PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI

KwaZulu-Natal
Human Resource Development Council

THE KWAZULU-NATAL PROVINCE WIDE INTERGRATED HUMAN RESOURCE DEVELOPMENT STRATEGY & IMPLEMENTATION FRAMEWORK (2016-2030)

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Situational Analysis Report

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'A Prosperous Province with a Skilled Population'

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1. The Policy Context

1.1 Introduction

The Human Resource Development (HRD) Strategy of the province is critical to its developmental priorities, and it must, in the end, create a more cohesive society and advance the welfare of all communities. In this sense, its role and its value are central. This role for HRD arises because human resources are considered as fundamental to all development objectives and priorities The HRD strategy for the province is central to, and affected by, a wide variety of policy and strategic provisions that are intended to further transform the province and the state. The focus of this transformation is that of "creating a better life for all" and the instruments of the transformation are a wide variety of policy initiatives. With people at the centre of this transformation, the functional concern is the manner in which the development of people is managed to meet the needs of society, and the manner in which opportunities are created for people to be productively engaged.

The purpose of this chapter is to contextualize the HRD strategy within the policy and strategic provisions that develop people. In the context of policy, and in the context of this analysis, the initiatives to develop people are represented, primarily, in the supply stream of the formal education system from pre-school to university and beyond, including the range of opportunities for lifelong learning. In this context, also, the initiatives to productively engage people are those efforts that are intended to create jobs, create opportunities for self-employment, or create options for people to add value to their respective communities. The chapter will therefore examine policies which govern the supply of a productive labour force, and policies which govern the demand for people in the economy. However, restricting this analysis to the policies which affect supply and demand will not present a truly comprehensive picture of the policy context which affects HRD. The development of people, for instance, is affected by a variety of social issues and will therefore be influenced by policies in health and social welfare. Similarly, creating jobs and opportunities to engage people in the economy will be affected by a variety of economic factors, and, will therefore be influenced by a wide variety of economic and other policies. All these policies are not reviewed. However, the chapter presents a summary of the health and social issues which affect supply, and a summary of the economic and technical considerations which affect both demand and the availability of opportunities in the economy. In this respect, the chapter will be presented as follows:

- General policy and strategic trends.
- Policies affecting the development of people – the supply stream
  - ECD
  - Ordinary Schooling
  - Post School Education
  - Skills and Artisan Development
  - Youth Development
  - Adult Education and Training
  - Summary

- Policies affecting the productive engagement of people - employment demand and other opportunities for engagement
  - Employment Demand and Economic Engagement of People
  - Social Cohesion and the Social Engagement of People

1.2 General Policy and Strategic Trends

KZN's primary instruments for planning are the Provincial Growth and Development Strategy and Plan. These take the National Development Plan and other critical national strategies into account in order to develop an integrated plan for the province. The KZN Provincial Growth and Development Strategy for Comment (2016) (PGDS) emphasises that the knowledge and skills needed for a strong economy occur throughout the value chain and include early childhood development, school education, artisan and technical skills, community education and training, and professional education rendered at university level. This strategy suggested that the province must expand the physical facilities of TVET and CET colleges in order to accommodate the large number of people who are not in education, employment or training (NEET).

The PGDS further emphasises the need for institutions to prepare professionals who have the necessary social skills relevant for the different contexts of the province. It further states that there should be a development of incentives to attract professionals to different parts of the province to support quality and equity.

The PGDS (2016) strategic objectives towards the goal of Human Resource Development are:

1. Improve early childhood development, primary and secondary education;
2. Support skills alignment to economic growth; and
3. Enhance youth and adult skills development and life-long learning

These goals remain unchanged from the previous 2011 PGDS, however, several objective indicators have changed. The changes from the PGDS (2011) to the PGDS (2016) are listed below, under their respective headings. The changes reflect an emphasis on information collection, new CET colleges and local, enterprise and informal skills development.

1) Improve early childhood development, primary and secondary education

- The only additions to the interventions are performance management of educators and counselling and career guidance in all schools.

2) Support skills alignment to economic growth;

- Revitalize TVET and establish CET colleges
- Rigorous collection of information
- Skills development for informal sector, township and rural economy focusing on enterprise education and technical skills

3) Enhance youth and adult skills development and life-long learning

- Research out of school youth
- Develop district based supply pipelines and HRD plans linked to IDPs

- Contribute towards CET colleges
- Support entrepreneurial and informal activities at a local level.

Below is an infographic of the human resource development goals that are included in the Provincial Growth and Development Plan (2015).

Figure 1: Provincial Growth and Development Plan (2015)

GOAL 2: HUMAN RESOURCE DEVELOPMENT

The human resource capacity of the province is adequate, relevant and responsive to growth and development needs

APEX INDICATORS

- **Gross enrolment rates: Primary (7-15) and Secondary (16-18)**
- **% of Grade 3, 6 & 9 learners performing at the required levels in the ANA**
- **Performance in Reading and Mathematics as measured by SACMEQ**
- **Pass rate in the National Senior Certificate**
- **Number of learners qualifying for Bachelors programmes in the NSC**
- **Gross enrolment rate (GER) in TVET colleges**
- **TVET NC(V) graduation rate**
- **Gross enrolment rate in higher education**
- **Adult literacy rate**

OBJECTIVES	**Improve early childhood development, primary and secondary education** ***The education sector produces sufficient people with relevant knowledge, skills and attitudes to contribute to growth and development***	**Support skills alignment to economic growth** ***The development of skills is sufficient and appropriate to service the economic growth and development needs of the province***	**Enhance youth skills development and life-long learning** ***The skills level of youth is enhanced***
PRIMARY INDICATORS	• % of 3 to 5 old children in education institutions (public and private) • % of Grade 1 learners who have attended a Grade R class • Retention rate: Grades 10-12 • % of learners in Grade 3 performing at the required levels in the ANA, for literacy and numeracy • % of learners in Grade 6 performing at the required levels in the ANA, for literacy and numeracy • % of learners in Grade 9 performing at the required levels in the ANA, for literacy and numeracy • % of children who turned 9 in the previous year in Grade 4 or above • % of children who turned 12 in the previous year in Grade 7 or above • % of youth who obtain a NSC from school • Number of learners qualifying in NSC for Bachelors, Diploma and Certificate programmes • Retention rate: Grade 1 – Grade 12	• The number of NSC candidates taking Mathematics and Science • Full and part time students in public TVET colleges for NC(V) courses, N courses and occupational programmes • Students graduating in fields of Education, and in Science, Engineering and Technology (SET) • Number of PhD graduates • % of Academic staff with PHD Qualifications	• Number of youths supported by the National Skills Funds, SETAs and other youth programmes • Participation in AET
INTERVENTIONS	• Ensure the delivery of professional management and relevant teacher development programme • Efficient data collection to track learner progress and enhance retention • Improving school infrastructure • Promoting the use of new technologies • Enhance technical and vocational education	• Develop human resource development plans for lead economic sectors per district municipality based on skills demand and implement in partnership with post-school institutions • Massively expand the enrolment of youth in TVET College programmes and in other post-school training institutions focusing on artisan development • Ensure an appropriate "programme and qualification mix" at Universities, Universities of Technology and TVETs to promote the production of professionals and academics • Data-base of graduates for employers to access • Ensure partnerships between TVETs, HEIs, SETAs and Industry • Encouraging development of women professional and technical graduates, and people with disabilities	• Develop counselling and vocational / career guidance services for schools and out of school youth • Relevant life-long learning programmes to be delivered by accessible and vibrant community-based adult education and training (AET) Centres • Enhance youth skills development

1.3 Policies Affecting the Development of People – The Supply Stream

The supply stream for skills in the economy begins at early childhood and progresses through ordinary schooling, primary and secondary education, and then into further education and training, and higher education. Within this main stream of supply there are private and public providers, there are multiple structures to provide educational opportunities for adults and for those who are out-of-school, and there are multiple structures for governing quality and standards in the educational sector. All these structures are critical to maintaining the quality and readiness of people who graduate from educational institutions at all levels. This section of the chapter will review the major policies which govern all levels of the educational sector, and it will briefly summarize the issues which affect the performance and productivity of the sector. The following areas are discussed: the early years and ECD; ordinary schooling; post school education and training; skills and artisan development; youth development; and adult education and training. The National Integrated Human Resource Development Plan 2014-2018 touches on all areas of HRD and, therefore, will be discussed here first. It is important that KZN's HRD Strategy aligns to the NIHRD Plan.

The National Integrated Human Resource Development Plan 2014-2018 identified five strategic outcome-oriented goals. The outcome goals and the corresponding goal statements are:

1. **Universal Access to Quality Foundational Learning**
   - 1.1. Insure expansion & strengthening of ECD.
   - 1.2. Establish a system to ensure that entrants to the teaching profession have adequate & appropriate subject & pedagogical knowledge.
   - 1.3. Improve school leadership & management
2. **Expanded Access to the Post-Schooling Education System**
   - 2.1. Strengthen TVET colleges to expand access to quality technical & vocational education.
   - 2.2. Improve the quality of teaching & learning within TVET colleges.
   - 2.3. Mainstream access to CETCs
   - 2.4. Increase the production & development of academics & staff at the TVET colleges.
   - 2.5. Increase the production & development of professionals across all priority professions.
3. **Capable Public Sector with Effective & Efficient Planning & Implementation Capabilities**
   - 3.1. Revise the public service HRD strategies & plans in line with the vision of the NDP for a professional & capable public service.
   - 3.2. Turn the public sector into a training space.
4. **Production of Appropriately Skilled People for the Economy**
   - 4.1. Put in place a skills development system that meets the current & future needs of the South African economy.
   - 4.2. Determine & critically analyse the level of alignment between skills supply & the needs of the economy.
   - 4.3. Develop artisan & other middle-level skills to meet economic needs.
   - 4.4. Ensure effective monitoring systems are in place to report on progress & enable blockages to be addressed.
   - 4.5. Develop a National Worker Education Framework & Implementation Plan.
   - 4.6. Integrate entrepreneurship into the curriculum & programmes throughout the education & training system.
   - 4.7. Put in place a comprehensive inter-departmental framework of resource access, training & support to SMMEs.

4.8. Report on small & micro enterprise development, including employment numbers & trends.

5. **Improved Technological Innovation & Outcomes**
   5.1. Advance innovation by the conversion of research outputs into commercially viable products, processes & services (Human Resource Development Council of South Africa, 2014).

The Human Development Research Council is the body through which the NIHRD Plan is being implemented at a national and provincial level. To date, six provinces have established Provincial HRD Councils. These councils effect the work of the HRDC and are chaired by the premiers of the provinces. The Provincial HRD Councils develop their priorities and plans in line with the National Integrated Human Resource Development (NIHRD) Plan.

Each area of the HRD value chain will be highlighted in the sections to follow.

1.3.1 The Early Years and ECD

For the first time 'Early Childhood Development' is part of UNESCOs Sustainable Development Goals. Target 4.2 reads "by 2030 ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education" (Ralkes, Dua, & Britto, 2015). This is a massive step for ECD advocates globally. This means that resources are now being pooled to measure and promote outcomes in ECD. According to the World Bank, every dollar invested in ECD yields a return of 6 dollars (IISD Reporting Services, 2016). In South Africa, the importance of the early years, from birth to pre-Grade R, has been recognized for some time, and are within the administrative and policy authority of the Department of Health, the Department of Social Development and the Department of Education.

These departments serve to protect the interest and welfare of children in the early years through a variety of health, social welfare and educational interventions. These interventions have been largely made in an uncoordinated manner as each department pursues its policy priorities and its developmental targets, however, in order to address this, the Department of Social Development published the National Integrated Early Childhood Development Policy in 2015. The Policy took account of existing relevant policy and legislation from the following documents, and supersedes them: the White Paper on Social Welfare (1997), White Paper 5 on Early Childhood Development (2001), the Children's Act No 38 of 2005, the National Integrated Plan 2005-2010, and the South African Integrated Programme of Action for Early Child Development - Moving Ahead (2013-2018).

The National Integrated ECD policy acknowledges government's recognition of the universal right of all children in South Africa to early childhood development services and the fundamental developmental importance of early childhood development. It provides a statement of associated commitments to developing a strong and effective integrated national early childhood development system founded on a strong enabling legal framework; to establishing the necessary organisational and institutional structures; and to providing adequate public funding and infrastructure to ensure sustainable universal availability and equitable access to comprehensive quality early childhood development programmes and services for the period from conception until the year before children enter formal school or, in the case of children with developmental difficulties and/or disabilities, until the year before the calendar year in which they turn 7, which marks the age of compulsory schooling or special education.

Cabinet approved the National Integrated Early Childhood Development Policy in December 2015. The policy is a culmination of three years of research and consultation conducted via the Human Science Research Council. Broadly, government responsibility for ECD across the three spheres is set out as:

- National: The National Inter-Ministerial Committee for Early Childhood Development, supported by a National Inter-Departmental Committee for Early Childhood Development, will support the improved capacity, planning, coordination and monitoring of early childhood development services, and the design and development of the specific programmes described in this Policy.
- Provincial: Provincial Governments are responsible for the delivery of services (such as health, social services and basic education) including responsibility for funding, delivery of contracting NGOs for service provision, registration and monitoring, and the evaluation of compliance of services with norms and standards.
- District: municipalities are responsible for the effective coordination in each district of ECD services within their mandate. Relevant services and associated responsibilities and budgets should be reflected in all municipal Integrated Development Plans (IDPs) and in specific sectoral polices and by-laws which should be harmonised with national policy and legislation (Department of Social Development, 2015).

The Minister of Social Development will, through the National Inter-Departmental Committee for Early Childhood Development, establish the South African Inter-Sectoral Forum for ECD. This body will serve as a national platform for engagement between the Government and the non-governmental sector involved in ECD service delivery in SA. The forum will meet at least twice a year and is established via a mutually accepted TOR. The policy recommends that similar fora be established in all provinces, coordinated by the Department of Social Development and replicated at district and municipal level coordinated by the Office of the mayor with support from municipal managers (Department of Social Development, 2015).

Box 1: Case Studies in Early Childhood Development

Case Studies in Early Childhood Development

- In the development of the National Integrated Early Childhood Development Policy, the Human Science Research Council team visited both Sweden and Chile as best practice examples in the developed and developing world. The key learnings were as follows (Department of Social Development, 2015):
  - Sweden and Chile both prioritise the rights of children, in particular, vulnerable children above all else;
  - In Sweden, universal pre-school education is unanimously accepted;
  - In both Sweden and Chile there is good integration between government departments and high level of compliance with policy;
  - In both Sweden and Chile Municipalities play a central role in service delivery and are the custodians of a centralised waiting list for ECD centres;
  - Chile provides strong support to parents and fathers from conception through to primary school. Parents are provided with anything they need to do with the nutrition of the baby;

- Practitioners in both Chile and Sweden are highly qualified at all levels with a minimum of a University Degree.

- The Gauteng Department of Social Development is implementing a mobile ECD programme. The programme consists of busses which carry high quality ECD tools and curriculum from community to community ensuring the most secluded communities have access. Each bus has its own qualified ECD teacher who conducts lessons for children between the ages of 2 and 6 years old (Sukuma Sakhe Development, n.d.).
- Neumann and Hatipogu's journal article on pre-primary education around the world (Neuman & Hatipoglu, 2015) states that the three most pressing international challenges for ECD are:
  - Addressing inequitable access to preschool;
  - Scaling-up quality ECD programmes (South Africa is used here as an example of how implementing Grade R has had no effect on low-income children and a minor impact on children from all wealth quantiles);
  - Strengthening the ECD workforce.
- In Zanzibar, the government is using radio to reach under-resourced areas in order to implement two years of pre-primary school learning. These are locally produced 30 minute lessons. Evaluations have shown that children in classes with radio instruction performed significantly higher in tests scores. This programme is now being implemented at scale in Bolivia, Honduras, Indonesia and El Salvador (Neuman & Hatipoglu, 2015).
- Saving Brains is an organisation that uses scientific, technological, social and business innovation to have an impact on children's first 1000 days of life. Saving Brains has 70 innovations in multiple countries, including South Africa. The following are some examples: • A team at the Institute of Nutrition of Central America and Panama (INCAP) is bringing to life a policy that rice, the staple crop in the region, must be fortified with folic acid, by incentivising rice millers in Nicaragua. • Mobile Crèches is developing a social franchise model to leverage the resources of construction companies and local civil society organisations to scale early child development centres for the children of migrant construction workers in India. • A team at the Hanoi School of Public Health is engaging fathers in parenting in Vietnam, where this is not the cultural norm (Macmahon & Silver, 2015). In South Africa Saving Brains is currently involved in two initiatives. One involves home-based intervention by community health workers to encourage sensitive and responsive mother-infant interactions, and the other involves home-based intervention delivered by lay counsellors to support exclusive breast-feeding in first 180 days of life (Saving Brains, no date).

1.3.2 Ordinary Schooling or Foundational Learning

The content and process of public education is governed primarily by the National Education Policy Act No. 27 of 1996 and the South African Schools Act (SASA) No. 84 of 1996 and its associated amendments. SASA, in particular, has codified a policy agenda to transform education, as it outlines school funding norms to prioritize, redress, and to target poverty. It goes further, in later amendments, to authorize the declaration of schools in poor areas as "no fee schools", and gives guidance on matters pertaining to the control of substance abuse. Beyond these primary pieces of legislation pertaining to education, policy trends governing the content and processes of general education are defined in a wide variety of policy documents. Most important among them are: the Education White Paper 6 on Inclusive Education; Education White Paper 7 on e-Learning; the Revised National Curriculum Statements for Grades R-9, and Grades 10-12; the educational provisions of the Human Resource Development Strategy for South Africa (HRDSA); the provisions

and delivery agreements on Output 1: Improved Quality Basic Education (DBE, 2010); the General Notice 752 of 2010 on an Action Plan to 2014 – Towards the Realization of Schooling 2025 (DBE, 2010) and Action Plan to 2019 – Towards the Realisation of Schooling 2030 (DBE, 2015).

These documents, together, have consolidated key policy trends in education. The primary focus of these trends is the improvement of educational quality, enhancing educational outcomes and the promotion of equity in educational opportunities. A selection of eleven of the key trends are identified and briefly described in the annexure. These are:

- Inter-Departmental Partnerships and Collaboration
- Regular Assessment to Track Learner Progress
- Improved Teacher Capacity and Practices
- The Availability of Learning Materials to all Learners
- Improved Quality of ECD
- Strengthening School and District Management
- Enhanced Learner Performance
- Promoting Equity in Resourcing of Schools
- Health Promotion and Social Welfare of Learners and Teachers
- Specialist Services for Learners with Learning Difficulties
- Promote Adult Literacy and Numeracy

1.3.2.1 New Government Interventions: 2014-2016

The Action Plan to 2019 – Towards the Realisation of Schooling 2030 has 27 goals. Four of the goals that relate to schools are priority goals and include:

- Improve the professionalism, teaching skills, subject knowledge and computer literacy of teachers throughout their entire career;
- Ensure that every learner has access to the minimum set of textbooks and workbooks required according to national policy;
- Ensure that the basic annual management processes take place across all schools in the country in a way that contributes towards a functional school environment; and
- Improve the frequency and quality of the monitoring and support services provided to schools be district offices, partly through better use of e-Education.

Basic Education priorities for the 2014-2019 Medium-Term Strategic Framework are as follows:

- Improved quality of teaching and learning through development, supply and effective utilisation of teachers.
- Improved quality of teaching and learning through provision of adequate, quality infrastructure and Learning and Teaching Support Materials (LTSM).
- Improving assessment for learning to ensure quality and efficiency in academic achievement
- Expanded access to Early Childhood Development and improvement of the quality of Grade R, with support for pre-Grade R provision
- Strengthening accountability and improving management at the school, community and district level.
- Partnerships for education reform and improved quality (South African Government, 2015).

Innovation in South African Schooling

Minister of Basic Education, Angie Motshekga, MP, described the innovations in schools in the country at the World Social Science Forum held in Durban. She said that ICT Support has been provided via Mindset, involving Live TV revisions and linked to a website, YouTube, Facebook, Twitter, etc. Government has also established an educational TV channel (Available on Open View Higher Definition (OVHD) (Channel 201), DSTV (Channel 319) & StarSat platforms). She said that as of September, 2015, 830 schools have access to DBE TV channel. Grade R, 4-6, 8-9 and 10-12 Live and pre-recorded lessons are broadcast daily. Network Operators (Vodacom, MTN, Cell C & Neotel) are providing internet connectivity and end-user devices to schools as part of the Universal Service & Access Obligation (USAO). 327 Secondary schools have been provided with Internet & ICT devices. Schools have access to online curriculum resources (past papers, study guides) on Thutong and provincial curriculum portals (South African Government, 2015).

National Education Collaboration Trust (NECT) (2014)

In response to the National Development Pan (NDP) 2030, sectoral partnerships have resulted in the establishment of the National Education Collaboration Trust (NECT), which is an organisation dedicated to strengthening partnerships among business, civil society, government and labour in order to achieve the education goals of the National Development Plan. It strives both to support and influence the agenda for reform of basic education (National Education Collaboration Trust, no date). The NECT is currently working in eight districts (South African Government, 2015), including Pinetown and uThungulu in KwaZulu-Natal.

Box 2: Case Studies for Ordinary Schooling

Case Studies for Ordinary Schooling

Finland was ranked as the top scoring country in the Organisation of Economic Co-operation and Development's (OECD) PISA assessments in terms of educational achievements. Becoming a teacher involves a stringent vetting system. The first phase involves selection based on matric results, as well as extra-curricular achievements. The second phase involves candidates completing a written exam on assigned books on pedagogy. They then participate in an observed clinical activity replicating school situations, where social interaction and communication skills come into play. The top candidates are interviewed and asked to explain why they have decided to become teachers. The chosen candidates then complete a rigorous teacher education program at the government's expense.

The teaching profession in Finland is seen as involving high social prestige, involving seeing the ethos of teaching as a service to society and enhancing the public good. Finns regard the teaching profession as on a par with medicine, law, or economics.

Sahlberg (2010) argues that no single thing can explain Finland's outstanding educational performance, however, most analysts observe that excellent teachers play a critical role. Among the successful practices that can be taken from Finland are:

- The development of rigorous, research-based teacher education programs that prepare teachers in content, pedagogy, and educational theory, as well as the capacity to do their own research, and that include field work mentored by expert veterans;
- Significant financial support for teacher education, professional development, reasonable and equitable salaries, and supportive working conditions;
- The creation of a respected profession in which teachers have considerable authority and autonomy, including responsibility for curriculum design and student assessment, which engages them in the ongoing analysis and refinement of practice. (Sahlberg, 2010).

1.3.3 Post School Education

Post school education and training refers to "all education for people who have left school but require education opportunities" (Department of Higher Education and Training, 2010). In this respect, post school education includes the TVET and higher education sectors, as well as adult education and training, and the programmes offered by the respective Skills Education Training Authorities (SETAs). The summary of the policy context for post school education, as outlined in this chapter, seeks to capture the policy trends in TVET and higher education. These policy trends have been selected on the basis of their centrality to HRDSA; on the basis of their relevance in the White Paper for Post School Education and Training (2014); in relation to the priorities in the National Development Plan; and on the basis of the findings derived from a range of policy documents relating to the TVET sector and higher education. Policies pertaining to skills and artisan development, and those related to youth development, are addressed separately in subsequent sub-sections because of their emerging importance on the policy landscape for post school education, and because of their importance to the future of education as a whole.

The area of post school education and training represents the most critical sector of the human resource supply stream. Its importance stems from its position as the immediate release point through which jobs and opportunities in the economy are accessed by learners who are successful. On the educational foundation established in the early years, and on the foundation established in ordinary schooling, learners access a wide range of post school education and training opportunities so that they can be effectively prepared for occupations in the world of work. It is at this point where concerns abound regarding the extent to which the stream of supply adequately meets the demands of the economy. The expectation is, generally, that the post school education and training system will generate the human resource skills and talent that are needed in the economy, and in the society in general.

The policy trends in the post school education and training are informed primarily by the urgent need to build an adequate skills base to respond to concerns that economic performance is constrained by the lack of skills needed in the economy, and the policy positions recently taken that post school education and training will be designed to provide the opportunities and the need to better the lives of people. These policy trends are also based on the need to respond to a variety of factors which limit the performance and productivity of the post school education and training systems. Some of these factors are itemized briefly, and, thereafter, the key policy trends in post school education and training are enumerated. The factors, which compromise the performance and effectiveness of post school education are as follows.

- Lack of access to post school opportunities for the poor, because of unaffordability, lack of proper qualifications or lack of opportunities in their respective areas. Rural areas seem to suffer the most deprivation in post school provision.
- There are primarily poor learners who struggle to complete academic and vocational programmes and drop out of school. Generally, such learners lack the readiness to enter TVET and be successful in the programmes of their choice.
- Qualifications and curricula offered do not always allow for progression, and sometimes lead to a dead end educationally.
- Lack of strong enough links with the labour market and lack of productive partnerships with industry.
- High attrition rates and low success rate of learners.
- The TVET and higher education sector have insufficient capacity for the level of skills production needed in the economy.
- Inadequate skills levels and general lack of capacity of many TVET graduates resulting from lack of workplace-based training, lack of knowledge and experience among instructors in some areas and lack of appropriate laboratory and workshop facilities in some institutions.
- Lack of articulation and lack of coherence between many TVET and HEIs where successful NC(V) graduates are unable to enter HEIs.

Although these problems are not universal in the post school sector, they have become typical. In response, and with a sense of urgency, many initiatives have been undertaken over the years to transform the sector. The scale and timing of some of these initiatives have, to some extent, destabilized the sector and have temporarily dislodged its focus. The challenges in the sector are diverse and complex, and the effort and investment in transforming the sector is warranted and essential for the future. The policy initiatives and trends for post schooling education and training focus on five critical priorities. They are as follows: expansion of the sector to enable access and to serve more people; maximizing efficiency in terms of throughput and certification rates; promoting quality and diversity in programming; enhancing responsiveness to economic and social needs and circumstances; and ensuring coherence and articulation in the sector so that graduates have opportunities to progress. Some of the most critical policy priorities are itemized and discussed in the annexure. These are:

- Access and Equity – Increasing Enrolments: Improving the Quality, Quantity and Diversity of Provision: Enhancing Cohesion and Articulation of the Post School System:
- The Promotion of Economic Linkages and Responsiveness to the Labour Market through Industry Partnerships: More Effective Management of the Feeder System for TVET Education: Alignment and Rationalization of Regulatory Agencies: Establishment of Community Education and Training Centres: Promotion of Workplace Learning:
- Flexible and Diversified Mix of Programmes:
- Promotion of Research and Innovation: Maximizing Throughput of Learners: Networking Providers in Flexible and Innovative Modes of Delivery – Open and Distance Learning.

1.3.3.1 #FeesMustFall Movement

The fees must fall movement, written #FeesMustFall, is a movement that started in October, 2015. The announcement of a 10.5% fee increase at the University of Witwatersrand appears to be the immediate trigger to the #FeesMustFall movement (Badat, 2016).

The response of DHET was a transformation summit, attended by key stakeholders where it was agreed that there was "increasing levels of frustration at the slow pace of transformation in the university sector, with respect to…insufficient levels of student funding; inadequate levels of funding to match the growth in the system and concerns about sustainability; institutional environments that continue to reflect the broader inequalities in society and result in experiences of alienation by many staff and students, including persistence of racism, patriarchy, homophobia, able-ism, and classism; university curricula and forms of knowledge production that are not sufficiently situated within African and the global South contexts, and are dominated by western worldviews; language practices at universities, which create barriers to effective teaching and learning" and, significantly, "the need for further interrogation of the balance between institutional autonomy and public accountability" (Badat, 2016). The #FeesMustFall movement continues with the rationale listed above in mind.

In January, 2016, the Department of Higher Education and Training released a statement on the increased allocation of funding saying: "The President, in his January 8th statement to the nation, announced that government will allocate an additional R4.582 billion funding to NSFAS". This funding is in addition to the R10 billion that we have been allocated in the 2016/17 financial year. In total, the budget that will be administered by NSFAS in 2016 comes to R14, 582 billion" (Department of Higher Education and Training, 2016).

