employees in the first quarter of 2013.

Figure 12: Employment share by industry, 2013



Source: Stats SA (2012)

Figure 12 above shows employment share by type of industry in Gauteng in the first quarter of 2013. The Gauteng economy is driven by the tertiary and secondary sectors and as expected the employment share also reflects this trend. Analysing employment figures from 1995 indicate that the workforce for North West has never surpassed the one million mark. The community and social services sector is the biggest employer (25%) in North West. The mining and quarrying sector also employs a considerable portion of the workforce at 18%.

2.4. Economic Outlook – Opportunities and Challenges

Despite the dominance of Gauteng's economy it still faces the challenges the rest of the country is plagued with such as high unemployment levels, inequality and poverty. According to the Gauteng City Region Review 2011, the province faces additional challenges which include: unbalanced growth, in the sense that jobs that are being created are often not matched to the skills that workers currently possess; unequal spatial access to economic opportunities; a weak 'culture of entrepreneurship' and the need to ensure that future growth is 'green growth' to ensure the region's long-term sustainability.

Gauteng's economy is diversified and therefore offers opportunities in all three economic sectors. As the strongest economy in South Africa, Gauteng boasts the most literate and skilled labour pool, highest per capita income, and highest disposable income.

For the North West region, water is considered the key limiting factor to development in the region. The climate is semi-arid to arid and the province relies heavily on ground water

resources to meet its needs. Some of the challenges identified in the province's Growth and Development Strategy are:

- The province is mostly rural in nature
- It has a low population density and inadequate infrastructure, especially in the remote rural areas
- The province has inherited an enormous backlog in basic service delivery
- High poverty and illiteracy levels resulting in dependency that seriously affect productivity and ability to compete for jobs
- The province is characterized by great inequalities between the rich and poor as well as disparities between urban and rural
- High HIV/AIDS levels due to social and economic challenges
- Uneven distribution of available resources

Recent data released by the Bureau for Economic Research (BER), national GDP growth in 2013Q1 moderated significantly to 0.9% quarter-on-quarter q-o-q (annualised) compared to the 2.1% recorded in 2012Q4. Analysts had expected the economy to lose momentum but the extent was more severe than expected. Year-on-year GDP growth was 1.9% for 2013Q1 compared to 2.3% during 2012Q4. A weak performance from the secondary sector was the major reason for the minimal GDP growth observed. The value added in the manufacturing sector declined by almost 8% q-o-q and this decline shaved 1.2 percentage points of overall Q1 growth. The manufacturing sector was affected by a fire at ArcelorMittal's Vanderbijlpark plant and outages at Cape Town fuel refinery[19].

The economic challenges impacting the nation will also impact on the Gauteng-North West region as the economic hub of the country. The South African Reserve Bank (SARB) has raised concerns on the cost of labour per unit of output in the economy i.e. unit labour costs which have grown by 10% per year from 2008 and 2010. Unit labour costs then slowed to growth of 5.9 percent in 2011 and 6.3 percent in 2012. However, over the course of 2012, unit labour costs accelerated from 5.5 percent in the final quarter of 2011 to 7.4 percent in the third quarter of 2012.

The SARB has reduced its economic growth forecast for the year 2013 from 2.7% to 2.4%. The 0.9% growth recorded in the economy for the first quarter of 2013 is the lowest experienced since the 2009 recession. South Africa also faced labour unrest 2012/2013 that has negatively affected business confidence.

[19] Bureau for Economic Research, Economic Snapshot June 2013

2.4.1. Opportunities

Gauteng has several comparatives advantages that are likely to attract investment and ensure its economy continues to propel forward and these include:

- Gauteng has a strong financial and industrial base;
- High quality information technology accessibility;
- Outstanding business services;
- An enabling environment; and
- Excellent freight and logistics

Table 7: Opportunities in Gauteng, 2012

City of Johannesburg	• Power generation through renewable energies; • Development of new natural systems to minimise the impact of urban flooding; • Improving rail freight into the city; • Strengthening of the emerging Information Communication Technology (ICT) sector.
City of Tshwane	• Automotive and components industry; • Aerospace village for manufacturing components; • Research and development (i.e. Biotechnology Laboratories); • Broadband network opportunities.
Ekurhuleni	• O.R Tambo International Airport and the N12 Johannesburg-Maputo Corridor, create economic opportunities in logistics & transport, business tourism and high value added manufacturing; • Intensive agricultural production and food processing and packaging; • Environmental opportunities in wetlands, ridges and agriculture potential.
West Rand	• Due to the availability of vacant land, West Rand has an opportunity for property development; • Environmental opportunities in terms of agriculture potential; • The geographical location (close proximity to Lanseria airport, Johannesburg and major access routes) allow the opportunity of economic diversification in the municipality.
Sedibeng	• Tourism development opportunities along the Vaal River; • Environmental opportunities around the existing nature reserves, the various conservancies and watercourses; • Processing of agriculture produce.

Source: Gauteng Provincial Economic Review Outlook 2012

North West vast mineral wealth and strategic position creates a lot of economic opportunities for the province. The province has identified focus sectors for economic growth and these include: Manufacturing, Mining and Mineral Beneficiation, Renewable Energy, Agriculture and Agri-processing as well as Services, Information Technology and Tourism.

Table 8: Opportunities in North West, 2012

Sector	Opportunities
Agriculture and Agri-business	Goat Meat Production and Processing Reivilo Ostrich Abattoir Beef Beneficiation
Mining & Mineral Beneficiation	Mining Supply Park
Infrastructure Development	Mogale City - Rustenburg Corridor
Tourism	Royal Bafokeng Tourism Route Solar Opportunities

Renewable Energy	Co-generation Hydrogen and Fuel Cell Technologies Municipal solid waste
Manufacturing	Automotive Products and Components

Source: www.inw.org.za

2.5. Manufacturing Sector

Manufacturing is known as an advanced industry and an engine for growth and industrial development. The manufacturing sector is very vital to economic development because of its immense linkages with other sectors of the economy. It is with this background that most of the sectors identified in IPAP 2 are mostly from manufacturing and are regarded as having significant potential to change Gauteng's growth path.

According to McKinsey Global Institute (2012), over the past decade the global manufacturing sector has undergone a tumultuous decade: large developing economies leaped into the first tier of manufacturing nations, a severe recession choked off demand and manufacturing employment fell at an accelerated rate in advanced economies.[20] The manufacturing sector is critical to the economic health of both developing and advanced economies. In advanced economies manufacturing is a source of innovation and competitiveness which contributes to research and development, exports, and productivity growth.

Globally manufacturing continues to grow by about 2.7% annually in advanced economies and 7.4% in large developing economies (2007-2008) and it accounts for approximately 16% of global GDP and 14% of employment[21]. Studies have shown that the manufacturing sector's relative size in an economy varies with its stage of development. When economies industrialise, manufacturing employment and output both rise rapidly but once manufacturing share of GDP peaks at 20 to 35% it falls along with its share of employment. This trend is also observed in both South Africa and Gauteng economy as the table below illustrates. The contribution of the manufacturing sector to the GDP has been declining over the past decade in South Africa and this trend is more pronounced in Gauteng.

[20] McKinsey Global Institute (2012); *Manufacturing the future: The next era of global growth and innovation*. Online: https://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CDYQFjAB&url=http%3A%2F%2Fwww.mckinsey.com%2F~%2Fmedia%2FMcKinsey%2Fdotcom%2FInsights%2520and%2520pubs%2FMGI%2FResearch%2FProductivity%2520Competitiveness%2520and%2520Growth%2FThe%2520Future%2520of%2520Manufacturing%2FMGI_Manufacturing%2520the%2520future_Full%2520report_Nov%25202012.ashx&ei=Ntf-UJblJ4e50QXLlYCYDQ&usg=AFQjCNGNtRHjHlsbma5jbB0dUkbPTAbHkw&sig2=raSgyG_6_nDhnxN80UV2sA&bvm=bv.41248874,d.d2k

[21] Same as above

Table 9: Manufacturing percentage contribution to GDP, 2011

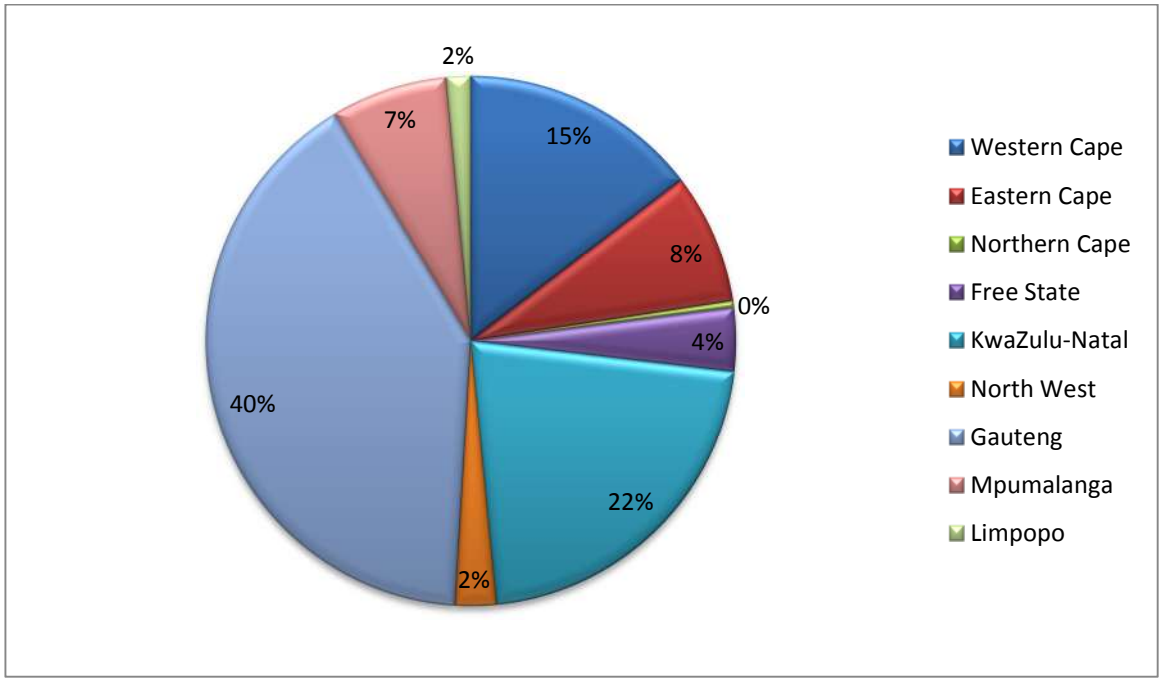
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
South Africa	19,1%	18,3%	18,3%	18,5%	18,7%	18,6%	18,4%	16,8%	17,2%	17,2%
Gauteng	20,9%	20,9%	20,5%	19,5%	18,5%	18,0%	18,2%	16,5%	15,3%	13,5%
North West	6,7%	7,2%	7,6%	6,6%	6,3%	6,2%	5,2%	5,5%	5,2%	4,4%

Source: Stats SA, P0441 Q3 2012.

North West's manufacturing sector contributed 4.4% to the regional GDP of 2011, a decline from a peak of 7.6% in 2004. North West boasts a sophisticated manufacturing base that includes a number of international corporations. North West contributed 2.5% to the national manufacturing output as shown in the graph below.

Despite the decline in the manufacturing sector contribution to GDPR of Gauteng, Gauteng is still the largest contributor to the gross domestic output from the manufacturing sector at 40% as shown in Figure 13. North West's manufacturing sector contribution was the third smallest, larger than only Northern Cape and Limpopo province.

Figure 13: Regional distribution of Manufacturing Sector activity in South Africa, 2011

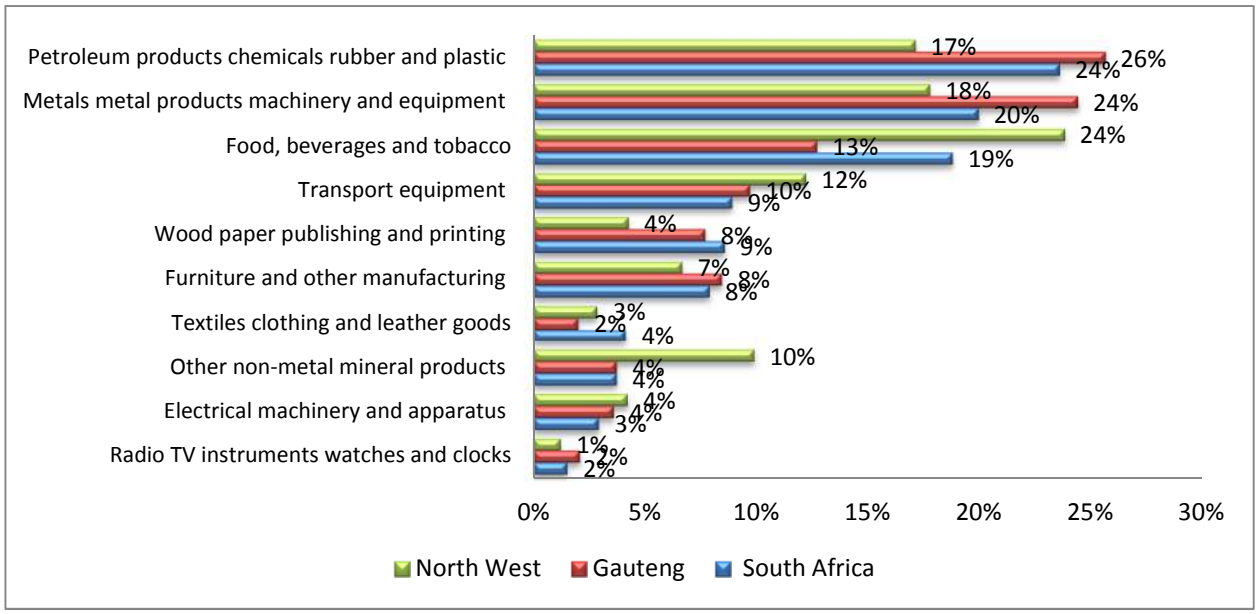


Source: Stats SA (2012)

The graph below illustrates the contributions to the GVA by manufacturing industries in 2011 at both national and regional level. Petroleum & chemicals, and metals, machinery & equipment subsectors contributed the most to Gauteng manufacturing GVA, 26% and 24% respectively. Both these sectors have companies that fall under the merSETA sector. The subsectors which contain merSETA companies namely; metals, metal products machinery and equipment;

transport equipment, petroleum products chemicals rubber and plastics contributed a combined 47% of the total manufacturing output of North West.

Figure 14: GVA for Manufacturing Industries, 2011



Source: Quantec (2013)

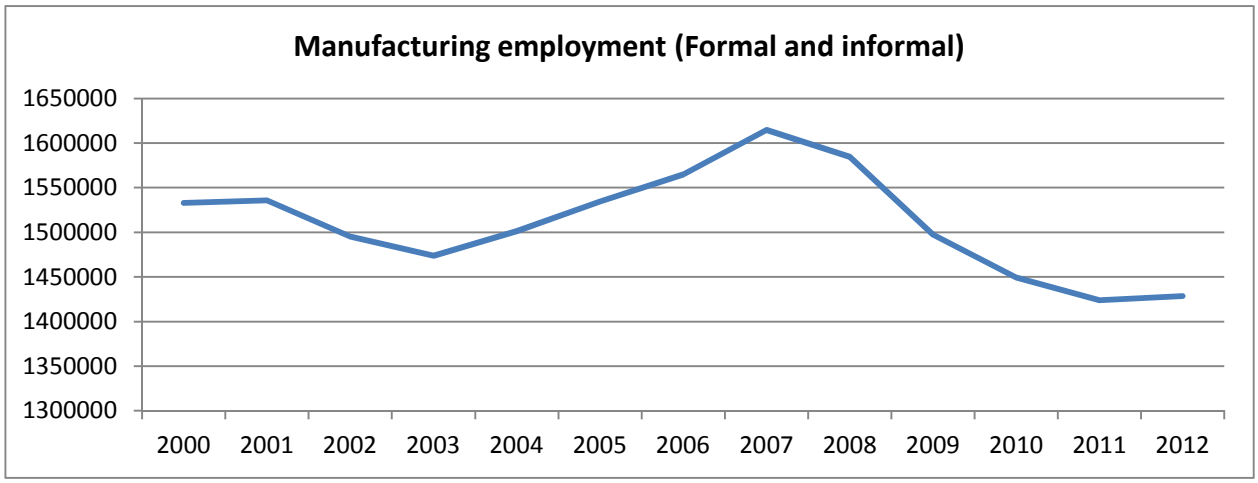
Gauteng is the centre of South Africa's motor manufacturing industry. The manufacturing sector alone employs 600 000 people in over 9 000 enterprises. Manufacturing includes basic iron and steel, fabricated and metal products, food, machinery, electrical machinery, appliances and electrical supplies, vehicle parts and accessories, and chemical products.

2.5.1. Employment in the manufacturing sector

According to Stats SA quarterly labour force survey (QLFS) for the first quarter of 2013, a total of 1.753 million people were employed in the manufacturing sector. The manufacturing sector is the fourth largest employer nationally. The employment figures from South Africa's manufacturing sector have been declining over the 2000-2011 period and this trend is similar to other advanced economies. In advanced economies this decline in manufacturing's share of employment is due to on-going productivity improvements, continued growth of services as a share of the economy and the force of global competition, which pushes advanced economies to specialise in more high-skill activities.[22]

[22] McKinsey Global Institute; Manufacturing the future: The next era of global growth and innovation

Figure 15: Employment levels for the manufacturing sector in SA, 2011



Source: Quantec (2013)

As shown in the figure above, the 2008/2009 recession led to job losses in the manufacturing sector and these figures are yet to return to their pre-recession levels. The QLFS Q1 2013 indicates formal employment job losses of 48 000 and an increase in informal employment of 41 000 jobs created during the quarter.

2.6. Overview of the merSETA Sectors

The definition of the manufacturing sector from the National Accounts includes sub-sectors that do not fall under the merSETA jurisdiction. MerSETA companies are grouped into five chambers. The table below is a conceptual map of the sub-sectors and their relation to merSETA chambers.

Figure 16: merSETA Sector Classification

	merSETA					
SERVICES		MANUFACTURING				SECTORS / INDUSTRIES
OTHER	RETAIL	AUTOMOTIVE	METAL	PLASTICS	OTHER	
		Automotive Assembly	Capital Equipment	Polymer Producer		SUBSECTORS
		New Tyre	Transport Equipment	Plastics Convertors		
	Motor Retail Motor Repair	Components	Metal Fabrication	Plastic Fabrication		
			Other	Other		

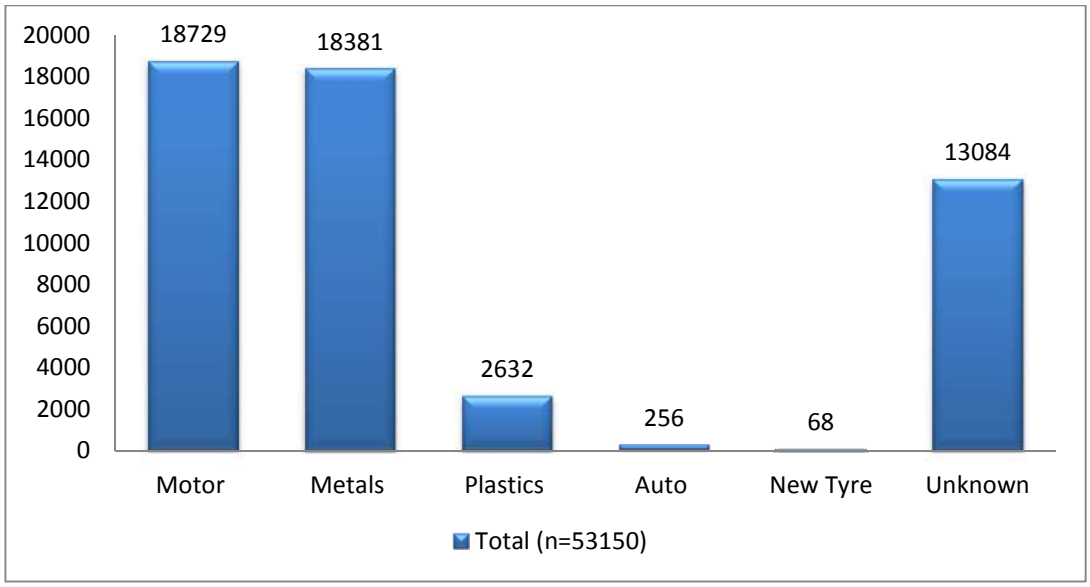
Colour Key	merSETA Chambers
	Metal Chamber
	Plastics Chamber
	Auto Chamber
	New Tyre Chamber
	Motor Chamber

Source: merSETA SSP Update 2012/13-2016/2017

The merSETA Metal Chamber is the largest in respect of both the number of firms and the number of employees. All chambers, with the exception of the Auto Chamber contain a cross section of both large and small firms.

The merSETA database used had a total of 53,150 companies and the majority of these were from the metal and motor chambers as shown in the graph.