In September 2016, "Minister of Higher Education and Training Dr Blade Nzimande made the announcement on 2017 university fees…saying that poor, working and middle-class families would be subsidised to cover the fee adjustments based on 2015 fees and that this would be done for increments up to 8%…The Minister adds that the fee adjustments should not go above 8%" (Department of Higher Education and Training, 2016).

There has been no unified government policy or statement other than the recent fee announcement by Blade Nzimande as a result of the continued protests in 2016.

1.3.4 Skills and Artisan Development

Skills and artisan development is, perhaps, one of the most critical policy priorities in the agenda of development. Its priority is justified on two primary objectives: skills development to contribute to economic and industrial growth, and skills development to end poverty through the creation of jobs and opening access for people to decent work. Skills development policy has always had this dual focus, but the social imperatives of skills development have become more pressing over time. The policy trends in skills development will highlight the importance of these imperatives in presenting the strategic provisions which have been made to build the skills base of the economy.

It is necessary, first of all, to highlight the importance given to skills and artisan development in key strategic documents. While the Skills Development Act (Skills Development Act 97 of 1998, as amended by Act 26 of 2010) and the Skills Development Levies Act (Skills Development Levies Act 9 of 1999) have both served as anchors of government's policy to transform skills development structures, processes and priorities, its importance is also demonstrated in the pervasive reference to skills development in policy documents, and in the recent emergence of a wide range of initiatives to build more robust structures for managing and producing the nation's artisans.

Among the priorities of the medium term strategic framework (MTSF), for instance, is the intent to "strengthen the skills and human resource base"; Outcome 5 and its respective delivery

agreements seek to ensure "a skilled and capable workforce to support an inclusive growth path"; Commitments 1,2,4 and 5 of the HRDSA focus on skills development; and, among others, the Provincial Growth and Development Strategy (PGDS) of Kwazulu-Natal embraces HRD and skills development as one of its central objectives on the agenda of provincial growth and development. More details on the manner in which the agenda on skills and artisan development will be advanced are documented in the NSDS111 (DHET, 2011), the National Skills Accord (Department of Economic Development, DHET, 2011), the White Paper on Post School Education and Training (2013); and in the Delivery Agreement 5, which embodies 3 separate and more specific agreements on skills development.

Within all these documents, as an overarching policy framework, there is general agreement on a set of specific policy priorities for skills and artisan development. While some of these priorities are consistent with established policy directions, others are new ideas which have recently emerged in the National Development Plan, the White Paper on Post School Education and Training and in other policy documents related to skills development. The key policy priorities and the emergent policy proposals on skills and artisan development are presented and described briefly below. First, established policy trends and priorities will be presented, and then a selected set of emergent or new policy proposals and priorities will be discussed. These are presented below and in more detail in the annexure.

Established Policy Trends and Priorities in Skills and Artisan Development

- Massification of Skills Development Delivery
- Initiatives to Promote Enhanced Performance of TVET Colleges
- Increased Supply of Learnerships and Artisans
- Focus on the Unemployed and Disadvantaged
- Spatial Focus – Access to Occupationally Directed Programmes in Needed Areas
- Building Human Capital for Research and Innovation
- Programmatic Focus – Focus on Programme Areas needed for Accelerated Economic Growth
- Creating the Foundation for Learning in the Early Years – ECD
- Equity Impact – Promoting Equity in Skills Development
- Emphasis on Workplace-Based Skills Development
- Entrepreneurial Development
- Career and Vocational Guidance
- Maximizing the Efficiency in Skills Supply
- Importance of a Sound Foundation in General Education
- Commitment to Youth Development
- Recognition of Prior Learning (RPL)
- Focus on the Unemployed

Emergent and New Policy Proposals and Priorities in Skills and Artisan Development

- Initiatives to enable more Effective School to Work Transition Integrated Institutional Mechanisms for Skills Planning
- New Institutional Arrangements to Promote Effective Delivery
- Reconstruction of Funding Policy for TVETs
- Creation of "Second Chance" Programmes
- Code of Decent Conduct, and Code of Ethics and Good Citizenship

- Diversified Programming Structure or Programming Architecture Reflected in Mix of Programmes in Structure
- Establishment of a Sector Focus in Skills Development
- Defining a Specific Role for SOEs in Skills Development
- Incentives to Promote an Increase in Private Spending on Training

There are six emerging policy trends which will, perhaps, transform the manner in which skills development is undertaken by institutions, provinces and communities. These are as follows:

1. **Partnerships:** There is an emphasis on partnerships with public and private employers for learners to attain workplace experience. Such partnerships are not ad hoc and incidental, but are well-established relationships and networks that are governed by commitments and agreements where employers take responsibility for training.
2. **Networks of Public and Private Institutions Engaged in Skills Development:** There is a policy shift where public and private delivery is no longer seen as separate and independent. The shift is towards the establishment of delivery networks which involve NGOs, private providers, employers and public institutions in a structure which maximizes skills development services both geographically and by audiences and communities to be served. The NDP specifically notes that the "one-size-fits-all model is inappropriate" (page 287) and that a more differentiated approach should be adopted.
3. **Flexible and Diverse Programming Structures to Maximize Responsiveness**: Institutions cannot be responsive to labour market dynamics and to the diverse population to be served with a permanently established and inflexible array of vocational programmes. Programming must be adapted to social and economic imperatives. Programming structures must be designed to maximize services to diverse populations and adapt to the changing demands of the economy and society.
4. **Spatial Focus in Delivery:** The spatial focus in skills development has become most prominent. There is particular concern regarding the lack of access to skills development in rural and disadvantaged areas where such access is sometimes most valued and most needed.
5. **A Sector Focus in Skills Development:** There is a movement towards a sector focus in skills development recognizing that sectoral needs and dynamics may be different. The focus is also directed to sectoral contributions to skills development delivery through partnerships or through the private sector adopting institutions and programmes in sector-based skill specializations.
6. **Responsiveness to Social Issues and Circumstances:** Skills development has always had a focus on social responsiveness. This has become much more critical in light of youth unemployment, and in light of the lack of access to skills development in many disadvantaged communities. Such responsiveness has become much more programmatic, and there is greater accountability to ensure that social issues are clearly reflected in skills development programming.

1.3.4.1 White Paper on Post School Education and Training (2013)

The White Paper on Post School Education and Training (2013) puts forward the following resolutions:

- To provide the necessary support, the DHET intends to establish an institute that will support TVET and community colleges and the skills development system more generally and monitor the quality on an ongoing basis. This institution will be known as the South

African Institute for Vocational and Continuing Education and Training (SAIVCET). The White Paper acknowledges that while there are concerns that having too many institutions might overcomplicate the system and stretch the country's limited resource capacity, DHET argues that this would not be the case, citing India, South Korea, Switzerland and Germany as successful examples of countries with similar institutions (Department of Higher Education and Training, 2013).

- Many private institutions have made representations (including in response to the Green Paper) for the state to provide funding either directly to the institutions or to subside their students. The DHET's position on this has been firm. While recognising and appreciating the role of private institutions, the Department believes that the public sector is the core of the education and training system. The government's main thrust, therefore, should be to direct public resources primarily to meeting national priorities and to provide for the masses of young people and adult learners through public institutions (Department of Higher Education and Training, 2013).
- The White Paper on Post School Education and Training (2013) states that the goal is to have 2.5 million TVET colleges by 2030. In terms of the Further Education and Training Colleges Amendment Act (No. 3 of 2012), these colleges became a national competence and the responsibility of the Department of Higher Education and Training. This is a significant development: from 2013, for the first time, the colleges are accountable primarily to the national government rather than to the provinces. Government is also building a number of universities and TVET colleges in rural areas to cater for the increasing demand for post-school education.
- In November 2014, the Council launched its Adopt-a-TVET College Campaign. This initiative seeks to encourage the business community to work more closely with TVET colleges and forge lasting collaborations in the delivery of relevant industry skills. An example of this is Kumba Iron Ore, which partnered with the newly opened Waterberg College to provide bursaries to academically deserving students (Department of Higher Education and Training, 2016).

Box 3: Case Study on Skills & Artisan Development

Case Study on Skills and Artisan Development

KwaZulu-Natal has one of the best adult basic education and training programmes in the country, and during 2014/15 it shared its successful model with North West (Human Resource Development Council, 2015). Thanks to funding from the NSF and the Manufacturing, Engineering and Related Services Sector Education and Training Authority (merSETA), the province was able to train 990 artisans in the manufacturing and engineering sector. Furthermore, the Mangosuthu University of Technology signed an MoU for maritime training.

1.3.5 Youth Development

Youth development is included among the policy priorities in the HRD because of the importance of youth in the overall development trajectory of the province. Youth represents almost 50% of

the population of the province, and over 50% of the province's unemployment. There is a significant increase in the number of out-of-school-youth from year to year and even youth who are graduates of TVETs and higher education institutions have difficulties in securing employment. Youth represent the province's human resource potential for the future, and, to the extent that youth are not well served and developed, the future of the province may be compromised. The HRD strategy, therefore, seeks to assess the policy trends in youth development in an effort to determine the manner in which this significant cohort of the province's population could be developed and productively engaged through the HRD strategy.

Many key policy documents on skills development have given priority to young people. These include the HRDSA (2010), the NSDS111 (2010), the Integrated Youth Development Strategy 2011-2021 (NYDA, 2010), the National Youth Development Policy Framework 2002-2007, the National Youth Policy 2009-2014, the National Youth Development Agency Act No. 54 of 2008 and other related policy documents such as the White Paper on Social Welfare (1997). However, the most recent policy document is the National Youth Development Agency's Strategic Plan (2014-2019). In 2013, the National Youth Development Agency (NYDA) introduced a new strategic direction. NYDA adopted the role of facilitator, and 'go-to' partner in youth development and reduced the amount of direct programmer funding and execution. NYDA is now involved in greater stakeholder collaboration, and the development of stronger enablement, project management and evaluation capabilities. This new focus positions NYDA as a custodian of overall sector performance and enables NYDA to be in a position to address sector deficiencies. NYDA Strategic Plan 2014-2019 identifies four strategic objectives, under which fit six key programme areas (National Youth Development Agency, 2014):

- **Improved sustainable livelihood opportunities for young people in South Africa;**
    1. Economic participation – to enhance the participation of young people in the economy.
    2. Education and skills development – to facilitate and implement education opportunities in order to improve the quality education attainment of youth and facilitate and implement skills programmes.
    3. Health and well-being – to facilitate access to health and well-being programmes.
- **Enhanced participation of youth in social cohesion towards nation building;**
    4. Health and well-being – to provide health and well-being interventions to young people
- **Enhance an enabling environment that promotes youth development in all sectors of South African society; and**
    5. Policy, research and development – to create and produce information and knowledge for better youth development planning and decision-making.
- **Develop and enhance a credible and capable agency for youth development.**
    6. Governance – to establish a credible, efficient, and effective organisation in terms of the NYDA governance identified areas.

Based on an assessment of the NYDA's Strategic Plan and based on a review of related policy documents, 10 critical policy trends have been identified. These policy trends could have significant bearing on the HRD strategy of the province, and have critical implications for the province's approach to youth development. These policy trends are itemized below and described briefly in the annexure.

- An Integrated and Coordinated Package of Service for Youth Social Cohesion and Youth Volunteerism
- Creating Enabling Environment for Youth to Participate in the Economy
- Consideration of Youth as a very Diverse and Special Target Group
- Professionalization of Youth Work
- Multi-Sectoral Responses for Service to Youth
- Education and Skills Development for Youth
- Life Skills for Sustainable Development
- Uniqueness of Programme Design Approaches

One further change in youth development includes the introduction of the Employment Tax Incentive Act (Act no. 26 of 2013). The Employment Tax Initiative (ETI) is an incentive aimed at encouraging employers to hire young work seekers. It was implemented with effect from 1 January 2014. It is currently scheduled to end on 31 December 2016, but its effectiveness will be reviewed to determine whether this incentive will continue (South African Revenue Service, 2014).

Box 4: Case Study for Youth Development

Case Study for Youth Development

The Harambee Youth Accelerator Centre in Johannesburg recruits, screens, trains and places first-time youth work-seekers who are marginalised from the existing corporate recruitment networks. Harambee describes their purpose saying that they connect "employers looking for entry-level talent to young, high-potential work-seekers who are currently locked out of the formal economy. Started in 2011, we recruit candidates where existing corporate recruitment networks do not reach, assess their competencies and match them to jobs where they are most likely to succeed. We then deliver high quality work readiness programmes that directly address the risks identified by employers in taking on first-time workers" (Harambee, no date).

1.3.6 Adult Education and Training

Adult education and training is a critical component of the education and training structure for serving out-of-school youth and adults. The current institutional structure for adult education and training is diverse.

Existing programmes in adult education serve only a small fraction of the population to be served; the success rate of learners is low, and very few learners progress from ABET level 4 (N2F1) to the next level. In addition, adult learners have unique needs that are sometimes not addressed. The policy trend for adult education and training is evident primarily in the White Paper on Post School Education and Training, but is also noted in a variety of other policy documents including the KZN Adult Education and Training report published by the Department of Education (2010), and the adult education and training priorities in NSDS111, among others. The general orientation of AET policy is quality, relevance and responsiveness, on the one hand, and, on the other, the diversification of AET programming using training delivery networks. The policy trends in adult education and training are itemized below and discussed in the annexure.

- Community Education and Training Centres (CETC) National Registry of Private Providers in AET

- Employment Related Focus of AET
- Community-Based Lifelong Learning
- Articulation of AET with the Post School Sector
- Diversify AET Delivery
- Delivery Networks for AET
- Norms and Standards for PALCs
- Responsiveness to the Needs of Learners
- Entry Point for Further Learning

In an attempt to respond positively to the challenge of providing for the education and training needs of these youth and adults, the state has instigated a shift in responsibility for Public Adult Learning Centres (PALCs) from provincial education departments to the DHET, which has been made possible by the Further Education and Training Colleges Amendment Act (No. 1 of 2013) (Department of Higher Education and Training, 2013). The PALCs will be absorbed into a new type of post-school institution: the community colleges, as envisaged in the Further Education and Training Colleges Amendment Act mentioned above. These colleges are expected to be sensitive to the needs of their communities. They will primarily target youth and adults who for various reasons did not complete their schooling or who never attended school. Initially, nine new colleges will be piloted – one in each province, each starting with a cluster of PALCs. The pilot process will be closely monitored and evaluated to assist the DHET.

1.3.7 Summary of Policy Affecting Skills Development – The Supply Stream

A summary of the policy trends related to skill supply is presented in Table 1. The table presents the areas of focus in the supply stream for skills development; the policy provisions, priorities and trends in those areas; and the implications of the respective policy priorities for skills development. The purpose of the table is to use the policy trends as a basis for reflecting on ideas and options which may be relevant to HRD in the province. The table also helps to ensure that the provisions of the HRD strategy for the province are consistent with policy trends in education and training. On the basis of the policy trends noted, there are 10 critical considerations which should be accommodated in the provincial HRD strategy. These are noted below.

- More diverse and responsive programming structure for skills development.
- Focus on partnerships and delivery networks in skills development.
- Promoting wider geographic access to skills development opportunities.
- Promotion of a sector-based approach to training needs assessment and to skills development services.
- Emphasis on foundational learning as a basis for success in vocational and technical education and training with particular emphasis on maths, science, literacy, numeracy and technology.
- More effectively managing access, progress and success in TVETs and HEIs.
- More stringent and thorough planning of skills development based on labour market information.
- Focus on the school to work transition of learners through programmes which will prepare them for employment opportunities.
- Build innovative capacity by adopting special programmes for learners who excel.
- Address the special needs of learners from poor, rural and disadvantaged communities, and learners who are at risk of failure or dropping out of school.

Table 1: Summary of Policy Trends and Implications for the HRD Strategy in KZN (Supply Side)

SUMMARY OF POLICY TRENDS AND IMPLICATIONS FOR THE HRD STRATEGY IN KWAZULU-NATAL SUPPLY SIDE CONSIDERATIONS		
HRD FOCUS AREA	**POLICY PROVISION, PRIORITIES AND TRENDS**	IMPLICATIONS FOR HRD
Early Years and ECD **Key Policy Documents:** **White Paper No. 5 on Early Childhood Development** **Section 26 of the Bill of Rights in our Constitution, 1996**	• Promoting the quality, equity and cost effectiveness of ECD; • Establishing norms and standards for ECD practice, ECD funding and ECD practitioners; • Provision and management of ECD subsidies in order to promote equity and quality; • Accreditation of ECD providers to maintain standards and promote quality; • The provision and accessibility to adequate learning materials; The inclusion of reception year within the public primary school system and the adoption of reception year and earlier programmes within community-based sites.	• **Ensuring that there is equity in the quality of ECD, and, in particular, ensuring that services to rural areas and disadvantaged communities are not compromised.** • **Interventions should be made to expose rural and disadvantaged children to stimulating experiences to build a basis for learning.** • **Ensure the accessibility to ECD facilities.**
Ordinary Schooling or Foundational Learning **Key Policy Documents:** **National Education Policy Act No 27 of 1996** **South African Schools Act (SASA) No 84 of 1996** **Education White Paper 6 on Inclusive Education** **Education White Paper 7 on e-Learning** **Revised Curriculum Statements for Grades R-9, and Grades 10-12;** **Educational provisions of HRDSA** **Output 1: Improved Quality Basic Education** **General Notice 752 or 2010 on an Action Plan to 2014 - Towards the**	• Inter-Departmental Partnerships and Collaboration • Regular Assessment to Track Learner Progress • Improved Teacher Capacity and Practices, • The Availability of Learning Materials to all Learners • Improved Quality of ECD • Strengthening School and District Management • Enhanced Learner Performance • Focus on science, maths, ICT • Promoting Equity in Resourcing of Schools • Health Promotion and Social Welfare of Learners and Teachers • Specialist Services for Learners with Learning Difficulties • Promote Adult Literacy and Numeracy • Focus on ICT for all secondary schools, for ABET and all public servants	• **Enhanced teacher development.** • **Improved efforts to address the social welfare of learners.** • **Promoting enhanced learner performance, particularly in maths, science, technology and ICT.** • **More interventions to serve learners who are at risk.** • **Promoting literacy and numeracy.** • **Tracking learner performance so as to understand and ensure that specific learner communities are not disadvantaged.**

Realization of Schooling 2025 **New Growth Path**		
Post School Education and Training **Key Policy Documents:** **White Paper for Post School Education and Training** **National Development Plan** **A range of other policy documents from the TVET sector and higher education** **New Growth Path**	• Access and Equity – Increasing Enrolments • Improving the Quality, Quantity and Diversity of Provision • Enhancing Cohesion and Articulation of the Post School System • The Promotion of Economic Linkages and Responsiveness to the Labour Market through Industry Partnerships • More Effective Management of the Feeder System for TVET Education • Alignment and Rationalization of Regulatory Agencies • Establishment of Community Education and Training Centres • Promotion of Workplace learning • Flexible and Diversified Mix of Programmes • Promotion of Research and Innovation • Maximizing Throughput of Learners • Networking Providers in Flexible and Innovative Modes of Delivery – Open and Distance Learning	• **Ensuring that the programme structure and mix in TVET and HEIs are responsive to social and economic priorities.** • **The creation of partnerships in post school education and training in order to promote the workplace learning of learners.** • **Initiatives must be in place to improve learner access, progress and success.** • **Ensure that all communities have access to skills development.** • **Ensure that successful TVET learners have options in higher education institutions.** • **Formulation of public-private delivery networks for TVET.**
Worker Education, Skills and Artisan Development **Key Policy Documents:** **Skills Development Act** **Skills Development Levies Act** **Outcome 5** **Commitments 1,2,4 and 5 of the HRDSA** **Provincial Growth and Development Strategy** **NSDS111** **National Skills Accord**	**Established Policy Trends and Priorities** • Massification of skills development delivery • Initiatives to promote enhanced performance of TVET colleges • Increased supply of learnerships and artisans • Focus on the unemployed and disadvantaged • Spatial focus – access to occupationally-directed programmes in needed areas • Building human capital for research and innovation • Programmatic focus – focus on programme areas needed for accelerated economic growth • Creating the foundation for learning in the early years – ECD • Equity impact – promoting equity in skills development	• Expand TVET so that all geographic **areas are served.** • **Create partnerships for workplace experience.** • **Place emphasis on the transition from school to work, and on more guidance to learners in making this transition.** • **Embark on initiatives to enhance the quality of TVET delivery.** • **Strengthen skills planning and ensure the availability of labour market information.** • **Conduct analysis of training needs on the basis of specific economic sectors.** • **Ensure special programmes for addressing the skills**

White Paper on Post School Education and Training; **Delivery agreement 5** **New Growth Path** **PGDP for Kwazulu-Natal** **NDP**	• Emphasis on workplace-based skills development • Entrepreneurial development • Career and vocational guidance • Maximizing the efficiency in skills supply • Importance of a sound foundation in general education • Commitment to youth development • Recognition of prior learning (RPL) • Focus on the unemployed **Emergent and New Policy Proposals and Priorities** • Initiatives to enable more effective school to work transitions • Integrated institutional mechanisms for skills planning • New institutional arrangements • Reconsideration of funding policy for TVETs • Creation of "second-chance" programmes • Code of decent conduct, code of ethics and good citizenship • Diversified programming structure or programming architecture reflected in mix of programmes in structure • Establishment of a sector focus in skills development • Defining a specific role for SOEs in skills development • Incentives to promote an increase in private spending on training	**development needs of out-of-school youth.** • **Diversify the programme structure of TVETs and HEIs in order to ensure responsiveness.** • **Skills development should address life skills for employability.** • **Skills development should address values and ethics.**
Youth Development **Key Policy Documents:** **Integrated Youth Development Strategy 2011-2021** **HRDSA** **NSDS111** **National Youth Development Policy Framework 2002-2007**	• An Integrated and coordinated package of service for youth • Social cohesion and youth volunteerism • Creating enabling environment for youth to participate in the economy • Consideration of youth as a very diverse and special target group • Professionalization of youth work • Multi-sectoral responses for service to youth • Priority of youth health and wellbeing • Education and skills development for youth • Life skills for sustainable development	• **Integration of youth development programmes in the province.** • **Consideration of youth work as a scarce and critical skill, and the provision of bursaries so that all communities have youth workers.** • **Development of an integrated strategy for youth development in the province.** • **Provision of a diverse array of services to a diverse population of youth.**

National Youth Policy 2009-2014 **National Youth Development Agency Act No 54 of 2008** **White Paper on Social Welfare (1997)** **Youth community ambassador framework - KZN**	• Uniqueness of programme design approaches	
Adult Education and Training **Key Policy Documents:** **White Paper on Post School Education** **KZN Adult Basic Education and Training** **NSDS111** **New Growth Path**	• Community education and training centres • National registry of AET private providers • Employment related focus of AET • Community-based lifelong learning • Articulation of AET with the post school sector • Diversify AET delivery • Delivery networks for AET • Norms and standards for PALCs • Responsiveness to the needs of learners • Entry point for further learning • Focus on ICT training for AET	• Focus on programmes for adults and out-of-school youth. • Development of programme delivery networks for AET to youth and adults. • Ensuring equity and quality in all AET provision. • Movement to employment-related AET programming. • Establish a provincial registry of AET providers. • ICT training in AET

1.4 Policies Affecting the Productive Engagement of People – Employment Demand and Other Opportunities for Engagement

The traditional approach to an HRD strategy seeks to align the interface between the supply of skilled people by institutions and the demand for these skills in the economy. While the HRD strategy for the province is also centred on this approach, it has established a wider definition of demand. In the context of this strategy, the term employment demand is substituted with the term "productive engagement of people". Consistent with the definition of HRD posed in the first chapter, the strategy seeks to ensure that all people are developed to their full potential, and that all are then productively engaged in society – either economically or socially. In this sense, "getting the best of our people" in the province means that we develop and utilise our people to the fullest. The productive engagement of people, therefore, is not limited to the economic consequences or successes in the labour market, but it is extended to the role people play in building and sustaining better communities, and in advancing the general welfare of society. This extended definition is not contrary to policy trends since it embraces and seeks to advance the social cohesion dialogue. What this definition highlights, is that people should be prepared for, and opportunities should be created to enable their productive engagement and to ensure, among other goals, social cohesion in society. Hence, part of the policy focus in considering the

productive engagement of people is the opportunities that are created in society for social cohesion and the extent to which social infrastructure is established to build and sustain the welfare of communities.

Accordingly, this section of the chapter looks at policy trends for the productive engagement of people in the economic context as well as in the social context. The policy context for HRD in each of these areas will be reviewed, and the implications for HRD will be highlighted. In the final chapters, these implications have been considered in crafting the strategic options for HRD in the province.

1.4.1 Employment Demand and Economic Engagement of People

Policies on employment demand are primarily concerned with the creation of employment through an approach to industrial restructuring which enables both economic growth and job creation. Generally referred to as labour absorptive economic growth, many strategic proposals and many policy initiatives seek to create an economic environment that will foster economic growth and create jobs. This section of the chapter presents a brief overview of the major policy trends which seek to boost employment demand. These policy trends are evident in a wide variety of policy documents at both the national and provincial levels. The main documents at the national level are: the National Development Plan (2011); the Industrial Policy Action Plan 111 (IPAP111) (2011); the Regional Industrial Development Strategy (2010); the National Industrial Policy Framework (2010); the National Spatial Development Perspective (2011); and the New Growth Path (2011), among others. These documents make a variety of policy proposals for creating an environment for the prioritized industrial sectors to perform well, and hence create jobs. The policy initiatives are therefore those initiatives which serve to create an economic environment for labour absorptive growth.

There are a variety of social, economic and technical factors which influence the success of firms in the various economic sectors, and hence influence the number and types of jobs created. To the extent that there are policy drivers which create favourable conditions for growth, then, it is more likely that the economy in the area will begin to generate jobs. The policy trends to be reviewed are the policy trends which are focused on creating a favourable environment for labour absorptive growth. There are 7 policy trends that are important in the context of the HRD strategy. These trends are listed below, and each is discussed briefly in the annexure. At the end of the section the implications for HRD are noted.

- Industrial Development which focuses on Industrial Restructuring
- Embedding in Industrial Strategies, Initiatives for Employment Creation
- Outlining Industrial Strategic Priorities for Employment Creation – Targeting Sectors and Jobs to be Created
- Addressing in Industrial Policy the Social Dimensions of Employment Creation
- Addressing in Industrial Strategy the Spatial Dimensions of Employment Creation
- Promoting Self Employment to Boost Economic Opportunities
- Promoting Stakeholder Participation so that Joint Responsibility is taken for Labour Absorptive Growth

Table 2: Prioritization of Sectors in Key Policy Documents

PRIORITIZATION OF SECTORS IN KEY POLICY DOCUMENTS					
SECTOR/ CATEGORY	KEY POLICY DOCUMENTS				
	NEW GROWTH PATH	**NATIONAL DEVELOPMENT PLAN**	**IPAP 2**	**KZN INDUSTRIAL DEVELOPMENT STRATEGY**	PGDS /KIDS/ PSEDS
Agriculture, Forestry, Fisheries	Agricultural smallholder schemes Agro-processing Agriculture value chain	Agriculture & Agro-processing	Agro-processing linked to food security and food policy imperatives Forestry, paper, pulp	High value agriculture Wood and wood products	**Wood and wood products** **Agri-business and food processing**
Manufacturing	Manufacturing sectors of IPAP2	No prioritization of the sector	Automotive products and components Plastics Pharmaceuticals and chemicals Clothing, textiles, footwear, leather Biofuels Furniture Aerospace Advanced materials	No prioritization of the sector	**Clothing and textiles** **Heavy and light industry and manufacturing**
ICT	ICT	No prioritization of the sector	No prioritization of the sector	ICT and electronics	**ICT and electronics**
Energy	No prioritization of the sector	No prioritization of the sector	Nuclear	No prioritization of the sector	**No prioritization of the sector**
Mining and Quarrying	Mining value chain Beneficiation strategy to support fabrication	Mining and quarrying Supplier industries to mining sector	No prioritization of the sector	No prioritization of the sector	**No prioritization of the sector**

		Downstream beneficiation			
Services	Social capital and public services	IT enabled business services Business process outsourcing	Business process servicing Cooperative buying	No prioritization of the sector	**Financial, social, transport, retail and government**
Green Economy	Green economy	Waste re-utilization Expand renewable energy sources	No prioritization of the sector	No prioritization of the sector	**No prioritization of the sector**
Infrastructure /Construction	Infrastructure	Supplier industries to construction Infrastructure maintenance	No prioritization of the sector	No prioritization of the sector	**No prioritization of the sector**
Tourism	Tourism and high level services	No prioritization of the sector	Linkages between cultural industries and tourism	Tourism Linkages between cultural industries and tourism	**No prioritization of the sector**
Creative Industries	**No prioritization of the sector**	**No prioritization of the sector**	**No prioritization of the sector**	**Crafts, film, music**	Arts and crafts Film, music

1.4.1.1 Fourth Industrial Revolution

In addition to policy trends affecting the economic engagement of people, the literature on the fourth industrial revolution shows that the demand for skills globally is shifting due to leaps in IT. The fourth industrial revolution is a period that is building on the use of electronics and information technologies and includes a "fusion of technologies that is blurring the lines between the physical, digital, and biological spheres" (Schwab, 2016).

At the opening address of the 26th World Economic Forum on Africa, several African leaders recognised the significance of the Fourth Industrial Revolution. "Akinwumi Ayodeji Adesina, President, African Development Bank (AfDB), Abidjan, and a Co-Chair of the World Economic

Forum on Africa, said that Africa has 'no choice but to be ambitious' in embracing the Fourth Industrial Revolution" (World Economic Forum, 2016). Graça Machel, Founder, Foundation for Community Development (FDC), Mozambique, and a Co-Chair of the World Economic Forum on Africa said that "It is crucial that the Fourth Revolution 'does not leave anyone behind'" (World Economic Forum, 2016). Furthermore, "Africa should use the opportunities presented by the Fourth Industrial Revolution to transform itself into a full partner on the global stage, said Paul Kagame, President of the Republic of Rwanda" (World Economic Forum, 2016).

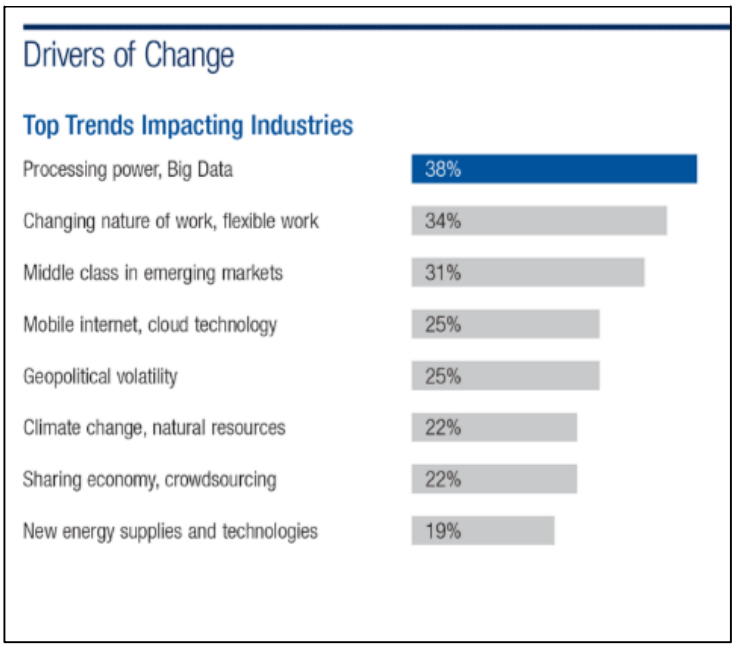
Schwab argues that governments will face new challenges as the Fourth Industrial Revolution develops. He says: "Ultimately, the ability of government systems and public authorities to adapt will determine their survival. If they prove capable of embracing a world of disruptive change, subjecting their structures to the levels of transparency and efficiency that will enable them to maintain their competitive edge, they will endure. If they cannot evolve, they will face increasing trouble" (Schwab, 2016). In order to embrace the Fourth Industrial Revolution "…governments and regulatory agencies will need to collaborate closely with business and civil society" (Schwab, 2016) and adapt policy and procedures to be in line with the rapid pace of change.

The World Economic Forum (WEF) states that "the Fourth Industrial Revolution has the potential to raise global income levels and improve the quality of life for populations around the world… At the same time, as the economists Erik Brynjolfsson and Andrew McAfee have pointed out, the revolution could yield greater inequality, particularly in its potential to disrupt labor markets. As automation substitutes for labor across the entire economy, the net displacement of workers by machines might exacerbate the gap between returns to capital and returns to labor" (Schwab, 2016).

WEF report says that in South Africa, more jobs are going to be displaced than created due to the new IR and that this impact is already being felt (World Economic Forum, 2016).

The World Economic Forum developed a country profile on South Africa. The bar chart represents a share of survey respondents across industries who selected the trend/disruptions as one of the top three drivers of change affecting their industry.

Figure 2: South African Drivers of Change, World Economic Forum



1.4.2 Social Cohesion and Social Engagement of People

Productive engagement of people does not only refer to employment, it also refers to the opportunities that are provided for people, particularly youth, to participate fully in society by rendering services, nurturing positive bonds and by being empowered to make responsible decisions about themselves, others and their environment. From the demand perspective, the concern here is about opportunities created in society to foster social engagement and promote social cohesion. To the extent that there are such opportunities, then people in communities, particularly youth, can be

productively engaged in ways which benefit society. While there is much reference to social cohesion in recent policy documents, and while social cohesion is widely recognized as beneficial to society, such programmes are not formalized, not integrated and are rarely supported at a level where the impact is significant. One key consideration, therefore, is the adequacy of the structures and initiatives to promote social cohesion. Many policy initiatives have been made to foster this social engagement in a wide variety of policy fields – from education and social welfare, to economic and industrial policy. In integrating the policy priorities in other documents, the IYDS (2011) has presented the most comprehensive documentation of social cohesion initiatives for youth. The key priorities in establishing social cohesion and promoting productive social engagement among youth and adults are itemized and discussed below.

- Volunteerism
- Sports, Arts, Culture and Heritage
- Civic responsibility and participation

Table 3 presents a summary of policy trends related to the economic and social engagement of people and the initiatives of these trends for human resource development in the province.

Table 3: Summary of Policies affecting the Social and Economic Engagement of People - Implications for the HRD Strategy

SUMMARY OF POLICY TRENDS AFFECTING THE ECONOMIC AND SOCIAL ENGAGEMENT OF PEOPLE - IMPLICATIONS FOR THE HRD STRATEGY		
POLICY CATEGORY	**POLICY TRENDS**	IMPLICATIONS FOR HRD
Employment Demand and the Economic Engagement of People	Industrial development to transform the industrial infrastructure	**The supply of skills must respond to patterns and priorities of this transformation** **Assess geographic skills demand and opportunities available** **Assess the need of particular economic sectors in particular geographic zones** **Create structures to link industrial policy with HRD policy and structure** **Promote institutional responsiveness to restructuring trends** **Systems and structures to guide people into opportunities that were previously unavailable** **Promote training for entrepreneurial interventions in previously closed economic sectors**
	Embedding in industrial strategies, initiatives for employment creation	**Target prioritized areas for job creation so that the appropriate skills are available** **Conduct analysis of the types of jobs to be generated in particular sectors and the implications for the education and training community** **Embrace HRD and labour market planning and infrastructure as part of the job creation and provincial planning agenda**

		Create integrated institutional structures for managing and monitoring job creation initiatives, and for soliciting appropriate response from educational institutions
	Outlining in industrial strategy priorities for employment creation	**Priorities for employment creation must inform priorities for skills development** **The targets set for employment creation must inform skills development and the development of industry partnerships** **Research on industrial sectors must first focus on the sectors identified for job creation** **TVET Colleges should programme delivery in line with prioritized sectors and occupations**
	Addressing in industrial policy the social dimensions of employment creation	**Need for TVET and skills development delivery in rural and poor locations** **The structure of support services in TVET and HEI should address the needs of the poor and disadvantaged** **Worker education programmes should provide support services for participation of the disadvantaged** **Educational structures (primary and secondary) must provide spatial programmes for "at risk" learners**
	Addressing in industrial policy the spatial dimensions of employment creation	**There must be a proper geographic mapping of skills development opportunities, and initiatives taken to ensure major populations are not denied opportunities** **HRD planning must be responsive to economic spatial mapping in order to ensure that departmental educational institutions can respond to current and emerging needs** **Need for spatial planning of HRD**
	Promoting entrepreneurship and self-employment to boost economic opportunities	**Need to educate for entrepreneurship** **Need to pursue entrepreneurial development in all major economic sectors** **More programmes must be developed on cooperatives; home-based industries and school-based business entities**
	Promoting stakeholder participation	**Stakeholder participation is essential in HRD planning, restructuring and processes of delivery** **The involvement of unions is essential in all aspects of HRD but particularly in monitoring and managing worker education** **Maintenance of labour peace is essential to productivity and to the long term welfare of workers and those they serve**
Social Cohesion and the Social	Volunteerism	**Coordination of opportunities for volunteerism** **Civic responsibility and volunteerism programmes in schools, TVETs and HEIs.**

Engagement of People		**Development of youth work as a scarce skill to be used in the development of communities and in advancing the welfare of youth.** **Volunteerism programme for talented professionals to serve in schools and communities; particularly in programmes in which it is difficult to find qualified instructors.** **Providing stipends for youth who volunteer to get practical experience at workplaces.**
	Sports, Arts, Culture, Heritage	**Assessment of opportunities for participation in sports, arts, culture and heritage activities on a district level.** **Establish and support organizations, leagues, home industries, cultural precincts and other outlets for talent in communities** **Establish regional academies for the nurturing and development of talent in sports, arts and culture to include all the cultural and creative dimensions; cultural and national heritage; performance and celebration; visual arts and crafts; information books and press; audio visual and interactive media; design and creative sciences; tourism and sports.**
	Civic responsibility and participation	Civic education programmes in educational institutions and in community development programmes. Youth networks to create opportunities for them to engage socially and participate in development activities. Central coordination of programmes and opportunities to build and benefit from the talent of young people. Social responsibility and social cohesion programming in IDPs.

2. The Development of People and the Supply of Skills

2.1 Introduction

Human resource development is part of human development, and is concerned about the manner in which society prepares people for self-sufficiency and for productive engagement in society. The development of people is concerned with people and their circumstances, and with the opportunities that are available for them to reach their developmental potential, or to overcome the circumstances which may prevent them from doing so. Human resource development is concerned with all individuals in society, from birth to death; it is concerned with their current level of development and their potential to develop; with the level and accessibility of opportunities for their growth, and the manner in which these opportunities are accessed and utilized; and with the overall productivity of provincial education and training structures in generating a population that will build communities, preserve the welfare of families and contribute to the social and economic welfare of the Province. The purpose of this chapter is to examine one of the core considerations of HRD: the development of people in the Province or, what is generally referred to as the "supply of skills". The chapter will look at people and their circumstances and will thereby assess the human resource capacity of the Province. The chapter will also examine the skills supply stream and assess the provincial capability and effectiveness in building human resource capacity to meet the social and economic needs and priorities of the Province.

In this regard, the chapter will begin with a demographic profile of the province which will describe the province's current human resource base, its human resource potential, and the circumstances which may advance or limit the engagement and contribution of people in productive roles. The chapter will also look at the skills supply stream, or the education and training opportunities that are available to build human resource capacity. The chapter will end with a general overview of the capacity of the province to develop its people, and with an overall summary of the issues which affect "skills supply". The chapter is therefore divided into 5 major sections as follows: (1) the demographic profile of the Province; (2) the skills supply stream; (3) an overview of provincial capacity; (4) a review of issues affecting skills supply; (5) A brief summary and conclusion with an overview of strategic implications.

2.2 Demographic Profile of the Province

The following overview of the demographic profile of the province looks at 6 aspects of the province's demography as noted in Table 4. These are as follows: (1) the population profile; (2) poverty and inequality; (3) health and welfare; (4) the educational level of the population; (5) the skill level of the population; and (6) the status of household infrastructure. These are the social and demographic factors which are seen to have an effect on individual and institutional performance in education and training. Each of the sub-sections is addressed separately below.

Table 4: Presentation of Demographic Profile

DEMOGRAPHIC PROFILE	STRATEGIC IMPORTANCE FOR HRD
Population Profile by Districts Age cohorts Population density and distribution Life expectancy	**The people potential of the province lies in its overall population and in the distribution and characteristics of the population. Planning for HRD must be informed by**

Migration characteristics Infant mortality	**the distribution and characteristics of the base population.**
Poverty and Inequality	**Poverty and inequality affect the capacity of people to access, participate in and benefit from opportunities for their development. Poverty also creates conditions which result in under-achievement and under-performance of children and young people.**
Health and Welfare HIV and AIDS and other communicable diseases Teenage pregnancy Infant welfare	**The health and welfare of the population affects the availability of people to contribute to society, and it affects the productive capacity of the province. Issues related to health and welfare also affect participation and success in education and training.**
Educational Level of the population General Employed Unemployed Literacy and Numeracy Rates	**The educational level of the population signals the capacity of the province for enhanced productivity, and it indicates the potential for social cohesion. In an economy where most of the sectors are becoming highly skill-based and capital-intensive, the education level of the population is an essential consideration in HRD.**
Skill Level of the Population	**The skill distribution and characteristics of the population and of various sectors in the economy are critical factors in planning and managing the development of various economic sectors and in developing the education and training infrastructure in various localities to serve these sectors.**
Household Infrastructure Sanitation facilities Electrical connections Water provision	Household infrastructure is related to poverty, income and inequality, and it affects the ability of children in these households to maximize the benefit they receive from education and training opportunities.

2.2.1 Population Profile

2.2.1.1 Age Cohort

Age cohort by district is presented in Tables 5 and 6. Table 5 presents the KZN population by age cohorts for the years 2001, 2011 and 2015 and presents information on the cumulative change in population over the 10-year period. Table 6, on the other hand, presents population by age for each district municipality. The data in the tables reveals the following.

- The population of the Province is 10,864,049. A total of 34% of the province's population resides in eThekwini, followed by uMgungundlovu (10%), uThungulu (9%), Zululand (8%) and Ugu (7%). The least populous districts are Sisonke (4%) and Amajuba (5%).
- About 4.4 million or 41% of the population is of school age (0-19 years), with 1.2 million or 11% of the population below age of 4.
- According to the definition of youth as individuals between the ages of 15 to 35 years of age, about 4.2 million or 39% of the province's population fit within this category.

- Of all the districts, uMkhanyakude and Zululand have the highest population of children in school with approximately 47% (reduced from 54% in 2011) of the population below the age of 20.
- Between 2011 and 2015, the proportion of the population in the youth category (15-35) has changed from 3,932,082 representing 38% of the population in 2011, to 4,225,862 representing 39% of the population.
- Kwazulu-Natal's share of the national population decreased from 22% in 2001 to 20% in 2011, and remains at 20% in 2015.

Table 5: KZN Population by Age Cohort for 2001 and 2011

KZN POPULATION BY AGE COHORT FOR 2001, 2011 and 2012								
Age Cohort	**2001**	**%**	**2011**	**%**	**Cumulative Change 2001-2011**	**2015**	**%**	**Cumulative Change 2011-2015**
0-4	1,226,022	13	1,198,134	12	-27,888	1,243,565	11	45,431
5-9.	1,228,580	13	1,042,528	10	-186,052	1,146,628	11	104,100
10-14.	1,161,534	12	1,038,857	10	-122,677	1,028,069	9	-10,788
15-19	1,069,722	11	1,119,535	11	49,813	1,019,023	9	-100,512
20-24	938,824	10	1,102,388	11	163,564	1,073,208	10	-29,180
25-29	835,220	9	980,929	10	145,709	1,138,640	10	157,711
30-34	599,610	6	729,230	7	129,620	994,991	9	265,761
35-39	508,694	5	612,615	6	103,921	729,303	7	116,688
40-44	450,700	5	499,102	5	48,402	517,269	5	18,167
45-49	379,359	4	454,637	4	75,278	402,582	4	-52,055
50-54	334,531	4	384,397	4	49,866	372,406	3	-11,991
55-59	263,979	3	325,571	3	61,592	328,961	3	3,390
60-64	208,250	2	271,326	3	63,076	279,254	3	7,928
65-69	146,629	2	175,673	2	29,044	230,493	2	54,820
70-74	103,728	1	137,821	1	34,093	161,412	1	23,591
75+	101,783	1	194,558	2	92,775	198,247	2	3,689
TOTAL	9,557,165		10,267,300		710,135	10,864,049		45,431

Source: Stats SA Supercross: Census 2011, Global Insight 2016

Table 6: Population by Age for each District Municipality

STATS SA: CENSUS 2011 AGE IN COMPLETED YEARS BY DISTRICT MUNICIPALITY																						
AGE GROUP	Ugu	%	uMgungundlovu	%	uThukela	%	uMzinyathi	%	uMkhanyakude	%	uThungulu	%	Sisonke	%	Amajuba	%	Zululand	%	iLembe	%	eThekwini Metro	%	PROVINCIAL TOTAL
0 - 4	91,391	12	108,296	10	92,071	13	75,172	14	94,051	14	115,775	12	65,496	14	60,218	11	115,232	14	81,151	13	344,711	9	1,243,565
5-9	81,559	11	101,421	9	87,155	13	73,150	14	88,825	13	107,383	11	60,891	13	62,657	12	112,556	14	70,711	11	300,321	8	1,146,628
10-14	71,977	10	91,528	8	75,510	11	65,603	12	81,275	12	98,633	10	52,184	11	54,273	10	100,721	12	62,579	10	273,788	7	1,028,069
15 - 19	73,399	10	95,852	9	67,634	10	59,727	11	74,512	11	96,493	10	50,875	11	52,265	10	91,258	11	61,394	10	295,613	8	1,019,023
20 - 24	66,522	9	110,320	10	59,140	9	43,637	8	61,106	9	93,815	10	42,334	9	50,074	10	76,647	9	60,782	9	408,831	11	1,073,208
25 - 29	71,045	9	115,704	11	64,691	9	42,109	8	57,476	9	96,631	10	40,649	9	50,214	10	74,121	9	66,300	10	459,698	12	1,138,640
30 - 34	60,531	8	107,226	10	57,008	8	37,003	7	47,588	7	82,017	9	35,963	8	45,159	9	59,151	7	57,781	9	405,564	11	994,991
35 - 39	46,226	6	86,400	8	41,711	6	27,761	5	34,991	5	58,276	6	27,081	6	33,552	6	41,771	5	42,785	7	288,749	8	729,303
40 - 44	33,135	4	59,380	5	29,307	4	20,517	4	25,306	4	38,870	4	19,851	4	22,818	4	29,829	4	29,523	5	208,733	6	517,269
45 - 49	28,853	4	42,804	4	22,927	3	16,680	3	19,658	3	31,352	3	15,302	3	17,217	3	24,070	3	22,446	3	161,274	4	402,582
50 - 54	26,234	3	38,342	4	21,409	3	14,526	3	18,613	3	30,048	3	14,910	3	18,476	4	24,681	3	19,554	3	145,613	4	372,406
55 - 59	22,711	3	36,702	3	20,127	3	14,582	3	14,001	2	25,025	3	13,050	3	17,329	3	22,148	3	17,166	3	126,120	3	328,961
60 - 64	22,061	3	31,077	3	17,974	3	12,842	2	10,777	2	20,965	2	11,517	2	13,719	3	16,707	2	16,421	3	105,194	3	279,254
65 - 69	20,283	3	24,695	2	13,713	2	11,978	2	9,726	1	16,634	2	10,150	2	11,602	2	14,111	2	13,624	2	83,977	2	230,493
70 - 74	15,212	2	16,556	2	9,811	1	7,701	1	8,472	1	12,632	1	6,144	1	7,874	1	11,645	1	9,404	1	55,960	2	161,412
75+	19,548	3	22,345	2	11,293	2	9,399	2	11,951	2	15,912	2	7,176	2	8,284	2	14,835	2	11,214	2	66,288	2	198,247
TOTAL	750,688 (7%)		1,088,640 (10%)		691,480 (6%)		532,386 (5%)		658,328 (6%)		940,461 (9%)		473,572 (4%)		525,733 (5%)		829,484 (8%)		642,835 (6%)		3,730,434 (34%)		10,864,049

Source: Stats SA Supercross: Census 2011, Global Insight 2016

2.2.1.2 Population Density and Distribution

Kwazulu-Natal is, for all essential purposes, a relatively rural province, with 54% of the population residing in rural areas, and 53% of the population residing in the 3 district municipalities which contribute the most to the economy of the province. As a result, 48% of the population resides in areas where economic development is lagging. The majority of women and school children reside in rural KZN. At the end of this chapter, in Table 18, the rural/urban distinction is mapped against other social, economic and educational factors to show the level of disadvantage suffered by rural residents in respect of education and development.

2.2.1.3 Life Expectancy

Growth rate and lower fertility rates have resulted in a declining population growth rate in the Province. Between 2001 and 2011, the population growth rate has decreased from .47% to .28%. Adult life expectancy at birth has decreased from 53 years in 1996, to 51.6 in 2000 and 43 years in 2009. Life expectancy has now increased to 48 years according to the 2011 census. The decrease in life expectancy between 2001 and 2009 resulted from the high adult mortality rate due to the impact of HIV and AIDS. However, some gains in the fight against HIV and AIDS are beginning to change this trend. Adult mortality rate was estimated at 72% in 2008 and 75% in 2009. Population growth rates and life expectancy differ by municipal districts and local municipalities. Although a comprehensive analysis has not been conducted on these differences, preliminary analysis seems to indicate lower life expectancy in poorer and more disadvantaged communities. The data on population growth, life expectancy and the impact of HIV and AIDS signals a significant decline in the most productive cohorts of the population that should normally be available to enter the labour force as highly skilled individuals.

2.2.1.4 Migration Characteristics

Internal and external migration data raises concerns about the management of the province's human capital. Migration statistics show that KZN is a net exporter of people and skills to the rest of the country with significant outflows towards Gauteng, the Western and Eastern Cape and Mpumalanga. Although the Province is a net exporter of people, there is significant in-migration from Gauteng, Mpumalanga and the Eastern Cape. Within the Province, there is a net of flow of people, talent and skills from rural areas into the urban centres and metropolitan areas. Because of the level of under-development in most of the rural areas, people move toward the metropolitan areas in order to seek employment and in order to capitalize on educational opportunities that would create a better life for them. The effective use of the human resources of the province is inextricably linked to the geographic distribution of economic and educational infrastructure, and to the geographic distribution of educational infrastructure and opportunities. From a spatial perspective on the development of the Province, migration patterns are critical in planning and delivering services in education and training.

2.2.1.5 Infant Mortality

In spite of the efforts made by the flagship programmes of KZN's social cluster, such as Sukuma Sakhe, under 5 mortality rate in the province was estimated at 90% in 2008 and 88% in 2009 and 85% in 2011. Although the rate is declining, it is still excessively high, and may even be higher in rural and poor communities.

2.2.2 Poverty and Inequality

Poverty and inequality limit the capacity of people to realize their full potential. They introduce bias in the availability of opportunities, inequities in the potential to achieve economically or educationally, and limitations in the overall capacity of the poor to be successful. HRD in KZN is most heavily affected by these limitations. A variety of measures are used in order to derive a comprehensive assessment of poverty and inequality in the province. One of the primary concerns in the analysis is the variation of poverty and inequality on a geographic basis, and hence, the vast differences in opportunities to succeed depending on place of residence within the province. Seven measures are used to assess poverty and inequality in the province. These measures are explained in Table 7 and each of the measures is discussed briefly below.

Table 7: Measures of Poverty and Inequality

MEASURES OF POVERTY AND INEQUALITY		
MEASURE	**MEASUREMENT**	**STATUS IN THE PROVINCE**
Human Development Index (HDI)	The HDI is a composite index that quantifies the extent of human development based on social/economic indicators such as life expectancy, literacy, per capita income. It is a general measure of the quality of life of the population.	**HDI for the province is currently 0.61. GDP and educational attainment index have contributed to HDI values while the decline in life expectancy due to HIV and AIDS have detracted from HDI values.**
Income distribution	Income distribution reveals the percentage of the working population who fit into particular income categories.	**Almost 50% of the working population in KZN earn less than R1,600 per month. Only 5.3% of the working population between 15 and 65 earn over R12,800 per month.**
Poverty rate	The poverty rate is the percentage of people living below the poverty line.	**In KZN, there are 50% of people living below the poverty line. Poverty rate in districts differs. In uMkhanyakude, for instance, 72.5% of people live below the poverty line; in eThekwini, only 29% of people live below the poverty line.**
Poverty Gap	The poverty gap measures the difference between each poor household's income and the poverty line. The aggregate poverty gap is the total amount by which the incomes of poor households need to be raised each year to bring all households up to the poverty line.	**The province required R7 billion in 2003 to bring all households out of poverty. This was increased from R4 billion in 1996. The poverty gap varies by districts with Amajuba, for instance, requiring only R350 million and eThekwini requiring R1.3 billion.**
Per Capita income	Per capita income is the annual average income in the province for one person.	**In 2003 per capita income for KZN was R14,719. If examined by race, whites have the highest per capita income with R64,258 per year, followed by Indians with R29,432, and coloured with R28,278. Africans are the lowest per capita income with R9,208 for the same period.**

MEASURES OF POVERTY AND INEQUALITY		
Gini coefficient	The Gini coefficient measures the skewness in income distribution, and is a summary statistic for income inequality with 0 indicating perfect equality, and 1 indicates perfect inequality where one household earns all the income and other households earn nothing.	**In 2003 the Gini coefficient for KZN was .64, having increased from .60 in 1996. Income equality differs by race with Africans having the highest level of income equality. In 2011 the Gini Coefficient for KZN us .68**
Africans in Poverty	Africans in poverty, is part of a categorization of poverty by rate. This is the % of Africans who live below the poverty line. This statistic is critical since 64% of Africans live in non-urban areas as compared to 4% of coloured, 1% of Indian and 6% white.	For all of KZN, 58% of Africans live in poverty. Again, this percentage is highest in uMkhanyakude where 72% of the population live in poverty where the poverty line is defined as $1.25 per day by the World Bank.

2.2.2.1 Human Capital Index (HDI)

The HDI is a composite measure which quantifies the extent of human development, and is a general measure of the "quality of life" in a particular jurisdiction. An HDI of 1 represents a long healthy life with sufficient resources in the community to live decently. An HDI of 0 represents reduced life expectancy, poverty and general absence of opportunities for advancing one's social and economic welfare. As social and economic circumstances change, the HDI index will vary. The HDI for South Africa in 2011 was 0.58 and for KZN it was 0.52. In 2015 it was 0.65 in South Africa and 0.61 in KZN. Overall, the HDI, nationally and in KZN, has grown since 1996, but the HDI for KZN has been consistently below the HDI nationally. While KZN has generally fared well on indicators of economic performance, the dramatic decline in life expectancy in the province since 1996 has affected measures of human development. This is largely because of the impact of HIV and AIDS, with KZN bearing the largest share of the infected population nationally. It is important to note, however, that the HDI for KZN as a whole does not convey an accurate picture of the condition of human development throughout the Province. HDI measures vary province-wide as seen in Table 8. Social and economic conditions in the province vary widely, with the rural areas presenting a less favourable picture on measures of human development.