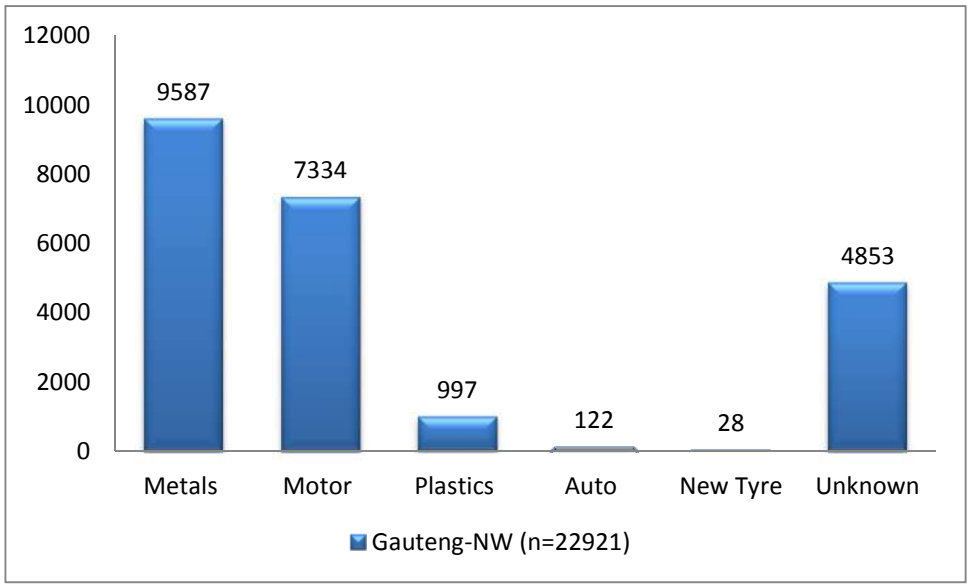
Figure 17: Distribution of merSETA companies by chamber, 2012



Source: merSETA Database 2013

The majority of merSETA companies are in Gauteng, accounting for more than 40% of the companies in merSETA. North West accounts for 3% of the companies on the database. An analysis of the companies in the Gauteng-North West region shows that the majority are in the metal and motor chambers.

Figure 18: Chamber distribution of merSETA companies in Gauteng-North West, 2012



Source: merSETA Database 2013

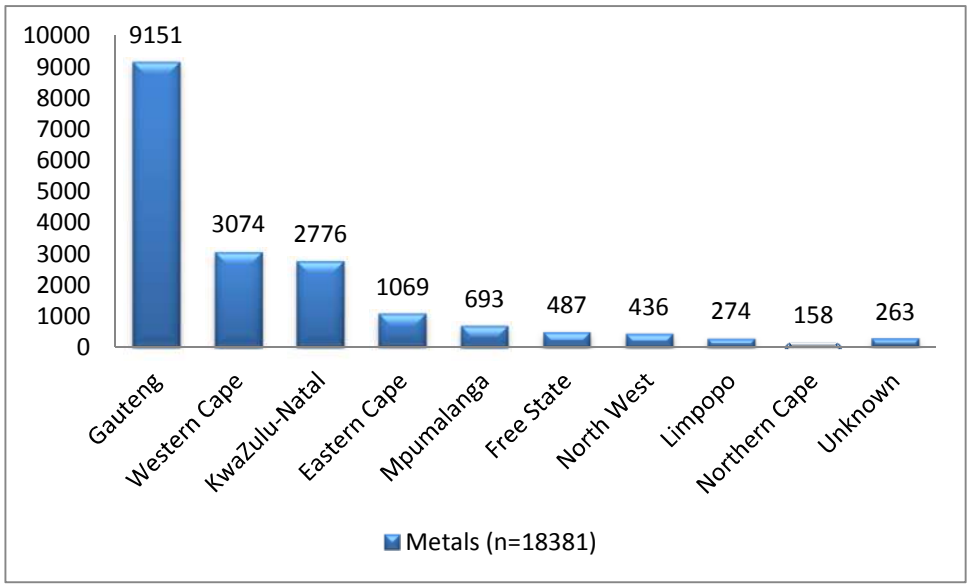
2.6.1. The Metal sector

The Metal Chamber comprises firms involved in the manufacturing and servicing of capital equipment including transport equipment. The metal sector, including the capital equipment, transport equipment, metal fabrication (CETEMF) and related subsectors, forms a substantial part of SA's manufacturing.

This sector is at the centre of economic development, as what they produce is used across the entire economy: infrastructure programmes, construction, general engineering, mining, automotive production, furniture manufacture, transport, home appliance manufacture, defence and packaging[23].

[23] MerSETA SSP 2010/2011-2015/2016

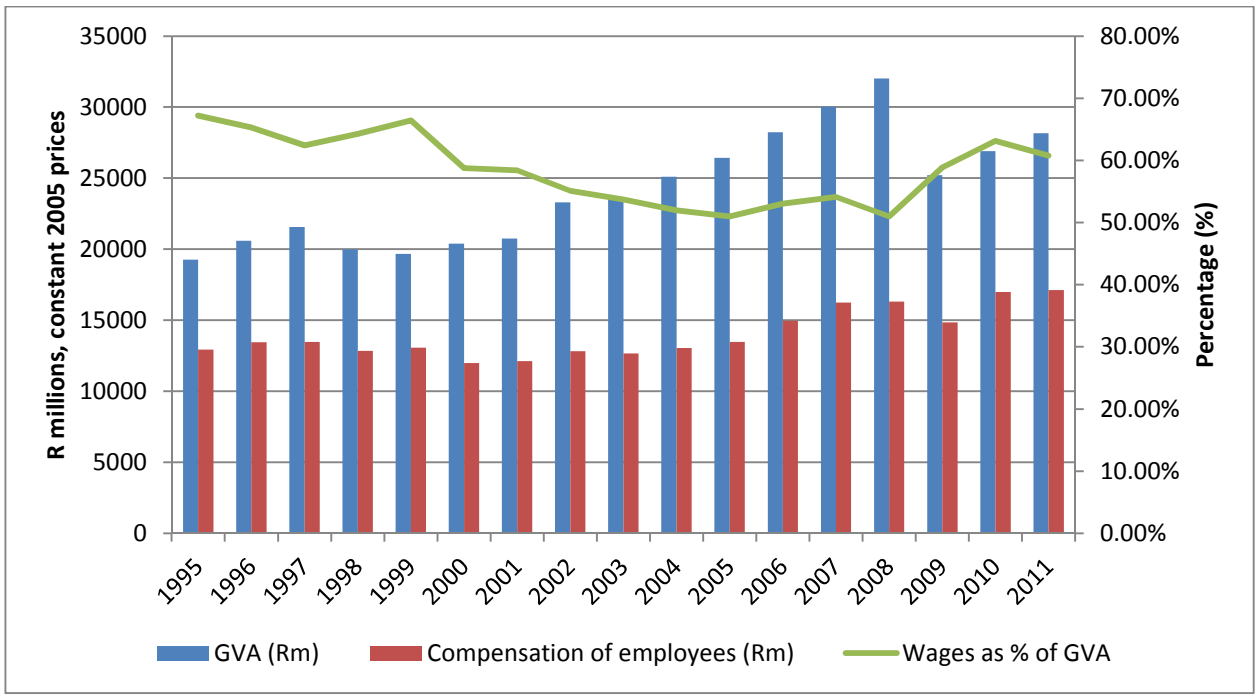
Figure 19: Regional Distribution of the merSETA Metal Chamber, 2012



Source: merSETA Database 2013

The majority of the metal chamber companies on the merSETA database are domiciled in Gauteng, which is expected, as the province contributes the most towards the manufacturing GDP of the country.

Figure 20: GVA & Employee compensation for the metal products subsector in Gauteng, 2011



Source: Quantec (2013)

The graph above shows the GVA for the metal subsector in Gauteng. The GVA was steadily increasing from 1995 and decline occurred in 2009 due to the worldwide economic recession.

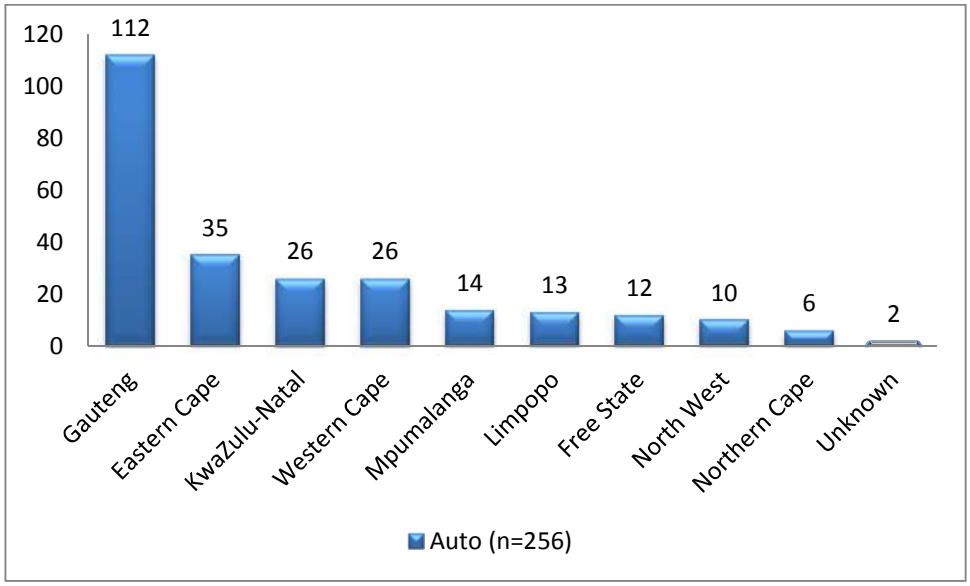
The sector's GVA has been increasing since 2010 but has not yet reached the peak levels of 2008.The remuneration trend has followed a similar trend to the GVA of the industry.

2.6.2. The automotive sector

The automotive industry, broadly defined includes vehicle retail, distribution and servicing, auto parts production and vehicle production. The automotive sector covers South Africa's seven large automotive assemblers, also known as original equipment manufacturers (OEMs); a number of smaller, specialist medium and heavy commercial vehicle assemblers and approximately 400 automotive components manufacturers who are then tiered according to their position in relation to OEM supply.

Of the seven locally based (multinationals) vehicle assembly operations (OEMs), three are located in northern Gauteng namely BMW South Africa, Nissan South Africa and Ford Motor Company South Africa. General Motors South Africa and Volkswagen South Africa are based in Port Elizabeth; the Mercedes-Benz South Africa plant is in East London, while Toyota South Africa is situated in Durban. merSETA's Auto Chamber comprises the seven OEMs.

Figure 21: Regional Distribution of the merSETA Auto Chamber, 2012

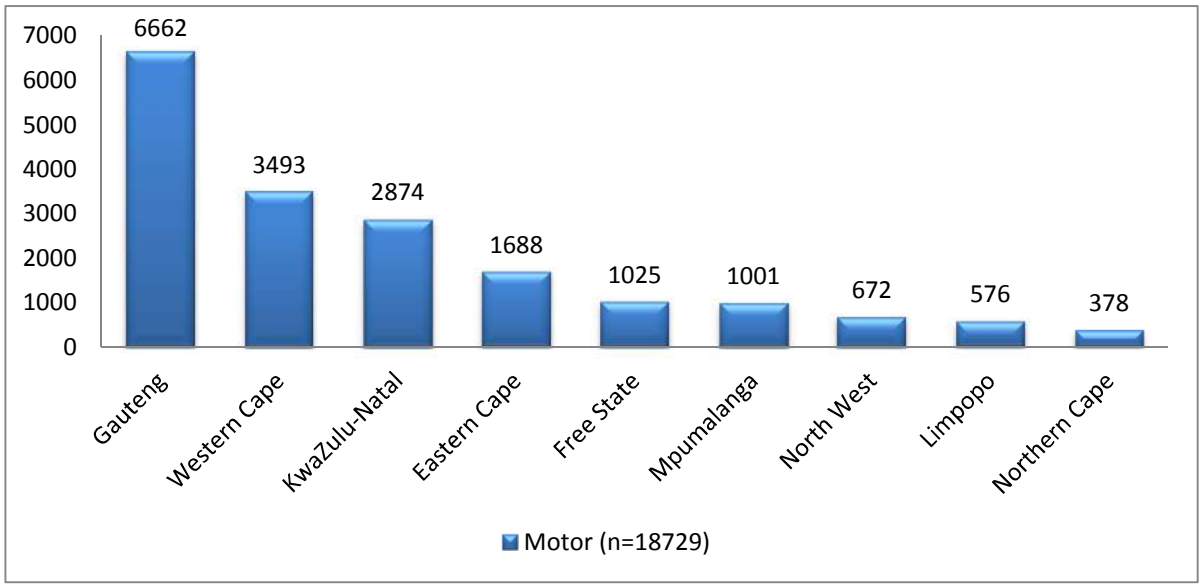


Source: merSETA Database 2013

2.6.3. The motor sector

The Motor Chamber includes firms involved in the motor retail and service industries, as well as in the manufacture of automotive components. The motor retail and components sector is closely linked to the automotive sector, since the supply of components for motor vehicle assembly and after sales market is a prime source of trade.

Figure 22: Regional Distribution of the merSETA Motor Chamber, 2012



Source: merSETA Database 2013

2.6.4. The tyre manufacturing sector

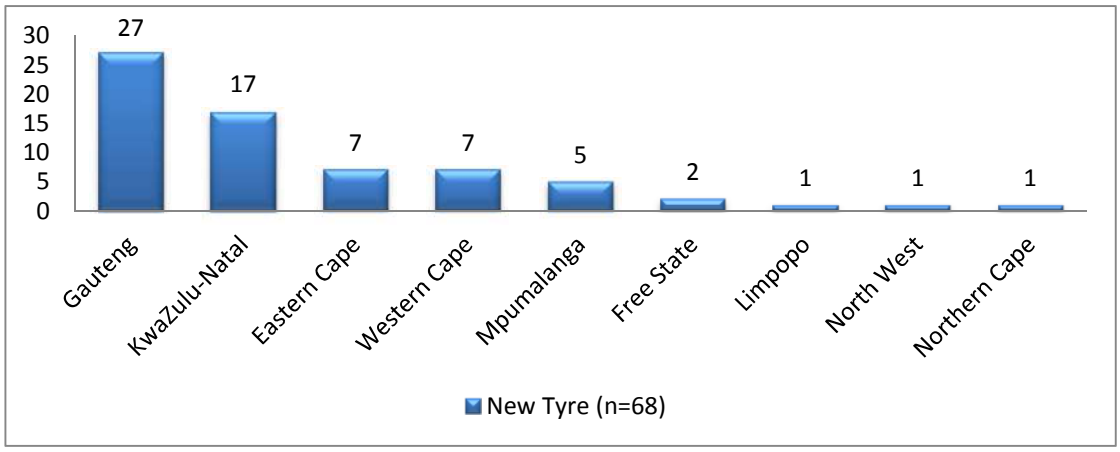
The New Tyre Chamber consists of firms involved in the manufacture of new tyres for OEMs and aftermarket supply. The SA pneumatic tyre manufacturing industry comprises four companies[24], operating six factories, all of which are controlled by international groups. Many hundreds of companies also import other international brands of tyres into SA.

The industry manufactures new pneumatic tyres of rubber of a kind used on passenger, commercial, agricultural, mining, construction and industrial vehicles and implements. The total SA market for tyres is approximately 12 million units per year. The SA tyre manufacturing capability equates to just over 1% of world tyre manufacturing capacity albeit at a very high technical level.

The sector directly employs about 6,000 people. Five of the factories are situated in areas with higher than average unemployment levels, namely Port Elizabeth, Uitenhage, Ladysmith and Brits[25].

[24]The four tyre manufacturing companies in SA are Bridgestone South Africa, Continental Tyre South Africa, Dunlop Tyres International and Goodyear Tyre & Rubber Holdings. The South African Tyre Manufacturers Conference (SATMC) is the united face of the four SA tyre manufacturers to government, the motor industry and the public.
[25]http://www.rubbersa.com/facts.html

Figure 23: Regional Distribution of the merSETA New Tyre Chamber, 2012



Source: merSETA Database 2013

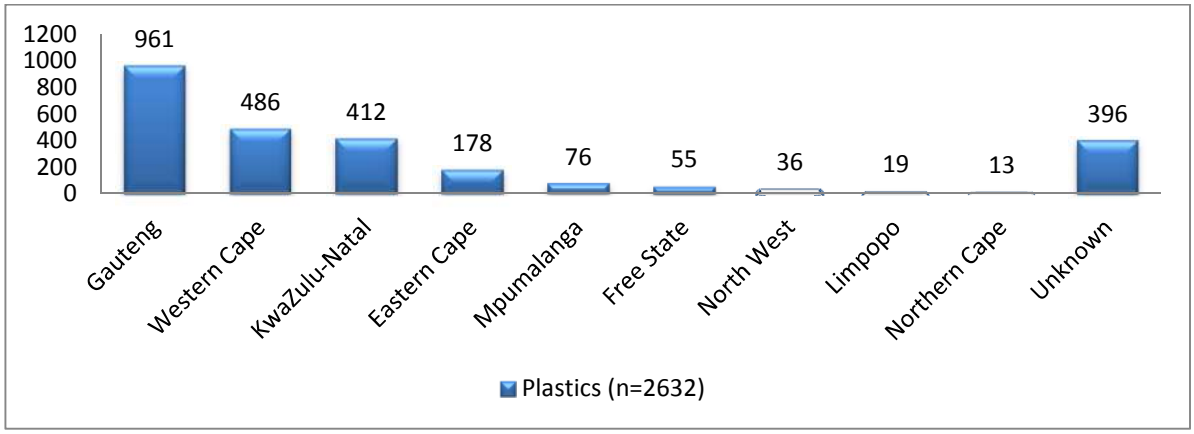
As shown in the figure above the New Tyre Chamber as of 2013 had 68 companies and the majority (40%) of these are in Gauteng.

2.6.5. The plastics sector

The Plastics Chamber includes firms involved in the manufacture of plastics products from locally manufactured and imported polymers. The plastics manufacturing sub-sector is part of a supply chain from the polymer manufacturing industry (chemical companies) through to a variety of end-use markets, and is characterised by ease of entry because of its low economies of scale and high degree of mechanisation. This means the sector is characterised by the following:

- Many micro and small companies and a few medium sized plants,
- Is not a large scale employer, and
- Plastics manufacturing cells can be found within manufacturing plants of other manufacturing industries.

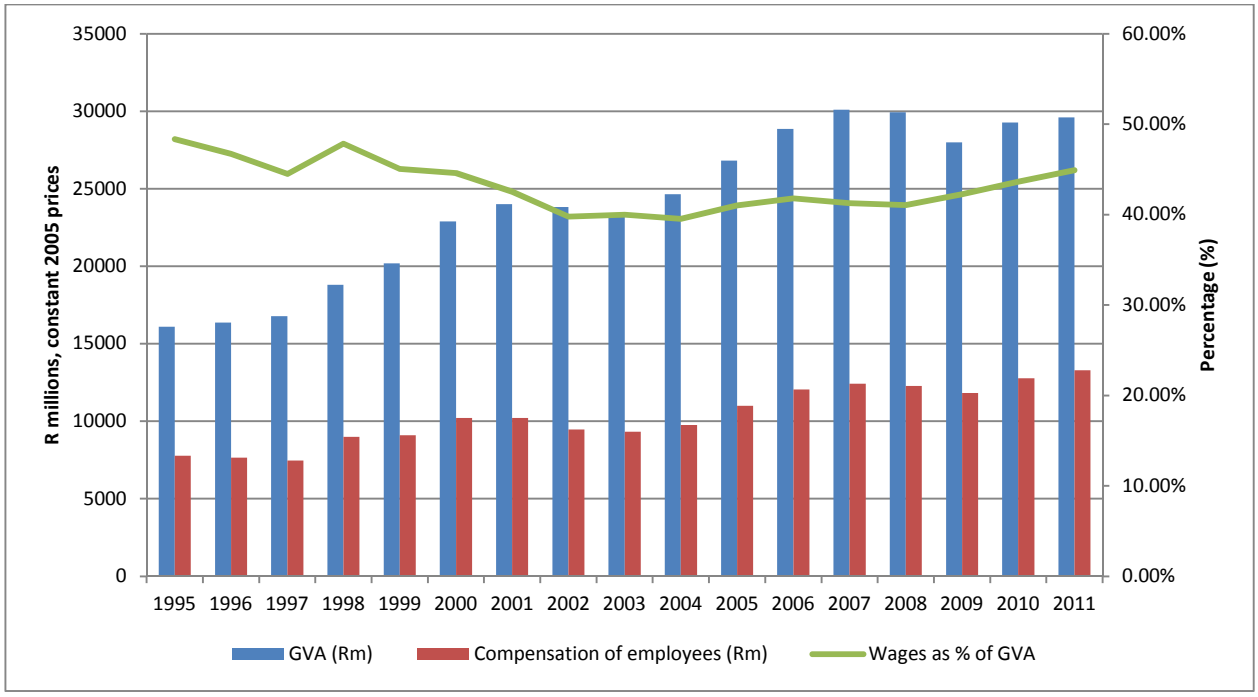
Figure 24: Regional Distribution of the merSETA Plastics chamber, 2012



Source: merSETA Database 2013

According to the merSETA database the plastics chamber has 2632 companies and 961 are from Gauteng which is 37 percent of the total. The plastics chamber research stated that from anecdotal evidence from players in the industry, the numbers of companies in the industry is around 1700.