2.2.2.3 Gini Coefficient

The Gini coefficient measures the skewness of income in the province. In 2003, the Gini coefficient for the province was 0.67, having increased from 0.60 in 1996. The Gini coefficient for the province is estimated at .63 in 2015, down from 64 in 2011. But as shown in Table 8, the Gini coefficient differs by districts. In uMgungundlovu, for instance the Gini coefficient is 0.63, while in uMkhanyakude it is 0.58. Global Insight data reveals that the Gini coefficient is highest and has increased most significantly among Africans.

Table 8: HDI Index: Poverty and Inequality

HDI INDEX: POVERTY AND INEQUALITY								
KZN AND DISTRICT MUNICIPALITY	POPULATION	POVERTY AND INEQUALITY INDICATORS						
		POVERTY RATE %	POVERTY GAP	AFRICANS IN POVERTY %	URBAN-IZATION RATE %	HDI (2015)	GINI COEFFICIENT (2015)	AVERAGE ANNUAL HOUSEHOLD INCOME
KZN	10,864,049	50	7,106	58.6	46.8	.61	.63	**45937**
Ugu	750,688	56.9	561	64.2	14.8	.57	.60	**31661**
uMgungundlovu	1,088,648	47.5	680	57	63.2	.63	.63	**46925**
uThukela	691,480	61.7	525	65.6	30.8	.55	.59	**22581**
uMzinyathi	532,386	62.7	625	64.5	18.7	.52	.57	**19715**
Amajuba	525,733	53.8	350	59	61.6	.59	.62	**37174**
Zululand	829,484	70.2	800	71.9	17.6	.53	.58	**22046**
uMkhanyakude	658,328	72.5	625	73.2	2.4	.52	.58	**28374**
uThungulu	940,461	57.8	808	61.2	18.8	.58	.62	**29538**
iLembe	642,835	59.6	524	64.3	19.2	.58	.60	**22472**
Sisonke	473,572	66.7	339	69.7	13.9	.54	.57	**30597**
eThekwini		29.2	1,267	4.2	87.3	0.67	0.63	64517

Source: Global Insight (2003 and 2016)

2.2.2.4 Income Distribution

Table 9 presents the income distribution per household per year for KZN province and its respective district municipalities.

Table 9: Income Distribution for KZN Households and Respective Municipalities

ANNUAL HOUSEHOLD INCOME DISTRIBUTION 2015																						
INCOME CATEGORY (ANNUAL)	Ugu		UMgungundlovu		Uthukela		Umzinyathi		Umkhanyakude		Uthungulu		Sisonke		Amajuba		Zululand		iLembe		eThekwini Metropolitan		TOTAL
0-2400	134	0	205	0	125	0	101	0	96	0	127	0	125	0	144	0	115	0	107	0	776	0	2,056
2400-6000	1,073	1	1,587	1	1,016	1	708	1	779	1	954	1	893	1	1,132	1	879	1	799	1	6,067	1	15,888
6000-12000	5,395	3	8,136	3	5,007	3	3,383	3	3,904	3	4,651	3	4,317	3	5,696	3	4,474	3	3,903	3	31,961	3	80,825
12000-18000	8,241	4	12,214	4	7,283	5	4,926	4	5,658	5	6,739	4	6,105	5	8,616	4	7,053	4	5,567	5	46,116	4	118,518
18000-30000	18,235	10	25,459	9	16,484	11	11,750	10	11,758	10	15,495	10	14,448	11	18,993	9	15,877	10	12,285	11	89,238	8	250,022
30000-42000	24,883	13	33,730	12	21,794	15	16,490	14	14,977	13	21,495	14	19,418	15	25,363	12	22,372	13	16,398	15	108,686	10	325,607
42000-54000	23,077	12	30,781	11	19,764	13	15,489	13	13,354	12	20,440	13	17,683	13	23,514	11	21,360	13	14,947	13	93,717	9	294,125
54000-72000	22,375	12	31,305	11	18,901	13	15,601	14	13,014	11	20,999	13	17,401	13	24,125	12	21,948	13	15,007	13	94,788	9	295,465
72000-96000	18,484	10	27,302	9	15,173	10	13,119	11	11,202	10	17,941	11	14,275	11	21,256	10	18,569	11	12,468	11	87,256	8	257,045
96000-132000	16,087	9	25,505	9	12,724	9	10,872	9	9,941	9	15,233	10	11,828	9	19,282	9	15,979	10	10,248	9	88,662	8	236,361
132000-192000	14,395	8	24,548	8	10,396	7	8,450	7	8,891	8	11,969	8	9,308	7	17,202	8	12,703	8	7,923	7	98,529	9	224,314
192000-360000	17,405	9	31,367	11	10,921	7	7,764	7	10,247	9	11,527	7	8,797	7	20,203	10	12,803	8	7,100	6	133,913	13	272,048
360000-600000	8,729	5	19,726	7	5,476	4	3,593	3	5,759	5	5,696	4	4,215	3	12,150	6	6,802	4	3,377	3	85,726	8	161,249
600000-1200000	4,913	3	13,187	5	2,744	2	1,863	2	3,305	3	2,903	2	2,064	2	7,204	3	4,300	3	1,698	2	60,051	6	104,232

ANNUAL HOUSEHOLD INCOME DISTRIBUTION 2015																					
1200000 - 2400000	1,239	1	4,275	1	725	0	491	0	945	1	767	0	534	0	2,132	1	1,336	1	469	0	20,490	2	33,403
2400000 +	253	0	980	0	192	0	158	0	258	0	280	0	237	0	630	0	308	0	167	0	4,453	0	7,916
DISTRICT TOTAL	184,917		290,308		148,724		114,758		114,090		157,216		131,646		207,643		166,880		112,463		1,050,429		2,679,074

Source: Global Insight, 2016

Another indicator of social and economic welfare in the province is per capita income. Per capita income in the province has grown over the years. Between 1996 and 2003, for instance, per capita income has grown from R8,782 to R14,719, representing an increase of 68%. But the data on per capita by race, and by districts reveals a more accurate picture of the income structure of the province. While per capita income for the province is R14,719 and has shown an overall growth of 68% over a 7 year period, per capita income for whites was R64,258 with an overall growth of 48%; per capita income for Indians was R29,431 with an overall growth of 68%; per capita income of coloureds was R28,278, with an overall growth of 106%; and per capita income of Africans was R9,208, with an overall growth over the period of 94%. While all areas have benefited from income growth in the province, and while coloureds and Africans have had the most significant growth in income, the per capita income of Africans is still 37% below that for the Province as a whole, 86% below that of whites, 69% below that of Indians, and 67% below that of coloureds. This too, is an indication of poverty in rural areas since 64% of the African population resides in non-urban areas. Urbanization is also associated with lower poverty, but fewer Africans live in poverty in urbanized areas.

2.2.2.5 Poverty Rate

Poverty is measured by income, but it is also measured by the poverty rate and the poverty gap. The poverty rate reflects the number and percentage of people living in poverty, and the poverty gap is the difference in income between poor and rich households. The poverty gap measures the amount by which incomes have to be raised each year to bring all households above the poverty line. Here, the poverty line is defined by an income of US$ 2 per day or R524 a month.

The poverty rate for KZN as a whole is about 50%, indicating that 50% of the population lives below the poverty line. But the poverty rate differs by the respective district municipalities. While in eThekwini the poverty rate is 29.2%, and in uMgungundlovu it is 47.5%, the poverty rate for Zululand is 70.2% and for uMkhanyakude it is 72.5%. While eThekwini has the lowest poverty rate, it has the highest poverty gap, reflecting a high level of inner city poverty. The lowest percentage of Africans in poverty is in eThekwini. Zululand and uMkhanyakude have the highest percentage of Africans in poverty as there are predominantly Africans residing in rural provinces. Table 10 presents the percentage of people living in poverty for each district from 2001 to 2011. Over the 10 year period, poverty has declined consistently, but remains excessively high.

Table 10: Percentage of People Living in Poverty by District for 2001-2011

Percentage of People Living in Poverty in KZN and by District for 2001 - 2011											
DISTRICT	**YEAR**										
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
KwaZulu-Natal	57.7%	59.3%	58.5%	57.9%	56.1%	53.6%	52.2%	53.4%	51.3%	50.4%	48.4%
Ugu	64.5%	66.4%	65.6%	65.2%	63.2%	60.4%	58.4%	59.2%	56.7%	55.9%	53.9%
uMgungundlovu	52.0%	52.9%	52.5%	52.1%	50.4%	48.0%	46.3%	47.1%	45.2%	44.7%	42.7%
uThukela	72.4%	73.8%	73.0%	72.6%	71.4%	69.2%	68.0%	70.0%	67.3%	66.5%	63.7%
uMzinyathi	79.4%	80.7%	78.8%	77.0%	75.2%	72.1%	70.3%	72.0%	67.9%	65.6%	62.1%
Amajuba	64.0%	65.8%	65.1%	64.7%	63.1%	60.7%	58.9%	59.8%	57.5%	56.9%	54.5%
Zululand	78.3%	80.9%	79.7%	78.5%	76.8%	74.3%	73.1%	74.7%	71.3%	70.1%	66.0%
uMkhanyakude	84.2%	85.9%	84.3%	82.4%	81.3%	78.5%	77.6%	79.4%	75.5%	74.0%	70.2%
uThungulu	63.2%	64.5%	64.0%	63.4%	61.4%	58.7%	57.5%	59.0%	57.5%	56.4%	53.3%

iLembe	58.2%	58.3%	57.4%	56.7%	54.6%	50.9%	48.1%	48.2%	45.7%	44.2%	43.7%
Sisonke	77.3%	78.4%	77.3%	77.3%	76.0%	74.2%	73.4%	75.1%	71.7%	70.4%	67.1%
eThekwini	36.4%	38.3%	38.0%	37.6%	35.6%	33.5%	32.4%	33.2%	32.4%	31.9%	31.3%

Source: Quantec 2011

2.2.3 Health and Welfare

While there are several indictors of the general health and welfare, the health and welfare of the population in this section is measured in terms of mortality, life expectancy, the impact of HIV and AIDS and other communicable diseases and the level of access to health services. Health and welfare are considered important as a basis for human development, for maximizing educational potential, and for enhancing the productivity potential of the labour force.

In KZN, limitations in health and welfare begin at birth. Infant mortality in the province is high. Infant mortality of the province is 19 per 1000 and ranges from a low of 16 for eThekwini and a high of 20.2 for Sisonke. The situation becomes clearer with an analysis of the crude death rates in Table 16. The child mortality rate for the province is 6 per 1000 and again, there are inter district differences. The crude death rate for the Province is 20.3 and varies from 19.6 in eThekwini up to 21.2 in iLembe. The crude death rate declines significantly (between 5.9 and 7.7) for age cohorts between 5 and 24 years of age, and increases significantly (22 to 79) for age cohorts above 30 years of age. For people below 65 years of age, the crude death rate is highest among the 35-39 age cohort of the population.

The adult mortality rate is about 40. While there is not a significant difference between districts, the rural districts still show a slightly higher level of adult mortality. An analysis of crude deaths, as presented in Table 16, clearly demonstrates the patterns of adult mortality. Between the ages of 25 and 40 crude death rates for the province increase significantly, moving from 36.5 for the 30-34 age cohorts, and 40.4 for cohort 35-39. Zululand and uMkhanyakude exceed the provincial average with crude death rates of over 41 for the 30-34 age cohort, and over 45 for the 35-39 age cohort. This data clearly shows the ravaging impact of HIV and AIDS and other communicable diseases. This data also shows that the crude death rates are highest in the most productive cohorts of the population, and hence has a most significant impact on the available labour force.

In order to present a clearer picture of the impact of HIV and AIDS, Table 11 shows HIV positive by age group and by districts, and Table 12 shows HIV related deaths by age group and also by districts. The data confirms the observation that the most productive cohorts of the population and the most economically active are heavily impacted and, as a result, the skills base of the province and the future viability of the economy is at risk. Again, the differences between districts are evident, and the demographic aspects of the impact of HIV and AIDS are worth noting.

Table 11: Crude Death Rate by Age Group by District Municipality

CRUDE DEATHS RATE BY AGE GROUP BY DISTRICT MUNICIPALITY 2010												
AGE	KZN	DISTRICTS										
		UGU	UMGUNG.	UTHUKELA	UMZIN.	AMAJUBA	ZULULAND	UMKHAN.	UTHUNG.	ILEMBE	SISONKE	ETHEKWINI
TOTAL	20.3	21.1	21.0	20.7	20.4	21.2	20.2	20.3	20.6	21.2	20.6	19.6
00-04 Year(s)	18.9	19.5	18.4	20.0	20.1	19.8	20.3	20.4	20.1	19.4	20.2	16.6
05-09 Year(s)	5.9	6.2	5.7	6.2	6.3	6.2	6.4	6.4	6.3	6.0	6.3	5.2
10-14 Year(s)	3.0	3.1	2.9	3.1	3.1	3.1	3.2	3.2	3.1	3.1	3.2	2.6
15-19 Year(s)	2.3	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.3	2.3	2.4	2.1
20-24 Year(s)	7.7	8.1	7.6	8.1	8.4	8.1	8.5	8.4	8.1	7.8	8.5	7.0
25-29 Year(s)	22.1	23.6	21.8	24.1	25.3	23.4	25.4	25.4	23.9	23.4	25.1	19.4
30-34 Year(s)	36.5	38.8	36.4	40.1	40.7	39.0	41.6	41.8	40.4	38.0	40.8	32.4
35-39 Year(s)	40.4	42.0	39.9	44.4	43.8	43.1	45.4	45.6	44.2	42.4	45.1	35.8
40-44 Year(s)	37.5	41.2	36.8	42.7	42.9	41.5	44.7	44.8	41.6	41.1	43.4	31.7
45-49 Year(s)	34.7	39.1	33.4	39.3	40.0	39.7	42.4	41.4	39.1	37.3	40.6	28.6
50-54 Year(s)	32.1	33.4	30.6	36.1	35.5	35.3	37.5	38.8	37.7	34.8	35.1	27.6
55-59 Year(s)	31.7	33.0	30.0	33.5	34.7	34.2	36.9	36.7	34.7	35.6	37.1	27.8
60-64 Year(s)	34.2	33.5	33.4	36.1	36.8	34.1	39.4	39.2	37.2	35.5	36.4	31.3
65-69 Year(s)	42.1	41.9	42.1	44.5	44.4	42.4	46.6	45.9	44.4	45.9	43.6	38.6
70-74 Year(s)	56.7	57.6	55.1	58.4	55.8	57.8	62.4	62.0	60.7	62.2	59.0	52.6
75-79 Year(s)	79.8	82.4	76.0	85.1	83.6	79.0	87.4	87.1	86.6	83.4	89.4	72.2
80+ Year(s)	130.8	132.0	129.4	135.4	133.6	136.8	142.2	143.2	137.3	132.2	139.4	122.2

Table 12: Number of HIV+ people and AIDS Deaths per Municipality, 2015

HIV+ and Crude Death Rates per Municipality 2015										
	HIV+					AIDS Deaths				
	2010	%	2015	%	Change	2010	%	2015	%	Change
Ugu	116,972	7	120,147	7	3,175	8,957	7	3,126	7	-5,831
uMgungundlovu	172,375	10	186,110	11	13,735	12,829	10	4,814	11	-8,015
uThukela	116,466	7	110,546	6	-5,920	9,111	7	2,854	6	-6,257
uMzinyathi	77,123	4	75,904	4	-1,219	6,191	5	1,936	4	-4,255
Amajuba	78,619	5	81,114	5	2,495	6,073	5	2,097	5	-3,976
Zululand	144,770	8	125,012	7	-19,758	11,258	9	3,178	7	-8,080
uMkhanyakude	100,669	6	103,816	6	-19,758	7,820	6	2,624	6	-5,196
uThungulu	157,806	9	150,793	9	-19,758	11,897	9	3,855	9	-8,042
iLembe	94,690	6	106,541	6	-19,758	7,161	6	2,745	6	-4,416
Sisonke	79,872	5	72,812	4	-19,758	6,312	5	1,889	4	-4,423
eThekwini	574,578	34				41,543	32			
KwaZulu-Natal	1,713,939		1,736,911		22,972	129,153		44,500		-84,653

Source: Global Insight, 2011 and 2016

The overall impact of HIV and AIDS and other communicable diseases make access to health services an important feature of the management of health and welfare in the province. The ratio of health facilities to population in districts, the ratio of population to beds in public hospitals, and the level of immunization coverage for children under 1 year of age, are presented as measures of accessibility. Table 13 presents the data for the province. Data for the respective districts was not available at the time of publication. However, further studies must be done in order to assess geographic differences in the access to health facilities.

Table 13: Access to Health Services

ACCESS TO HEALTH SERVICES					
PROVINCE AND DISTRICTS	MEASURES OF ACCESSIBILITY				
	# of Health Facilities (Clinics) to Population	Ratio Population to Beds in Public Hospitals	Immunization Coverage of Children Under 1	Public Sector Doctors per 1000	**Public Health Professional Vacancy rate**
KZN		405	83%	35	**33%**
Ugu					
uMgungundlovu					
uThukela					
uMzinyathi					
Amajuba					
Zululand		Data not currently available for districts			
uMkhanyakude					
uThungulu					
iLembe					
Sisonke					
eThekwini					

2.2.4 The Educational Level of the Population

The number of persons 20 years and above in KZN who have no schooling or matric is presented in Table 14 for 2001, 2009, 2011 and 2015. The table reveals that in 2001, 21.9% of the population had no schooling at all. By 2009, however, that number had reduced significantly to 11%, and by 2011 to 8%. However, in 2015 this number is still 8%. The percentage of persons completing Grade 12 has increased from 16% in 1996 to 30% in 2015, up from 22% in 2011. In 2011, only 6% of the population completed some form of higher education beyond high school but this increased to 9% in 2015. Of those completing some form of higher education, about 5% have diplomas and certificates (up from 3% in 2011), 3% have Bachelor's Degrees (up from 0.8% in 2011), and only 1% have post graduate degrees (up from 0.3% in 2011).

Table 14: Highest Level of Education of those 20 Years and Older: 2001, 2009, 2011 and 2015

HIGHEST LEVEL OF EDUCATION OF THOSE 20 YEARS AND OLDER FOR 2001, 2009 AND 2015									
LEVEL OF EDUCATION	1996	2001		2009		2011		2015	
	%	Number	%	Number	%	Number	%	Number	%
No schooling	22.9	1,100,291	21.9	645,471	11	720,791	8.0	540,206	8
Grade 12/Matric	15.9	995,616	19.8	137,1750	23.7	1,934,771	21.6	1,930,149	30
Higher Education	4.8	348,744	6.9	401,811	10.3	551,454	6.2	594,367	9
TOTAL		**5,028,539**		**5,790,290**		**8,959,158**		**6,426,764**	

Source for 2011: Stats SA Supercross: Census 2011, Global Insight 2016

When each of the districts are considered, it is evident that rural districts such as uMkhanyakude and Zululand have the highest level of adults without schooling (20% and 15% respectively). Conversely, only 3% of adults in the urban metro of eThekwini are without schooling. Despite the high school attendance rate, only 48% of adults in the metro have at least a Matric qualification, showing a large high-school drop-out rate.

Table 15: Highest Level of Education (Age 20+), 2015

HIGHEST LEVEL OF EDUCATION AGE 20+, 2015										
	No schooling	Grade 0-2	Grade 3-6	Grade 7-9	Grade 10-11	Certificate / diploma without matric	Matric only	Matric & certificate / diploma	Matric & Bachelors degree	Matric & Postgrad degree
Ugu	42,113	15,793	63,967	75,288	96,535	1,815	104,801	17,780	10,864	3,412
%	10	4	15	17	22	0	24	4	3	1
uMgungundlovu	45,858	16,682	70,804	116,577	163,246	3,394	200,178	36,686	28,289	9,854
%	7	2	10	17	24	0	29	5	4	1
uThukela	40,727	12,333	45,588	62,300	88,145	1,426	94,445	15,413	6,490	2,246
%	11	3	12	17	24	0	26	4	2	1
uMzinyathi	52,736	9,257	36,356	39,670	50,936	767	56,054	7,610	4,091	1,258
%	20	4	14	15	20	0	22	3	2	0
Amajuba	18,760	9,463	32,563	47,828	72,399	997	86,356	18,773	6,889	2,295
%	6	3	11	16	24	0	29	6	2	1
Zululand	62,626	14,299	50,857	61,057	85,318	1,508	112,226	13,044	6,604	2,177
%	15	3	12	15	21	0	27	3	2	1
uMkhanyakude	64,197	11,548	36,564	44,770	63,647	921	81,698	8,746	5,709	1,859
%	20	4	11	14	20	0	26	3	2	1
uThungulu	64,223	16,197	54,700	70,461	112,729	1,889	157,638	24,332	15,050	4,961
%	12	3	10	13	22	0	30	5	3	1
iLembe	42,428	12,006	45,147	63,437	84,056	1,821	96,214	11,645	7,607	2,650
%	12	3	12	17	23	0	26	3	2	1
Sisonke	18,927	9,252	45,419	55,086	55,653	763	44,909	8,330	4,325	1,463
%	8	4	19	23	23	0	18	3	2	1
eThekwini	87,610	44,216	184,628	369,893	615,655	14,626	895,628	155,468	108,455	39,991
%	3	2	7	15	24	1	36	6	4	2
KwaZulu-Natal	540,206	171,046	666,595	1,006,368	1,488,319	29,926	1,930,149	317,827	204,373	72,167
%	8	3	10	16	23	0	30	5	3	1

2.2.5 The Skill Level of the Population

The overall skill level of the labour force provides an indication of the productivity potential of the population. Because of the unavailability of precise data in this area, the skill level of the labour force is first presented in 3 categories: the highly skilled, representing professionals and technicians; skilled personnel representing craftsmen; and semi-skilled and unskilled representing people with lower level technical skills and unskilled labourers. In addition, skill level is further broken down into the following 8 standard categories: managers, technicians, clerks, services and sales, agricultural workers, trade workers, operators and elementary workers. Tables 16 and 17 present skill levels for KZN and for the respective districts in the province. About 13% of those employed in the formal sector is classified as highly skilled, and this is consistent for all municipal districts, except eThekwini where slightly more are classified as highly skilled (14%), and iLembe where slightly less (11%) are classified in this category. About 43% of the employed in the formal sector in the province are classified as semi or unskilled. Most districts have about 47% unskilled with the exception of eThekwini and Amajuba which have 41% and 42% respectively. The skill structures of employment in the informal sector are different with more than 70% workers classified as unskilled or semiskilled and more than 80% having less than matric qualifications. In 2010, about 20% of the employed population was engaged in the formal sector.

Table 16: Skill Level for KZN by Municipal District 2010

SKILL LEVEL IN KZN BY MUNICIPAL DISTRICT 2010																						
SKILL LEVEL	KZN	%	DISTRICTS																			
			UGU	%	UMGUNGUNDLOVU	%	UTHUKELA	%	UMZINYATHI	%	AMAJUBA	%	ZULULAND	%	UMKHANYAKUDE	%	UTHUNGULU	%	ILEMBE	%	SISONKE	%	ETHEKWINI	%
Formal employment by skill (highly skilled)	217795	13	10086	12	25370	13	10936	12	5071	12	8560	13	10302	13	6751	12	14739	12	8873	11	5555	12	111552	14
Formal employment by skill (skilled)	743411	44	36293	41	85712	43	39045	43	17888	41	29442	45	35279	43	23993	43	50580	41	31968	41	19563	41	373647	45
Formal employment by skill (semi and unskilled)	736142	43	41158	47	88723	44	40564	45	20422	47	27824	42	36466	44	25076	45	59043	47	37007	48	22648	47	337212	41
Formal employment by skill TOTAL	1697347	80	87536	79	199806	82	90545	78	43381	81	65825	80	82048	81	55819	80	124361	80	77848	80	47767	80	822411	79
Informal employment TOTAL	429091	20	23795	21	44131	18	25665	22	10399	19	16582	20	19093	19	13764	20	30507	20	19891	20	11758	20	213506	21
Formal and informal employment TOTAL	2126438		111332		243936		116209		53780		82408		101141		69584		154868		97739		59525		1035917	

Source: Quantec 2010

2.2.6 The Status of Household Infrastructure

Household infrastructure refers to the general quality of life in communities and to the overall context of human development in environments particularly where children live. It is used here as a measure of adequacy and appropriateness of household facilities to advance and preserve the welfare of children to succeed in life. Such facilities include electricity, running water, proper sanitation, type of dwellings and type of facilities for cooking as a measure of household convenience. The intent here was to derive a general measure of the relative hardships in life in environments where children reside.

Table 17 presents an overall picture of household infrastructure in the province. In 2015, 27% of households in KZN are informal or traditional dwellings; 10% of households have no toilet access; 20% of households have no access to formal piped water; and 20% are not using electricity.

Table 17: Household Infrastructure, 2015

	Informal Dwelling	Traditional Dwelling	No toilet	Communal piped water less than 200m from dwelling	Communal piped water more than 200m from dwelling	No formal piped water	Not using electricity	Electricity for lighting only	Total Households
Ugu	9,793	52,845	16,379	34,936	50,270	38,421	48,606	16,201	184,916
% of total	5	29	9	19	27	21	26	9	
uMgungundlovu	23,682	63,985	15,817	16,840	12,605	47,715	41,585	29,016	290,311
% of total	8	22	5	6	4	16	14	10	
uThukela	2,330	48,523	18,279	9,337	17,718	45,651	36,455	21,239	148,724
% of total	2	33	12	6	12	31	25	14	
uMzinyathi	2,536	49,820	17,615	8,657	7,679	56,709	52,585	10,516	114,758
% of total	2	43	15	8	7	49	46	9	
Amajuba	5,167	7,645	6,889	8,267	3,175	12,385	17,551	15,813	114,091
% of total	5	7	6	7	3	11	15	14	
Zululand	2,248	36,670	45,262	5,538	9,248	60,098	46,339	17,970	157,215
% of total	1	23	29	4	6	38	29	11	
uMkhanyakude	2,716	31,207	35,160	9,429	18,574	59,467	77,478	6,930	131,646
% of total	2	24	27	7	14	45	59	5	
uThungulu	5,280	49,287	35,439	13,226	12,985	49,031	43,913	14,488	207,643
% of total	3	24	17	6	6	24	21	7	
iLembe	14,392	39,698	17,253	23,931	25,195	44,870	45,122	11,855	166,881
% of total	9	24	10	14	15	27	27	7	
Sisonke	4,685	61,155	5,827	10,179	13,625	56,858	41,226	21,468	112,463
% of total	4	54	5	9	12	51	37	19	
eThekwini	156,306	40,952	45,626	102,956	54,414	73,701	87,018	22,777	1,050,463
% of total	15	4	4	10	5	7	8	2	

	Informal Dwelling	Traditional Dwelling	No toilet	Communal piped water less than 200m from dwelling	Communal piped water more than 200m from dwelling	No formal piped water	Not using electricity	Electricity for lighting only	Total Households
KwaZulu-Natal	229,134	481,787	259,546	243,296	225,488	544,907	537,878	188,271	2,679,110
% of total	9	18	10	9	8	20	20	7	

Source: Global Insight, 2016

2.2.7 Summary

Table 18 provides a summary of the key findings in presenting a demographic profile of the province. For each area of demographic analysis, the table presents the most critical implications for the HRD strategy of the province.

Table 18: Summary of Implications of Demographic Profile

SUMMARY OF IMPLICATIONS OF DEMOGRAPHIC PROFILE		
DEMOGRAPHIC PROFILE	**KEY FINDINGS**	**IMPLICATIONS FOR THE HRD STRATEGY**
Population Profile	• 11% of population between 0-4 years (ECD) • High and growing population of youth (39% between 15-35 years) • 34% of population between 5-19 years of age • High rate of outward migration and exodus of skills • Internal migration to urban areas to access educational and economic opportunities • High infant and adult mortality • Large % of population reside in rural areas • 45% of population reside in urban centres • 48% of population reside in areas where economic opportunities are lacking • Rural districts have the highest % of school age population	• Extreme importance of developing a cohesive and responsive programming structure for youth • Need to provide education and skills development and economic opportunities in rural areas to provide expanded opportunities for social and economic engagement • Attention to development of the educational infrastructure and resourcing of educational facilities in rural areas
Poverty and Inequality	• High income disparities in the province with rural areas having the lowest average income • High percentage of people living in poverty in rural areas where poverty is defined by Government as persons earning less than US$2 per day of R524 per month • Centres of poverty and disadvantagement in urban centres • High percentage of Africans in poverty, particularly in rural zones	• Measurers to ensure that quintile 1 schools and no fee schools are properly selected and well supported and served • Ensure training and development programmes and facilities in rural and disadvantaged areas in order to enhance opportunities for social and economic participation • Tailored and customized skills development programmes which address the needs and respond to the circumstances of poor and disadvantaged communities
Health and Welfare	• High, but declining, infant and child mortality rates	• Need for increased social services in the education sector

SUMMARY OF IMPLICATIONS OF DEMOGRAPHIC PROFILE		
	• High adult mortality and morbidity rates in most productive cohorts of population • Impact of HIV and AIDS on the social structure of families with more households headed by grandparents; higher cost burden on households • Stagnated population growth affecting the nature and size of the labour force • Declining labour force and skills base resulting from HIV and AIDS	• Importance of replacement demand for skills in the productive cohorts of the labour force • Need for health and welfare interventions to protect and support children in the early years • Need for health and welfare interventions in educational institutions serving the most vulnerable cohorts • Need for enhanced access to services in rural areas
Educational Level of the Population	• High % of population with no schooling, particularly in rural areas • Overall increase in the level of education in the population • Small % of the population with higher education qualification particularly in rural areas • Educational level in employed differs significantly by occupation and by sector	• Need for adult education, particularly in rural areas, to expand opportunities for those with low levels of education • Need to work with employers in rural areas so that adult education becomes a core component of workplace learning • Need to increase throughput in the education system so that more people graduate from higher education institutions • Need for a sectoral strategy for education and training
Skill level of the population	• Small proportion of the employed population classified as highly skilled • Relatively large % of employed population classified as semi-skilled or unskilled • 80% of employed in the informal sector classified as semi-skilled or unskilled • Rural districts have higher percentage of workers in trade, operators, agricultural and elementary occupations • There is a significant sectoral difference in the skill profile of the employed	• Since most of the population are low levels of skill and earn low wages, efforts must be made to promote and enhance workplace leaning and career enhancement motivational interventions for the employed • TVET and higher education institutions must be engaged to have higher throughput so that the % of people higher skill categories is significantly increased • Need to establish more educational skill training centres in rural and disadvantaged areas
Household infrastructure	• **22% of** population lack electricity in their homes • 14% of population lack running water • 11% of population do not have access to proper sanitation facilities	• Must be greater emphasis on providing educational support services at school and in communities in the areas that are identified by the Department of Education as the 57 most deprived wards. In fact, it may be

SUMMARY OF IMPLICATIONS OF DEMOGRAPHIC PROFILE		
	• In some areas, a large percentage of the population live in informal settlements without adequate household facilities	worthwhile to set up a special educational social support project in these wards. In this regard, special attention must be given to the deprived areas of eThekwini, iLembe and uMgungundlovu. • Parental education and community outreach programmes are particularly important in deprived areas • Interventions should perhaps begin with a comprehensive assessment of educational performance and educational social support in deprived wards

2.3 Skill Supply Stream

The skills supply stream or the skills supply pipeline is embodied in the wide array of institutions and programmes (formal and informal), which constitute the overall structure for ensuring the availability of education and training in the province. The formal structure for the supply of skills and the primary avenue through which skills are produced, is the formal education system, which incorporates: public and private ECD centres; primary and secondary schools; TVET colleges, skills centres and universities; adult education and training centres and programmes; and by a wide range of programmes offered by the various SETAs. The informal structure of skills supply is constituted of a wide range of education and training opportunities that are available from a diverse array of institutions, programmes and projects. Such informal education will begin with parental nurturing at home as an important avenue of informal learning for children. Also included, as informal education and training, are the education and training programmes conducted by CBOs and NGOs; workplace learning programmes conducted by employers; training and certification programmes conducted by professional associations; and training conducted by unions or within the various departments and agencies of government, among others. In this sense, the skills supply stream is diverse, complex and offers multiple pathways of personal development and progress.

The purpose of this chapter is to present a general overview of the skills supply stream in the province. The intent of the chapter is to present an overview of the nature of skills supply and to assess the extent to which the avenues of skills supply adequately meet the skills needs of the province. Because of limitations of space and time, not all the avenues of skills supply will be reviewed. Each component of the formal structure of skills supply will be considered, and information will be presented on workplace learning and the informal education and training programmes that are offered by the various government departments, particularly informal programmes which serve youth. Skills supply will be discussed according to levels and categories of education and training. Accordingly, the overview of each level or component of skill supply will discuss the following: size and scope of the sector, performance and performance outcomes, quality and readiness of learners, and will present a general overview of issues. Table 19 presents a description of the information to be presented in each of these categories. While all components

of the skills supply stream are important, only the most critical components of the skills supply stream are discussed below in their respective sections. The areas discussed are as follows: ECD, primary schooling, secondary schooling, TVET, Higher Education, Adult Education, SETAs and workplace learning.

Table 19: Critical Components of Supply

CRITICAL COMPONENTS OF SUPPLY	
INFORMATION TO BE PRESENTED ON EACH COMPONENT OF SUPPLY	**DESCRIPTION**
Size and scope	Size and scope reflect the expansiveness of the enterprise in terms of number of schools, learners or teachers; geographic representatively; and resourcing compared to other government initiatives.
Performance and performance outcomes	Performance and performance outcomes describe the effectiveness and efficiency of that particular level of education and training. It describes the general enrolment ratio, outcomes achieved in terms of the number of graduates by particular skill or programme areas. It also summarizes selected performance issues.
Quality and learner readiness	Learner readiness refers to the readiness of learners when they enter that particular level of education and their capacity and competence when they exit the level of education. It refers to readiness for education and readiness for post school options.
General issues	General issues address a wide array of institutional issues and concerns which affect performance at the selected level of the education system. Only key issues which have implications for the HRD strategy are discussed.

2.3.1 Early Childhood Development

Early childhood development, according to White Paper 5 (DBE, 2000), includes all children up to the age of 9 years of age. For the purpose of this strategy, the analysis of ECD embodies all children in Grade R (age 5) and below. In this sense, ECD is not only the responsibility of schools, but the responsibility of parents, care givers, the community, the NGO sector and the public sector. The public sector's contribution is represented in the work of the Departments of Health, Education and Social Development, in particular. ECD has grown in importance, not only because of the recognition of its importance as a key aspect of the HRD strategy of South Africa (HRDSA, 2001), but also because the impact of HIV and AIDS has changed the family structure in the province, and has had a significant impact on children.

2.3.1.1 Size and Scope

As summarized in Table 20, KZN has 5753 ECD sites, distributed in the 11 districts of the province. A total of 147 of these sites are under the authority of the Department of Social Development with 5606 administered by the Department of Education. In total, these sites serve 179,056 learners and have 4571 ECD practitioners or teachers. Not all ECD is offered in schools as Grade R. Of all ECD sites, 4106 sites are Grade R in schools, servicing 198,160 learners (KZN Department of Education, ECD Unit). The critical consideration here is the level and the sufficiency of the ECD services delivered in the province. On a province-wide basis, 93% of 5 year olds are benefiting

from ECD programmes; but this percentage differs by districts, with eThekwini having the lowest percent of 5 year olds enrolled, and Sisonke having the highest. For comparative purposes, Table 19 examines the ratios of facilities, learners and ECD practitioners to the under 5 population in the respective districts. Again, some districts, on average, appear to be under-served in terms of the availability of facilities and ECD practitioners. The data in Table 20 is incomplete since the data was not available at the time of publication of this report. However, the 2011 APP of the Department of Education has noted that there are 5,700 teachers in ECD, including publicly employed and community-based ECD practitioners. The APP has also noted that there are 211,763 5-year olds in the Province, and 198,050 (92%) of them are enrolled in ECD centres.

Here, a more detailed analysis of ECD in the Province is necessary. The available data does not capture the percentage of 0-4 year olds who are enrolled in ECD centres, or the number of children in this age group who benefit from their participation in programmes which allow them the necessary educational stimulation at that stage of their development. This aspect of ECD is considered critical since this is the age group where the essential foundations are laid for academic excellence in the future.

Table 20: KZN ECD Facilities and Enrolment

KZN ECD FACILITIES AND ENROLMENT																			
DISTRICT MUNICIPALITY	POPULATION 5 YEARS	POPULATION 0-4 YEARS	NUMBER OF ECD FACILITIES									TOTAL			RATIOS 0-4 YEARS / 5 YEARS OLD				
			EDUCATION			SOCIAL DEVELOPMENT			INDEPENDENT						Facilities		Enrolment		
			# Facilities	Enrolment	Teachers	# Facilities	Enrolment	Teachers	# Facilities	Enrolment	Teachers	# Facilities	Enrolment	Teachers	5yrs	4 yrs	5yrs	4 yrs	Teachers
Ugu	16,815	88,077	310	17107	Not available	167	6658					477	23,765		1:35	1:184	1:07	1:3	
uMgungundlovu	20,037	103,802	485	13903		260	7899					745	21,802		1:26	1:139	1:09	1:4	
uThukela	17,142	89,609	439	13746		176	7454					615	21,200		1:27	1:145	1:08	1:4	
uMzinyathi	14,285	72,800	289	9072		192	8684					481	17,756		1:29	1:151	1:08	1:4	
Amajuba	11,567	58,621	253	7421		165	7179		Not available	Not available	42	418	14,642		1:27	1:140	1:07	1:4	Not available
Zululand	21,923	112,324	740	19638		187	7086					927	26,724		1:23	1:121	1:08	1:4	
uMkhanyakude	17,159	90,186	510	15417		203	11560					713	26,977	Not available	1:24	1:126	1:06	1:3	
uThungulu	21,476	114,234	439	13746		175	8360					614	22,106		1:34	1:186	1:09	1:5	
iLembe	13,913	77,018	452	12988		76	3796					528	16,784		1:26	1:145	1:08	1:4	
Sisonke	12,302	63,490	455	13466		147	3783					602	17,249		1:20	1:105	1:07	1:3	
Pinetown (eThekwini)																			
Umlazi (eThekwini)																			
eThekwini Total	58,929	327,972	1234	40028		621	35104					1855	75,132		1:31	1:176	1:01	1:4	
TOTAL	**225,548**	**1,198,133**	**5606**	**176532**	**5700**	**2369**	**107563**			**42**		**7975**	**284,137**	**4571**	**1:32**	**1:150**	**1:08**	**1:4**	**3**

Source: KZN Department of Education and KZN Department of Social Development, Directorate on Children

This information was taken from the 2011 APP

2.3.1.2 Performance Outcomes

Performance of ECD is judged in terms of participation rate or the gross enrolment ratio (GER) for 5 and 6 year olds (Grade R and Grade 1); and in terms of the performance of learners in Grade 1. The gross enrolment ratio at the level of ECD is 92%. The GER differs by the respective districts, and may differ even more by the respective circuits within districts. This must be confirmed with further research. It was difficult to obtain information on the performance of learners in Grade R and Grade 1, since few schools conduct reception assessment of learners, and since formal achievement or intelligence tests are not administered at this level.

2.3.1.3 Quality and Learner Readiness

While there is a high participation rate in ECD, the quality of ECD delivery differs by sites and by regions. Quality differs because of limited learning resources and inadequate facilities in some areas, and because of the low level of preparation of teachers for teaching at this level. Learners are not equally equipped to participate in ECD when they enter schools or when they make the transition into Grade 1. The transition from ECD to foundation phase is particularly difficult for some learners. This is so especially when English is the medium of instruction in Grade 1 classes. This transition is even more difficult between phases. As most learners learn to read and write in Zulu in Grades 1-3, transition to Grade 4 is also difficult when instruction is in English. As a result, learners are disadvantaged. Interviews with ECD teachers and with supervisors in the Department of Education were very informative. Teachers suggest that when learners enter Grade R, or Grade 1, for that matter, there are sometimes differences in their capacity to effectively engage in and benefit from education because of the differences in their educational exposure, and because of the varying levels of educational stimulation they receive in the early years. Teachers also suggest that, in the early years, learners from poor homes and communities regress educationally during vacation periods, while learners from more affluent areas generally either retain what they have learnt, or are more advanced educationally when they return to school. The latter confirms the understanding that educational stimulation of children in the early years is critical to their progress and performance.

2.3.1.4 General Issues in ECD

There is a wide variety of issues which have been raised in relation to ECD. The key issues are identified and addressed briefly below.

- Large Classes: In some areas, ECD classes are excessively large and as a result, the quality of the learning experience of children is significantly diminished.
- Lack of Capacity: More attention must be given to building capacity in the ECD sector. Many ECD practitioners are not trained, and, when they receive training they move to other jobs with more favourable working conditions. It was noted that many of the ECD advisors in the province do not have foundation phase experience, and are therefore not able to assist teachers in the sector as well as they should.
- Changing Structure of the Family: Because of the impact of HIV and AIDS, the family structure in the province is changing rapidly. There are more single parent and child- headed households, more children under the care of grandparents and a growth in children living in extended families. Over the past 10 years, the family context of children has become less favourable to their growth and development because of pressures relating to poverty, illness, crime an the lack of proper household facilities and amenities.

- LTSM: Some ECD teachers and supervisors have noted that ECD centres in rural and remote areas are less resourced and have less access to teaching and learning materials.
- Language: The language of teaching and learning at the ECD level is critical. Children are introduced to learning in their home language, but some find it difficult to make the transition to English when they progress further in the foundation phase.
- Transition to Grade 1: Of instance, language is one of the critical issues in the transition to Grade 1. Another issue in this regard, is the wide variability in educational readiness among children entering Grade 1. As more children are exposed to Grade R, and as the quality of ECD becomes more even across ECD sites, this variability will be reduced.
- Geographic Differences: The quality of ECD programmes seems to vary geographically with ECD sites having generally lower quality programming in rural areas and in areas that are disadvantaged because of poverty, the lack of facilities and because of the impact of diseases.
- Rapid Expansion to Grade R: ECD has expanded rapidly over the last 3 years in order to attain the target of 100% enrolment rate in Grade R. While, to a large extent, this target has been achieved, the rapid expansion of ECD has affected the quality of delivery in some areas.
- Inter-Departmental Delivery: Many departments are involved in ECD delivery with the Department of Education taking responsibility for Grade R and the Department of Social Development serving children between the ages of 0 and 4. There must be a high level of collaboration between the Departments of Health, Education and Social Development, so that ECD programmes are complete, and that ECD learners are served holistically.
- Impact of Poverty: Poverty affects the health and development of children, and it affects their social and educational welfare. Issues like the lack of clean running water and proper sanitation facilities; the absence of learning resources in the home; the incidence of poor nutrition; and the lack of adequate learning support in the home environment, all work together to place children from poor homes at a significant disadvantage educationally. This disadvantage may be reflected in their academic performance in the later years.

Table 21: Summary of ECD Profile

SUMMARY OF ECD PROFILE		
AREA OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR HRD STRATEGY**
Size and scope of ECD sector	• 5753 ECD sites in the province • 4571 ECD practitioners • 179,056 learners enrolled in ECD • 93% of 5 year olds benefiting from ECD • Much lower % of 0-4 year olds benefiting from ECD	• Need for collaboration or integrated and "joined up" programming in the delivery of ECD • Need to ensure more geographic equity in the resourcing of ECD facilities, teachers, learning materials • Expansion of formal ECD to at least 2 years before Grade R • Central database for management and tracking of ECD performance
Performance and performance outcomes	• High enrolment rate for 5 and 6 year olds	• Reception year assessment could have substantial value in programming for ECD learners

SUMMARY OF ECD PROFILE		
AREA OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR HRD STRATEGY**
	• Children in multi-lingual schools do a lot better in transition to Grade 1 • Department does not have enough resources to make Grade R compulsory	• Earlier introduction of English as a second language of learning for learners in the early years • Attachment of all ECD sites in the immediate geographic region to a particular elementary school in the area in order to advance and sustain quality
Quality and learner readiness	• Variation in quality of ECD facilities, quality of ECD programming, quality of teachers and availability of resources • Many ECD practitioners are not trained • Many ECD teachers do not know how to teach a first additional language	• Need for some level of community-based programming of public facilities for the educational stimulation and motor development of children in the early years • Massive training and development of ECD practitioners • More attention to be paid to the language of teaching and learning in the early years
General issues	• Lack of adequate programming for gifted or slow learners • Class sizes in ECD are sometimes too large • Most advisors in ECD do not have foundation phase experience • Changing structure of the family (e.g. orphaned learners) creates environments which affect the welfare and performance of learners • Shortage of learning materials in many more rural ECD sites. • Poverty in communities affects the ability of learners to grow and learn	• Need for special programmes in schools to serve the gifted and to cater for 'at risk' learners • Need for expanded social support services in schools • Teachers must be trained to understand, detect and refer or attend to learners who need social support or psychological assistance

2.3.2 Primary Schooling

Primary schooling in the province includes Grade R (ECD) within schools, and extends from Grade 1 to Grade 7 in public schools. However, the province also has combined schools which include both the primary grades (Grades 1-7) and some secondary school grades, generally Grades 8 and 9. Also included within the category of primary schools are independent schools and a few home schools. Independent schools receive public subsidies or transfer payments from the Department of Education, but are not generally embodied within the administrative and monitoring structure of the department. This sub-section of the report presents critical information on primary schooling in the province. The data presented relates primarily to public ordinary schools for which most data is currently available. It does not include comprehensive data on independent schools

or on home schooling. Although this will be necessary in the future in order to present a full descriptive overview of primary schooling.

2.3.2.1 Scope and Scale

Table 22 presents the scope and scale of ordinary public schooling in the province. It presents provincial statistics on schooling as well as information by the respective district municipalities. Overall, there are 3,862 primary schools in the province in 2015 (increased from 3,641 in 2011) with 1,580,726 learners (down from 1,723,809 learners in 2011) and 43,547 teachers (down from 52,273 teachers in 2011), excluding intermediate and combined schools. The number of schools, learners and teachers are unequally distributed throughout the province.

Table 22: Scope and Scale of Ordinary Public Schooling

PRIMARY SCHOOL CRITICAL INDICATORS 2015									
	INDEPENDENT				PUBLIC				TOTAL
	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	
AMAJUBA									
Schools	2	2	2	6	43	11	139	193	199
Learners	277	859	243	1379	15703	7074	73944	96721	98100
Educators	18	68	6	92	495	211	2135	2841	2933
Learners per Educator	15	13	41	15	32	34	35	34	33
ETHEKWINI									
Schools	21	17	18	56	37	14	615	666	722
Learners	5793	11160	5184	22137	29077	12290	388651	430018	452155
Educators	503	952	323	1778	991	445	11597	13033	14811
Learners per Educator	12	12	16	12	29	28	34	33	31
ILEMBE									
Schools	1	2	1	4	31	3	281	315	319
Learners	298	1598	32	1928	16513	1694	98279	116486	118414
Educators	30	120	6	156	510	67	2843	3420	3576
Learners per Educator	10	13	5	12	32	25	35	34	33
SISONKE									
Schools	2	1	3	6	120	8	255	383	389
Learners	436	320	1090	1846	43858	6725	62608	113191	115037
Educators	16	21	36	73	1469	228	2107	3804	3877
Learners per Educator	27	15	30	25	30	29	30	30	30
UGU									
Schools	6	2	2	10	18	3	305	326	336
Learners	2148	861	442	3451	7955	1548	122318	131821	135272

PRIMARY SCHOOL CRITICAL INDICATORS 2015									
	INDEPENDENT				PUBLIC				TOTAL
	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	
Educators	135	70	18	223	271	43	3696	4010	4233
Learners per Educator	16	12	25	15	29	36	33	33	32
UMGUNGUNDLOVU									
Schools	6	6	14	26	24	13	337	374	400
Learners	1721	2626	3840	8187	6596	9033	137437	153066	161253
Educators	130	192	239	561	219	270	3993	4482	5043
Learners per Educator	13	14	16	15	30	33	34	34	32
UMKHANYAKUDE									
Schools	1	2	1	4	4	6	360	370	374
Learners	415	1040	93	1548	880	7557	138540	146977	148525
Educators	24	54	1	79	27	216	3895	4138	4217
Learners per Educator	17	19	93	20	33	35	36	36	35
UMZINYATHI									
Schools	2	2	2	6	71	18	296	385	391
Learners	508	481	262	1251	29511	11918	92437	133866	135117
Educators	44	67	18	129	920	395	2692	4007	4136
Learners per Educator	12	7	15	10	32	30	34	33	33
UTHUKELA									
Schools	5	1	4	10	38	10	273	321	331
Learners	654	286	566	1506	15039	8006	115692	138737	140243
Educators	50	20	37	107	496	239	3299	4034	4141
Learners per Educator	13	14	15	14	30	33	35	34	34
UTHUNGULU									
Schools	4	1	8	13	27	2	405	434	447

PRIMARY SCHOOL CRITICAL INDICATORS 2015									
	INDEPENDENT				PUBLIC				TOTAL
	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	COMBINED SCHOOL	INTERMEDIATE SCHOOL	PRIMARY SCHOOL	TOTAL	
Learners	1568	479	1541	3588	9597	1019	166444	177060	180648
Educators	130	51	93	274	329	37	5051	5417	5691
Learners per Educator	12	9	17	13	29	28	33	33	32
ZULULAND									
Schools	3		3	6	58	18	462	538	544
Learners	1268		669	1937	21219	9886	144662	175767	177704
Educators					215	80	847	1142	1142
Learners per Educator					99	124	171	154	156
Total Schools	**53**	**36**	**58**	**147**	**471**	**106**	**3729**	**4306**	4453
Total Learners	**15086**	**19710**	**13962**	**48758**	**195948**	**76750**	**1541392**	**1814090**	1862848
Total Educators	**1080**	**1615**	**777**	**3472**	**5942**	**2231**	**42165**	**50338**	53810
Total Learners per Educator	**14**	**12**	**18**	**14**	**33**	**34**	**37**	**36**	35

Source: EMIS, 2016

Table 23: Critical Indicators of Schools Status (2011)

CRITICAL INDICATORS OF SCHOOLS STATUS 2011 KEY PROVINCIAL DATA		
Schools with range of programmes offering diverse career opportunities	350	6.1
Schools with programmes for orphans	1000	17.4
Orphans and vulnerable children receiving attention in schools	24000	0.8
Learners with organized transport	6000	0.20
Learners with school nutrition	1794781	60.32
Number of no fee schools	2097	36.41
Learners benefiting from no fee schools	1279769	43.79
Full service schools	50	0.87
Learners with special needs	40628	1.37
Subsidized learners in independent schools	28696	1
Grade R learners	198160	6.7
Schools offering Grade R	4105	71.2
ECD practitioners	4571	-
Schools with school libraries	25	0.4
Mobile libraries	13	n/a
Schools without electricity	700	12.2
Schools without access to clean water (water supply)	450	7.8
Schools without adequate sanitation	400	6.9

Source: Department of Education Strategic Plan 2011

- Less than 1% of learners benefit from learner transport
- More than 60% of learners benefit from school nutrition
- About 36% of schools are no fee schools, benefiting 44% of learners
- About 1.4% of learners are identified and served as learners with special needs
- Only 25% of schools have school libraries
- About 12.2 % of schools are without electricity, 8% without water supply and 7% without adequate sanitation
- 17.4% of schools have programmes for orphans, and 24,000 orphans and vulnerable children receive attention in school

Only 6.1% of schools have a range of programmes offering diverse career opportunities; and very few schools offer one or more subjects in the following areas: speech and drama, visual arts,

technical and engineering subjects, travel and tourism, and maritime subjects, business oriented subjects, computer skills, information technology or fine arts.

This data indicates that, although much progress has been made by the Province in education, there is room for improvement in order to realize more equity in the provision of educational services.

2.3.2.2 Performance and Performance Outcomes

Performance and performance outcomes at the level of primary schooling is assessed in terms of internal efficiency, or the extent to which learners flow through the elementary grades without disruption. The indicators of internal efficiency that are used here are: promotion rates, repeater rates and dropout rates. Performance is also judged by the GER and by performance in the annual national assessment. Table 24 presents information on the promotion, repeater and dropout rates for KZN by the respective grades, Grade 1-11. The table shows that the highest repetition and dropout rates are at the level of Grade 1. One of the reasons for the high dropout and repetition rates in Grade 1 is because of inadequate ECD preparation, and because of the lack of readiness of learners for the curriculum in Grade 1. The gross enrolment ratio for Grades R-9 is 93%, as reported in the strategic plan for the KZN Department of Education. However, in 2001, for instance, the GER at the primary level was 122% because of under- and over-age enrolments and because of class repetition. Policies which minimize grade repetition and which promote age grade admission have limited the saturation of the education system at the primary school level.

The primary indicator of overall academic performance at the primary school level is the Annual National Assessment (ANA) at Grades 3, 6 and 9. Table 25 presents ANA test results for KZN in 2011. The information is presented for the province as a whole, and for each district. Assessment results are presented for Grades 3 and 6 only, since Grade 9 national assessment results were unavailable at the time of writing. The ANA scores, overall, are relatively low. The KZN averages for literacy and numeracy are 39 and 31 respectively for Grade 3, and 29 and 32 respectively for Grade 6. It will be noted, however, that the scores vary substantially by district, and even within districts. In uThukela and Amajuba, for instance, literacy and numeracy scores for Grade 3 were substantially above the provincial average; and, within the districts, scores were generally higher in the more advantaged districts. In Amajuba, for instance, while the Grade 6 scores in maths were 28.5 on average, it was only 19% in Emanlangeni. A more detailed analysis of the performance in districts shows patterns of performance by learning objectives within each subject area. These patterns tend to raise even greater concerns about foundational learning in language and maths, and in this regard, one should take note of the implications of the deficiencies for future academic performance. A closer examination of the performance of learners shows the differences in scores by quintiles. The results show very clearly that the poorer schools (quintile 1) generally have much lower numeracy and literacy scores than the more affluent schools that are categorized as quintile 5 (See Tables 26 and 27).

Table 24: Promotion, Repeater and Dropout Rates for Grades 1-11

PROMOTION, REPEATER AND DROPOUT RATES FOR KZN					
GRADE	**PROMOTION RATE**	**REPETITION RATE**	**DROPOUT RATE**	**REPEATERS IN 2011**	**DROPOUTS IN 2011**
Grade 1	77.9	7.3	14.8	25,465	51,397

PROMOTION, REPEATER AND DROPOUT RATES FOR KZN					
GRADE	**PROMOTION RATE**	**REPETITION RATE**	**DROPOUT RATE**	**REPEATERS IN 2011**	**DROPOUTS IN 2011**
Grade 2	94.2	4.9	0.9	10,875	1,939
Grade 3	94.8	5.3	-0.1	10,836	-195
Grade 4	93.6	4.5	2.0	10,432	4,573
Grade 5	94.7	3.7	1.6	8,759	3,911
Grade 6	94.3	3.5	2.2	8,068	4,973
Grade 7	98.5	2.5	-1.0	5,243	-2,049
Grade 8	87.2	6.5	6.3	13,499	13,122
Grade 9	89.7	5.7	4.6	13,934	11,042
Grade 10	78.7	12.3	8.9	24,512	17,722
Grade 11	58.0	16.2	25.8	27,643	44,083
TOTAL				**159.266**	**150.518**

Source: EMIS KZN Department of Education

Table 25: ANA Test Results

EDUCATIONAL PERFORMANCE AT THE PRIMARY LEVEL							
DISTRICT	PASS RATE IN ANNUAL NATIONAL ASSESSMENT (MEAN SCORE) 2011						
	GRADE 3		**GRADE 6**		**GRADE 9**		**COMMENT**
	Literacy	**Numeracy**	**Language**	**Maths**	**Language**	**Maths**	
KZN	39	31	29	32			The overall performance masks significant differences in performance at the district level and within districts.
Ugu	38.9	29.7	34.2	36.1			No comment
uMgungundlovu	44.1	31.6	34.7	34			There is a high of 32% in Grade 3 literacy in Umzunduzi. There was a low of 18% in Grade 6 language in Mpofana.