Figure 25: GVA & Employee compensation for the petroleum products (including rubber and plastics) subsector in Gauteng, 2011



Source: Quantec (2013)

The graph above shows the GVA for the petroleum products (which includes rubber and plastics) subsector in Gauteng. The GVA was steadily increasing from 1995 and decline occurred in 2009 due to the worldwide economic recession.

The sector's GVA has been increasing since 2010 but has not yet reached the peak levels of 2008.

2.7. Conclusion

Gauteng is the most populous province with 12.3 million, 23.7% of the nation's population. North West has a population of 3.5 million which is about 6.8% of the total population. Both provinces are plagued by high unemployment rates, Gauteng 25.2% and North West 26.5%. Gauteng is an urban province whilst North West is still largely rural.

Gauteng is the economic powerhouse of the nation, contributing 34.5% to the nation's GDP. North West's economy contributed 6.5% to the nation's GDP. Gauteng's economy is driven by the tertiary sectors, though it has a very large and secondary sector. Its manufacturing sector contributed 40% to the national manufacturing GDP. North West's economy is driven by the mining and quarrying sector which contributed 34% to the regional GDP. North West manufacturing sector contributed 2.5% to the nation's manufacturing GDP.

3. POLICIES AND STRATEGIES THAT IMPACT ON SKILLS DEVELOPMENT IN THE REGION

3.1. National Economic Growth and Development Strategies

3.1.1. The New Growth Path and National Development Plan

The New Growth Plan (2010) is the SA government's latest macro-economic policy. Together with the National Development Plan (2011), the two documents position SA as a 'developmental state' and give the government an important role in the development of the economy, especially employment creation. The policy focus is to increase labour-absorbing activities, promote economic growth, and equity (which is to be measured by decreasing inequality and poverty). The targeted 'job-drivers' are the labour absorbing sectors such as mining, agriculture, manufacturing and services.

New Growth Path (NGP) emphasised that improvements in education and skill levels are a fundamental prerequisite for achieving many of its goals. It noted that NGP requires a radical review of the training system to address shortfalls in artisanal and technical skills. Overall, NGP aims to create 5 million jobs over the next 10 years. Some of the SETA related specific targets include:

- at least 30 000 additional engineers by 2014,
- at least 50 000 additional artisans by 2015,
- improve skills in every job and target 1,2 million workers for certified on-the-job skills improvement programmes annually from 2013;
- expand enrolment at FET colleges, targeting a million students in FET colleges by 2014; and
- Create 250 000 jobs a year in infrastructure (energy, transport, water, communications) and housing through 2015.

3.1.2. Industrial Policy Action Plan

In January 2007, Cabinet adopted the National Industrial Policy Framework (NIPF), which sets out government's broad approach to industrialisation. Guided by the NIPF, the implementation of industrial policy was set out in an Industrial Policy Action Plan (IPAP), and in August 2007, Cabinet approved the first IPAP. The current IPAP, IPAP 2011/12 – 2013/14 (IPAP 2) constitutes a consolidation of plans and programmes outlined in the previous iteration of IPAP 2.

The IPAP 2 notes that the SETAs and National Skills Fund (NSF) system have an extremely important role for sector-specific training programmes and skills facilitation that emerge directly

from industry demands in relation to detailed Customised Sector Programmes. The DTI therefore committed to working with the Department of Higher Education and Training (DHET) to introduce the necessary window within the SETA and NSF system for new Skills Centres based on the needs of IPAP sector strategies[26].

3.1.3. Metals Customised Sector Plan (CSP)

The CSP for the priority sector metals was published by the dti in 2005. The strategic vision of the plan is that "by 2014, SA will have a globally competitive metal sector, optimally utilising the comparative advantages of abundant mineral resources, skilled labour force and world-class technologies to produce and market high value-added products in the prioritised industries." Programmes in the plan include the promotion of local metals beneficiation, maximising local content through backward linkages, and upgrading production capabilities in downstream industries.[27]

3.1.4. Industrial Development Corporation (IDC) Jobs Scheme

In 2011 the IDC launched a R10 billion scheme to tackle the country's chronic unemployment problem. The scheme was aligned with the government's New Growth Path and the Industrial Policy Action Plan (IPAP2). Funding would be available to entrepreneurs across the IDC's mandated sectors over a five year period. The scheme aims to create an additional 40 000 to 50 000 employment opportunities. The sectors geared to benefit include the green economy, manufacturing, the mining value chain, agriculture and infrastructure.

3.1.5. National Foundry Technology Network (NFTN)

NFTN is the culmination of a significant government and industry association-led effort to develop a globally competitive South African foundry industry through appropriate skills training, technology transfer, and diffusion of state-of-the-art technologies. Its main outcome is to reduce import leakage, increase investments in key manufacturing processes and activities, employment and exportability.

3.1.6. Automotive Production and Development Programme (APDP)

The APDP replaced the Motor Industry Development Programme and is in line with World Trade Organisation (WTO) regulations. The APDP design has evolved from an export based incentive to a local manufacturing incentive, regardless of whether the motor vehicles are sold locally or

[26]DTI (2011*).Industrial Policy Action Plan (IPAP 2011/12-2013-/14).*Department of Trade and Industry. Pretoria, South Africa.
[27]dti (2006) Metals Sector Development Strategy: Trade and Investment South Africa – Customised Sector Programme – Metals.

abroad.[28] The programme aims to increase local production to 1.2 million vehicles by 2020. The APDP will extend support to the South African automotive industry until 2020. The objectives of the APDP include:

- improving the international competitiveness of the South African automotive industry
- stabilize and potentially increase employment levels
- and encourage the rationalization of platforms to achieve economies of scale in assembly
- Continue to encourage growth, particularly through exports and thereby improve industry's current trade balance

The focus under the APDP is to provide assistance to the component manufacturers so that they can provide cost competitive components to the Original Equipment Manufacturers (OEMs) and to international markets via exports. The APDP offers an incentive to up-skill employees and to invest technology, research and development.

3.1.7. Special Economic Zones

South Africa's drive to encourage regional industrial development dates back to the 1960's and has been part of government policy initiative. "In the early 1990s, industrial policy was markedly less focused on location. However more recently the Spatial Development Initiatives (SDI) and Industrial Development Zone (IDZ) programmes have both involved the identification of industrial locations and used incentives to encourage firms to locate in these areas"[29]. IDZs are aimed at stimulating the local economy of the region in which they are located, by attracting investment, increase exports and the competitiveness of South African products.

There are four designated IDZs in South Africa: East London Industrial Development Zone (ELIDZ) and COEGA Industrial Development Zone (COEGAIDZ) in Eastern Cape Province, Richards Bay Industrial Development Zone (RBIDZ) in KwaZulu-Natal (KZN) and OR Tambo International Airport (ORTIA) IDZ (in Gauteng Province). Only 3 are currently functional namely, Coega, East London and Richards Bay[30], while Saldanha Bay IDZ (in Western Cape Province) is still at feasibility stage. A Special Economic Zones (SEZs) Bill was gazetted in January 2012 by the Minister of Trade and Industry Dr Rob Davies. Under this Bill, IDZs will no longer be classified as a separate entity but will be classified as SEZs[31]. Previously, a key requirement for a region to qualify as an IDZ was proximity to either an international sea or airport. The Bill is

[28]http://www.automotiveonline.co.za/site/files/6860/APDP_Deloitte.pdf
29Trudi, H. (2001). *South African regional industrial policy: from border industries to spatial development initiatives.* Journal of International Development, 2001, vol. 13, issue 6, pages 767-777
[30] The DTI (2013) *Special Economic Zones Bill, 2013*; Presentation to Portfolio Committee On Trade And Industry, 26 April 2013. Available at:
http://www.thedti.gov.za/parliament/SEZ-Bill.pdf (Accessed 11 July 2013).
[31] The DTI (2013) *10 Potential Special Economic Zones Have Been Identified*, Media Statement. Available at: http://www.thedti.gov.za/editmedia.jsp?id=2685(Accessed 11 July 2013)

expected to facilitate spatial development of other regions previously side-lined by the IDZ framework.

The DTI (2013) argues that the IDZ programme has delivered good results, particularly the ELIDZ whose private sector investment rose from R600-million in 2009 to R4-billion in 2012/13.

Figure 26: DTI Funding and Employment Creation by IDZs

IDZ	Number of investors	Value of investment (R'000)	Funding transfers by the dti (R'000)	Direct employment	Construction & indirect jobs	Total employment
Coega	20	1,131,750	4,364,680	3,778	37,156	**40,934**
ELIDZ	21	1,082,700	1,394,983	1,179	6,379	**7,558**
RBIDZ	1	650,000	331,123	126	54	**180**
Total	**42**	**2,864,450**	**6,090,786**	**5,169**	**43,589**	**48,758**

Source: The DTI (2013)

The purpose of the ORTIA IDZ is to provide an efficient and effective import and export duty free zone for high value added light manufactured goods which are exported via air freight. The intention is to use the airport as leverage to generate the growth of business, leisure, expo's, manufacturing and other related activities[32].

3.1.8. National Infrastructure Plan

The Government adopted a National Infrastructure Plan (NIP) in 2012, which is aimed at transforming the economic landscape, creating significant numbers of new jobs, and strengthen the delivery of basic services in South Africa. The plan also supports the integration of African economies. The costs of the 18 strategic projects identified are estimated at about R4-trillion over the next 15 years[33]. The government pledged to invest R827 billion in building new and upgrading existing infrastructure over the three years from 2013/14 financial year[34]. State owned enterprises (SOEs) such as Eskom, Transnet and others are also expected to fund a further R400 billion of projects next three years, supported by National Treasury guarantees[35]. Some of this investment is earmarked for the construction of ports, roads, railway systems, electricity plants, hospitals, schools and dams with the ultimate aim of contributing to faster economic growth.

[32] www.ggda.co.za/pages/gauteng-IDZ-DEVCO.aspx
[33] Business Day (2012) *Infrastructure projects will 'not come cheap'*. Available at: http://www.bdlive.co.za/economy/2012/10/21/infrastructure-projects-will-not-come-cheap (Accessed 11 July 2013)
[34] National Treasury (2013) *2013 Budget Speech* by Minister of Finance.
[35] National Treasury (2013) *2013 Budget Speech* by Minister of Finance.

In order to coordinate, integrate and accelerate the implementation of this massive infrastructure development drive, Cabinet established the Presidential Infrastructure Coordinating Committee (PICC). The PICC has already identified, developed and approved 18 strategic integrated projects (SIPS), which cover 150 social and economic infrastructure across all nine provinces (with an emphasis on lagging regions). Each SIP comprises of a large number of specific infrastructure components and programmes[36]. The SIPs comprise of:

- Five geographically-focussed SIPs,
- Three spatial SIPs,
- Three energy SIPs,
- Three social infrastructure SIPs,
- Two knowledge SIPs,
- One regional integration SIP, and
- One water and sanitation SIP.

Table 10: Strategic Integrated Projects

SIPs 1 - 9	SIPs 10 - 18
SIP 1: Unlocking the Northern Mineral Belt with Waterberg as the Catalyst	SIP 10: Electricity transmission and distribution for all
SIP 2: Durban- Free State– Gauteng Logistics and Industrial Corridor	SIP 11: Agri-logistics and rural infrastructure
SIP 3: South Eastern node & corridor development	SIP 12: Revitalisation of public hospitals and other health facilities
SIP 4: Unlocking economic opportunities in the NW Province	SIP 13: National school build programme
SIP 5: Saldanha-Northern Cape Development Corridor	SIP 14: Higher Education infrastructure
SIP 6: Integrated Municipal Infrastructure Project	SIP 15: Expanding access to communication technology
SIP 7: Integrated Urban Space and Public Transport Programme	SIP 16: SKA and Meerkat
SIP 8: Green energy in support of the South African economy	SIP 17: Regional integration for African cooperation and development
SIP 9: Electricity generation in support of socio-economic development	SIP 18: Bulk water supply and distribution

Though it might be too early to review the impact of the NIP to date, the Draft Infrastructure Development Bill (2013) estimates that around R24 billion has been spent to date, creating 145 000 jobs[37].

SIPs which will directly impact the Gauteng region include the **SIP 2: Durban-Free State-Gauteng logistics and industrial corridor**. The NIP estimates that 135 000 jobs will be created in the construction projects in the corridor. Once the projects are completed a further 85 000 jobs are expected to be created by those businesses that use the new facilities. The aim of the project is to strengthen the logistics and transport corridor between South Africa's main industrial hubs and to improve access to Durban's export and import facilities. Work has already

[36] Presidential Infrastructure Coordinating Commission (PICC) (2012) *A Summary of the South African National Infrastructure Plan.*Pretoria, South Africa.
[37]Department of Economic Development (2013) *Draft Infrastructure Development Bill (2013)*

started on a massive logistics corridor stretching between Durban and the central provinces of the Free State and Gauteng. Most of the projects that form part of the second Strategic Integrated Project (SIP 2), also known as the Durban-Free State-Johannesburg Logistics and Industrial Corridor, are still in the concept or pre-feasibility stage, but construction has already started on several projects.

These include:

- the building of a R2,3 billion container terminal at City Deep
- a R3,9 billion project to upgrade Pier 2 at the Port of Durban
- R14,9 billion procurement of rolling stock for the rail line which will service the corridor.

Work has also started on the R250 million Harrismith logistics hub development to set up a fuel distribution depot, as well as on phase one of the new multi-product pipeline which will run between Johannesburg and Durban and transport petrol, diesel, jet fuel and gas.[38]

The economic benefits that are anticipated to accrue from the Durban-Gauteng Freight Corridor are as follows:

- R6 billion p.a increase in National GDP during construction
- R29 billion p.a increase in National GDP during operation
- Approx. 62 000 new jobs created
- R4 billion p.a increase in Local GDP during construction
- R12.5 billion p.a increase in Local GDP during operation
- 5-7% reduction in local unemployment

SIP 4: Unlocking the economic opportunities in North West involves the following:

- Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure.
- Enabling reliable supply and basic service delivery
- Facilitate development of mining, agricultural activities and tourism opportunities.
- Open up beneficiation opportunities in North West province

3.2. Regional Economic Growth and Development Strategies

3.2.1. Gauteng Employment Growth and Development Strategy

The Gauteng Employment, Growth and Development Strategy for 2009-2014 (GEGDS) was approved by the Gauteng Executive Council in mid-2009. It outlines the strategic priorities and programmes for the provincial government for the five year term of office ending in 2014.The vision of this GEGDS is: *"An inclusive and sustainable Gauteng City-Region that promotes a*

[38] http://www.info.gov.za/issues/national-infrastructure-plan/index.html

developmental and equitable society", and advocates for building a provincial economy that is based on "*innovation", "green growth" and "inclusivity".*

In line with the 2009-2014 Gauteng Medium Term Strategic Framework (MTSF), the GEGDS emphasises the creation of decent work and build a growing, inclusive economy as one of the key priorities. One of the seven GEGDS strategic drivers is skills development and capacity building. The provincial government's training and skills development initiatives are focused on, among others: forging strong linkages between businesses, educational (academic) institutions and SETAs to ensure greater matching of labour demand and supply per sector.

3.2.2. Gauteng Industrial Policy Framework

The Gauteng Provincial Government (GPG) has an Industrial Policy Framework (2010-14), which is located within National Government's efforts to promote a new economic growth path and the National Industrial Policy Framework (NIPF) and Industrial Policy Action Plans (IPAPs)[39]. Some of the sectors which have been identified by industrial policy framework include; food and beverages, furniture, textiles and clothing, construction, machinery and equipment and the automotive and components sectors.

Industrial Policy Framework (2010-14) noted that with the support of national and provincial industrial policy the enterprises in these identified sectors have the potential to become more productive quicker. Further, they can absorb unskilled and semiskilled labour and through a process of skills development and on-the-job training engage in incremental productivity improvements.

3.2.3. Gauteng Human Resource Development Strategy

The Gauteng Provincial Government (GPG) launched the Gauteng Human Resource Development Strategy (GHRDS) in September 2006[40]. The key focus of the GHRDS is human resource development and in particular providing a quality supply of skills for key economic and social sectors, promoting shared growth through building social capital and expanding the opportunities available to the poor. The vision of the strategy is to develop employable, entrepreneurial and 'smart' people.

3.2.4. Skills Development in Gauteng Province

The GPG initiated the Gauteng City Region Academy (GCRA), which is mandated to drive the development of the necessary skills for economic growth and social transformation in the

[39]Gauteng Department of Economic Development (2010).*Gauteng Industrial Development Framework (2010-2014).*
[40]http://www.info.gov.za/speeches/2006/06092610451006.htm(Accessed: 14 January 2013)

province[41]. The GCRA achieves its mandate through the coordination of the provincial bursary fund, establishment of skills partnership with representatives of organised business, higher education institutions, labour and the national government's Joint Initiative for Priority Skills Acquisition (JIPSA) to ensure effective collaboration to achieve skills development objectives.

3.2.5. North West Provincial Growth and Development Strategy (PGDS)

The North West Provincial Growth and Development Strategy provides a framework for integrated and sustainable growth and economic development for the province. The strategy prescribes to balanced development of economic sectors and spatial localities in accordance with the demands and potential of the people[42]. The PDGS is also aimed at targeted investments in the second economy to offer opportunities to the poor in skills development, employment and improving their quality of life.

3.3. Other Factors Impacting on Future Demand and Supply of Skills in the Region

A number of major projects are occurring in the Gauteng-North West region and these are briefly summarised below.

3.3.1. Renewable Electricity farm in North West

The first solar farm for North West Province, RustMo1 Solar Farm was launched in May 2013. The solar farm is 7 Megawatt solar photovoltaic power generation facility at Buffelspoort, 22 kilometres outside the city of Rustenburg. The farm will produce 244 643 MWh of energy over the 20 year contract and is destined to supply power to the Eskom grid upon commencement of commercial operation, scheduled for November 2013. The project has been included in the draft North West Provincial Renewable Energy Strategy.

3.3.2. The Innovation Hub (TIH) in Gauteng

The Innovation Hub was established with a view to spurring the development of smart industries (high technology sectors) in Gauteng. Key focus areas are information and communications technology (ICT), biotechnology, renewable energies and low carbon economy technologies (green economy). The Innovation Hub is in line with Gauteng's Growth and Development Strategy[43].

[41] http://www.engineeringnews.co.za/article/gauteng-moves-to-increase-scarce-skills-2008-02-18 (Accessed: 14 January 2013)
[42] North West Provincial Growth and Development Strategy 2004-2014
[43] http://www.ggda.co.za/Pages/The-Innovation-Hub-%28TIH%29.aspx (Accessed 7 August 2013)

3.3.3. The Automotive Industry Development Centre (AIDC)

The Automotive Industry Development Centre (AIDC) was initially established in 2000 by the Gauteng Provincial Government as a supporting organisation focusing on effective project delivery in support of Gauteng Industrial Policy and other strategic initiatives within the automotive sector within the province. The AIDC primarily focuses on being a centre of excellence with a specific focus on the following areas: Automotive Investment Facilitation; Supplier Development, Supply Chain Development, Skills Development and Training, Enterprise Development and Incubation Programmes and a WorkHelp Contact Centre. It aims to support the province's industrial development-related objectives and contribute to goals of continuous growth and sustainable job creation and skills development[44].

3.4. Conclusion

The South African government has a number of strategies and policies in place to stimulate growth and address challenges faced by the nation. The strategies and policies are geared to ensure global competitiveness of industry and also employment creation. The National Infrastructure Plan aims to create a significant number of new jobs and also strengthen the delivery of basic services in South Africa. SIP 4: Unlocking the economic opportunities in North West is geared to accelerate growth in the province.

Both provinces have Provincial Growth and Development Strategies to provide a framework for economic development in the provinces. The Gauteng Industrial Policy Framework identified some sectors which could help reduce the unemployment rate in the province and these include: food and beverages, furniture, textiles and clothing, construction, machinery and equipment and the automotive and components sectors.