EDUCATIONAL PERFORMANCE AT THE PRIMARY LEVEL							
DISTRICT	PASS RATE IN ANNUAL NATIONAL ASSESSMENT (MEAN SCORE) 2011						
	GRADE 3		GRADE 6		GRADE 9		COMMENT
	Literacy	Numeracy	Language	Maths	Language	Maths	
uThukela	48.3	39.2	24	33.5			High in literacy in Umtshezi of 52.6; and high in numeracy in Emnambithi of 47.6. Low in both numeracy and literacy in Okhahlamba of 30.7 and 24.4 respectively.
uMzinyathi	49.2	42.7	30.9	39.6			No comment
Amajuba	35.5	27.3	23.3	31.6			Only 19% passed maths in Grade 6 in Emandlangeni local municipality.
Zululand (Vryheid)	34.4	26.9	22.9	26.8			No comment
uMkhanyakude (Obonjeni)	46.6	31.3	20.7	26.3			No comment
uThungulu (Empangeni)	34.5	24.9	20.8	25			No comment
iLembe	37.6	33.4	40.9	38.5			No comment
Sisonke	30.1	30.2	29.4	24.2			No comment
eThekwini - Pinetown	27.2	24.1	39.7	42			No comment
eThekwini- Umlazi	43.6	33.6	31.4	35.6			No comment
eThekwini - Total	-	-	-	-			No comment
TOTAL							

Source: KZN ANA Results Report, Quality Assurance Directorate, KZN DoE

Table 26 : Literacy per Quintile

LITERACY PER QUINTILE						
QUINTILE	GRADE 1 AVE %	GRADE 2 AVE %	GRADE 3 AVE %	GRADE 4 AVE %	GRADE 5 AVE %	GRADE 6 AVE %

1	56	50	42	31	26	28
2	56	50	39	29	24	26
3	59	50	40	30	28	30
4	60	50	40	30	27	29
5	**70**	**57**	**48**	**36**	**41**	**44**

Source: KZN ANA Results Report, Quality Assurance Directorate, KZN DoE

Table 27: Numeracy per Quintile

NUMERACY PER QUINTILE						
QUINTILE	**GRADE 1 AVE %**	**GRADE 2 AVE %**	**GRADE 3 AVE %**	**GRADE 4 AVE %**	**GRADE 5 AVE %**	**GRADE 6 AVE %**
1	42	40	31	17	15	19
2	42	40	29	16	14	17
3	42	38	29	17	14	19
4	45	40	30	18	16	19
5	**53**	**46**	**36**	**27**	**28**	**30**

Source: KZN ANA Results Report, Quality Assurance Directorate, KZN DoE

2.3.2.3 Quality and Learner Readiness

The quality of primary education is reflected in learner performance. But learner performance is a function of a diverse array of educational input which contributes to learner achievement. Included in quality measures are: quality of school infrastructure; availability of teaching and learning resources; quality of teachers; level of social support and social services; support for learners who excel; and support for learners who are academically "at risk", among others. While efforts are being made in all these areas to ensure quality delivery, there is still a wide variability in the quality measures affecting achievement in schools. District officials have complained of the strong rural /urban divide where many rural schools are disadvantaged with: poorly constructed infrastructure; lack of sufficient resources to facilitate teaching and learning; and unqualified, under-qualified and inappropriately qualified teachers. Many schools do not have proper libraries; most do not have adequate social support for learners and very few have special programmes for learners who excel or "at risk" learners.

Many learners who enter primary schools are not ready for the primary school curriculum because of lack of access to ECD, or because of the poor quality of some ECD programmes. One of the major issues affecting the readiness of learners is the effect of the language of learning on learner achievement. Many learners, particularly in rural areas, are unable to make the transition from home language to English as the medium of instruction.

2.3.2.4 General Issues

Among the general issues affecting primary schooling are the following:

- In small schools, particularly farm schools, where multi-grade teaching is necessary, and teachers are not sufficiently prepared for multi-grade teaching. The quality of education is compromised.

- The abundance of quintile 1 and 2 schools are primary schools, and the majority of these schools are in rural areas
- Many rural households are unable to offer academic support to learners because of the educational level of parents and guardians, and because of child-headed households, among others
- There is a lack of adequate social support services in most primary schools (particularly rural), where such support is most needed.

2.3.2.5 Summary

Table 28 presents a summary of the findings related to the overall status of primary schooling in the province. Implications for the HRD strategy are noted.

Table 28: Summary of Primary School Profile

SUMMARY OF PRIMARY SCHOOL PROFILE		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR THE STRATEGY**
Size and scope of the sector	• There are enough primary schools for delivery of universal primary education • There are differences in the overall adequacy of facilities by districts • There are differences in learner-teacher ratios by districts • There is a high concentration of no fee schools in disadvantaged and rural areas • There is an inequitable distribution of well-resourced schools – libraries, science labs, range of career oriented subjects, support programming for vulnerable children	• Generally adequate distribution of primary schools for effective foundational learning for all children. • The issue to be addressed is the wide variability of quality and the difference in level of resourcing and adequacy of school infrastructure and facilities. • Although much effort has been made, much attention must be given to promoting equity, particularly in respect to rural schools
Performance and Performance Outcomes	• High repetition and dropout rates in Grade 1 • General enrolment ratio over 100% because of over and under age enrolment and repetition. • GER has been stabilizing over the last 10 years with new policies which limit repetition and over- and under-age enrolments • There is low performance in numeracy/maths and language/literacy in Grades 3 and 6. There are differences by districts and wide variation within	• More effort must be made to improve performance in literacy/language and numeracy/maths in the primary grades since these subjects are critical to learner achievement and performance the future • Attention must be given to the support and retention of learners in Grade 1

SUMMARY OF PRIMARY SCHOOL PROFILE		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR THE STRATEGY**
	districts, but still performance is generally low • Inability to attain a sound foundation in maths and language affects performance in the later years	
Quality and Learner readiness	• Unqualified, under-qualified and inappropriately qualified teachers • Lack of adequate LTSM in rural schools • Few schools have adequate social support services and support for at risk learners • The quality of some school infrastructure is inadequate, more so in rural areas • Lack of learner readiness because of poor quality ECD and lack of capacity in English when transition is made from the home language to English in higher grades	• More attention must be given to the transition of learners from ECD to Grade 1 and their transition to English as a medium of instruction • Many learners are lost in terms of future achievement because of difficulties making this transition in the early years • More effort must be made to advance equity in resourcing education
General issues	• Majority of primary schools are among the "poorest schools" (quintile 1 and 2) • Disadvantages suffered by small rural schools (farm schools) where teachers are not properly prepared for multi-grade teaching • Lack of adequate social support services in schools where such services are needed	• A wider range of support services is needed in primary schools, particularly in rural areas • Significant attention must be placed on the selection, training and placement of teachers in order to improve the quality of the teaching force

2.3.3 Secondary Schooling

Secondary schooling encompasses Grade 8 to Grade 12, and, is generally referred to as the senior phase that overlaps with TVET. This overlap is reflected in the notional age of learners. Secondary schooling is notionally for 14 to 18 year olds, and TVET is notionally for 16 to 18 year olds. Secondary schooling is an important juncture in the skills supply stream because it is a nurturing environment which, to a large extent, determines the life and career options of learners. It is also the most critical point in foundational learning for developing in youth skills, attitudes and general capacity to become employed or to pursue higher education. In this section of the chapter, we seek to establish the role and effectiveness of secondary schooling as a critical phase in the supply pipeline for education and skills development. The section will address scale and

scope of secondary schooling; performance outcomes; the quality and readiness of learners; and, will outline a set of general issues which affect secondary education.

2.3.3.1 Scope and Scale

There are 1580 secondary schools in the province (down from 1583 in 2011); and of these, 38 are independent schools. Secondary schools represent 26% of all schools. Of the 1542 public secondary schools, 896 or 58% are in quintiles 1 and 2, constituting the poorest schools in the province. Of these, the majority of schools are in uThungulu (127 or 14%), iLembe (83 or 9%), uMkhanyakude (135 or 15%) and uMzinyathi (97 or 11%). In Zululand, 64% of its secondary schools are in quintile 1. In effect, most of the secondary schools in rural areas are in quintiles 1 and 2. Total enrolment in secondary schools is 883601 with eThekwini having the highest enrolment of learners.

2.3.3.2 Performance Outcomes

The performance of secondary schools is judged primarily by pass rates in the National Schools Certificate (NSC) examinations. Performance is also judged by internal efficiency measures such as promotion rates, repetition rates and dropout rate by throughput; and by the gross enrolment ratio (GER) at the secondary level. First, the GER and internal efficiency measures will be discussed; then performance in terms of the NSC exam will be presented.

The EMIS data from the Department of Education provides information presented on GER and a variety of internal efficiency measures.

The GER here is defined as the number of 14-18 year olds who are attending secondary schools. The gross enrolment ratio at the secondary level is estimated at 91%. Hence, the province is not currently accommodating the entire population of children 14 to 18 years of age in its secondary grades. Internal efficiency measures such as dropout, promotion and repetition rates show worrying trends at the secondary level. These measures begin to show signs of deterioration in the lower grades and become a matter of grave concern in Grades 10 and 11 where dropout rates are excessively high. The trend in promotion rates reveals a decline in Grades 8 and a more significant reduction in Grades 10 and 11. Generally, only 78% of Grade 10 learners are promoted to Grade 11, and only 58% of Grade 11 learners are promoted to Grade 12. Dropout rates increase significantly in Grade 11 with as much as 25% of learners withdrawing from school in this grade. Some of the factors which lead to high repetition and dropout rates are as follows:

- Lack of language capacity to participate and benefit from education and perform well educationally
- The impact of domestic responsibilities, particularly in child-headed homes and in homes where there is pressure on learners to earn incomes to support their families
- The impact of teenage pregnancy
- Poor health and nutrition which affects the capacity of learners to attend and perform in schools. Some eventually dropout out of frustration over poor performance.
- The effect of the adequacy of academic foundation, as learners progress to more senior classes, and, among others
  The lack of social support in schools and the lack of special programmes for “at risk” learners which cause learners with social and other challenges to withdraw

The high dropout rates in the school system (primary school and beyond) result in a relatively low throughput of learners from Grade 1 to Grade 12. Table 29 presents the cohort survival statistics for 3 separate cohorts of learners from Grade 1. These learners from Grade 1 in 1998, 1999 and 2000 would have been in Grade 12, and would have graduated in 2010, 2011 and 2012 respectively. The table presents information on how much of the Grade 1 cohort in the respective years survived to enter Grade 12, and to write and be successful in the NSC exam. The findings from this analysis show the following:

- In 2012, 59% of the Grade 1 learners from the year 2000 entered Grade 12. Fifty five (55%) percent of the cohort wrote the NSC, and 40% of the cohort was successful. Even so, the percentages overall increased from the two previous years where 25% and 28% passed the matric exam.
- Overall, the Province has improved significantly in its throughput rate in ordinary schooling; and, as a result, the capacity of secondary schools to retain and ensure the success of learners has improved. While there may be differences at the district level in respect to throughput, the performance of secondary schools has generally improved.

Table 29: Cohort Survival for Three Successive Cohorts (2010-2012)

COHORT SURVIVAL FOR THREE SUCCESSIVE COHORTS (2010 TO 2012)			
Measures	**1998-2010**	**1999-2011**	**2000-2012**
#Grade 1: Enrolment	340371 (1998)	298553 (1999)	232991 (2000)
#Grade 12: Enrolment	134442 (2010)	134266 (2011)	138502 (2012)
#Dropped Out and/or did not enrol for Grade 12 in KZN or diverted to other TVET Courses without Grade 12 from the number that enrolled in Grade 1	105829	164287	94489
#Grade 12: Wrote Exam	122444 (2010)	122126 (2011)	127253 (2012)
# Did not write Grade 12 NSC Exams in KZN (from those who enrolled)	1 998	12 140	11 244
#Grade 12: Passed NSC in KZN	86556 (2010)	83201 (2011)	93003(2012)
# Did not Pass NSC in KZN (from those who wrote NSC in KZN)	35888	38925	34250
% of Grade 1 cohort reaching Grade 12	39%	45%	59%
% writing NSC exam	36%	41%	55%
% passing NSC in KZN)	25%	28%	40%

However, there is no more telling indicator of the performance of secondary schools than performance of learners and schools in the NSC examinations. Performance in the NSC will be examined in terms of district differences, differences by school quintiles, differences in the subject choice of learners and differences in the quality of performance and the level of passes in exams. Table 30 presents an overall summary of performance in the NSC exam, by district, and for KZN as a whole. While the average pass rate for KZN was 68% in 2011, the pass rate ranged

from 55% in uMkhanyakude to 77% in eThekwini – Umlazi. But the profile of passes by schools differs, with the urban schools generally having the highest percentage of successful learners. As shown in Table 31, pass rates also differ by quintiles, with learners in schools in the lowest quintile generally having the lowest pass rates (59%), and learners in schools in the highest quintile having the highest pass rates (87%).

While there are notable exceptions in the performance of poor schools, a further analysis of the available data confirms that learners in poor schools, particularly rural schools, are generally less successful in the NSC exams than learners in more well-resourced schools in quintiles 4 and 5.

Table 30: Overall Summary of Performance in NSC Examinations

NUMBER OF SCHOOLS 2011 PASS RATE																		
DISTRICT	NUMBER OF SCHOOLS																	
	0%		1-29%		30-39%		40-49%		50-59%		60-69%		70-79%		80-100%		TOTAL # OF SCHOOLS	OVERALL PASS RATE
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Amajuba	0	0	3	4.5%	4	6.2%	4	6.2%	6	9.2%	8	12.3%	12	18.5%	28	43.1%	65	73%
uThungulu	0	0	19	10.2%	18	9.5%	25	13.4%	25	13.4%	30	16%	19	10.2%	51	27.3%	187	64%
iLembe	1	0.9%	10	9.1%	8	7.3%	10	9.1%	10	9.1%	12	10.9%	21	19.1%	38	34.5%	110	66%
uMkhanyakude	0	0	19	13.6%	13	9.3%	26	18.6%	18	12.9%	18	12.9%	24	17%	22	15.7%	140	55%
uThukela	1	0.8%	4	3.3%	5	4.1%	10	8.1%	19	15.4%	20	16.3%	16	13%	48	39%	123	68%
Pinetown	0	0	2	1.3%	12	7.9%	14	9.2%	23	15.2%	19	12.5%	16	10.5%	66	43.4%	152	68%
Sisonke	0	0	3	3.8%	7	8.7%	14	17.5%	10	12.5%	10	12.5%	14	17.5%	22	27.5%	80	66%
Ugu	1	0.8%	6	4.9%	9	7.4%	17	13.9%	14	11.5%	14	11.5%	22	18%	39	32%	122	68%
uMgungundlovu	0	0	10	6.9%	6	4.2%	13	9%	18	12.5%	23	16.1%	10	6.9%	64	44.4%	144	72%
Umlazi	0	0	6	3.5%	4	2.4%	14	8.2%	16	9.4%	18	10.6%	18	10.6%	94	55.3%	170	77%
uMzinyathi	1	0.8%	4	3.1%	3	2.3%	15	11.5%	10	7.7%	20	15.4%	31	23.8%	46	35.4%	130	71%
Zululand	0	0	13	6.7%	5	2.6%	20	10.4%	32	16.6%	40	20.7%	24	12.4%	59	30.6%	193	67%
PROVINCE	**4**	**0.2%**	**99**	**6.2%**	**94**	**5.8%**	**182**	**11.3%**	**201**	**12.4%**	**232**	**14.4%**	**227**	**14%**	**577**	**35.7%**	**1616**	**68%**

Source: EMIS 2012

Table 31: Pass rate by Quintiles

PASS RATE BY QUINTILES			
QUINTILE	**WROTE**	**PASSED**	**PASS%**
1	22047	13111	59.47%
2	28387	18110	63.8%
3	26935	17149	63.67%
4	22528	16160	71.73%
5	**18099**	**15726**	**86.89%**

Source: EMIS 2012

Another aspect of performance in the NSC is subject choice and learner success in the particular subjects both at a provincial level, and in the respective municipal districts. Table 32 presents NSC results by the respective subjects. Of the total number of learners writing the exam in each district, generally less than 50% write maths as a subject, and of those, generally less than 40% are successful. This means that less than a quarter of those writing the NSC in the province take maths as one of their subjects. The situation is more encouraging in life sciences, but much worse in physical science. In many districts only 30% of those writing the NSC register for physical science and the pass rate averages 50%. The concern here is that maths, physical science, accounting and life sciences are considered as the gateway subjects to rewarding careers. The lack of learners registering for and being successful in these subjects in the NSC results in a shortage of professionals in fields where these subjects are required for further professional and technical studies.

Table 32: National Senior Certificate Statistics 2011

NATIONAL SENIOR CERTIFICATE STATISTICS 2011																						
PROVINCE / DISTRICT	Total Writing	Total % Passing Exams	SUBJECT SELECTION AND SUCCESS																			
			Maths		Maths Literacy		Physical Science		Life Sciences		Accounting		Agri Science		Business Studies		Economics		History		Geography	
			Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed	Writing %	% Passed
KZN	120492	68%	61483		61591		45340		63566		40064		17281		49847		33893		21436		48252	
Amajuba	5685	73.01	2597 45.7%	50.3	3121 54.9%	87.3	2191 38.5%	52	3127 55%	69.4	1875 33%	63.1	469 8.3%	86.8	2324 40.9%	79.7	1519 26.7%	70.4	957 16.8%	79.3	2699 47.5%	78.3
iLembe	6945	65.80	3366 48.5%	35.0	3677 52.9%	77.8	2205 31.7%	47	3161 45.5%	67.5	2572 37%	60.7	547 7.9%	67.5	3654 52.6%	78.5	2361 34%	73.4	1024 14.7%	82.2	2514 36.2%	71.4
Pinetown	13908	67.69	6869 49.4%	40.3	7640 54.9%	79.9	4527 32.5%	52	6534 47%	71.2	4762 34.2%	62.2	382 2.7%	73.8	5644 40.6%	77	3348 24.1%	67.2	3265 23.5%	80.3	5450 39.2%	71.4
Sisonke	5339	65.99	2848 53.3%	35.8	2549 47.7%	81.5	2006 37.6%	49	3139 58.8%	65.6	1367 25.6%	64.4	1465 27.4%	73.8	1710 32%	75	1360 25.5%	75.4	1361 25.5%	85.8	2737 51.3%	79.6
Ugu	8867	68.22	4402 49.6%	38.7	4811 54.3%	84.2	3115 35.1%	49	4866 54.9%	67	2986 33.7%	64	2287 25.8%	75.2	3530 39.8%	80	2536 28.6%	72.4	2077 23.4%	81	3446 38.9%	73.2
uMgungundlovu	10611	72.42	4761 44.9%	40.2	5988 56.4%	84.8	3198 30.1%	52	5566 52.5%	70.4	3653 34.4%	66.4	794 7.5%	79.2	4824 45.5%	82.2	3099 29.2%	75.1	2367 22.3%	86.4	4744 44.7%	75
uMkhanyakude	10340	55.15	5004 48.4%	30.5	5441 52.6%	67.4	4254 41.1%	43	5817 56.3%	58.8	2855 27.6%	51.1	3064 29.6%	72.4	3571 34.5%	72.1	2766 26.8%	65.4	1796 17.4%	71.2	3299 31.9%	57.2
Umlazi	15629	76.90	8689 55.6%	46.7	7877 50.4%	86.7	6021 38.5%	61	7892 50.5%	75.2	5435 34.8%	66.6	590 3.8%	72	7225 46.2%	79.9	3725 23.8%	73.6	2966 19%	88.1	5765 36.9%	79.1
uMzinyathi	6501	71.05	3318 51.0%	42.0	3216 49.5%	86.4	2134 32.8%	56	3219 49.5%	75.8	2647 40.7%	67.3	761 11.7%	76.9	3367 51.8%	82.2	2528 38.9%	77.6	874 13.4%	78.8	2664 41%	80.3
uThukela	8687	68.45	3826 44.0%	42.2	4908 56.5%	84.2	3033 34.9%	57	4573 52.6%	65.3	3043 35%	62.4	1312 15.1%	71.3	3716 42.8%	75.3	2641 30.4%	75.8	1635 18.8%	76.4	4406 50.7%	75
uThungulu	14230	63.74	8111 60%	34.1	6277 44.1%	76.3	6651 46.7%	48	8204 57.7%	66.7	4028 28.3%	55.78	3335 23.4%	75.2	5181 36.7%	77.5	3686 25.9%	76.3	1644 11.6%	75.6	5531 38.9%	72.6
Zululand	**13750**	**66.48**	**7692 55.9%**	**39.6**	**6086 44.3%**	**78.1**	**6005 43.7%**	**53**	**7468 54.3%**	**70.3**	**4841 35.2%**	**63.1**	**2275 16.5%**	**78.9**	**5101 37.1%**	**78.6**	**4324 31.4%**	**79.9**	**1470 10.7%**	**78.5**	**4997 36.3%**	**72.2**

Source: EMIS 2012

Table 33 looks at the level of passes in terms of endorsements to participate in higher education. In 2011, only 27% of those who passed the exam, were successful with exemption for the bachelor's degree. This was lower than in previous years, 2009 and 2010.

Table 33: Level of Passes

LEVEL OF PASSES						
ENDORSEMENT	**NUMBER AND PERCENTAGE PASSING BY ENDORSEMENT FOR POST SCHOOL EDUCATION**					
	2009		**2010**		**2011**	
	#	**%**	**#**	**%**	**#**	**%**
Bachelors Degree	26287	33	31466	36	22397	27
Diploma	31406	40	34708	40	34190	41
Higher Certificate	22179	27	20137	23	21331	26
TOTAL # OF PASSES	**80704**	**61**	**86556**	**71%**	**83201**	**68**

Source: EMIS 2012

The data reviewed on secondary school performance shows a significant constriction in the stock of learners who go through secondary school and are eligible to proceed into higher education and training opportunities. Of the learners who enter secondary school, about 45% will drop out before Grade 12. Of that 45%, about 70% will be successful in the NSC exam; and, of those, only 27% will be eligible for higher education. As a result, out of every 100 learners entering secondary school, on average, only 12 will be eligible to participate in higher education based on performance in the NSC after 5 years. This figure may even be less, because there is variation in the number of years it takes for learners to progress to Grade 12, and because not all Grade 12 learners register for and eventually write the NSC examinations. Generally, between 3 and 6% of learners who enter do not write the exam. In 2012, however, 19% of learners who entered did not write. While 73% of those who wrote the exam passed, this was 60% of the group that entered.

2.3.3.3 Quality and Readiness

The quality of secondary education is largely affected by the availability of the relevant resource inputs for learners to succeed. In this respect, quality is affected by the availability of teachers; by the availability of appropriate LTSM; by the quality of learner support services rendered within schools; and by the quality of infrastructure and facilities. In each of these areas quality varies widely in the province, with rural schools generally being the most disadvantaged in terms of the availability of resources.

In respect to the availability of teachers, the impact of inadequate teacher supply is most evident and, perhaps, most destructive at the secondary level. The most significant concern in this regard is the limited availability of teachers in science, maths and technology. The impact of this shortage is greater in rural areas since suitably qualified teachers opt to retain employment in the urban centres of the province. The shortage of teachers, however, is a general concern. On average, 3000 teachers exit the system per year, with a large percentage due to the high mortality rates among the teacher workforce (EMIS 2011). As a result, many highly qualified teachers who are difficult to replace are lost every year.

Some of the other issues affecting the quality of secondary education are inappropriate infrastructure and lack of proper facilities in many schools; the lack of learner support services (academic and social) in the majority of schools; and, among others, the impact of social issues

such as teenage pregnancy, drugs and substance abuse, and the consequences of poverty on the performance and success of learners.

Readiness of secondary education varies by the quality of primary education received. In terms of overall performance in Grade 6, as a baseline, many learners are generally not ready for secondary education. On national assessment exams, for instance, the average score for the province in Grade 6 is 37% in language, 26% in mathematics and 40% in natural science (KZN DoE Strategic Plan 2010/11-2014/15). On Grade 9 assessment, the average score for the province is 61.7%. Detailed analysis of ANA results by schools reveals that poorer schools perform less well than more affluent schools, and rural schools generally perform less well than urban and peri-urban schools. This confirms the comment in the strategic plan of the evolution in the province of a two-tier education system – one for the rich and one for the poor. The more affluent learners are better prepared and more ready to benefit from and succeed in secondary education. Efforts are being made to address this dichotomy in the education system with the establishment of no fee schools; with the compensation of schools which give fee exemptions to poorer learners; and with other efforts that are being undertaken to reduce the educational disadvantage resulting from poverty.

The concern in respect to HRD is the cascading effect of educational under-performance which begins at the level of ECD and extends to both primary and secondary schools, and even beyond. In this respect, learner under-achievement worsens over time, and it generally results in the undesirable consequences of learners who drop out of school or who progress more slowly between grades, and learners who are inclined to become involved in drug and substance abuse and other undesirable behaviours. Here again, value is lost in the future stock of human capital as under-achieving learners limit their career prospects and forestall their future contribution to society.

2.3.3.4 General Issues

For most learners, secondary schooling is the crossroads for careers, and a major decision point about life choices. It is also a critical juncture in the educational development of learners, and a phase in their education where they attain the academic foundation for selecting viable post school options. The extent to which they master the content of education at this point of their education will, in large measure, determine the options that are available to them beyond high school. Unfortunately, instead of enabling an expanding field of options for learners as they progress, options seem to become more limited as many learners proceed through secondary school. Some of the general issues in this regard are as follows:

- Limited academic support programmes for “at risk” learners who enter secondary education to make the transition to the secondary school curriculum.
- Lack of suitably qualified or suitably placed teachers, particularly in maths, science and technology, and particularly in rural schools.
- Inequity in the availability and quality of facilities – science laboratories; technology workshops; libraries; availability of internet access, and career-oriented curricula.
- The impact of teenage pregnancy and the limited programmes that are available for support or prevention.
- The impact of poverty and substance abuse on learners’ achievement and progress.
- The impact of HIV and AIDS and other communicable diseases on learners, on the teaching force and on teacher attendance.

The Department of Education has made significant efforts at educational improvement at all levels, and has launched campaigns on teenage pregnancy and drug abuse. The department has also sought to promote educational equity and to bridge the rural-urban divide in educational resourcing, access to quality and in generally seeking to enhance learner performance. But the issues related to spatial inequity are complex, and the reach and coverage of departmental interventions have not yet made the impact intended. Table 34 presents a summary of the findings on secondary education and the implications of these findings for the HRD strategy.

Table 34: Summary of Findings in Secondary Education

SUMMARY OF FINDINGS IN SECONDARY EDUCATION		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR HRD STRATEGY**
Size and Scope	• 1583 secondary schools • majority of secondary schools in rural areas, as is the majority of secondary school learners • Most secondary schools in rural areas are in quintiles 1 and 2 • More than half of all secondary schools are in quintiles and 2	• Much attention must be given to educational resourcing and improvement in rural secondary schools in order to build HR capacity in rural areas • There must be monitoring of the educational performance of rural schools
Performance and performance outcomes	• High dropout rates in secondary schools, particularly at Grades 10 and 11. • NSC pass rate is 68%, but pass rates differ by districts, local municipalities and wards with centres of excellence and centres of poor performance • Quintile 1 schools or poorer schools generally perform less well • Less than a third of all learners register for maths and science in the NSC examinations • Passes in maths and science are generally low • Only 27% or learners pass with endorsements for HEI	• More learners must enrol for maths and science and institutions should strive for higher pass rates • Support programmes must be provided in high schools in order to reduce the rate of dropouts • Special attention must be given to enhance the performance of poor rural schools on the NSC • There must be earlier intervention with career awareness and the choice of subjects in secondary schools
Quality and learners readiness	• Most learners from primary schools are not academically ready for secondary education • Teacher quality and availability affects the quality of education – particularly in maths and science • Literacy and numeracy performance in primary schools must improve • Cascading effect of educational under-performance from ECD to secondary	• Academic transition programme for “at risk” learners who enter high schools • Need to prioritize Grade 9 assessment and use the data generated to provide support to learners • Need to target and support academic under-performance as early as Grade 3 • More effective management of subject choices of learners
General issues	• Two tier educational system – one for the rich and one for the poor.	• Need for support programmes for “at risk” learners

	The one for the poor under-resourced and under-performs • Teenage pregnancy and drug abuse • Lack of adequate facilities in many schools • Impact of HIV and AIDS and other communicable diseases on the teaching force and on learners	• Need for expanded interventions on teenage pregnancy and drug abuse • Prioritized interventions to improve educational facilities in rural schools – libraries and laboratories • Consideration must be given to an educational improvement programme for quintile 1 and 2 schools

2.3.4 TVET

The Further Education and Training (TVET) College is the primary vehicle and institutional structure for the supply of skilled workers at NQF levels 1-4. These institutions are intended as the major supply stream for the majority of the country's future skilled workforce. The purpose of this sub-section is to take a closer look at the place, role and productivity of TVET Colleges in the supply of skills in the province. The data used in this sub-section of the analysis is from TVETMIS/EMIS data generated by the KZN Department of Education, and from data generated in a series of district HRD workshops with local stakeholders in each district. Some data was also acquired from DHET in Pretoria. It should be noted that there are public and private TVET colleges throughout the province and that there are many local skill centres (public and private) associated with many of the existing colleges. Notwithstanding, the analysis focuses mainly on the public TVET College system which represents the backbone of the public infrastructure of delivering the skilled personnel needed by the economy. As in the previous sections, the discussion to follow will address four main considerations: scale and scope; performance and performance outcomes; quality and readiness; and it will outline, in the end, a series of general issues which affect the performance and outcomes of the TVET sector.

2.3.4.1 Scale and Scope

There are 9 TVET colleges in the province, with each college structured as a multi campus education and training provider with external campuses and skills centres located in surrounding local municipalities. While each college offers a wide range of programmes, the National Certificate (Vocational) – NC(V) – programme is the mainstay of its course programming. The NC(V) is currently available in 14 vocational fields and is certified at 3 NQF levels (2-4) with each certificate awarded after 1 year of course work. Table 35 presents enrolment in each college and by vocational field, and Table 36 presents a list of various vocational fields, and the enrollment in each field and at each NQF level for the colleges in the province. It will be noted that not all colleges offer all 14 vocational fields. In addition to the NC(V) programmes, colleges offer skills programmes as short duration skill-based programmes; cooperative training and support for training young people to establish youth cooperative businesses; learnerships which combine theory at the college with on-the-job practice; and apprenticeship programmes which focus mainly on on-the-job or workplace-based skill acquisition. There are also 3 trade test centres. Table 37 outlines skills programmes offered by each of the TVET Colleges.

In 2010, the total college headcount enrolment in the province was 159,910 in NC(V). Enrolment varied from 6033 in Mnambithi TVET, to 37,000 in Coastal TVET College. Most students are enrolled in engineering, finance and accounting, hospitality, computer science and office

administration. Few colleges offer primary agriculture as a vocational field. Enrolment has grown significantly in the last 2 years as the TVET college becomes the most viable post school option for most youth.

One of the critical concerns in TVET provision is the geographic availability of skills development opportunities. Table 38 presents a mapping of district and local municipalities with the associated population statistics, and with information on the availability of a TVET College or skills centre. The mapping shows gaps in the availability of opportunities in major population centres. While space does not allow for a detailed presentation of the vocational programmes and fields that are available in each district and in each local municipality, the analysis conducted has revealed that options and opportunities for the selection of a vocational field are restricted, particularly in rural areas. Students in many localities are very limited in their options for skills development.

Table 35: NC(V) Programme Enrollment in TVET College 2010

NC(V) PROGRAMME ENROLLMENT IN TVET COLLEGES 2010 FTEs										
PROGRAMMES	TVET COLLEGES									KZN TOTAL
	COASTAL	ELANGENI	ESAYIDI	MAJUBA	MNAMBITHI	MTHASHANA	THEKWINI	UMFOLOZI	UMGUNGUNDLOVU	
Civil Engineering Construction	732 27%	352 13%	221 8%	1026 38%	0 0%	45 2%	0 0%	228 8%	130 5%	2734
Electrical Engineering	747 21%	578 16%	214 6%	710 20%	361 10%	300 8%	187 5%	400 11%	141 4%	3638
Engineering and Related Design	873 30%	216 7%	112 4%	598 20%	0 0%	53 2%	196 7%	708 24%	189 6%	2945
Finance, Economics and Accounting	251 14%	325 18%	170 9%	262 14%	499 27%	0 0%	87 5%	192 10%	61 3%	1847
Hospitality	456 20%	255 11%	214 10%	419 19%	138 6%	170 8%	115 5%	363 16%	97 4%	2227
IT and Computer Science	212 17%	381 30%	44 3%	116 9%	138 11%	0 0%	237 19%	141 11%	0 0%	1269
Management	134 48%	0 0%	0 0%	145 52%	0 0%	0 0%	1 0%	0 0%	0 0%	280
Marketing	407 77%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	124 23%	531
Office Administration	1355 19%	967 13%	1336 18%	650 9%	897 12%	828 11%	208 3%	826 11%	173 2%	7240
Primary Agriculture	317 17%	165 9%	270 15%	613 34%	0 0%	216 12%	0 0%	247 14%	0 0%	1828
Tourism	549 28%	237 12%	205 11%	384 20%	120 6%	187 10%	45 2%	107 6%	94 5%	1928
SaTVETy in Society	0 0%	215 17%	0 0%	568 44%	0 0%	0 0%	511 39%	0 0%	0 0%	1294

Education and Development	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
ECD	421 54%	0 0%	0 0%	0 0%	129 17%	0 0%	0 0%	110 14%	115 15%	775
Transport & Logistics	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	91 49%	95 51%	0 0%	186
Process Plant Operation	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	140 100%	0 0%	140
TOTAL	**6454 22%**	**3691 13%**	**2786 10%**	**5491 19%**	**2282 8%**	**1799 6%**	**1678 6%**	**3557 12%**	**1124 4%**	**28862**

Source: TVETMIS KZN DoE

Table 36: NC(V) Enrolments per Programme in TVET Colleges by NQF level 2012

NC(V) ENROLMENTS PER PROGRAMME IN TVET COLLEGES BY NQF LEVELS 2012																		
COLLEGES	NQF LEVEL	PROGRAMMES																TOTAL COLLEGES
		Electrical Engineering	Civil Engineering	Engineering & Related Design	Marketing	Finance	Management	Office Admin	Tourism	Hospitality	Primary Agriculture	SaTVETy in Society	Process Plant Operation	Transport & Logistics	Education & Development	ECD	Information Technology	
COASTAL	2	500	496	582	240	161	64	628	449	233	198	0	0	0	0	191	148	3890
		67%	68%	67%	59%	64%	48%	46%	82%	51%	62%	0%	0%	0%	0%	45%	70%	
	3	158	138	151	105	41	44	497	55	132	78	0	0	0	0	145	42	1586
		21%	19%	17%	26%	16%	33%	37%	10%	29%	25%	0%	0%	0%	0%	34%	20%	
	4	89	98	140	62	49	26	230	45	91	41	0	0	0	0	85	22	978
		12%	13%	16%	15%	20%	19%	17%	8%	20%	13%	0%	0%	0%	0%	20%	10%	
Total COASTAL		747	732	873	407	251	134	1355	549	456	317	0	0	0	0	421	212	6454
ELANGENI	2	423	233	146	0	231	0	560	169	319	102	146	0	0	0	0	282	2611
		74%	66%	68%	0%	71%	0%	58%	71%	67	62	68	0%	0%	0%	0%	74%	
	3	106	83	60	0	84	0	265	49	116	42	69	0	0	0	0	72	946
		18%	24%	28%	0%	26%	0%	27%	21%	25	25	32	0%	0%	0%	0%	19%	
	4	49	36	10	0	10	0	142	19	37	21	0	0	0	0	0	27	351
		8%	10%	5%	0%	3%	0%	15%	8%	8	13	0	0%	0%	0%	0%	7%	
Total ELANGENI		578	352	216	0	325	0	967	237	472	165	215	0	0	0	0	381	3908
ESAYIDI	2	120	147	75	0	114	0	812	133	139	184	0	0	0	0	0	0	1724
		56%	67%	67%	0%	67%	0%	61%	65%	65%	68%	0%	0%	0%	0%	0%	0%	
	3	55	45	29	0	34	0	333	49	62	64	0	0	0	0	0	24	695
		26%	20%	26%	0%	20%	0%	25%	24%	29%	24%	0%	0%	0%	0%	0%	55%	
	4	39	29	8	0	22	0	191	23	13	22	0	0	0	0	0	20	367
		18%	13%	7%	0%	13%	0%	14%	11%	6%	8%	0%	0%	0%	0%	0%	45%	
Total ESAYIDI		214	221	112	0	170	0	1336	205	214	270	0	0	0	0	0	44	2786
MAJUBA	2	417	563	373	0	173	84	334	242	231	439	323	0	0	0	0	84	3263

NC(V) ENROLMENTS PER PROGRAMME IN TVET COLLEGES BY NQF LEVELS 2012

COLLEGES	NQF LEVEL	PROGRAMMES																TOTAL COLLEGES
		Electrical Engineering	Civil Engineering	Engineering & Related Design	Marketing	Finance	Management	Office Admin	Tourism	Hospitality	Primary Agriculture	SaTVETy in Society	Process Plant Operation	Transport & Logistics	Education & Development	ECD	Information Technology	
		59%	55%	62%	0%	66%	58%	51%	63%	55%	72%	57%	0%	0%	0%	0%	72%	
	3	137	289	120	0	42	0	197	69	105	106	126	0	0	0	0	14	1205
		19%	28%	20%	0%	16%	0%	30%	18%	25%	17%	22%	0%	0%	0%	0%	12%	
	4	156	174	105	0	47	61	119	73	83	68	119	0	0	0	0	18	1023
		22%	17%	18%	0%	18%	42%	18%	19%	20%	11%	21%	0%	0%	0%	0%	16%	
Total MAJUBA		710	1026	598	0	262	145	650	384	419	613	568	0	0	0	0	116	5491
NMAMBITHI	2	194	0	0	0	316	0	488	77	96	0	0	0	0	0	71	97	1339
		54%	0%	0%	0%	63%	0%	54%	64%	70%	0%	0%	0%	0%	0%	55%	72%	
	3	103	0	0	0	121	0	286	29	28	0	0	0	0	0	40	33	640
		29%	0%	0%	0%	24%	0%	32%	24%	20%	0%	0%	0%	0%	0%	31%	24%	
	4	64	0	0	0	62	0	123	14	14	0	0	0	0	0	18	5	300
		17%	0%	0%	0%	12%	0%	14%	12%	10%	0%	0%	0%	0%	0%	14%	4%	
Total NMAMBITHI		361	0	0	0	499	0	897	120	138	0	0	0	0	0	129	135	2279
MTHASHANA	2	254	45	53	159	0	0	584	146	126	161	0	0	0	0	0	0	1369
		85%	100%	100%	85	0%	0%	71%	78%	74%	75%	0%	0%	0%	0%	0%	0%	
	3	34	0	0	28	0	0	187	29	29	35	0	0	0	0	0	0	314
		11%	0%	0%	15	0%	0%	23%	16%	17%	16%	0%	0%	0%	0%	0%	0%	
	4	12	0	0	0	0	0	57	12	15	20	0	0	0	0	0	0	116
		4%	0%	0%	0	0%	0%	7%	6%	9%	9%	0%	0%	0%	0%	0%	0%	
Total MTHASHANA		300	45	53	0	0	0	828	187	170	216	0	0	0	0	0	0	1799
THEKWENI	2	159	0	141	0	56	0	112	32	84	0	348	0	91	0	0	183	1206
		85%	0%	72%	0%	64%	0%	54%	71%	73%	0%	68%	0%	100%	0%	0%	77%	

NC(V) ENROLMENTS PER PROGRAMME IN TVET COLLEGES BY NQF LEVELS 2012

COLLEGES	NQF LEVEL	PROGRAMMES																TOTAL COLLEGES
		Electrical Engineering	Civil Engineering	Engineering & Related Design	Marketing	Finance	Management	Office Admin	Tourism	Hospitality	Primary Agriculture	SaTVETy in Society	Process Plant Operation	Transport & Logistics	Education & Development	ECD	Information Technology	
	3	28	0	43	0	19	0	66	0	18	0	97	0	0	0	0	35	306
		15%	0%	22%	0%	22%	0%	32%	0%	16%	0%	19%	0%	0%	0%	0%	15%	
	4	0	0	12	0	12	1	30	13	13	0	66	0	0	0	0	19	166
		0%	0%	6%	0%	14%	100%	14%	29%	11%	0%	13%	0%	0%	0%	0%	8%	
Total THEKWINI		187	0	196	0	87	1	208	45	115	0	511	0	91	0	0	237	1678
UMFOLOZI	2	184	150	336	0	120	0	450	64	224	156	0	90	95	0	60	60	1989
		46%	66%	47%	0%	63%	0%	54%	60%	62%	63%	0%	64%	100%	0%	55%	43%	
	3	117	56	271	0	48	0	218	30	87	58	0	50	0	0	29	42	1006
		29%	25%	38%	0%	25%	0%	26%	28%	24%	23%	0%	36%	0%	0%	2%	30%	
	4	99	22	101	0	24	0	158	13	52	33	0	0	0	0	21	39	562
		25%	10%	14%	0%	13%	0%	19%	12%	14%	13%	0%	0%	0%	0%	19%	28%	
Total UMFOLOZI		400	228	708	0	192	0	826	107	363	247	0	140	95	0	110	141	3557
UMGUNGUNDLOVU	2	113	92	140	82	47	0	105	62	67	0	0	0	0	0	78	0	786
		80%	71%	74%	66%	77%	0%	61%	66%	69%	0%	0%	0%	0%	0%	68%	0%	
	3	20	22	49	25	9	0	43	25	19	0	0	0	0	0	19	0	231
		14%	17%	26%	20%	1%	0%	25%	27%	20%	0%	0%	0%	0%	0%	17%	0%	
	4	8	16	0	17	5	0	25	7	11	0	0	0	0	0	18	0	107
		6%	12%	0%	14%	8%	0%	14%	7%	11%	0%	0%	0%	0%	0%	16%	0%	
Total UMGUNGUNDLOVU		141	130	189	124	61	0	173	94	97	0	0	0	0	0	115	0	1124
TOTAL L2		2364	1726	1846	322	1218	148	4073	1374	1519	1240	817	90	186	0	400	854	18177
		65%	63%	63%	61%	66%	53%	56%	71%	62%	68%	63%	64%	100%	0%	52%	67%	
TOTAL L3		758	633	723	130	398	44	2092	335	596	383	292	50	0	0	233	262	6929

NC(V) ENROLMENTS PER PROGRAMME IN TVET COLLEGES BY NQF LEVELS 2012																	
COLLEGES	NQF LEVEL	PROGRAMMES															TOTAL COLLEGES
		Electrical Engineering	Civil Engineering	Engineering & Related Design	Marketing	Finance	Management	Office Admin	Tourism	Hospitality	Primary Agriculture	SaTVETy in Society	Process Plant Operation	Transport & Logistics	Education & Development	ECD	Information Technology	
		21%	23%	25%	24%	22%	16%	29%	17%	24%	21%	23%	36%	0%	0%	30%	21%	
TOTAL L4		516 14%	375 14%	376 13%	79 15%	231 13%	88 31%	1075 15%	219 11%	329 13%	205 11%	185 14%	0 0%	0 0%	0 0%	142 18%	150 12%	3970
OVERALL KZN TOTAL		**3638**	**2734**	**2945**	**531**	**1847**	**280**	**7240**	**1928**	**2444**	**1828**	**1294**	**140**	**186**	**0**	**775**	**27810**	**29076**

Source: TVETMIS KZN DoE

Table 37: TVET Colleges: NATED Enrolments per Programme 2012

TVET COLLEGES: NATED ENROLMENTS PER PROGRAMME										
PROGRAMME	TVET COLLEGES									TOTAL KZN
	COASTAL	ELANGENI	ESAYIDI	MAJUBA	MNAMBITHI	MTHASHANA	THEKWINI	UMFOLOZI	UMGUNGUN-DLOVU	
ENGINEERING	2650	748	994	3661	190	421	2094	1744	1325	13827
N1	0 0%	0 0%	471 47%	1305 36%	0 0%	68 16%	739 35%	0 0%	378 29%	2961
N2	235 9%	264 35%	126 13%	466 13%	0 0%	294 70%	437 21%	382 22%	191 14%	2395
N3	447 17%	17 2%	145 15%	551 15%	0 0%	10 2%	305 15%	492 28%	244 18%	2211
N4	1050 40%	367 49%	206 21%	672 18%	153 81%	15 4%	362 17%	445 26%	305 23%	3575

TVET COLLEGES: NATED ENROLMENTS PER PROGRAMME

PROGRAMME	TVET COLLEGES									TOTAL KZN
	COASTAL	ELANGENI	ESAYIDI	MAJUBA	MNAMBITHI	MTHASHANA	THEKWINI	UMFOLOZI	UMGUNGUN-DLOVU	
N5	509 19%	60 8%	35 4%	431 12%	28 15%	14 3%	148 7%	251 14%	91 7%	1567
N6	409 15%	40 5%	11 1%	236 6%	9 5%	20 5%	103 5%	174 10%	116 9%	1118
BUSINESS STUDIES	1165	1424	2876	3007	1183	1377	1857	1451	2720	17060
N4	712 61%	1185 83%	1777 62%	1854 62%	1183 100%	920 67%	1133 61%	950 65%	1485 55%	11199
N5	237 20%	145 10%	653 23%	685 23%	0 0%	247 18%	394 21%	337 23%	772 28%	3470
N6	216 19%	94 7%	446 16%	468 16%	0 0%	210 15%	330 18%	164 11%	463 17%	2391
SERVICES	90	0	426	319	0	0	356	0	435	1626
N4	90 100%	0 0%	344 81%	252 79%	0 0%	0 0%	312 88%	0 0%	292 67%	1290
N5	0 0%	0 0%	48 11%	56 18^	0 0%	0 0%	4 1%	0 0%	62 14%	170
N6	0 0%	0 0%	34 8%	11 3%	0 0%	0 0%	40 11%	0 0%	81 19%	166
TOTAL N1	0 0%	0 0%	471 11%	1305 19%	0 0%	68 4%	739 17%	0 0%	378 8%	2961
TOTAL N2	235 6%	264 12%	126 3%	466 7%	0 0%	294 16%	437 10%	382 12%	191 4%	2395
TOTAL N3	447 11%	17 1%	145 3%	551 8%	0 0%	10 1%	305 7%	492 15%	244 5%	2211
TOTAL N4	1852 47%	1552 71%	2327 54%	2778 40%	1336 97%	935 52%	1807 42%	1395 44%	2082 46%	16064
TOTAL N5	746 19%	205 9%	736 17%	1172 17%	28 2%	261 15%	546 13%	588 18%	925 21%	5207
TOTAL N6	625 16%	134 6%	491 11%	715 10%	9 1%	230 13%	473 11%	338 11%	660 15%	3675

TVET COLLEGES: NATED ENROLMENTS PER PROGRAMME

PROGRAMME	TVET COLLEGES									TOTAL KZN
	COASTAL	ELANGENI	ESAYIDI	MAJUBA	MNAMBITHI	MTHASHANA	THEKWINI	UMFOLOZI	UMGUNGUN-DLOVU	
OVERALL TOTAL	3905	2172	4296	6987	1373	1798	4307	3195	4480	32513

Source: TVETMIS KZN DoE

Table 38: Mapping of District and Local Municipalities: Availability of TVET College/Skills Centre

SKILLS DEVELOPMENT BY OPTION AN DISTRICT									
DISTRICT AND LOCAL MUNICIPALITY	POPULATION 2011	SKILL DEVELOPMENT OPTIONS							
		HEI (PUBLIC INSTITUTIONS)	TVET COLLEGE MAIN CAMPUS	TVET COLLEGE SATELLITE CAMPUS	PUBLIC ADULT LEARNING CENTRE	SKILLS CENTRE	TRADE TEST CENTRE	NUMBER OF REGISTERED PRIVATE TVET COLLEGE	AREAS IDENTIFIED BY TVET COLLEGES FOR EXPANSION
UGU	722,484		1	5	82				
Vulamehlo	77403	none	none	1		none	none	none	Not identified
uMdoni	78875	none	none	none		none	none	none	Not identified
Umzumbe	160975	none	none	none	Data unavailable	none	none	none	✓
Umuziwabantu	96556	none	none	none		none	none	none	Not identified
Ezingolweni	52540	none	none	1		none	none	none	Not identified
Hibiscus Coast	256135	none	1	3		none	none	none	Not identified
UMGUNGUNDLOVU	1,017,763	3	1	5	62			3	
uMshwathi	106374	none	none	none		none	none	none	✓
uMgeni	92710	none	none	none		none	none	none	✓
Mooi Mpofana	38103	none	none	none		none	none	none	Not identified
Impendle	33105	none	none	none	Data unavailable	none	none	none	Not identified
Msundizi	618536	3	1	5		none	none	3	Not identified
Mkhambathini	63142	none	none	none		none	none	none	Not identified

SKILLS DEVELOPMENT BY OPTION AN DISTRICT									
DISTRICT AND LOCAL MUNICIPALITY	POPULATION 2011	SKILL DEVELOPMENT OPTIONS							
		HEI (PUBLIC INSTITUTIONS)	TVET COLLEGE MAIN CAMPUS	TVET COLLEGE SATELLITE CAMPUS	PUBLIC ADULT LEARNING CENTRE	SKILLS CENTRE	TRADE TEST CENTRE	NUMBER OF REGISTERED PRIVATE TVET COLLEGE	AREAS IDENTIFIED BY TVET COLLEGES FOR EXPANSION
Richmond	65793	none	none	none		none	none	none	Not identified
UTHUKELA	668,848		1	1	41				
Emnambithi	237437	none	1	1		none	none	none	Not identified
Indaka	103116	none	none	none	Data unavailable	none	none	none	✓
Umtshezi	83153	none	none	none		none	none	none	Not identified
Okhahlamba	132068	none	none	none		none	none	none	✓
Imbabazene	113073	none	none	none		none	none	none	Not identified
UMZINYATHI	510,838			2	35				
Endumeni	64862	none	none	1		none	none	none	Not identified
Nquthu	165307	none	none	1	Data unavailable	none	none	none	Not identified
Msinga	177577	none	none	none		none	none	none	✓
Umvoti	103093	none	none	none		none	none	none	✓
AMAJUBA	499839		1	6	46				
Newcastle	363236	none	1	6		none	none	none	Not identified

SKILLS DEVELOPMENT BY OPTION AN DISTRICT									
DISTRICT AND LOCAL MUNICIPALITY	POPULATION 2011	SKILL DEVELOPMENT OPTIONS							
		HEI (PUBLIC INSTITUTIONS)	TVET COLLEGE MAIN CAMPUS	TVET COLLEGE SATELLITE CAMPUS	PUBLIC ADULT LEARNING CENTRE	SKILLS CENTRE	TRADE TEST CENTRE	NUMBER OF REGISTERED PRIVATE TVET COLLEGE	AREAS IDENTIFIED BY TVET COLLEGES FOR EXPANSION
Emadlangeni	34442	none	none	none		none	none	none	Not identified
Danhauser	102161	none	none	none		none	none	none	✓
ZULULAND	803575		1	4	119				
eDumbe	82053	none	none	none		none	none	none	Not identified
uPhongolo	127238	none	none	none		none	none	none	✓
Abazulusi	211060	none	1	none	Data unavailable	none	none	none	Not identified
Nongoma	194908	none	none	2		none	none	none	Not identified
Ulundi	188317	none	none	2		none	none	none	Not identified
UMKHANYAKUDE	614048			1	109				
Umhlabuyalingana	156736	none	none	1		none	none	none	Not identified
Josini	186502	none	none	none	Data unavailable	none	none	none	✓
The Big Five False Bay	35258	none	none	none		none	none	none	Not identified
Hlabisa	71925	none	none	none		none	none	none	✓
Mtubatuba	175425	none	none	none		none	none	none	Not identified
UTHUNGULU	894258	1	1	3	166	5			

SKILLS DEVELOPMENT BY OPTION AN DISTRICT									
DISTRICT AND LOCAL MUNICIPALITY	POPULATION 2011	SKILL DEVELOPMENT OPTIONS							
		HEI (PUBLIC INSTITUTIONS)	TVET COLLEGE MAIN CAMPUS	TVET COLLEGE SATELLITE CAMPUS	PUBLIC ADULT LEARNING CENTRE	SKILLS CENTRE	TRADE TEST CENTRE	NUMBER OF REGISTERED PRIVATE TVET COLLEGE	AREAS IDENTIFIED BY TVET COLLEGES FOR EXPANSION
Mfolozi	122889	none	none	none		none	none	none	✓
uMhlatuze	334459	1	1	2		3	none	none	Not identified
Ntambanana	74336	none	none	none	Data unavailable	1	none	none	Not identified
Umlalazi	213601	none	none	1		1	none	none	Not identified
Mthonjaneni	47818	none	none	none		none	none	none	Not identified
Nkandla	114416	none	none	none		none	none	none	✓
ILEMBE	606809			2	132	3			
Mandeni	138078	none	none	1		2	none	none	Not identified
Kwadukuza	231187	none	none	none		1	none	none	Not identified
Ndwedwe	140820	none	none	1	Data unavailable	none	none	none	Not identified
Maphumulo	96724	none	none	none		none	none	none	✓
SISONKE	461419				110				
Ingwe	100548	none	none	none		none	none	none	✓
Kwa Sani	12898	none	none	none		none	none	none	Not identified
Umzimkhulu	180302	none	none	none	Data unavailable	none	none	none	Not identified
Greater Kokstad	65981	none	none	none		none	none	none	Not identified
Ubuhlebezwe	101691	None	none	none		none	none	none	✓
ETHEKWINI	3442361	4	3	17	203				

SKILLS DEVELOPMENT BY OPTION AN DISTRICT									
DISTRICT AND LOCAL MUNICIPALITY	POPULATION 2011	SKILL DEVELOPMENT OPTIONS							
		HEI (PUBLIC INSTITUTIONS)	TVET COLLEGE MAIN CAMPUS	TVET COLLEGE SATELLITE CAMPUS	PUBLIC ADULT LEARNING CENTRE	SKILLS CENTRE	TRADE TEST CENTRE	NUMBER OF REGISTERED PRIVATE TVET COLLEGE	AREAS IDENTIFIED BY TVET COLLEGES FOR EXPANSION
TOTAL KZN	10,267,300	5	9	46	1105	8		3	

Source: TVETMIS KZN DoE

2.3.4.2 Quality of Programmes and Readiness of Learners

The quality of programmes for skills development in the TVET Colleges varies significantly, both between and some within colleges. Colleges in the province with the highest quality programmes and the most effective programming are generally those colleges with strong industry partnerships, and those with a rich history of ties with industry. Where there are strong industry ties in any vocational programme, and in any college, the programme tends to be of higher quality and to be more effective in preparing graduates who meet the standard of performance that industry expects. But there are many other factors which seem to affect the quality of programmes. Some of these include: the qualifications and experience of instructors; the quality and appropriateness of workshop facilities; the quality and readiness of students to pursue particular courses; and, among others, the availability of opportunities to acquire practical experience in an appropriate employment environment. Each of these will be discussed briefly below.