[44] http://www.gqda.co.za/Pages/Automotive-Industry-Development-Centre.aspx (Accessed 7 August 2013)

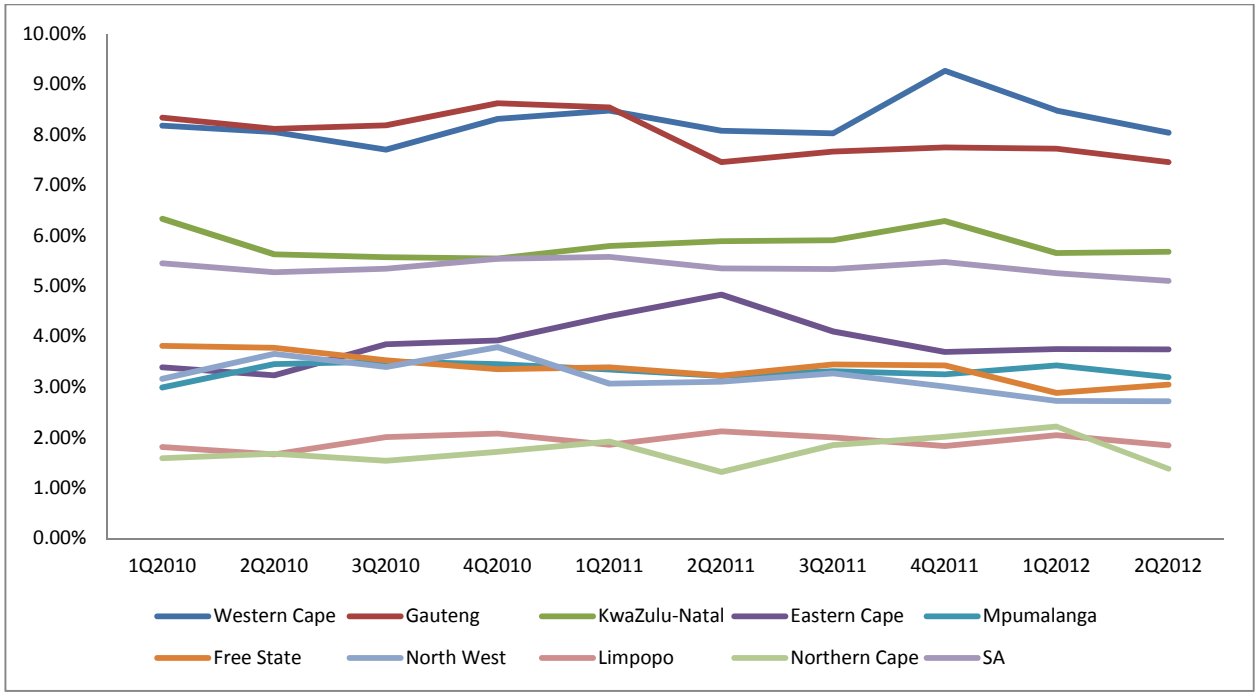
4. THE DEMAND FOR LABOUR

4.1. Introduction

The manufacturing sector is the fourth largest (13%) employer in the country with a total employment figure just above 1.7 million according to the QLFS Q1 2013. Distribution of the total manufacturing workforce shows a bias similar to the economic contribution of the provinces with the bulk of the workforce being found in Gauteng followed by KwaZulu-Natal and Western Cape.

The manufacturing sectors contribution to provincial employment is shown in the graph below, which shows that the sector makes significant contributions in the economies of Western Cape, Gauteng and KwaZulu-Natal.

Figure 27: Manufacturing sector's contribution to provincial employment, 2012



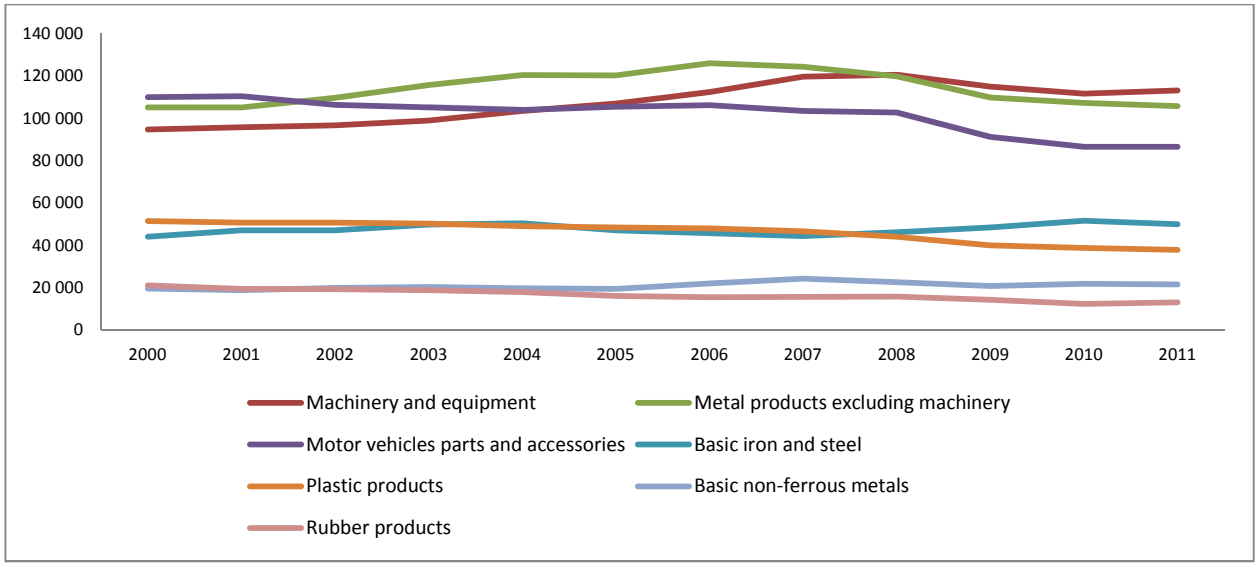
Source: own calculations from Stats SA Labour Force Survey

The metals, metal products, machinery and equipment [SIC: 351-359] is the subsector with the highest employment figures in the manufacturing sector. This subsector employed 149 thousand employees in 2011 in Gauteng alone.

An analysis of the employment trends (at a national level) of the subsectors that make-up the merSETA cluster show that employment numbers have gradually decreased over the period

2000-2011.The graph below shows the subsectors that fall under Manufacturing in the National Accounts and does not include the subsector: Sale, maintenance and repair of motor vehicles and motor cycles; retail trade in automotive fuel which falls under the Wholesale and Retail sector.

Figure 28: Employment figures by subsectors in South Africa, 2011



Source: Quantec (2013)

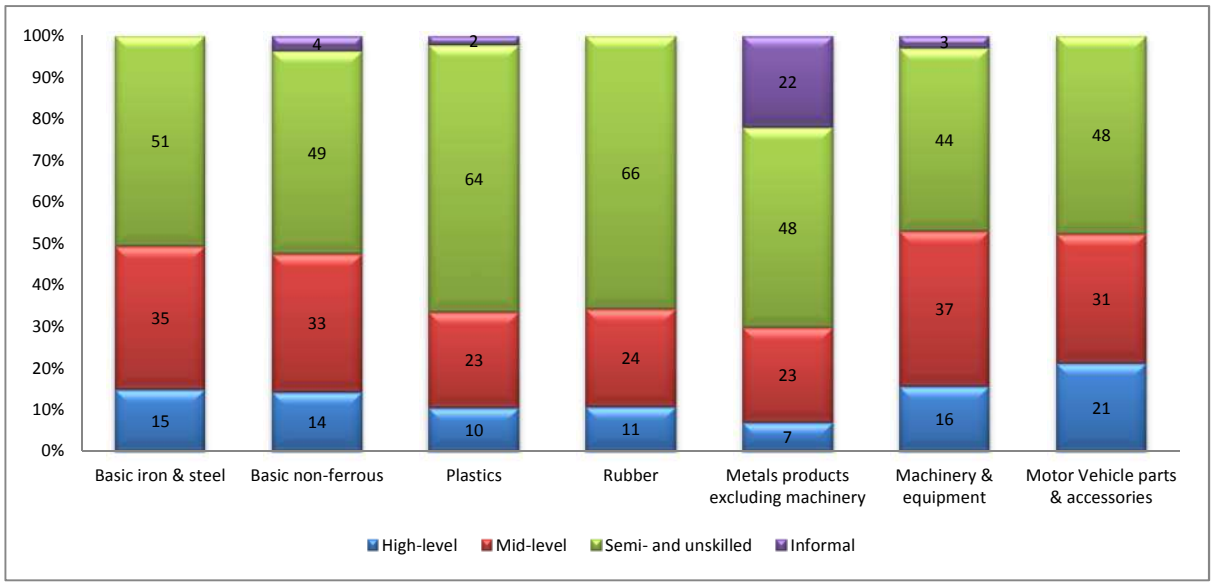
The machinery& equipment and metal products excluding machinery have the highest employee figures for 2011. For the machinery & equipment sector there has been an increasing trend over the years, from 94.5 thousand employees in 2000 to 113 thousand in 2011. The motor vehicle parts & accessories sector lost the greatest number of employees since 2000, declining from 109 222 to 86 391 employees in 2011. The plastics products subsector also recorded a decrease in number of employees from 51 437 in 2000 to 37 708 in 2011. Slight increases were recorded in the remaining subsectors.

4.1.1. Employment Profile

4.1.1.1. Skill levels and Occupational Profile

The sectors that have the greatest proportions of unskilled and semi-skilled workers are the plastics and rubber products sectors according to 2011 statistics. The motor vehicle parts & accessories subsector had the highest proportion of skilled workers of all the subsectors.

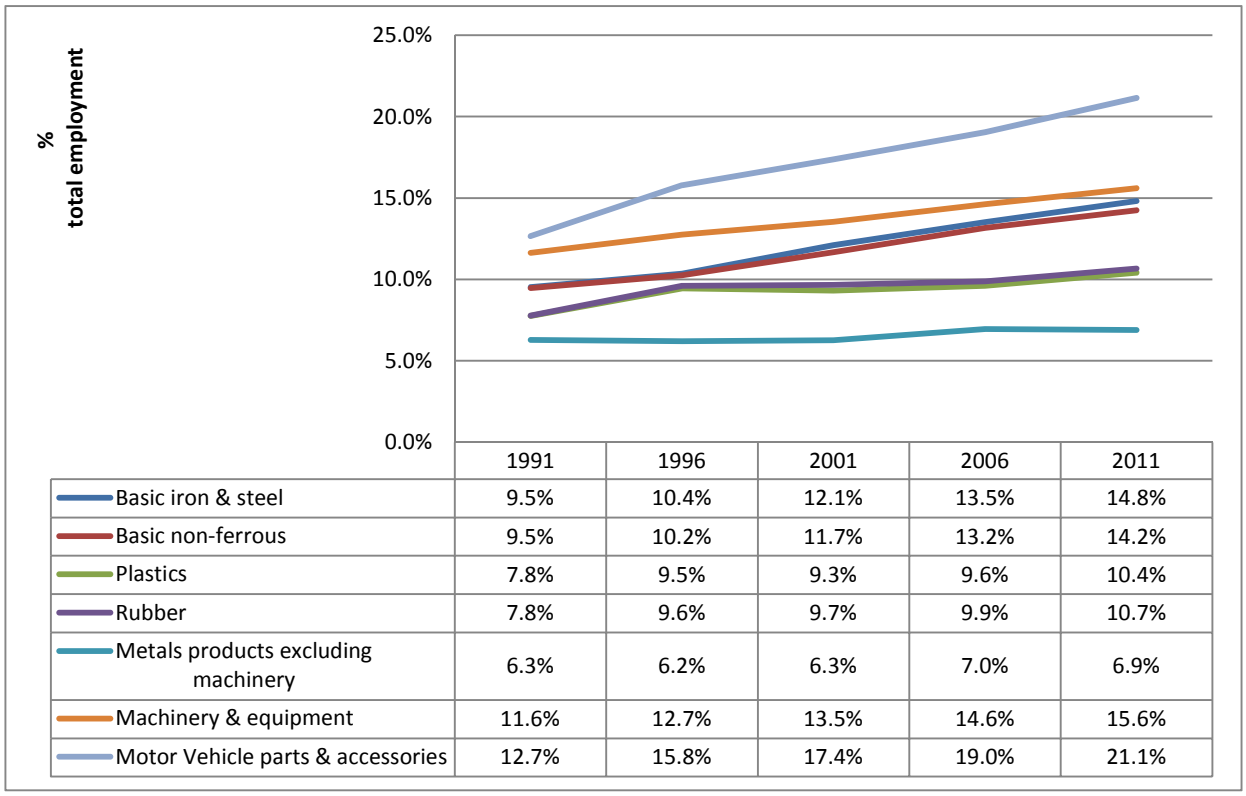
Figure 29: Skill level of workers per sub-sectors, 2011



Source: Quantec (2013)

An analysis of the trends in high-level skills per subsector shows an increase in the portion of skilled workers who make the workforce of the merSETA cluster. The portion of high-level skills has been increasing for the decade 1991 to 2011 but still constitute a minority in the profile of employees as shown in Figure 30 below. Semi-skilled, unskilled and mid-level skilled employees still constitute the majority of employees in all subsectors of the merSETA clusters.

Figure 30: Trends in high-level skills per subsector, 2011



	1991	1996	2001	2006	2011
Basic iron & steel	9.5%	10.4%	12.1%	13.5%	14.8%
Basic non-ferrous	9.5%	10.2%	11.7%	13.2%	14.2%
Plastics	7.8%	9.5%	9.3%	9.6%	10.4%
Rubber	7.8%	9.6%	9.7%	9.9%	10.7%
Metals products excluding machinery	6.3%	6.2%	6.3%	7.0%	6.9%
Machinery & equipment	11.6%	12.7%	13.5%	14.6%	15.6%
Motor Vehicle parts & accessories	12.7%	15.8%	17.4%	19.0%	21.1%

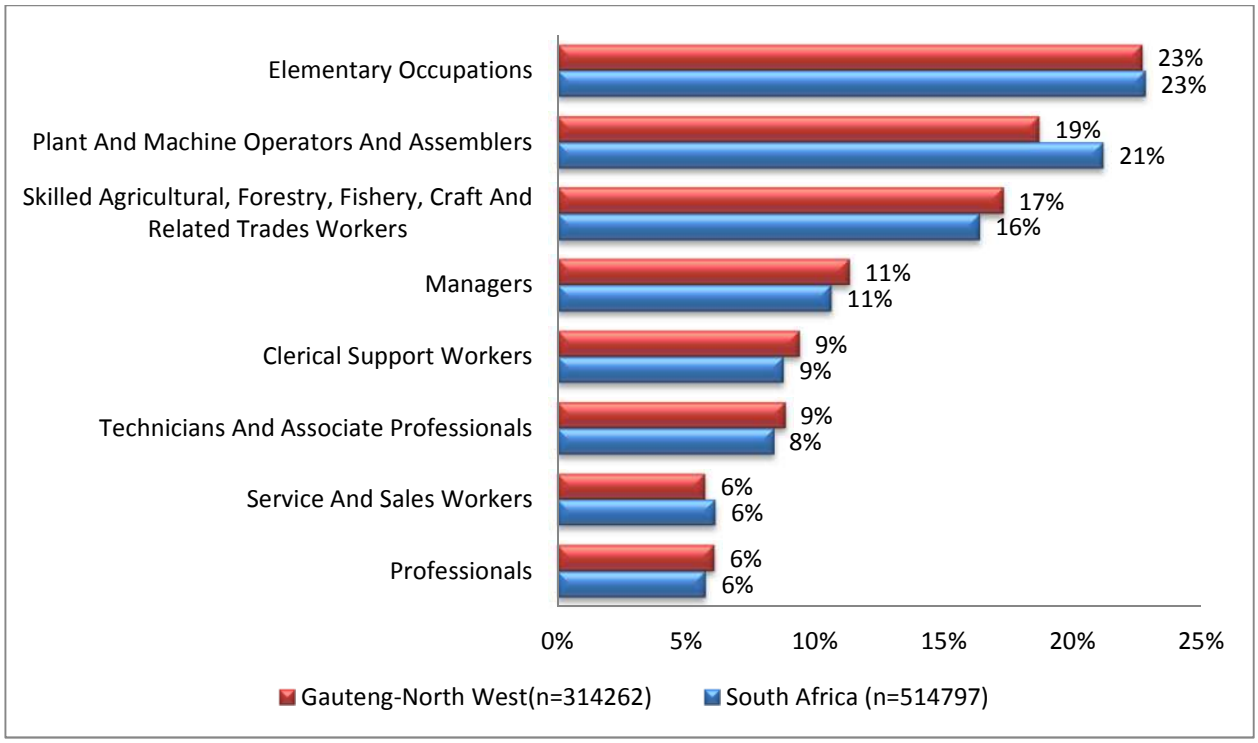
Source: Quantec (2013)

The portion of high-level skills has been increasing for the decade 1991 to 2011 but still constitute a minority in the profile of employees. Semi-skilled, unskilled and mid-level skilled employees still constitute the majority of employees in all subsectors of the merSETA clusters. High-level skills comprise of managers, professionals, and technicians and associate professionals in terms of occupational categories. The mid-level skills comprises of craft and related trades workers, services and sales workers and clerical support workers. Semi-skilled workers constitute the plant and machine operators and assembler's category and unskilled workers are the elementary workers.

An analysis of the merSETA database showed the occupational profile shown in the graph below. The figures for Gauteng-North West closely mirror those for the nation as a whole. As expected, elementary occupations and plant & machine operators and assemblers constitute the largest group at 23% and 19% respectively. The occupational profile and the skill level profile may also be used to infer the educational profile of the merSETA cluster employee. Elementary workers (22%) generally have only entry-level qualifications. Managers (11%) and professionals (6%) are likely to have high levels of formal education. The majority of technicians and associate professionals (9%) and the skilled agricultural, forestry, fishery, craft and related trade workers (17%) are likely to have trade-related qualifications.

The Plastics Chamber Report (April, 2012) found that the majority (48.8%) of the plastics sector employees had Grade 12 (Matric) and 32% ABET 2-4 (Grade 1-9) as their highest qualifications. The findings from the New Tyre Chamber Report showed that the majority of employees categorised as artisans/craft workers have a Grade 12 or equivalent as their highest qualification. They found very few artisans/craft employees with N4-6 (8%), or National Diplomas (7%) as their highest qualifications. Similar findings were found in the other occupational categories namely; professionals, associate professionals and even executives/senior management. The chamber report concluded that the tyre industry has relatively low-level qualifications relative to the positions they hold.

Figure 31: merSETA employment by major occupational groups, 2012

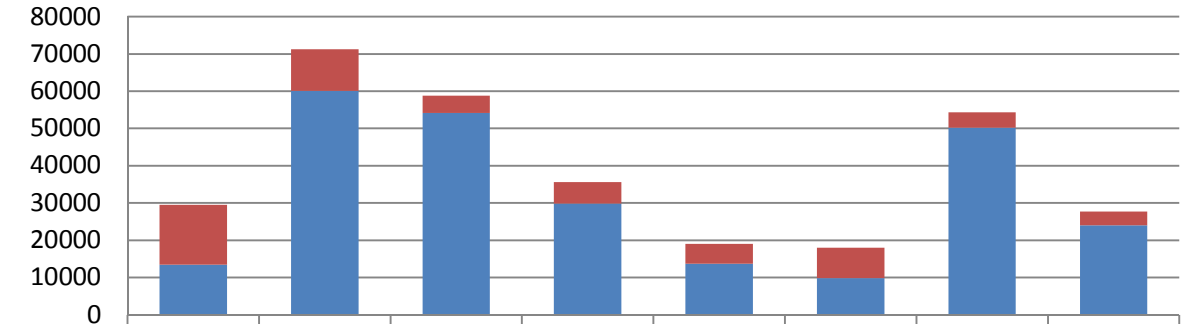


Source: merSETA database (2013)

4.1.1.2. Race and gender distribution of employees

The merSETA sector is dominated by male employees; the national database shows that 80% of employees are male and 20% are female. The situation for Gauteng-North West is also similar with males being 81% of the total employees. The only occupational group where the female numbers (54%) exceed men is the clerical support workers category. Females also constitute a considerable portion (45%) of the sales and service workers category. As shown in the graph below the proportion of women is generally very low in the rest of the occupations. For the plant & machine operators and skilled agriculture, forestry, fishery craft & related trades categories the percentage of female employees is 8% respectively.

Figure 32: Gender distribution of Gauteng-North West employees in the sector according to occupational group, 2012

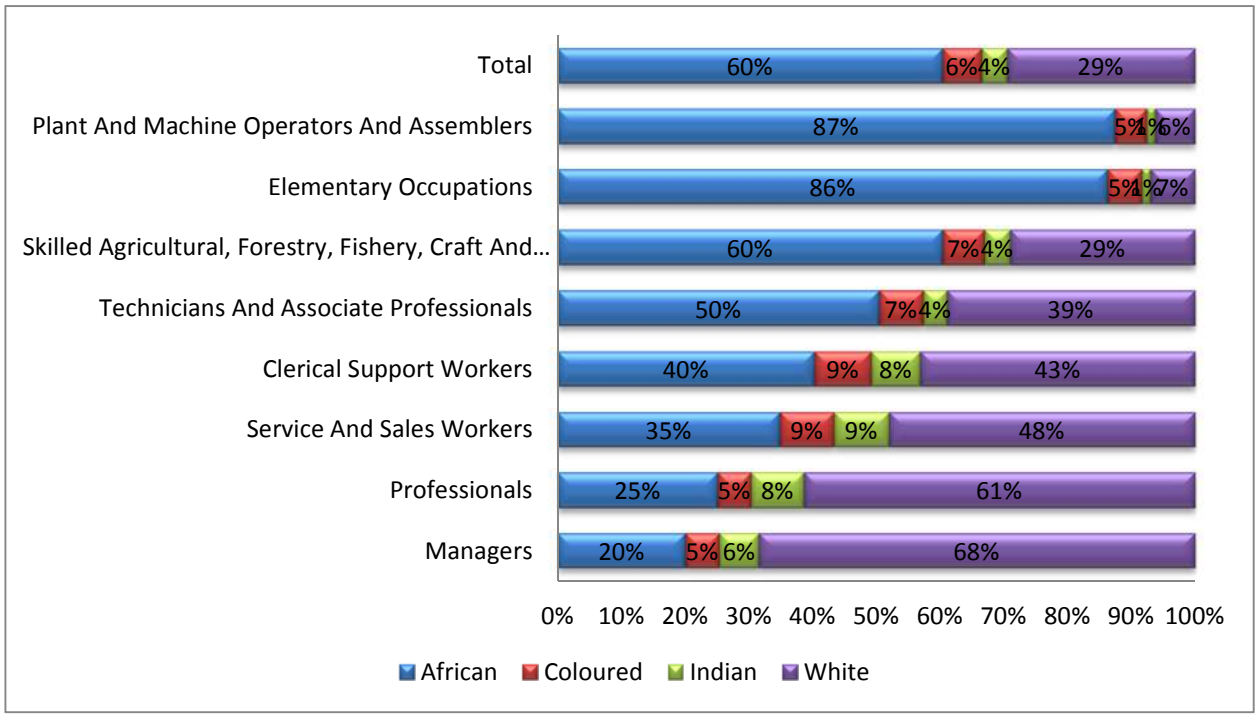


	Clerical Support Workers	Elementary Occupations	Plant And Machine Operators And Assemblers	Managers	Professionals	Service And Sales Workers	Skilled Agricultural, Forestry, Fishery, Craft And Related Trades Workers	Technicians And Associate Professionals
Female	16037	11211	4612	5731	5336	8106	4140	3694
Male	13458	60056	54167	29844	13728	9872	50203	24007

Source: merSETA database (2013)

The racial profile indicates that 60% of Gauteng-North West merSETA employees are African and 29% are white. The proportion of African workers in Gauteng-North West is higher than the national figure which is 55%.

Figure 33: Racial distribution of Gauteng-North West employees in the sector, 2012



Source: merSETA database (2013)

The occupations with the greatest proportion of African employees are the plant and machine operators and assemblers (87%) and elementary occupations (86%) categories. Nationally Africans make up 79% of elementary occupations and 77% of plant and machine operators and assemblers. Whites make up the majority of managers (68%) and professionals (61%) in Gauteng.

4.1.1.3. Age distribution of employees

According to the merSETA data system, 40% of Gauteng employees are younger than 35 years whilst 49% are between 35 and 49 years and 10% are between 49 and 64 years. As expected only a minority (21%) of managers are less than 35 years because of the experience and expertise the positions require. The majority (48%) of skilled agricultural, forestry, fishery, craft and related trades workers are in the 35-49 age group and a considerable portion (43%) is younger than 35 years. Since the majority of technicians and associate professionals (49%) and skilled agricultural, forestry, fishery, craft and related trades works (48%) are in the 35-49 age group it means a considerable portion are looking at retirement in 15 to 20 years or promotion to managerial positions. Views gathered from our in-depth interviews show a concern for the lack of interest amongst young people to join the manufacturing industry as blue collar jobs are negatively perceived.

Table 11: Age distribution of merSETA Gauteng-North West employees by major occupational category, 2012

Occupational Group	Age group		
	<35	**35-49**	**50-64**
Managers	21,3%	62,2%	16,5%
Plant And Machine Operators And Assemblers	35,9%	52,7%	11,4%
Clerical Support Workers	41,1%	48,4%	10,5%
Professionals	41,6%	48,0%	10,4%
Technicians And Associate Professionals	40,8%	48,9%	10,3%
Service And Sales Workers	44,7%	45,5%	9,8%
Skilled Agricultural, Forestry, Fishery, Craft And Related Trades Workers	42,7%	47,8%	9,5%
Elementary Occupations	50,0%	42,6%	7,4%
Total	**40,4%**	**49,2%**	**10,4%**

Source: merSETA database (2013)

The age distribution amongst chamber employees is shown in the table below. The plastic sector has the largest portion (42%) of employees younger than 35 years. The recent Plastics Chamber report found that 62% of the employees from the companies profiled were between 18 and 39 years which indicate a relatively young workforce.

Table 124: Age distribution of merSETA employees by chamber category, 2012

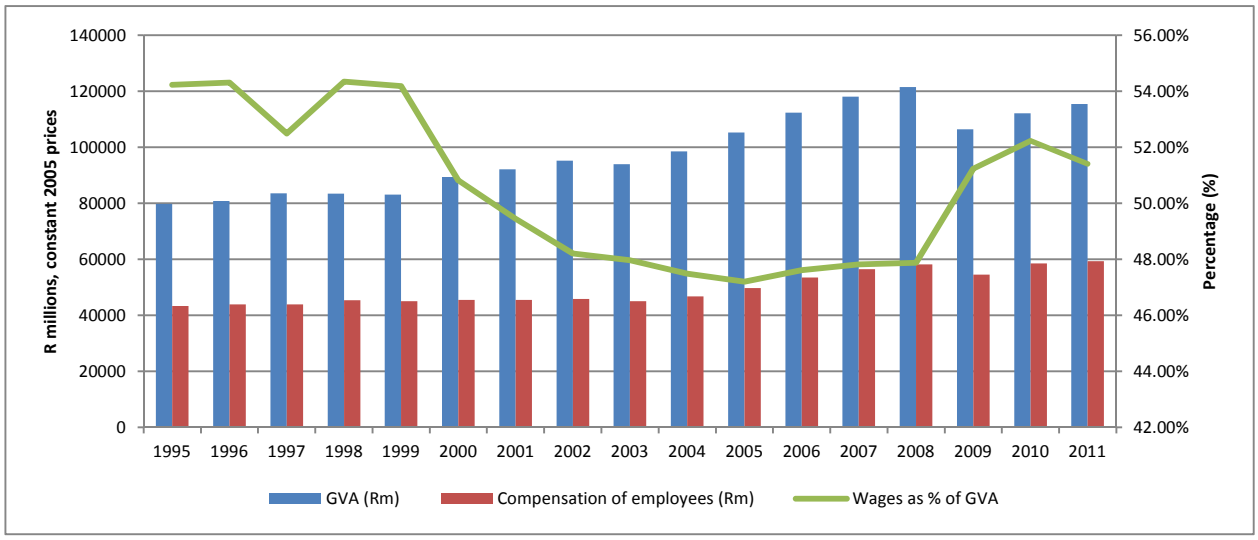
Chamber	Age group		
	<35	35-49	50-64
Metal	38%	50%	11%
Auto	36%	53%	11%
Motor	34%	55%	11%
New Tyre	37%	54%	10%
Plastics	42%	48%	9%
Unknown	43%	47%	9%
Total	40%	49%	10%

Source: merSETA database (2013)

4.1.2. Remuneration Trends

The gross earning of the employees within the manufacturing sector has increased steadily despite a sustained contraction of the workforce. A review of previous SSPs indicated that employees in the manufacturing sector are likely to be permanently employed with employers who contribute to their pension fund and make UIF contributions.

Figure 34: Employee remuneration as percentage of GVA, 2012



Source: Quantec (2013)

The increase in employee remuneration might be due to the changing skills profiles in the sector, with more highly skilled workers commanding higher wages and the impact of the highly unionised nature of the workforce.

4.2. Future Demand

To determine the future demand required for the merSETA sector in Gauteng it is important to consider the current economic conditions as well as economic growth forecasts. Replacement demand due to mortality, emigration, and emigration of employees should also be factored in.

The previous section detailed and profiled the current merSETA workforce in Gauteng highlighting the occupational figures and the age profile of the employees. The manufacturing sector has been characterised, on the one hand by declining employment due to the use of labour saving technology and economic challenges whilst on the other hand creating an increased demand for skilled employees who can operate increasingly sophisticated machinery.

Estimates of demand are usually derived from econometric forecasting models which use historical data along with assumptions about the future to predict how output and employment patterns over time. The researchers used the data and findings found in the merSETA SSP Update for 2012/2013 – 2016/2017. The data from that study was then disintegrated to give a regional outlook based on the current employment figures and distribution of manufacturing activity.

The economic growth rates, the associated employment growth rates, and the final employment growth rates used in the merSETA's labour demand model can be seen in the table below.

Table 135: Average GVA and employment growth figures, 2012

Subsector	Low growth		Baseline		High Growth	
	GVA growth (%)	Employment growth (%)	GVA growth (%)	Employment growth (%)	GVA growth (%)	Employment growth (%)
Rubber products	-0.2	-1.0	1.5	-0.6	3.5	0.7
Plastic products	2.0	2.6	2.5	3.2	3.0	3.8
Basic iron & steel	-3.6	-0.9	4.0	0.6	10.4	2.6
Basic non-ferrous metals	1.1	0.6	3.5	2.1	6.3	3.7
Machinery & equipment	1.5	0.9	3.2	1.9	5.1	3.0
Motor vehicles, parts & accessories	-1.1	-0.7	3.3	2.2	8.7	5.2
Sales & repair of vehicles; fuel stations	2.6	0.9	5.4	1.9	8.5	2.9
Total economy	**1.9**	**0.8**	**3.8**	**1.7**	**6.2**	**2.6**

Source: merSETA SSP Update 2012/13-2017/18

Table 14: Employment growth figure used in the merSETA's labour demand projection, 2012

merSETA sectors	Low growth	Baseline	High growth
	%	%	%
Auto	0.5	2.0	3.5
Metal	0.4	1.6	3.0
Motor	0.5	2.0	3.5
New Tyre	-1.0	-0.6	0.7
Plastics	2.6	3.2	3.8
Unknown	0.4	1.6	3.0

Source: merSETA SSP Update 2012/13-2017/18

Based on the analysis and the projections of the merSETA SSP Update 2012/2013-2017/18 the demand projections for the Gauteng region for the baseline, negative and positive scenarios would be as follows:

Table 15: Demand projections 2014 to 2018: baseline scenario for Gauteng-North West

New Positions to be Created in Period					
Occupational Group	2014	2015	2016	2017	2018
Managers	498	509	517	528	540
Professionals	353	361	369	376	384
Technicians and Associate Professionals	699	714	726	741	756

Clerical Support Workers	232	236	239	243	247
Service and Sales Workers	555	562	574	585	597
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	167	171	171	175	179
Plant and Machine Operators and Assemblers	1220	1246	1269	1296	1322
Elementary Occupations	1018	1041	1060	1083	1102
Total	**4 742**	**4 841**	**4 925**	**5 027**	**5 126**
Replacement Demand					
Occupational Group	2014	2015	2016	2017	2018
Managers	876	894	908	926	941
Professionals	523	534	544	552	562
Technicians and Associate Professionals	808	822	836	851	869
Clerical Support Workers	263	270	274	278	285
Service and Sales Workers	602	613	624	634	645
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	187	191	195	198	202
Plant and Machine Operators and Assemblers	1363	1388	1413	1438	1464
Elementary Occupations	1024	1042	1060	1082	1100
Total	**5 645**	**5 754**	**5 855**	**5 959**	**6 067**
Total Positions That Need to be Filled					
Occupational Group	2014	2015	2016	2017	2018
Managers	1 374	1 403	1 425	1 455	1 481
Professionals	876	895	913	928	946
Technicians and Associate Professionals	1 507	1 536	1 562	1 592	1 625
Clerical Support Workers	495	506	513	521	532
Service and Sales Workers	1 157	1 175	1 197	1 220	1 242
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	355	362	366	373	380
Plant and Machine Operators and Assemblers	2 582	2 634	2 682	2 734	2 786
Elementary Occupations	2 042	2 083	2 120	2 165	2 202
Total	10 388	10 595	10 779	10 986	11 193

Source: merSETA SSP Update 2012/13-2017/18

According to demand projections for the baseline scenario shown in the above table, Gauteng-North West would require 4 742 to fill new positions and 6451 to meet replacement demand needs which results in a total demand of new skills of 10 388 people in 2014. The total demand for the four year period (2014-2018) would be 53 942 new skills.

Table 16: Demand Projections 2014 to 2018: negative scenario Gauteng-North West

New Positions to be Created in Period					
Occupational Group	2014	2015	2016	2017	2018
Managers	148	152	152	156	156
Professionals	99	99	103	103	103
Technicians and Associate Professionals	209	209	213	213	217

Clerical Support Workers	65	65	65	65	65
Service and Sales Workers	144	144	148	148	148
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	46	46	46	49	49
Plant and Machine Operators and Assemblers	407	414	422	426	433
Elementary Occupations	327	331	334	338	342
Total	**1 444**	**1 459**	**1 482**	**1 497**	**1 512**
Replacement Demand					
Occupational Group	2014	2015	2016	2017	2018
Managers	844	851	854	858	865
Professionals	505	508	512	512	516
Technicians and Associate Professionals	779	782	786	793	797
Clerical Support Workers	256	256	256	260	260
Service and Sales Workers	580	580	584	588	591
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	180	180	184	184	184
Plant and Machine Operators and Assemblers	1312	1323	1330	1337	1348
Elementary Occupations	988	991	999	1006	1009
Total	**5 444**	**5 472**	**5 505**	**5 537**	**5 570**
Total Positions That Need to be Filled					
Occupational Group	2014	2015	2016	2017	2018
Managers	992	1 003	1 006	1 014	1 021
Professionals	604	607	615	615	618
Technicians and Associate Professionals	988	991	999	1 006	1 013
Clerical Support Workers	321	321	321	324	324
Service and Sales Workers	725	725	732	736	739
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	226	226	229	233	233
Plant and Machine Operators and Assemblers	1 719	1 737	1 752	1 763	1 781
Elementary Occupations	1 315	1 322	1 333	1 344	1 351
Total	6 888	6 932	6 987	7 034	7 082

Source: merSETA SSP Update 2012/13-2017/18

According to the demand projections for the negative scenario, the Gauteng-North West region will need 1444 new skills to fill new positions and 5444 for replacement demand positions in 2014. The total demand for the four year period is 34 923 and most of these would be from replacement demand and not new positions.

Table 17: Demand Projections 2014 to 2018: positive scenario Gauteng-North West

New Positions to be Created in Period					
Occupational Group	2014	2015	2016	2017	2018
Managers	940	971	1002	1034	1069
Professionals	683	702	725	749	772
Technicians and Associate Professionals	1322	1365	1408	1455	1502

Clerical Support Workers	437	452	464	480	495
Service and Sales Workers	1073	1104	1139	1178	1213
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	320	328	339	351	363
Plant and Machine Operators and Assemblers	2254	2328	2402	2480	2562
Elementary Occupations	1899	1958	2024	2087	2157
Total	**8 927**	**9 208**	**9 504**	**9 812**	**10 132**
Replacement Demand					
Occupational Group	2014	2015	2016	2017	2018
Managers	987	1018	1053	1084	1119
Professionals	589	608	628	647	667
Technicians and Associate Professionals	909	940	967	998	1030
Clerical Support Workers	296	308	316	328	339
Service and Sales Workers	679	698	722	745	768
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	211	218	226	230	238
Plant and Machine Operators and Assemblers	1533	1580	1630	1681	1736
Elementary Occupations	1151	1190	1225	1264	1307
Total	**6 353**	**6 560**	**6 767**	**6 977**	**7 203**
Total Positions That Need to be Filled					
Occupational Group	2014	2015	2016	2017	2018
Managers	1 927	1 989	2 055	2 118	2 188
Professionals	1 271	1 310	1 353	1 396	1 439
Technicians and Associate Professionals	2 231	2 305	2 375	2 453	2 531
Clerical Support Workers	733	761	780	807	835
Service and Sales Workers	1 751	1 802	1 860	1 923	1 981
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	530	546	566	581	601
Plant and Machine Operators and Assemblers	3 787	3 908	4 033	4 161	4 298
Elementary Occupations	3 050	3 147	3 249	3 350	3 463
Total	15 280	15 768	16 271	16 790	17 336

Source: merSETA SSP Update 2012/13-2017/18

According to the demand projections for the positive scenario Gauteng would need 8 927 new people for newly created positions and 6 353 new skills for replacement demand. In the positive scenario the demand from newly created positions outweighs those from replacement demand. For the four year period total projected demand is 81 444 people.

Analysing the figures for the baseline scenario; the majority of demand will be for plant and machine operators and assemblers (24%) occupation followed by the elementary workers category (19%). Managers will constitute 16%, technicians and associate professionals (14%) which point to a considerable need to up-skill the current workforce and an increased supply of professional qualifications from universities and universities of technology.

4.3. Conclusion

Gauteng-North West region constituted 61% of the companies on the merSETA database. The decade 1991-2011 has seen an increase in the portion of high-level skills in the industry and this is likely to continue as technological innovations are implemented in the coming years. This means the current workforce has to be up-skilled to meet the demands of the industry and new entrants also need the adequate skills to meet the changes in the industry.

The merSETA database shows that currently the majority of employees in the sector are elementary workers (23%) plant and machine operators and assemblers (19%) for the Gauteng-North West region. The sector is dominated by male employees (81%) and the racial profiles shows that 60% of employees are African. 40% of Gauteng-North West employees are younger than 35 years whilst 49% are between 35 and 49 years and 10% are between 49 and 64 years. It is vital that enough young people with the requisite skills enter the work force to replace those that might retire in the next decade.

Demand forecasting based on the merSETA SSP Update 2012/13-2017/18 showed the numbers required from new positions and from replacement demand for the period 2014-2018. For the baseline scenario, 25% of these positions are from the plant and machine operators and assemblers category and 15% are from the technicians and associate professionals category. The region should therefore ensure that it prepares for the projected demand by collaborating with supply-side institutions, companies and the merSETA for adequate training and planning to be done.

5. LABOUR SUPPLY

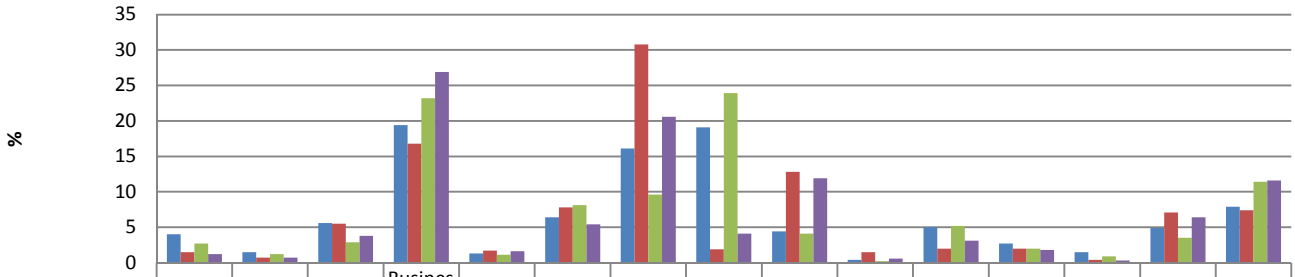
5.1. Introduction

The future growth prospects of a sector are dependent on the availability of appropriate and affordable skills and an analysis of the supply-side is necessary. This chapter analyses the supply of skills to the merSETA sector both within a national context and regional context. Trends from both the secondary and tertiary education sectors are analysed.

The current supply of skills to the sector should also include those that are currently unemployed but were previously employed in the sector. The Q1 LFS of 2013 states that 230 000 people who were unemployed previously worked in the manufacturing sector. The Q1 LFS of 2013 show of the total 1 879 000 who are now unemployed but have worked in the past 5 years; 307 000 worked as craft and related tradesmen; 158 000 as plant and machine operators and 94 000 as technicians.

Data from the 2011 census shows that for those aged 20 years and above the most common field of education is business and commerce field as shown in the graph below. It is however interesting to note that the portion of males holding educational qualifications in engineering and related fields has increased from 19.1% to 23.9%. There has also been an increase in women holding engineering and related fields' qualifications from 1.9% to 4.1%.

Figure 35: Filed of education for persons aged 20 years and above by gender, 2011



	Agriculture or renewable natural resource	Architecture or environmental design	Arts, languages, culture and related fields	Business, commerce, finance, accounting and related fields	Communication, journalism and related fields	Computer science and related fields	Education, training and related fields	Engineering and related fields	Health and related fields	Home economics	Legal, safety and related fields	Natural physical and mathematical science	Humanities, religious studies and related fields	Social science and related fields	Other
2001 Male	4	1.5	5.6	19.4	1.3	6.4	16.1	19.1	4.4	0.4	5	2.7	1.5	4.9	7.9
2001 Female	1.5	0.7	5.5	16.8	1.7	7.8	30.8	1.9	12.8	1.5	2	2	0.4	7.1	7.4
2011 Male	2.7	1.2	2.9	23.2	1.1	8.1	9.6	23.9	4.1	0.2	5.2	2	0.9	3.5	11.4
2011 Female	1.2	0.7	3.8	26.9	1.6	5.4	20.6	4.1	11.9	0.6	3.1	1.8	0.3	6.4	11.6

Source: Stats SA, Census 2011

As shown in the graph above the majority of women have business, commerce and related fields (27%) and in education, training and related fields (21%). In contrast to the females, the engineering and related fields qualifications are the most (24%) common amongst men followed by business, commerce and related fields.

The skills supplied to the industry should be the skills required by industry. A respondent from the Task Team discussion said "*The focus of supply institutions and policy should be on 'EMPLOYABILITY' of learners*." To ensure that learners are employable when they enter the workforce, interventions should start at the GET level. The table below shows the recommendation given:

Preparatory vocational guidance at GET level. This would ensure students know what the occupation is about and what subjects are required.
Vocational Training at FET will provide the theoretical technical knowledge and the simulated practical.
Occupational Training should be done at the workplace and provides actual occupational related skills.

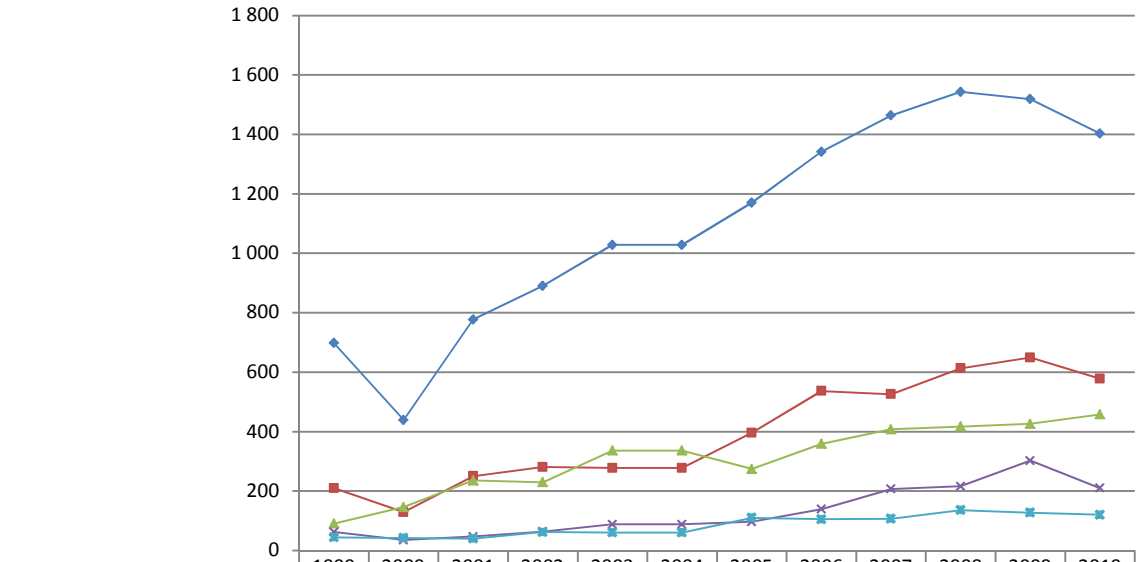
5.2. Supply of new skills to the sector

5.2.1. Higher education and training

Qualifications and output figures of most relevance to the merSETA cluster is the output of engineers and, in particular, electrical engineers, mechanical engineers, chemical engineers, industrial engineers, and metallurgical engineers. The merSETA sector also benefits and utilises skills from other areas like finance, accounting and human resources but of most importance are the engineering skills that sustain the sector.

The graph below shows the graduations with national diplomas in selected engineering fields between 1999 and 2010. These graduates become available to the national economy as engineering technicians in the relevant engineering disciplines. Electrical engineering has the highest output (1 403 in 2010), followed by mechanical engineering (578 in 2010) and chemical engineering (458 in 2010). Output from all fields has increased substantially over the eleven-year period, although a slight drop in output was reported in all fields except chemical engineering in 2010.

Figure 36: Number of national diplomas awarded in selected engineering fields: 1999-2010, South Africa

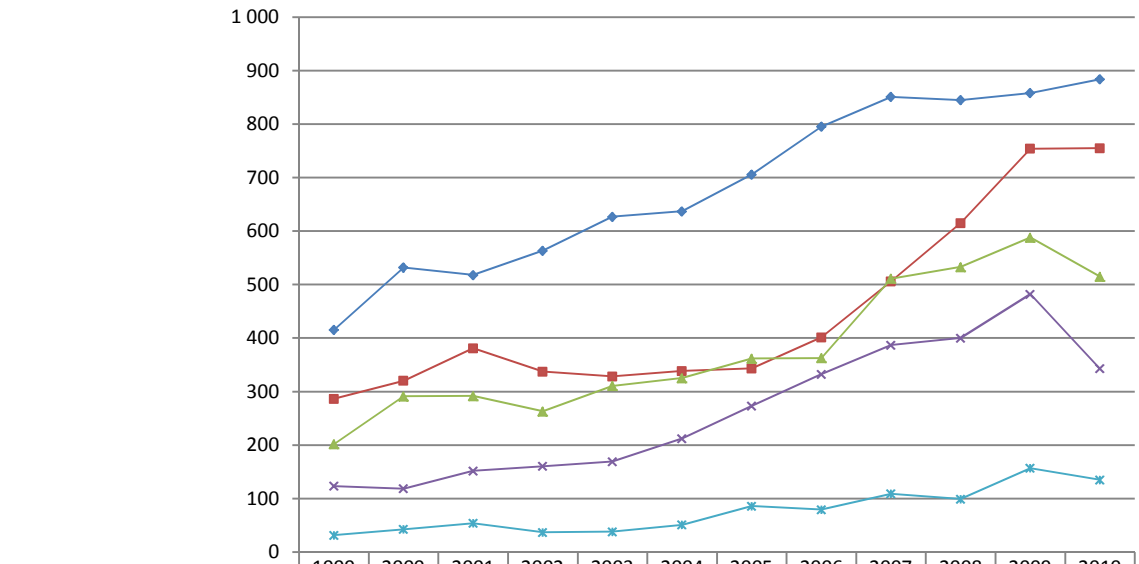


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Electrical engineering	698	439	777	890	1 028	1 028	1 171	1 342	1 464	1 543	1 519	1 403
Mechanical engineering	210	129	250	281	278	278	396	536	526	613	649	578
Chemical engineering	90	146	235	230	336	336	274	359	408	417	426	458
Industrial engineering	62	35	47	64	88	88	97	139	207	216	302	210
Metallurgical engineering	44	42	40	62	60	60	110	105	107	136	127	120

Source: merSETA SSP Update 2012/13-2016/2017

The graph below shows the number of first degrees awarded in the same selected engineering fields. These graduates become available to the national economy as engineers or engineering technologists and can, after a minimum of three years' work experience (during which certain criteria must be met), register as professional engineers or engineering technologists in their respective fields. In 2010 a slight drop in output (7% in total) was reported in the fields of chemical-, industrial- and metallurgical engineering. Output in 2010 was the greatest in electrical engineering (884), followed by mechanical engineering (755), and chemical engineering (515).

Figure 37: First degrees awarded in selected engineering fields: 1999-2010, South Africa

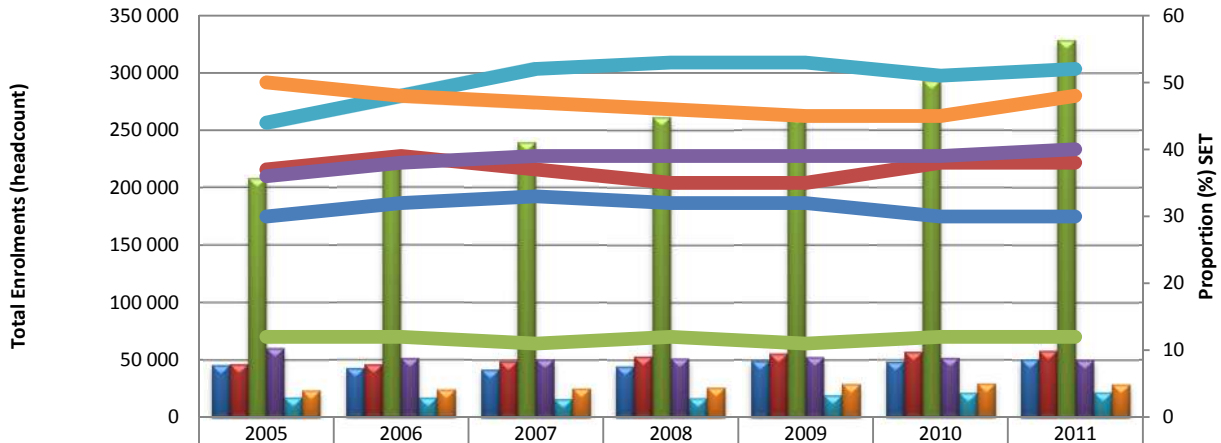


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Electrical engineering	415	532	518	564	627	637	706	795	851	845	858	884
Mechanical engineering	286	320	381	337	328	339	343	401	506	615	754	755
Chemical engineering	202	291	292	263	311	325	362	363	511	533	588	515
Industrial engineering	123	119	152	160	169	212	273	333	387	400	482	343
Metallurgical engineering	32	43	54	37	38	51	86	79	109	99	157	135

Source: merSETA SSP Update 2012/13-2016/2017

At a regional level Gauteng has 3 universities and 3 universities of technology and the total enrolment figures and the enrolments in science engineering and technology fields are illustrated in the graph below. As clearly seen in the graph below Unisa has the highest enrolment figures and on average 12% of these have been for the science, engineering and technology (SET) fields.

Figure 38: University enrolment figures and percentage science, engineering and technology enrolment in Gauteng, 2011



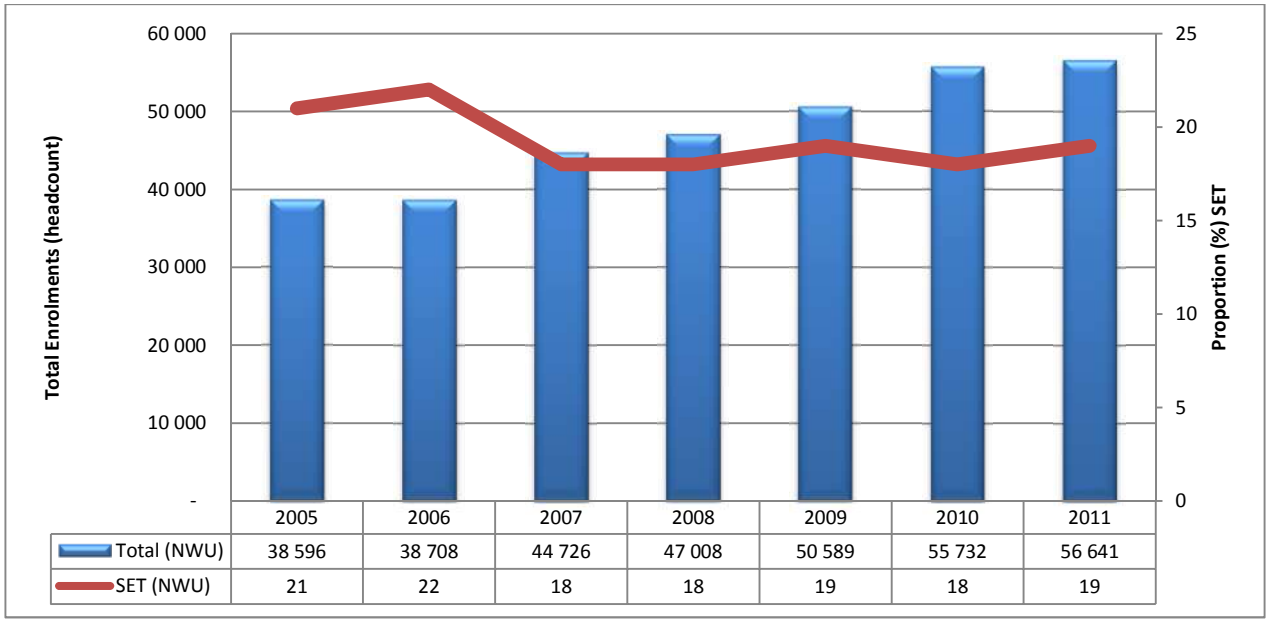
	2005	2006	2007	2008	2009	2010	2011
Total (UJ)	45 544	42 883	41 740	44 456	49 315	48 315	50 528
Total (UP)	46 351	46 122	48 856	53 106	55 734	57 114	58 128
Total (Unisa)	207 931	227 539	239 581	261 927	263 559	293 437	328 864
Total (TUT)	60 407	51 446	50 726	51 613	52 688	51 785	50 075
Total (VUT)	17 408	17 185	16 146	16 947	19 407	21 416	21 861
Total (Wits)	23 626	24 201	25 151	26 096	29 234	29 498	29 004
SET (UJ)	30	32	33	32	32	30	30
SET (UP)	37	39	37	35	35	38	38
SET (Unisa)	12	12	11	12	11	12	12
SET (TUT)	36	38	39	39	39	39	40
SET (VUT)	44	48	52	53	53	51	52
SET (Wits)	50	48	47	46	45	45	48

Source: Quantec and EMIS database (2013)

As shown above, the universities which enrol the highest proportion of SET students are Vaal University of Technology (VUT), which averages at 52%; followed by Wits (48%) and Tshwane University of Technology (TUT) which had 40% of its students enrolling for SET field of study in 2011. In terms of absolute figures University of Pretoria had the greatest number (22 088) of SET students in 2011; followed by University of Johannesburg (15 158) and University of Witwatersrand (13 921).

North West province has one university with a fairly large enrolment figure 56 641 in 2011. As the graph below shows 19% of these are for science, engineering and technology sectors (SET) which translates to 10 762 students.

Figure 39: University enrolment figures and percentage science, engineering and science enrolment in North West, 2011



Source: Quantec and EMIS database (2013)

5.2.2. FET colleges

FET colleges form a critical component of the current training capacity of artisans. FET colleges offer training for the NQF Level 4 National Certificate Vocational (NCV). One of the four routes to becoming an artisan is by doing an internship or skills programme on top of having a relevant NCV. The Minister of Higher Education and Training Minister Blade Nzimande stated in 2012 that enrolments in FET colleges had risen substantially in recent years and were exceeding projected demand[45]. Over 600 000 students enrolled in SA's 50 FET colleges in 2012[46].The department has set an enrolment target of one million by 2014 and has launched some urgent interventions into the sector. The department aims to have 4 million enrolments in FET colleges and other no-university post school institutions by 2030. According to the National Skills Accord between industry and government, SETAs will have to facilitate the placement of FET and university students in industry. The region has a total of 11 FET colleges, 3 in North West and 8 in Gauteng. The FET colleges and their offerings are listed in Appendix A.

Tabl gives the regional enrolment figures for FET colleges for 2013. An analysis of the enrolment figures indicates that 31% of the N1-N3 enrolment was in the Gauteng FETs and 34% of the N4-N6 enrolment was from the province.

[45]http://www.citypress.co.za/news/young-jobless-and-desperate-will-fet-colleges-fix-our-future-20120623/
[46] http://www.fm.co.za/economy/2013/02/01/department-on-track-to-improve-fet-colleges

Table 18: FET enrolment figures by region, 2013

Row Labels	Sum of NCV	Sum of Eng_N1_N3	Sum of Eng_N4_N6	Sum of Bus_N4_N6	Sum of Total
Eastern Cape	19,656	4,016	1,454	9,742	34,868
Free State	7,074	5,896	1,695	12,405	27,070
Gauteng	31,671	17,700	9,804	22,487	81,662
Kwa-Zulu Natal	31,487	9,800	5,435	23,213	69,935
Limpopo	22,684	4,157	5,517	10,149	42,507
Mpumalanga	10,079	5,384	2,049	3,433	20,945
North West	10,044	4,906	1,087	5,003	21,040
Northern Cape	2,950	1,156	114	3,356	7,576
Western Cape	16,872	5,002	1,502	10,776	34,152
Grand Total	**152,517**	**58,017**	**28,657**	**100,564**	**339,755**

Source: DHET, The State of FET Colleges in South Africa

The targeted national certification rate for N1-N3 part-qualifications in Engineering Studies was 33% for the 2012 academic year. Twenty public FET Colleges and 12 private FET Colleges achieved the targeted certification rate of 33% and higher on N1, 18 public FET Colleges, 32 public FET Colleges on N3[47]. The targeted national certification rate for N4-N6 part-qualifications in Engineering Studies was 40% for the 2012 academic year. Twenty-five public FET Colleges achieved a certification rate of 40% and higher on N4, 12 public FET on N5 and 13 public FET Colleges on N6. The table below shows the national certification rates for FET colleges for the November 2012 examinations cycle.

Table 19: Certification rate of FET colleges, 2012

Qualification/Programme	Certification Rate
1. Report 190/1 Engineering Studies	
National N3 Certificate	37.5%
National N6 Certificate	36.2%
2. Report 190/1 Business Studies	
National N6 Certificate	31.9%
3. National Certificate (Vocational)	
Level 4	39.3%

Source: DHET, The State of FET Colleges in South Africa

From our in-depth interviews with employer representatives regarding FET colleges, industry seems to be willing to work with FETs to ensure more rounded and capable students are produced. Some employers did mention that FET colleges are strong on theory but do not

[47] DHET, The State of FET Colleges in South Africa; Presentation at HRD FET College Indaba; 7 March 2013

adequately equip the students practically. Focus on FET should therefore not be on the numbers but rather on the quality of students coming through to ensure their employability and acceptance by industry. Employers interviewed also mentioned that quality of FET students might not be up to their standards because of the quality of lecturers used specifically using non-tradesmen to teach trades. Greater cooperation between industry and FETs is required to help feedback into the curriculum and also to provide workplace exposure to both the lecturers and students.

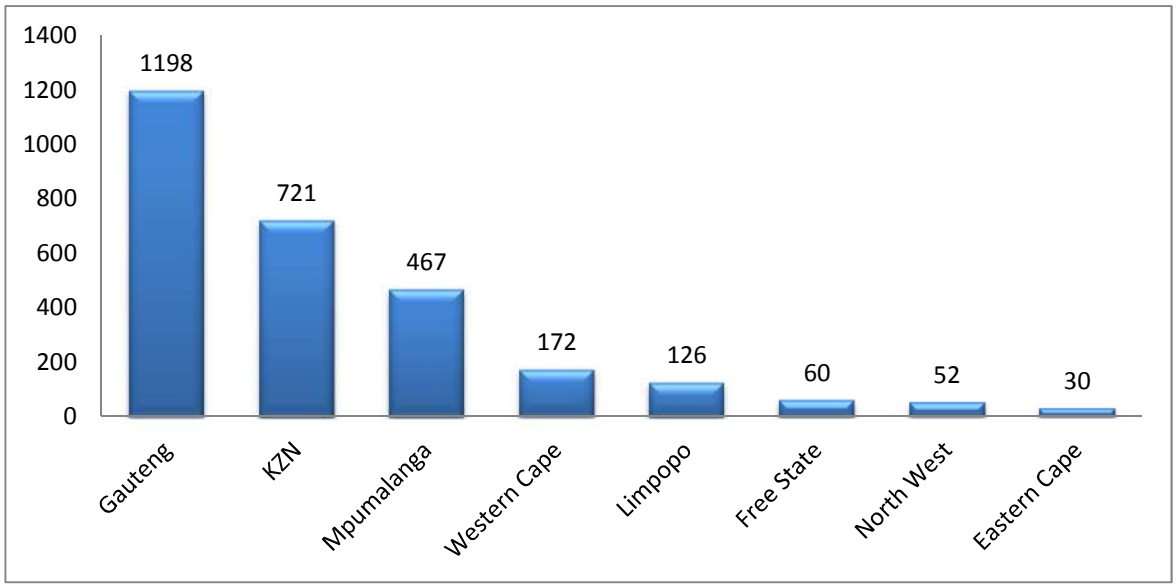
5.2.3. Learnerships and apprenticeships

Since its inception in November 2001 the merSETA has registered 69 000 apprentices on apprenticeships and more than 45 000 learners on learnerships. In the same period a total of 43 000 apprentices qualified as artisans in the sector and another 24 000 learners successfully completed their learnerships.

According to the merSETA's 2011/12 Annual report, 3775 learnerships and 2559 skills programme were completed and the organisation exceeded its targets. 6051 Learnerships and 5808 learners entered into skills programmes in the 2011/12 financial year. 5168 apprenticeship contracts were registered in the 2011/12 period.

The Accelerated Artisan Training Programme (AATP) is about pacing and structuring the development of competent apprentices over a period of two to three years. The programme was initiated to address the scarce skills needs of the merSETA sector. The structure and exposure to the curriculum is highly regulated, structured and monitored. An analysis of the merSETA (database accessed in August 2012) for phases 1 to 4 of the programme indicates the majority of the recipients are from Gauteng, KZN and Mpumalanga.

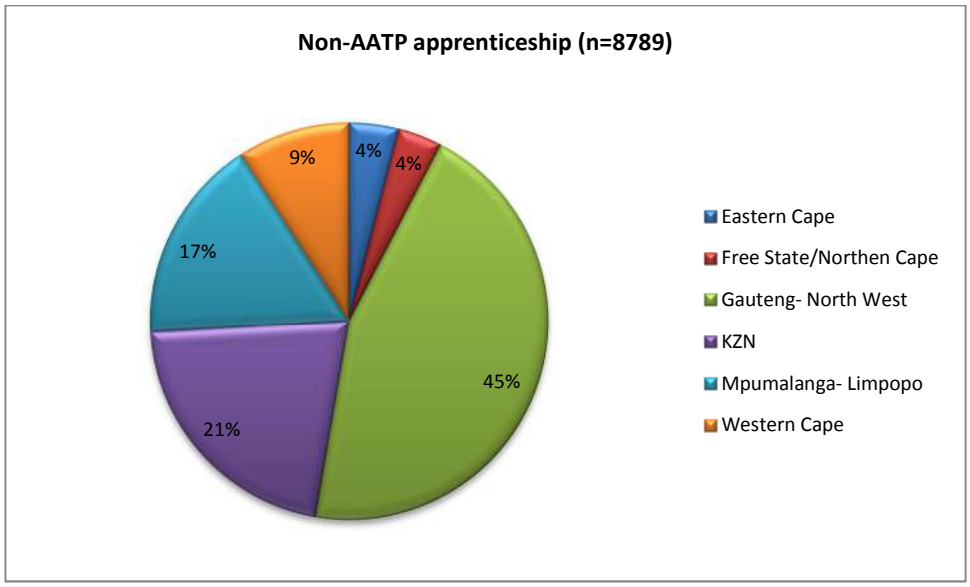
Figure 40: Distribution of registered AATP candidates for Phase 1 to 4, 2012



Source: merSETA Database, August 2012

The non-AATP apprenticeship training is also heavily skewed towards Gauteng and KZN and this is not surprising as the merSETA companies are similarly geographically represented.

Figure 41: Distribution of non-AATP apprenticeship by region, 2012



Source: merSETA Database, August 2012

As shown in Figure 41 above 45% of non-AATP apprentices were from the Gauteng-North West region and 21% were from the KZN region. The Mpumalanga-Limpopo region is the third biggest beneficiary of non-AATP training. The apprenticeship programmes implemented by the merSETA have helped the sector and provided employment opportunities to the previously unemployed.

5.2.4. General education and training

The output of the general education and training (GET) sector is important to the supply of skills to merSETA sector because the number of learners graduating with maths and physical science at grades that support entry and success at higher education level in qualifications such as engineering has a direct impact on the ultimate availability of these high-level skills for the national economy and the merSETA sector.

Table 20: Candidates' Performance in Mathematics by province and level of achievement 2010-2012

Province	Total Wrote			Total achieved at 30% and above			% achieved at 30% & above			Total achieved at 40% and above			% achieved at 40% & above		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Eastern Cape	38 801	38 067	37 038	14 457	12 752	14 114	37,3	33,5	38,1	8 280	7 469	8 124	21,3	19,6	21,9
Free State	11 003	10 001	9 512	5 321	5 395	6 167	48,4	53,9	64,8	3 422	3 462	4 114	31,1	34,6	43,3
Gauteng	**40 024**	**32 665**	**33 682**	**23 839**	**20 027**	**23 899**	**59,6**	**61,3**	**71**	**17 465**	**14 706**	**17 638**	**43,6**	**45**	**52,4**
Kwazulu-Natal	65 973	61 483	63 168	31 407	24 284	30 408	47,6	39,5	48,1	19 425	14 235	18 676	29,4	23,2	29,6
Limpopo	49 192	35 118	35 044	19 469	15 618	18 346	39,6	44,5	52,4	11 757	9 580	11 926	23,9	27,3	34
Mpumalanga	24 167	19 899	18 835	10 007	9 199	9 998	41,4	46,2	53	6 429	5 947	6 539	26,6	29,9	34,7
North West	**12 703**	**9 818**	**10 344**	**6 782**	**5 282**	**6 160**	**53,4**	**53,8**	**59,6**	**4 458**	**3 361**	**3 901**	**35,1**	**34,2**	**37,7**
Northern Cape	3 627	3 280	2 864	1 896	1 656	1 572	52,3	50,5	54,9	1 259	1 022	1 045	34,7	31,2	36,5
Western Cape	17 544	14 304	15 387	11 571	9 820	11 306	66	68,7	73,5	8 879	7 759	8 753	50,6	54,2	56,9
National	**263 034**	**224 635**	**225 874**	**124 749**	**104 033**	**121 970**	**47,4**	**46,3**	**54**	**81 374**	**67 541**	**80 716**	**30,9**	**30,1**	**35,7**

Source: Department of Basic Education, NSCE School Subject Report

The table above shows that the number of students sitting for mathematics at NSC level in Gauteng decreased by 15.9% from 40 024 in 2010 to 33 682 in 2012. Its however pleasing to note that the proportion of those who achieved at least 30% pass rate increased 59.6% in 2010 to 71% in 2012 and those with at least 40% increased from 43.6% in 2010 to 52.4% in 2012. In absolute terms, a total of 17 638 students graduated with a 40% or better in mathematics in Gauteng Province.

The number sitting for mathematics at NSC level in North West has decreased 18.6% from 12 708 in 2010 to 10 344 in 2012. This trend is not unique to North West but is a nationwide trend. The proportion of those who achieved at least 30% pass rate increased from 50.2% in 2010 to 62.5% in 2012.

In physical sciences, the other subject which allows students to enter into the SET field at university, the number of students who sat for the subject in Gauteng decreased from 33 763

to 29 001 between 2010 and 2012. The number of students who sat for the subject in North West decreased from 11 270 to 9 225 between 2010 and 2012.

However, just like mathematics, the pass rates have been increasing from 55.6% in 2010 to 70.1% in 2012 for Gauteng as shown in Table

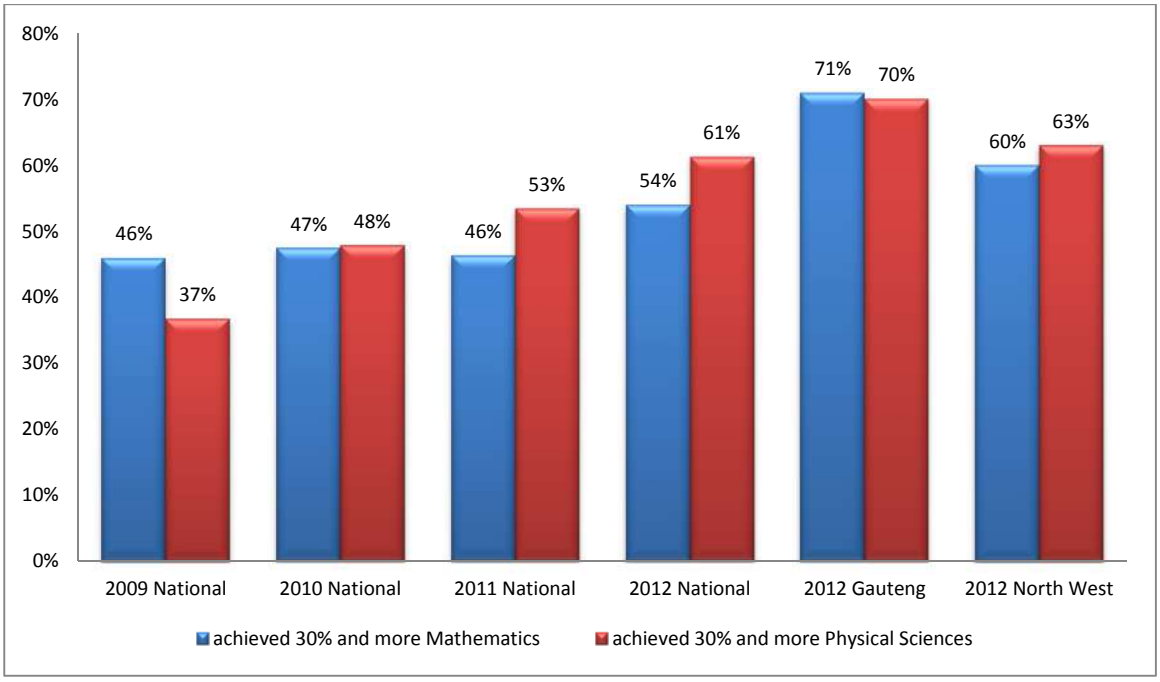
Table 21: Number of candidates who achieved in Physical Sciences by province and level of achievement, 2010-2011

Province	Total Wrote			Total achieved at 30% and above			% achieved at 30% & above			Total achieved at 40% and above			% achieved at 40% & above		
	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012	2010	2011	2012
Eastern Cape	27 163	26 367	25 603	11 753	12 123	12 911	43,3	46	50,4	6 371	6 831	6 922	23,5	25,9	27
Free State	10 592	9 901	8 487	4 656	5 466	5 820	44	55,2	68,6	2 853	3 467	3 748	26,9	35	44,2
Gauteng	***33 763***	***28 605***	***29 001***	***18 777***	***17 069***	***20 335***	***55,6***	***59,7***	***70,1***	***12 969***	***12 142***	***14 649***	***38,4***	***42,4***	***50,5***
Kwazulu- Natal	47 323	45 340	45 951	23 856	23 516	26 783	50,4	51,9	58,3	14 322	13 965	16 163	30,3	30,8	35,2
Limpopo	39 523	30 874	30 975	16 328	16 079	18 566	41,3	52,1	59,9	9 417	9 569	11 194	23,8	31	36,1
Mpumalanga	20 139	17 280	16 493	8 352	9 025	10 426	41,5	52,2	63,1	4 980	5 747	6 842	24,7	33,3	41,4
North West	***11 270***	***8 624***	***9 225***	***5 662***	***4 853***	***5 769***	***50,2***	***56,3***	***62,5***	***3 481***	***3 103***	***3 593***	***30,9***	***36***	***38,9***
Northern Cape	2 965	2 667	2 202	1 352	1 173	1 324	45,6	44	60,1	827	736	840	27,9	27,6	38,1
Western Cape	12 626	10 927	11 257	7 524	7 524	7 984	59,6	65,3	70,9	5 697	5 549	6 125	45,1	50,8	54,4
National	***205 364***	***180 585***	***179 194***	***98 260***	***96 441***	***109 918***	***47,8***	***53,4***	***61,3***	***60 917***	***61 109***	***70 076***	***29,7***	***33,8***	***39,1***

Source: Department of Basic Education, NSCE School Subject Report

A comparison of the two provinces with South Africa shows that both provinces have a higher percentage of students achieving 30% or more compared to the nation in general. 71% of students in Gauteng and 60% of students in North West who wrote mathematics achieved 30% or more compared to 54% in the South Africa.

Figure 42: Percentage of students who achieved 30% and more in selected subjects 2009-2012



Source: Department of Basic Education, NSCE School Subject Report

Although the number of students qualifying with mathematics and science has gone up at GET level, some employers we spoke to said they still struggle to get students who are competent enough based on their own internal aptitude tests.

Employees we spoke to also raised concerns in the lack of career orientation happening at GET level. Not enough is being done to ensure young people are made aware of the career paths that are available in the manufacturing sector. The perception of blue collar jobs amongst young people was also a concern as they are negatively perceived. This has the effect of employees only joining the sector out of desperation and not genuine interest which leads to an unmotivated workforce.

The merSETA has a Mathematics and Science Project that provides weekend and holiday classes in Mathematics, Science and English. The project aims to address problems experienced in the learner pipeline that results in shortages of appropriate candidates for entry into merSETA learning programmes[48]. The 2011 results for the 300 students in the project were good as 99% of the learners passed, 219 with university entrance and 69 with university of technology entrance. The merSETA has entered into agreements with five FET Colleges and two universities in seven provinces for pre- and post-matric Maths, Science and Technology interventions, targeting 1440 learners and more than 20 schools.

[48] MerSETA Annual Report 2011/12

5.3. Training and Development of the Current Workforce

Companies in the merSETA sector are involved in a range of training and development initiatives that focus on developing the skills of their employees. Such initiatives supplement, but also build on, the training that supplies new skills to the sector. This training and development of the current workforce forms a critical source of skills supply.

Companies with more than 50 employees are recommended to have a training committee with representatives from both labour and management to ensure that relevant and adequate training is planned. The workplace skills plans (WSPs) require signature from a labour representative to ensure that the input of labour has been considered. Skills audits are necessary to determine the training needs of a company.

Some of the companies interviewed in this study mentioned that they are training in adequate numbers to meet the future needs and for their succession planning. Because of the current economic climate it is unlikely that companies would be training over and above their needs. Interviews with some players in the motor industry showed that there is fear that the numbers that are currently being trained and supplied are not enough to meet the industry needs in the coming years.

For the metal industry a lot of their demand is project based. An employer in the industry mentioned that once a big project is implemented there are never enough boilermakers and welders. The work in their industry is very cyclical and highly dependent on strategic integrated projects (SIPs).

From the labour unions point of view not enough is being done to train and up-skill the current workforce. Labour union representatives expressed the view that training should impart transferable skills to employees and should ensure that employees become multi-skilled. It was emphasised that employers be made aware of the importance and rationale of training their own employees. Labour unions also pointed out that merSETA should be cognisant of the challenges faced by SMEs with regards to training their employees.

Employers also face a number of challenges in training the current workforce. As stated earlier, the highest education level of some employees is less than Grade 12 or Grade 12. This presents a challenge to some employees. One employer said,"...*we have the old school employees who have been here for 20 to 30 years who are illiterate and what do we train them on? They are 'untrainable' because they cannot read. You send a 50 year old back to school and they are not*

willing to learn". The take up of ABET was also said to be very low at this particular company despite their best efforts to incentivise the employees.

Employers also face a number of challenges in training the current workforce. As stated earlier, the highest education level of some employees is less than Grade 12 or Grade 12. This presents a challenge to some employees. The merSETA through the allocation of Discretionary grants is heavily involved in efforts to train and develop the current workforce. For the financial period 2011/12 the merSETA implemented Memoranda of Agreement (MoAs) for[49]:

- 6 937 apprentices
- 9 537 learners on learnerships
- 10 650 skills programmes
- 3 136 ABET learners
- 1 474 sector specialists
- 772 interns; and
- 3 028 experiential learners.

The merSETA through the regional offices has projects where they give guidance and support on the implementation of various skills interventions to Small Micro Enterprises (SMEs).

5.4. merSETA Initiatives in the Region

Table 22: merSETA Projects in the Gauteng-North West region

Project Name	Project Description
Gauteng Department of Economic Development	merSETA and the Gauteng Department of Economic Development are looking at extending the partnership to continue training to the next level for the 250 learners that have successfully completed level 2 air-conditioning learnership
Gauteng Department of Public Works/ merSETA partnership	merSETA regional office is in the process of carrying out workplace approvals for the training of about 2 000 unemployed learners in partnership with the Gauteng Department of Public Works.
Industrial Policy Project Department of Economic Development / FET / AIDC / merSETA	Is aimed at training the retrenched workers for employment on some of the scarce skills areas. These areas include panel beating; spray painting; warehouse skills and logistics. 200 candidates will be earmarked for the initial training phase.
Provincial Government National Skills Fund project / merSETA	300 unemployed learners on the merSETA aligned programme will be trained. merSETA to assist with host employers

[49] MerSETA Annual Report 2011/12

Collaboration between the merSETA and the FETs in the region is necessary to ensure that skills development goals are achieved in the region. It is crucial that a platform has accountability; monitoring and evaluation mechanisms in place should be established to allow the SETAs and FET to work together.

5.5. Conclusion

North West has one university; the University of North West whose enrolment figures have increased steadily since 2005. Gauteng has three universities and three universities of technology. University of Pretoria had the greatest number (22 088) of SET students in 2011; followed by University of Johannesburg (15 158) and University of Witwatersrand (13 921).

Gauteng has 8 FET colleges and North West has 3 FET colleges. The national enrolment figures for FETs show that 31% of N1-N3 enrolments were in Gauteng. Although the percentage of students at GET level achieving the national pass mark of 30% has increased, the minimum requirement for merSETA sectors is a 50% pass mark and the percentage achieving this is very small.

6. SKILLS NEEDS OF THE MERSETA SECTOR

6.1. Introduction

Demand for skills in the merSETA sectors is dependent on the economic growth prospects in the country. The motor, auto, metals, plastics and tyre chambers have different skills needs but some of the occupations are common across the chambers. People with transferable skills are therefore at an advantage as they are not tied down to one particular sector.

The South African economy is moving towards being more of a knowledge based economy in line with global trends. South Africa's tertiary sector contributes more than 65% toward the country's GDP. The high level of unemployment can be attributed to (amongst other reasons) this economic structure, which is geared towards provision of 'knowledge economy jobs'.

Increasing mechanisation is one of the factors contributing to decline in employment levels. Certain jobs or activities which might have required a lot of people are being done by machines which make some roles redundant. There is an attendant need to start formulating and implementing training programs which are geared toward the development of human capital able to align with the structural changes in the country's economy.

South Africa is currently faced with a shortage of skilled labour. Different interventions aimed at increasing the provision of skills have yielded varying results. Programs such as learnerships and apprenticeships are targeted at providing opportunities for development of skills.

The graph below shows the percentage of employers who felt that labour was a constraint on their operations for the period 1995-2012 in Gauteng. The graph shows the level of concern cited for semi-skilled and unskilled labour was lower than for skilled labour. Similar trends were observed for the North West province

Figure 43: Manufacturing Constraints: Percentage who said Labour in Gauteng, 2011

Source: Quantec and BER (2013)

As of September 2011 more than 50% of employers identified shortage of skilled labour as a manufacturing constraint. Less than 10% of employers consider unskilled labour a constraint.

6.2. Factors affecting Skills Development Needs in the region

6.2.1. Lack of plastic related trades training in institutions

There is a critical shortage of Setters in the plastics industry. This shortage is exacerbated by the fact that they are no FET colleges that train for plastic related trades. There are also no universities or universities of technology that offer undergraduates studies in plastics.

As an industry the sector has relied on skills programmes and learnerships to build up their current employees. The skills shortages experienced by the industry are largely due nature of the industry in that it is SME dominated. These are mostly (about 80%) small business and if they don't get funding from merSETA they will not train their people. In recent years there has been more and more focus on apprenticeships. They will much rather poach someone that is already skilled, that another company has spent money on than developing the people from within. For the plastics industry they only have learnership and skills programmes available to them for skills unique to their industry.

Recommendation: The plastics sector should be treated differently from the other manufacturing sectors that already have apprenticeships running in their sectors. The funding should be cognisant of the fact that the skills required and critical to the sector are made available through skills programmes and learnerships and not apprenticeships.

From the primary interviews, it was also pointed out to the researchers that in some cases its competent and skilled people that are lacking i.e. qualified people are there but competent and skilled are scarce. This has led to a lot of poaching in the industry of the few skilled and competent employees.

6.2.2. Lack of interest among young people for engineering related trades

It was noted amongst the respondents that there seems to be a lack of interest and awareness amongst young people for manufacturing related career paths. There was some fear amongst respondents that there are not enough young people coming into the industry in the face of a perceived aging workforce.

An employer in the motor industry said for their company mathematics and science passes of at least 50% are non-negotiable for apprenticeships. They feel that given the high technological innovations happening in the industry it is crucial that their recruits be competent in maths, science and English. On the other hand another motor industry player felt that there is overemphasis on maths and science in the industry. He was of the view that some learners might not have the required maths and science but they gifted with their hands and should be given opportunities to enter the industry.

Recommendation: It is important that career guidance, orientation and awareness be done in schools regarding careers in the manufacturing industry

6.2.3. Curriculum and Training

To ensure that the industry has the correct skills, it is imperative that curriculum and training meets the needs of industry. The quality of training and the curriculum determines the quality of artisans. A respondent from the metal industry made mention of the fact that when it comes to training, institutions and employers have different motivations stating that training for production purposes and training for academic purposes are worlds apart.

It is vital that institutional training be kept up to date with technological innovations in the industry. The big five retail motor industry players after observing the inadequacies of the curriculum for their industry have come together to come up with a curriculum more aligned to

the industry needs. Their modern curriculum has actually made the apprentices know more than the artisans and creates better artisans

The perspective for some employers is that FET colleges and training centres are not capacitated enough to train learners up to competence level. Some students will have N6 qualifications and appear to be the best candidates on paper but their practical knowledge is very minimal. *"The difference between qualified and capable is huge".* The industry perspective was that FET colleges do not have the machinery, equipment and expertise to produce the calibre required on the practical side.

In terms of higher level skills, a metal company struggled to get metallurgy graduates 10 years ago but since partnering with a local university they no longer struggle thereby strengthening the need for industry-institutional partnerships.

Recommendation: It is important that industry and educational institutions work closely together to ensure that quality of learning meets industry standards.

6.2.4. Skills Development Facilitators in the Industry

It was pointed out that the calibre of skills development facilitators in the industry is not up to the required standard to ensure the merSETA get accurate data for decision making. The Workplace Skills Plans (WSP) and Annual Training Reports (ATR) submitted should be an accurate reflection on the skills needs and priorities of the employers. A view expressed was that currently WSP/ATR submission is seen as an administrative task rather than a strategic one that needs expertise. A WSP should be informed by a proper skills audit of the companies and strategic plans of the organisation.

There is a concern that the majority of Skills Development Facilitators in the industry are not qualified to do the work and provide the input that would produce a more accurate Sector Skills Plan. It is crucial that employers recognise the importance of qualified and competent Skills Development Facilitator as their work affects the direction the nation takes in skills development.

6.2.5. No accredited Training Provider in North West

Employers in North West are forced to send the apprentices to Gauteng because there is no accredited training provider in North West. This makes it very expensive to train as they have to cover accommodation and travel expenses for the apprentice *"It becomes costly because they must pay for transport and accommodation for a long duration and companies end up*

saying they cannot pay 10 000 rands accommodation for a person who will be attending a course worth 5 000 rands"

6.3. Specific Scarce and Critical Skills per Sub-sector

Scarce skills are defined as 'those occupations in which there is a shortage of qualified and experienced people, currently or anticipated in the future'.[50]

Table 23: National Scarce skills in the metals chamber, 2012

Occupation	Organising Framework of Occupations (OFO) Code
Production / Operations Manager (Manufacturing)	132102
Bricklayer	641201
Plumber	642601
Welder	651202
Sheet Metal Worker	651301
Metal Fabricator	651401
Structural Steel Erector	651402
Toolmaker	652201
Metal Machinist	652301
Fitter and Turner	652302
Metal Polisher	652401
Automotive Motor Mechanic	653101
Precision Instrument Maker and Repairer	661101
Electrician	671101
Millwright	671202
Lift Mechanic	671204
Manufacturing Machine Setter and Minder	712102
Engineering Production Systems Worker	718905
Metal Engineering Process Worker	832901

Source: merSETA National SSP- Scarce &Priority Skills 2012/13

These 3 occupations comprised 77% of the skills needs in the sector in the 2009/2010 period. Other occupational categories which are on demand for the sector are engineering production system workers, welders, toolmakers and metal engineering process workers.

[50] *Scarce & Critical Skills 2009/10*

Table 24: National Scarce skills in the Auto sector, 2012

Occupation	Organising Framework of Occupations (OFO) Code
Personnel / Human Resource Manager	121201
Supply and Distribution Manager	132401
Industrial Engineer	214101
Mechanical Engineer	214401
Chemical Engineer	214501
Electrical Engineer	215101
Accountant (General	241101
Marketing Practitioner	243103
ICT Systems Analyst	251101
Mechanical Engineering Technician	311501
Chemical Engineering Technician	311601
Retail Buyer	332301
Purchasing Officer	332302
Toolmaker	652201
Metal Machinist	652301
Fitter and Turner	652302
Electrician	671101
Millwright	671202
Mechatronics Technician	671203
Electronic Equipment Mechanician	672104
Special Class Electrician	672107
Machinery Assembler	721101

Source: merSETA National SSP- Scarce & Priority Skills 2012/13

According to merSETA, the Auto Chamber's skills needs by OFO category indicates considerable demand in the Technicians and Trades Workers category, followed by Professionals and then Managers.

Table 25: National Scarce skills in the Motor sector, 2012

Occupation	Organising Framework of Occupations (OFO) Code
Industrial Engineer	214101
Industrial Engineering Technologist	214102
Mechanical Engineer	214401
Mechanical Engineering Technician	311501
Motor Vehicle Licence Examiner	335401
Vehicle Painter	643202

Welder	651202
Toolmaker	652201
Metal Machinist	652301
Automotive Motor Mechanic	653101
Motorcycle Mechanic	653103
Diesel Mechanic	653306
Panel Beater	684904
Vehicle Body Builder	684905
Technical Customer Liaison Agent	+
Automotive Electronics Fitter	+
Vehicle Component Fitter and Repairer	+

Source: merSETA National SSP- Scarce &Priority Skills 2012/13

*NB: **+**No codes for OFO 2012 CODE even OFO 9 CODE*

There is dominance for demand of management skills within the Motor chamber. Sector specific technical skills include panel beaters, automotive auto mechanic and motor cycle/scooter mechanics.

Table 26: National Scarce skills in the New Tyre sector, 2012

Occupation	Organising Framework of Occupations (OFO) Code
Quality Systems Manager	121908
Production / Operations Manager (Manufacturing)	132102
Production / Operations Manager (Mining)	132201
Supply and Distribution Manager	132401
Operations Manager (Non-Manufacturing)	134915
Industrial Engineer	214101
Industrial Engineering Technologist	214102
Mechanical Engineer	214401
Mechanical Engineering Technologist	214402
Chemical Engineer	214501
Chemical Engineering Technologist	214502
Electronics Engineer	215201
Organisation and Methods Analyst	242102
Training and Development Professional	242401
Occupational Instructor / Trainer	242402
Assessment Practitioner	242403
Sales Representative / Salesman (Industrial Products)	243301
ICT Systems Analyst	251101
Manufacturing Technician	311904
Integrated Manufacturing Line Technician	313904

Purchasing Officer	332302
Office Administrator	334102
Fitter and Turner	652302
Electrician	671101
Rubber Production Machine Operator	714101
Plastics, Composites and Rubber Factory Worker	832902

Source: merSETA National SSP- Scarce &Priority Skills 2012/13

The rubber production machine operator occupation is the main category of scarce skills on demand in the new tyre sector. Skills which are in high demand within this occupation are tyre builders, steel & fabric calendaring and rubber moulding machine operators. Other important occupations in the sector are; fitters, electricians, product examiners, sales representatives and mechanical engineering technologists in plastics.

Table 6: National Scarce skills in the Plastics sector, 2012

Occupation	Organising Framework of Occupations (OFO) Code
Quality Systems Manager	121908
Production / Operations Manager (Manufacturing)	132102
Industrial Engineer	214101
Technical Director	265405
Mechanical Engineering Technician	311501
Manufacturing Technician	311904
Vehicle Painter	643202
Fitter and Turner	652302
Boat builder and Repairer	684907
Plastic Cable making Machine Operator	714201
Plastics Fabricator or Welder	714203
Production Machine Operator (General	714204
Rotational Moulding Operator (Plastics)	714206
Thermoforming Machine Operator	714207
Plastics Manufacturing Machine Minder	714208
Reinforced Plastics and Composite Trades Worker	714209
Product Assembler	721901

Source: merSETA National SSP- Scarce &Priority Skills 2012/13

Demand for operators of plastics production machinery surpasses other occupational categories in the sector.

6.4. Scarce and Priority Skills by Chamber

6.4.1. Plastics Sector

The industry is characterised by small to medium enterprises of whom most do not have the capacity or resources to prioritise training and development of the workforce. This has led to a lot of poaching in the industry and all the good skills just rotate the companies that can afford them.

The table below lists the scarce and priority skills for the sector.

Table 28: Plastic Sector Research Findings, 2013

Chamber	Scarce Skills	Priority Skills
Plastics Sector	Plastics Manufacturing Machine Setter and Minder	Plastics Manufacturing Machine Setter and Minder
	Rubber, Plastic and Paper Products Machine Operators	
	Rubber Products Machine Operators	
	Rubber Production Machine Operator	
	Plastic Cable making Machine Operator	
	Plastics Fabricator or Welder	
	Plastics Production Machine Operator (General)	

Plastics welders/fabricators will now also be required in the construction industry due to the changes in the industry of replacing steel with plastics. It is therefore important that the nation prioritises the training of this skill.

Challenges in the Plastics Sector

- No FET colleges offering plastic related trades
- No universities offering undergraduate programmes in plastics.
- The recent mandatory grant regulations changes might greatly reduce the amount of training occurring in the sector as the industry is SME dominated.
- The merSETA's/government's emphasis on apprenticeship greatly disadvantages their sector. For the plastics sector skills development is primarily achieved through skills

development and learnerships but accessing funding for that is difficult since apprenticeships are given priority.

- Lack of urgency in implementing the Setter trade which would immediately address the most pressing concern for the plastic sector

6.4.2. Metal Sector

The demand for skills in the metal sector is highly dependent on the economic climate as the industry is very cyclical. The current big projects specifically Khusile and Medupi has increased the demand for boiler making and welding. An employer in the industry stated that the outlook for the industry looks good up to 2017 as they are major infrastructure projects lasting till then. Big infrastructure projects should be put in place to sustain the industry after 2017. The metal industry was affected by the recent recession. The companies we visited had managed to avoid retrenchment but had to restructure and cut costs to do so

The increase in training in recent years by the merSETA has helped to address the skills shortages that were plaguing the sector

Table 297: Metal sector Research Findings, 2013

Chamber	Scarce Skills	Priority Skills
Metal Sector	Welders	
	Moulders	
	Boilermakers	
	Patternmakers	
	Toolmaker	
	Fitter and Turner	
	Electrician	
	Millwright	
	Manufacturing Machine Setter and Minder	

Findings from the Metal sector interviews

- Poaching is rife in the sector especially at senior management and professional levels. BEE requirements have made competent black professionals highly sought after and because of their scarcity they move jobs easily
- A perceived work ethic problem amongst South African employees and the highly unionised nature of the workforce has led to some companies in the industry hiring foreign labour e.g. from Thailand. The Thailand workers are considered more productive than their South African counterparts
- Quality of training from both private and FET colleges is problematic. Institutional training needs to be aligned with technological innovations in industry. Learners are not competent enough practically when they are recruited from FET colleges and companies have to spend additional money to train them
- Some trades are difficult to recruit for e.g. Patternmaking because they are not adequately advertised in the skills development arena and in schools.
- Mechanical and Electrical trades are now oversupplied with learners. Students should be made aware of the other trades in the industry so that there is a balance supply
- Quality of secondary education with regards to mathematics is very poor.

Recommendation: Prioritise skills development of professional skills and not just artisans and technicians. Ensure practical implementation of programmes geared towards up-skilling current employees for career progression

6.4.3. New Tyre Sector

The big companies in the sector have their own training centres and make use of their own facilities. As with the other sectors there is a shortage of practical skills but an oversupply of people with theoretical knowledge only. An employer highlighted the difficulty of recruiting in this sector; due to the high unemployment rate they get thousands of applications from completely unsuitable people desperate for jobs.

As shown in the table below Finance Professionals, Accountants and Business and Administration professionals were also mentioned as scarce skills. The reasons they are considered scarce is the high turnover for these positions as they jump from employer to employer. *"other companies who want to get their BBBEEE certificate rating up, rather than training people they go the short route and poach from other companies"*

Table 308: New Tyre Research Findings, 2013

Chamber	Scarce Skills	Priority Skills
New Tyre	Sales, Marketing and Development Managers	Sales, Marketing and Development Managers
	Supply, Distribution and Related Managers	
	Supply and Distribution Manager	
	Business and Administration Professionals	
	Finance Professionals	
	Accountants	
	Accountant (General)	
	Occupational Instructor / Trainer	
	Assessment Practitioner	
	Retail Buyer	
	Fitter and Turner	Fitter and Turner
	Millwright	Millwright
	Rubber Products Machine Operators	
	Rubber Production Machine Operator	
	Tyre Fitters	

Findings from the New Tyre sector interviews

- There is a mismatch of skills in this country. They are a lot of unemployed people with paper qualifications who could not get jobs in their fields of study and are now forced to seek for any kind of job. This may be due to lack of career orientation and counselling at high school level.
- Young people have no interest in being artisans, the jobs are looked down upon
- The Education system is not meeting industry needs. The quality of secondary education, and the quality of FET graduates is not meeting industry's expectation
- Managing expectations is difficult as graduates from university expect to become managers and directors and are not willing to start at the bottom
- South Africa is losing artisans to the rest of the African continent. Some have left for Angola, Namibia and Tanzania. *"The system is not producing this people for us and you*

have the same crowd and because of money they jump around for more money if that is not enough they immigrate and become experts in some other country."

- Employee motivation and lack of work readiness is a major concern
- It is difficult to find trainers/teachers for their training centres

6.4.4. Motor and Automotive Sector

The motor industry is growing steadily. There are indications that there will be 20 million cars on the road by 2020 in South Africa[51]. Analysing backwards that would mean people are needed to service these cars and artisans have to be trained to handle those cars. The skills that were of primary concern to our respondents are listed in the table below:

Table 31: Motor and Automotive Sector Research Findings, 2013

Chamber	Scarce Skills	Priority Skills
Motor and Auto Industry	Motor mechanics	
	Automotive machinist	
	Diesel Mechanic	
	Spray-painters	Spray-painters
	Motorcycle Mechanic	
	Diesel Mechanic	
	Assessment Officers for Motorcycle Mechanics	
	Suspension Fitter	
	Diesel Fuel Injection Pump Mechanic	

The reasons given for the shortage of competent artisans are:

- An out-of-date curriculum which the top five players are addressing
- Closure of all technical schools after 1994
- Perception of blue collar jobs by the youth. Very few of them are interested in this industry

Similar to the New Tyre companies there is difficulty in recruiting trainers for the workshops.

[51] Interview with Key informant

Findings from in the Motor and Automotive sector interviews

- The current structure of apprentices falling under the department of Labour instead of under the Higher Education makes the process of recruiting and indenturing apprentices very complicated. Legislation should make it easier for companies to take on apprentices
- The curriculum is fundamentally flawed and should be reviewed. The technological changes in the industry require that the curriculum be overhauled in order for it to produce more knowledgeable and specialised artisans. An example in the Diesel Mechanic trade which has modules which should now be trades on their own
- Some training that is relevant to the motor industry is not accredited and some companies might not get a rebate on it yet it is very vital to the industry

6.5. Conclusion

A number of structural constraints were identified from the primary interviews and discussions with industry players regarding skills development in the merSETA sector. The absence of an accredited training centre in North West is a major constraint to training and development. The importance of qualified Skills Development Facilitators is crucial for accurate and effective skills planning in the region.

Across chambers, employers interviewed are of the view that not enough young people are interested in trades and this can become a concern in future years as the current workforce ages. It is important that career guidance, orientation and awareness be done in schools regarding careers in the manufacturing industry.

It was also emphasised that the curriculum and training be kept up to date with technological innovations to ensure competent artisans and employees are produced. It is important that industry and educational institutions work closely together to ensure that quality of learning meets industry standards

List of References

Business Day (2012). *Infrastructure projects will 'not come cheap'*. Available at: http://www.bdlive.co.za/economy/2012/10/21/infrastructure-projects-will-not-come-cheap [Accessed 11 July 2013]

Department of Economic Development (2013). Draft Infrastructure Development Bill (2013). Pretoria: EDD

Department of Higher Education and Training (2011). National Skills Development Strategy III. Pretoria: DHET.

Dr Blade Nzimande (2010). Press briefing: The new SETA landscape for the period April 2011 till March 2016, 09 November 2010. Online: http://www.dhet.gov.za/portals/0/documents/SETA%20Landscape.pdf [Accessed on 10 January 2013].

Department of Trade and Industry (2006). Metals Sector Development Strategy: Trade and Investment South Africa - Customised Sector Programme - Metals. Pretoria: the dti

Department of Trade and Industry (2011). Industrial Policy Action Plan (IPAP 2011/12-2013-/14). Pretoria: the dti

http://www.automotiveonline.co.za/site/files/6860/APDP_Deloitte.pdf

McKinsey and Company (2012). McKinsey Global Institute & McKinsey Operations Practice: Manufacturing the future: The next era of global growth and innovation. New York: McKinsey & Company

merSETA Database 2013

MerSETA. Sector Skills Plan 2010/2011-2015/2016. Johannesburg: merSETA

Pravin Gordhan (2013). 2013 Budget Speech by Minister of Finance Pravin Gordhan, 27 February 2013. Online: http://www.info.gov.za/speech/DynamicAction?pageid=461&tid=99785 [Accessed on 20 March 2013]

Presidential Infrastructure Coordinating Commission (PICC) (2012). *A Summary of the South African National Infrastructure Plan.* Pretoria, South Africa.

Quantec

Republic of South Africa (RSA)(1996). *Constitution of the Republic of South Africa Act 108 of 1996*. Pretoria: Government Printer. 1996:14.

Republic of South Africa (RSA) (2001). *Human Resource Development Strategy of South Africa.* Pretoria: Government Printer. Revised HRDSA, 2009:30. Online. Available: http://www.info.gov.za/view/DownloadFileAction?id=117580 [Accessed: 11 January 2013]

Skills Development Amendment Act, No. 37 of 2008. South Africa.

Statistics South Africa (2013). Quarterly Labour Force Survey P0221 Quarter 1 2013. Pretoria: Statistics South Africa

Statistics South Africa (2012). Census 2011. Pretoria: Statistics South Africa

The DTI (2013). Media Statement: *10 Potential Special Economic Zones Have Been Identified*. Available at: http://www.thedti.gov.za/editmedia.jsp?id=2685 [Accessed 11 July 2013]

The DTI (2013). Special Economic Zones Bill, 2013; Presentation to Portfolio Committee on Trade And Industry, 26 April 2013. Available at: http://www.thedti.gov.za/parliament/SEZ-Bill.pdf [Accessed 11 July 2013].

The Presidency (2007). Policy framework for the Government-wide Monitoring and Evaluation Systems. Pretoria: The Presidency

Trudi, H. (2001). South African regional industrial policy: from border industries to spatial development initiatives. Journal of International Development, 2001, vol. 13, issue 6, pages 767-777

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APPENDIX A

FET Colleges in Gauteng and North West

	FET College	Engineering programmes offered
GAUTENG	Central JHB FET College	• Building and Civil Engineering N1 – N6 • Electrical Engineering N1 – N6 • Electronics Engineering N1 – N6 • Mechanical Engineering N1 – N6 • Servicing Motor Vehicles • Construction Electrical • Welding • Motor Trade N1 • Plumbing • Cabinet Making • Body & Paint • Machining
	Ekurhuleni East FET College	• Engineering and Related Design NQF Level 2 - 4 • Electrical Infrastructure Construction NQF Level 2-4 • Civil & building Construction NQF Level 2 - 4 • Electrical Engineering (heavy current) N4 - N6 • Electrical engineering (light current) N4 - N6 • Mechanical engineering N4 - N6 • PAMSA (NCV)
	Ekurhuleni West FET College	• Electrical Engineering (Heavy Current) N1 – N6 • Electronic Engineering (Light Current) N4 – N6 • Mechanical Engineering N1 – N6
	Sedibeng FET College	• Workshop Training (Fitting And Machining) • Workshop Training (Motor Mechanics) • Workshop Training (Panel Beating) • Workshop Training (Boiler Making And Welding) • Workshop Training (Electrical) • Industrial Electronics • Electrical • Fitting And Machining • Boiler making • Welding • Motor Mechanics • Electrical Engineering • Mechanical Engineering
	South West Gauteng FET College	• Engineering and Related Design NCV Level 2 - 4 • Electrical Infrastructure Construction NCV Level 2 - 4
	Tshwane North FET College	• Electrical engineering (N4-N6) • Mechanical Engineering (N4-N6) • Electrical Engineering (N1-N3) • Mechanical Engineering (N1-N3) • Engineering and Related Design (NCV) • Welding (Skills Programme)
	Tshwane South FET College	NCV • Mechatronics • Engineering and related design

		• Process Instrumentation Learnerships • Mechanical Engineering • Fabrication • Welding • Tool Making • Fitting • Turning • Autotronics • Automotive Component Manufacturing & Assembly • Automotive repair & Maintenance (Diesel & Petrol) Nated Courses • Electrical (N1 –N6) • Mechanical (N1 – N6) • Civil (N1 – N6)
	Western College for FET	• Engineering and Related Design NCV • Electrical Infrastructure Construction • Engineering Studies – N1 to N6
NORTH WEST	Orbit FET College	• Engineering and Related Design - NCV • Electrical Infrastructure Construction - NCV • Information Technology and Computer Science - NCV • Mechanical Engineering - NATED • Electrical Engineering - NATED • Industrial Engineering – NATED
	Taletso FET College	• Civil Engineering and Building Construction - NCV • Electrical Infrastructure Construction - NCV • Engineering and Related Design - NCV • Information Technology and Computer Science - NCV • Mechanical Engineering - NATED • Electrical Engineering - NATED • Civil Engineering – NATED Motor Mechanics - Skills Programmes • Welding- Skills Programmes • Electrical - Skills Programmes • Spray Painting- Skills Programmes • Panel Beating- Skills Programmes
	Vuselela FET College	• Civil Engineering and Building Construction - NCV • Electrical Infrastructure Construction - NCV • Engineering and Related Design - NCV • Information Technology and Computer Science - NCV • Civil Engineering - NATED • Mechanical - NATED • Electrical- NATED • Drawing Office Practice - NATED

List of participants in research

Name	Role/Designation	Organisation/Area of specialisation	Nature of contact
Keith Cavanagh	Training and Development Specialist	Vulindlela HR Management Consultants	Primary interview
Andrew Mogotlane	Organised Labour - Toyota	NUMSA	Primary interview
Sean Fenn	General Manager - Divisional Development and Learning	Imperial Technical Training Academy	Primary interview
Kirtida Bhana	Training Executive	Plastics SA	Primary interview
Motsamai Sefume	Motor Chamber Coordinator	NUMSA	Primary interview and Task Team
Tarry Ohlson	Training Consultant	Trentyre Pty Ltd	Primary Interview
Alan Harvey	Training Manager	Trentyre Pty Ltd	Primary interview
Werner Pieterse	Human Resource	Trentyre Pty Ltd	Primary Interview
Mickey von Maltitz	Human Resource Development Manager	Bridgestone South Africa	Primary Interview
Edward Matube	Organised Labour - Lasher	NUMSA	Primary Interview
Paul Zinn	Training Manager	SCAW Metals	Primary Interview
Marwaan Davids	Training Director	RMI	Primary Interview
Sabelo Buthelezi	Clients Relations Manager Gauteng South	merSETA	Task Team
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Name	Organisation/Area of specialisation
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Jenry Makola	NUMSA (Organised Labour – BMW SA)
Harry Trigwell	Genet Mineral Flexicon Pipeline
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I. Minnie	Leo Haese BMW Cen.

Harry Geldenhuys	MerSETA
Glucious Ledwaba	merSETA

Issues raised by stakeholders during comments stage

Stakeholder & Organisation	Issue/comment	Response/Action taken
IIze Botha (MC Motor)	PG 89 point 5.2.3. the number of registered apprentices indicates 69 00 – I presume this should be 69 000	Correction made in report.