Qualification and Experience of Instructors: Table 39 presents information on the qualifications of instructors in the TVET college system in KZN. According to data collected in 2010, only 30% of instructors hold degrees or higher diplomas; the majority of instructors (54%) hold academic or trade diplomas, about 6% are unqualified or under-qualified. Because the TVET College competes with the private sector for the staff it needs in the highly technical programme areas, suitably qualified instructors are difficult to attract, and almost impossible to retain. In this respect, the engineering, accounting and ICT areas generally have difficulties in attracting and retaining qualified and experienced instructors. A concomitant issue in respect to the quality of instructors and the effectiveness of instruction at colleges, is, that while instructors may have technical qualifications, many do not have adequate pedagogical knowledge and may not be as effective as managers of learning in the learning environments of classrooms and workshops.

Quality of Workshop Facilities: Here again, workshop facilities vary in quality and appropriateness. It is to be noted that significant investment has been made by colleges to improve workshop facilities under the recapitalization programme. In most vocational programmes the benefits of recapitalization funding is obvious. In some vocational programmes, however, it is difficult to maintain currency with the standards of technology and the quality of equipment that are relevant to specific industries, and are current in the occupational environment of the specific trade.

Quality and Readiness of Learners: The academic preparedness of learners, in large measure, determines their level of success in TVET Colleges. An analysis of the evidence available on qualifications of learners, upon entering the college, and a review of the comments of TVET managers, show that learners entering TVET Colleges are not generally well prepared for NC(V) or Nated programmes. Many lack the necessary communication skills and language proficiency, and most do not have sufficiently adequate backgrounds in science and maths that are needed for most of the available vocational programmes, particularly those in the field of engineering. The consequences of inadequate academic preparation in primary and secondary schools, and the result of incorrect subject choices in the senior phase of secondary schooling are both evident in the performance of learners at the TVET level. These have undesirable consequences on the stock of skills generated through these colleges. Students are unable to keep up with the academic workload in the college and may eventually drop out. This leads to a perception of TVET colleges as a post school option available to those who are not academically inclined. The result of this perception is the ongoing inability of colleges to attract and cater for a pool of talent that could be groomed into superior artisans. The second limitation of this perception is that many learners

are not perceived as having the skills-set necessary to be acceptable to employers, and, as a result, many of them are difficult to place in positions for gaining practical experience. The quality of their training is therefore compromised. The third challenge to be confronted in this regard, is that many students are unable to succeed in their programmes of choice, and, as a result, they opt for programmes that are less challenging, but which also have lower probabilities for sustainable employment. The consequence of poor programme choice is an oversupply of graduates in areas where employment demand is low, and an under-supply of graduates in areas where employment demand is high.

Lack of Opportunities to Pursue Practical Training: Although the NC(V) was conceived as a highly practical and skill-based vocational option, in many colleges, it has emerged as a largely theoretical programme of study. One of the reasons for this, is the difficulty in finding workplaces for learners to acquire practical experience. In some cases, there are, too few employment establishments in the geographic area of the college where learners can gain work experience; in other cases, employers are reluctant to engage trainees and interns because of the overriding perception that their training may be inadequate. However, where colleges have close ties with industry, workplace placements are less difficult to arrange. Many level 4 students are unable to graduate because they are unable to meet the requirement of workplace placement and, therefore, unable to acquire relevant practical experience. The number of people registered for NC(V) programmes make it almost impossible to secure placements for all learners.

Table 39: Educators by Qualifications 2010: TVET Colleges

KZN TVET COLLEGES : EDUCATORS BY QUALIFICATIONS 2010								
CAMPUS	HIGHER DEGREE	DEGREE/ HIGHER DIPLOMA	DIPLOMA	INDUSTRY /TRADE DIPLOMA	UN-QUALIFIED / UNDER QUALIFIED	POST MATRIC CERT.	NATIONAL 1CERT.	TOTAL
Coastal	37	81	184	53	5	0	13	373
Elangeni	25	37	53	4	48	0	4	171
Esayidi	8	49	102	25	2	0	25	211
Majuba	15	41	127	89	9	0	36	317
Mnambithi	12	15	46	6	2	0	6	87
Mthashana	4	20	28	10	7	0	15	84
Thekwini	22	46	71	21	3	0	6	169
Umfolozi	23	51	76	20	6	6	17	199
uMgungund.	11	60	40	5	23	0	22	162
TOTAL	**157**	**400**	**727**	**233**	**105**	**6**	**144**	**1772**

Source: TVETMIS KZN Department of Education

2.3.4.3 Performance and Performance Outcomes

Performance of the TVET College is assessed largely by the performance and success of its learners. But college performance is also measured by programme viability, by responsiveness to the needs of learners and the level of industry partnerships and linkages in programming courses. Programme viability is also measured by gender equity and by programme accessibility. Here again, the results vary. In some institutions performance on these measures is moderate to high.

[1] *Please note that instructors may have National Certificate with appropriate trade and industry qualifications*

In general, however, performance of TVET Colleges, according to these criteria, is generally low. Comments will be made on each of these criteria below.

Programme Viability: Programme viability refers to the extent to which it makes economic sense to offer a particular vocational programme. When programme enrollment is too low, then all things being equal, the cost of offering the programme may exceed the income to be generated by the programme; and, from another perspective, a programme is more viable when employment prospects at the end of the programme are high. From an enrolment perspective, most programmes are viable. The viability may vary among and within colleges, overall, but enrolment at TVETs in most programmes are sufficiently high so as to make most programmes viable. There has been a significant growth in enrolment in the last five years, and this is expected to continue into the future because of increased policy emphasis on expanding access to TVET colleges. From the perspective of employment prospects, however, viability is generally low. Many TVET graduates are unable to gain employment at the end of their programme of study.

Responsiveness of the College: While TVET colleges continue to produce NC(V) graduates in 14 sub fields, not all TVET Colleges and not all programmes are seen to be responsive to the needs of industry or to the needs of students and out-of-school-youth. On the one hand, more and more programmes are being offered by colleges to serve out-of-school-youth. These include short duration skills programmes, cooperative programmes, courses for SMMEs, and rehabilitation vocational training programmes offered to inmates, among others. However, these programmes do not have the capacity to serve the growing number of out-of-school-youth. Student support services have been expanded in some TVET Colleges to include academic and social support, some form of vocational guidance and academic financial assistance through NSFAS; but many students still need more assistance to bridge the gap between their current level of preparation and the academic requirements for success in the TVET programmes in which they are enrolled. Some colleges seek to respond to the demands of their geographic area, and to the demands of economic activities within their jurisdiction. However, few colleges have responded to the emerging needs and priorities as defined in the New Growth Path such as: aqua-culture; the green economy; downstream and sidestream benefication activities in mining; agro-processing; and marine exploration, among others. In addition, few colleges have responded to the skill demands of expanded public investment in infrastructure, particularly in respect to water infrastructure and to the technologies related to the distribution and management of water.

Gender Equity: All colleges maintain gender equity in terms of overall enrolment and enrolment in non-traditional programmes. Overall, the male to female enrolment in the province is 48% female and 52% male. Traditionally, more women enrol in particular fields such as tourism and business studies. But this is changing. In Umfolozi TVET, for instance, the overall female enrolment in engineering programmes is 40% with some programmes having a female enrolment as high as 53%. There is an increase in the enrolment of women in non-traditional programmes in many colleges.

Programme Accessibility: Programme accessibility refers to the number of applicants for a specific programme versus the number of candidates accepted into the programme. Overall, most colleges now have the facilities to accept all who apply, and, in this sense, access is unlimited. But accessibility varies by programme areas. Not all colleges submitted returns on admission statistics. Table 40 presents information on admission statistics submitted by one college. Two trends should be noted. The first is the educational attainment of applicants, and the second is the high rate of acceptance. Most applicants for NC(V) are students without Grade 12, while some have Grade 12 with and without endorsements. Most of the applicants for N programmes,

however, already have Grade 12, but the majority do not have endorsements. With the exception of N4 programmes in business studies, almost all applicants are accepted into the programmes for which they apply. This data will vary by college; and, in respect to acceptance rates, accessibility appears to be high. However, in respect to geographic accessibility, many TVET managers confirm that there are large populations of youth who do not have access to skills development because of the unavailability of skills development facilities in their geographic area, and because of the cost and inconvenience of travel to TVET facilities and skills centres where these are available.

Table 40: Admission Statistics Esayidi TVET College

NUMBER OF APPLICATIONS RECEIVED AND % ACCEPTED 2011							
ESAYIDI TVET COLLEGE	Level	NUMBER OF STUDENTS AT THE COLLEGE			NUMBER OF STUDENT APPLICATIONS	NUMBER OF STUDENTS ACCEPTED	% OF THOSE ACCEPTED
		Number of Students without Grade 12	Number of Students with Grade 12, without endorsement	Number of Students with Grade 12, with Endorsements			
NC(V)	L1	1527	70	56	1831	1724	94%
	L2				695	695	100%
	L3				367	367	100%
Sub-Total NC(V)		1527	70	56	2893	2786	96%
N programmes Engineering only)	N1	142	225	89	471	471	100%
	N2	36	65	0	126	126	100%
	N3	98	53	0	195	195	100%
SUB-TOTAL N1-N3 (ENGINEERING ONLY)		276	343	89	792	792	100%
N Programmes (Engineering only)	N4	0	84	2	132	132	100%
	N5				35	35	100%
	N6				11	11	100%
SUB-TOTAL N4-N6 (ENGINEERING ONLY)		0	84	2	178	178	100%
N Programmes (Business Studies and Services only)	N4	2	1778	322	2484	2174	88%
	N5				701	701	100%
	N6				480	480	100%
SUB-TOTAL N4-N6 (BUSINESS STUDIES)		2	1778	322	3665	3355	92%
SUB-TOTAL N4-N6		2	1862	324	3843	3533	92%
TOTAL		**1805**	**2275**	**469**	**7528**	**7111**	**94%**

Performance and Success of Learners: Most TVET Colleges are plagued by a low throughput rate, and on average, low certification rates and high dropout rates in most programmes. These rates vary by college. The throughput rate of Esayidi, for instance, is 59% while that for Mthashana is

40%. The national average throughput rate is about 51%. The average TVET dropout rate for the province could not be determined at the time of this study. However, it is estimated that for every new year group which enters an TVET College, only 22% will complete the programme for which they are enrolled in the expected time. Certification is defined as a student passing all subjects at a given level. The provincial certification rate is 20% and the national certification rate is 24% according to data from DHET.

2.3.4.4 General Issues

In addition to issues of scope, programme quality, learner readiness and institutional performance, there are many issues to be considered in any programme to enhance the services rendered by TVET Colleges. Some of these issues are itemized below. They are as follows:

- Programmes are not sufficiently flexible and diverse to accommodate the diverse needs and circumstances of students. There is a significant need for the establishment of full time and part time programmes to accommodate the diverse needs of students – particularly students who are employed. Consideration may even be given to programmes offered on weekends. Some of this is being done, but not sufficiently so.
- Partnerships with industry is lagging in some colleges and this affects the quality of programmes and limits the benefits to learners. Colleges need a senior executive manager to develop and manage industry partnerships and other partnerships which can be of benefit to the college. Colleges which have appointed such an official have been more successful in establishing and maintaining partnerships.
- Some lecturers do not have current or updated experience in the respective trade or industry. Consideration must be given to increased use of part time lecturers with full time positions in industry.
- There is a growing need for more NQF level 5 courses in TVET colleges.
- Many graduates are unable to find jobs because they do not have experience in a particular industry or in a particular specialty in their trade. Consideration of short courses for certificate endorsements in critical skills areas.

2.3.4.5 Summary

Table 41 presents a summary of the key findings related to the role and performance of TVET Colleges. The table also presents the implications of these findings for an HRD strategy for the province.

Table 41: Summary of Key Findings related to Role and Performance of TVET Colleges

SUMMARY OF FINDINGS IN TVET COLLEGES		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR THE HRD STRATEGY**
Size and Scope	• 9 Multi campus TVET Colleges with skills centres in local communities • Offer a large range of 14 NC(V) programmes in addition to short duration skills programmes, coop training, learnerships and apprenticeships	• Need to establish TVET College campuses or skills centres in under-served geographic areas • Need to streamline the diversity of vocational programmes in colleges and to establish proper organizational structures to serve these programmes

SUMMARY OF FINDINGS IN TVET COLLEGES		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR THE HRD STRATEGY**
	• Gaps geographically in the availability of opportunities for skills development • In 2012 there were about 30,000 students enrolled in NC(V) Colleges • Most learners are between 18-24 years with a growing number of learners over 30	• Need for programmes in response to emerging needs and priorities in industrial development • Need to expand TVET enrolment to accommodate more out-of-school-youth
Performance and Performance Outcomes	• High acceptance rates • Effective and responsive programmes where there are close links with industry • High dropout rates • Low certification rate • Low throughput rate • Low to moderate pass rates in most vocational programmes • Programmes not geographically accessible to some major population centres • High gender equity and non-traditional enrolments • More emphasis to be placed on entrepreneurial training • Limited responsiveness to new and emerging industrial and economic growth priorities	• Enhanced student support services needed in order to promote academic success. Bridging programmes are essential. • Need for more responsiveness to emerging needs in economic growth and development • Need for more entrepreneurial development programmes • Need for short 'top up' courses to prepare graduates for specific employer requirements
Quality and Learner Readiness	• Small percentage of unqualified and under-qualified instructors • Many instructors do not have updated industrial experience and some do not have pedagogical training • Limited access to on-the-job practical experience for learners • Difficulty attracting and retaining instructors in highly technical fields • Learner performance and success is compromised by lack of adequate foundation in language, maths and science	• Need for programmes to develop the quality of instructors • Enhanced partnership with industry for instructor and learner development • Partnerships with industry for the secondment of engineers as instructors • Bridging programmes for learners in basic academic subjects – maths, science, language • Enhanced tracking and monitoring of learners • Programming delivery planning related to geographic area
General Issues	• Lack of industry in many areas resulting in lack of work-based exposure for learners	• Establishment of full time and part time programmes to accommodate the diverse needs

SUMMARY OF FINDINGS IN TVET COLLEGES		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR THE HRD STRATEGY**
	• Students who have completed matric do not want to study for 3 years for another level 4 qualification • Availability of suitably qualified staff, particularly in engineering programmes • Renewed demand for Nated programmes places heavy demand on infrastructure • Stigma of TVET for backward students • No policies which focus on collaborative planning roster • Diverse populations being served by many colleges. Diverse needs to be addressed • Employers need upgrading courses in critical areas for their employees that are sometimes not available	of students – particularly students who are employed. Consideration may even be given to programmes offered on weekends. • Colleges need a senior executive manager to develop and manage industry partnerships. • Consideration must be given to increased use of part time lecturers with full time positions in industry. • Need for NQF level 5 courses. • Consideration of short courses for certificate endorsements in critical skills areas.

2.3.5 Higher Education

The Higher Education Sector in the Province represents a significant resource in terms of its intellectual capacity, and a rich centre of knowledge that can contribute to its welfare and development in many fields. It is the main source of supply for advanced technical and professional skills, a centre for research and innovation and an avenue through which a wide range of services could be rendered to the community. An overview of higher education seeks to highlight its role and performance in serving the human resource needs of the Province. This section of the chapter will look at the scale and scope of higher education in the Province in terms of institutions, programmes and student enrolment; the quality and readiness of learners entering the university; the performance of these institutions in terms of the success rate of students; and an overview of some of the critical issues to be considered in embracing the higher education sector as an integral component of the Province's strategy to build its human resource capacity. Each of these sections follow.

2.3.5.1 Scale and Scope

The higher education sector in the Province is represented by a diverse array of educational institutions and a wide range of educational programmes. There are 4 public universities in the Province. In addition to these, there are external campuses of 1 other university, and a total of 24 private schools that are registered as higher education institutions. There are many other institutions that are unregistered that could be categorized as part of the post school and higher education sector. They include Business Colleges, Nursing Schools, Beauty Schools and Computer Academies, among others. Table 80 (refer to Annexure 1) presents a list of the public and private schools with their enrolment, the type and range of programmes offered and their geographic

locations. Table 81 (refer to Annexure 1) provides a more comprehensive listing of the programme offering of public universities in the Province. This listing provides some insight into the range of programmes offered and into considerations regarding accessibility and throughput. A much more detailed analysis of the higher education sector is warranted from the preliminary information gathered, however, the following general observations can be made.

The higher education sector in the Province has a wide range of programme offerings in Science Engineering and Technology (SET), Human and Social Sciences (HSS) and Business Commerce and Management (BCM). This range of offerings includes the more vocationally-oriented programmes offered by the universities of technology, and a wide range of professional degree programmes at graduate and post graduate levels offered by the more traditional public universities. However, in spite of the wide range of programmes that are available provincially, the actual accessibility of this range of offerings is limited because these programmes are restricted to urban centres, particularly the Durban metro area, and to some extent, Pietermaritzburg.

Enrolment in higher education in public institutions has increased steadily over the last 10 years. The current student headcount enrolment (2013) is 92,480 and the student headcount enrolment in 2003 was 73,080. Of this, a sizable proportion of students enrol in SET fields. In 2003, 32% of enrolment was in SET; in 2013, the percentage increased to 40%.

The favourable enrolment in SET in the Province is not reflected in graduation ratios. Appendix D shows the graduation rate for each university by degree programmes. The graduation rate at undergraduate level in engineering programmes is only 7% in the Durban University of Technology. This is compared to a graduation rate in Business of 4%, 33% in Food Sciences and 46% in Creative Arts.

Opportunities to participate in higher education programmes are significantly limited outside of the urban centres of the Province. Even programmes in Agriculture are not available in the traditional agriculture centres of the province.

The range of educational options at private institutions of higher education in the province is very limited. Apart from programmes in computer and business studies and nursing and healthcare, offerings are limited in the private higher education sector.

While the basic programming structure in higher education institutions does establish a sound foundation for responding to the social and economic issues and priorities of our time, there is little evidence available to suggest that there are enough opportunities for students to specialize in new and emerging fields (e.g. the green economy) or in areas of emerging importance to the KZN economy such as Agriculture, Aquaculture, Agri-processing, the Marine Industry, fields of Aqua-engineering, or in careers related to the Knowledge Economy through exposure to expanded research and innovation.

The level of enrolment and rate of success of students in post graduate programmes is low.

2.3.5.2 Quality and Readiness

Quality and readiness here refer to the quality of academic programmes and the readiness of learners to succeed in the programmes of their choice. Except for anecdotal information obtained, no opportunity was provided to examine, in detail, the quality of programmes at the respective institutions or the level of readiness of learners in the respective programmes. This,

perhaps, should also be part of a more detailed study. However, the information that was available will suggest as follows.

Variation in Quality: Although programmes are accredited with the appropriate accreditation authorities, the quality of training varies across institutions of higher education. The most distinct variation in quality is observed among the private institutions in the sector. The variance in programme quality results from learner readiness, instructor qualifications and experience and the adequacy of facilities, among other factors.

Concern about Learner Readiness: Dropout rates are high. The high dropout rates in higher education institutions, particularly, after the first year, is seen to result from a lack of readiness among learners. This lack of readiness takes several forms. Some learners are not ready because of inadequate academic preparation, particularly in science and mathematics. Beyond this, however, many learners are affected by being under-prepared for the vigour and discipline of higher education; by their lack of certainty about their career choices; and by their inability to adjust to their new life of freedom in urban environments which offer many temptations and distractions.

Opportunities for Practical Training: The quality and depth of training in most fields is affected by the limited opportunities for students to gain in-depth practical workplace experience in their respective fields of practice.

2.3.5.3 Performance and Performance Outcomes

The performance of the higher education sector could be assessed, primarily, by the number, quality and reach of its institutions; by the extent and nature of student enrolments and graduations; and by the quality of its academic staff in terms of teaching, research and service. No assessment was made of the quality of academic staff. However, a brief overview of the performance of the higher education sector in the Province is presented and this section will briefly review: the number and reach of institutions; higher education participation rates; and student graduation rates.

The Number and Reach of Higher Education Institutions: As presented in the preceding sub-section, the higher education institutions in the Province are located in the urban centres of the Province, and they do not have the geographic reach to ensure ease of access to eligible populations who reside in non-urban centres. In this regard, distance education external campuses and other forms of outreach should be considered further.

Higher Education Participation Rates: The participation rate in higher education is a rough estimate only. Using Census 2011 figures, it is estimated based on the proportion of 20-24 year olds in the population that are currently enrolled in a higher education institutions. This estimate for KZN is 26%. However, if one takes actual higher education enrolments in public universities in the Province as a proportion of the age group, the 'participation' rate is estimated at 11%, but, the latter does not reflect higher education enrolments outside of the Province. Estimated participation rates are also provided for the respective districts. The differences are notable, with a strong bias of higher participation rates to students who reside in the more urban centres of the Province.

Student Graduation Rates: Graduation rate is calculated by the number of graduates as a proportion of total enrolment in a particular year. Overall, the graduation rate in KZN universities for 2011 was 11%. But the graduation rate differs significantly by university and by specific programmes within the university. Table 42 shows the graduation rates of the public universities

in KZN, and Table 82 (refer to Annexure), as an example, shows the graduation rates by specific programmes for 1 university in order to illustrate the difference. A more detailed study will reveal these trends in more detail.

Table 42: Overall Graduation Rates in Public Universities KZN

		OVERALL GRADUATION RATES IN PUBLIC UNIVERSITIES KZN				
UNIVERSITY	**2011 ENROLMENT**	**2013 ENROLMENT**	**2011 GRADUATION**	**2013 GRADUATION**	**GRADUATION RATE 2011**	**Success Rate 2013**
University of KZN	41,762	33,296	8,857	10,019	21.20	80%
Durban University of Technology	24,840	19,237	5,603	6,378	22.55	81%
Mangosuthu University of Technology	10,286	7,745	1,964	2,276	19.09	81%
University of Zululand	15,592	13,764	2,418	3,904	15.50	82%

Source: DHET HEMIS database, 2016

While among public universities in the Province, the overall graduation rate in 2011 is 21%, the graduation rate varies from 15% at University of Zululand to 23% at the Durban University of Technology. Using Durban University of Technology as an example it is observed that the graduation rate in science based programmes is significantly lower than in other programmes.

This low graduation rate may have resulted from the inadequate academic preparation of students in maths and science, or because many more unprepared students are enrolling in these programmes to meet the needs of well-publicized occupational areas of scarce and critical skills. It may also be an indication that students do not have the necessary academic support at these institutes to ensure their success.

2.3.5.4 General Issues

Presented below is a summary of the issues which affect performance and productivity in higher education. The issues are as follows.

- **Geographic Accessibility:** Because of the geographic location of most higher education programmes in the urban centres of the Province, higher education is not equally and conveniently accessible to rural communities.
- **Access:** An examination of the admission rate to higher education programmes at public universities shows a low admission rate in most programmes particularly those in the medical sciences, engineering and finance; and, particularly those areas where skills in the economy are scarce and critical.
- **Graduation Rate:** For Durban University of Technology and University of KZN, the graduation rate is consistent with other universities nationally, and even higher than the national average.

The graduation rates for University of Zululand and Mangosuthu is lower than the national average. The graduation rate in maths and science based programmes seems consistently low.

- **Throughput to Post Graduate Programmes:** Not many students enter and succeed in post graduate programmes. While figures have been increasing, the enrolment in post graduate programmes is particularly low, especially in programmes which serve as a base for scientific advancement and innovation.
- **Dropout Rates:** The dropout rates at universities are high, particularly during the first year, and especially in programmes which require good academic standing in science and maths to succeed.
- **Service Role of University:** Interviews with key informants in both the public and private sectors suggest that, as a centre of knowledge and a potential hub of innovation and progress, the university can play a more active role or make a greater contribution to the development priorities of the Province.
- **Interface and Articulation:** While there are exceptions, in most cases, programmes at the TVET Colleges are not properly articulated with university programmes. As a result, students have difficulties in making the transition between TVET and university higher education, and are usually not accepted into related higher education programmes on the basis of the performance and success at the TVET level.

2.3.5.6 Summary

A summary of the key findings related to the role and performance of higher education institutions is presented in Table 43 below. The table also presents the implications of these findings for the HRD Strategy of the Province.

Table 43: Summary of Findings relating to Role and Performance of HEI

SUMMARY OF FINDINGS IN HIGHER EDUCATION		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR HRD STRATEGY**
Size and scope	• 4 public universities • 24 registered private universities • many unregistered higher education institutions • 93,000 students in public universities, increase from 73,000 in 2003 • wide range of academic programmes represented • most institutions are located in urban centres • most programmes have low admission rates	• Need for universities to increase admission through satellite programmes, distance education or other means • Need to increase geographic representativity and accessibility • Need for enhanced responsiveness to development priorities - programmatically and in terms of research and innovation
Performance and Performance outcomes	• Participation rate in higher education is 11% in public institutions and 26% based on Census 2011 estimates • Graduation rate is 21% ranging from 15% to 23% for each university • Graduation rates differ by programme with lowest graduation rates in	• Need to expand geographic reach of higher education institutions • Increased academic support programmes in higher education institutions • Transition programmes for seniors in high schools

SUMMARY OF FINDINGS IN HIGHER EDUCATION		
AREAS OF ANALYSIS	**KEY FINDINGS**	**IMPLICATIONS FOR HRD STRATEGY**
	programmes that require science and maths	• Increased focus on science and maths in high schools
Quality and readiness	• Level of readiness of some learners is low in terms of stability of career choice; readiness for the discipline of higher education; readiness to be independent and self-sufficient away from home • Some students do not have adequate academic standing in science and maths	• Enhanced support services in HEIs • Importance of transition programmes for seniors in high schools • Importance of career guidance in high schools • Increased focus on maths and science in high schools
General issues	• Lack of access – admission rates are low • Low throughput to post graduate programmes • High dropout rates, particularly after 1st year • Inadequate interface and articulation with programmes at TVET level	• Extend the reach of public universities and higher education generally • Student support services and programmes at universities • Collaboration between TVETs and HEIs in forging agreements and arrangements for streamlined and well-articulated programmes

2.3.6 Adult Education

Adult education has been a high priority of the Province for an extended period; and in this regard, the KZN Department of Education has had much success. In the 2001 Census, 4.7 million people over the age of 25 in South Africa, had never been to school to achieve a basic level of literacy; of this number, 1.2 million (26%) resided in Kwazulu-Natal. This represented 24% of the Province's population over 20. However, over time, there has been significant improvement. In 2009, only 11% of the age group had no schooling; and in the 2011 census, only 8% of the age group was without schooling. In the 2011 census, literacy was defined as "the population aged 15 and older with a level of education lower than Grade 7, who have some, a lot of difficulty or are unable to do basic literacy activities". Table 44 presents the list of literacy activities upon which people are assessed by the census, and it shows the number of people in the Province who are unable to perform those activities. According to the census definition, these people are considered illiterate. The table also presents the provincial statistic as a percentage of the South African population that fits into the respective categories of literacy skills. The number of people with low literacy skills in each designated area is consistently between 16 and 20 percent of the illiterate population in South Africa. However, the illiterate population, as defined above, is about 8% of the Provincial population. Adult education, therefore, emerges as a critical component of the overall strategy for HRD in the Province. This section of the chapter will present an overview of the scale and scope of adult education in the Province, and it will review the performance of the Province in providing adult education services. It will also note some of the issues which constrain performance in adult education.

Table 44: Literacy - Population 15 years and older

STATS SA: CENSUS 2011 POPULATION AGED 15 YRS AND OLDER WITH LEVEL OF EDUCATION LOWER THAN GRADE 7 WHO HAVE SOME/A LOT OF DIFFICULTY/UNABLE TO DO BASIC LITERACY			
LITERACY SKILLS	KwaZulu-Natal	SOUTH AFRICA	%
Writing name	293	1649	17.8
Reading	430	2637	16.3
Filling in a form	719	3714	19.4
Writing a letter	475	2900	16.4
Calculating/working out how much change should be received	233	1474	15.8
Reading road signs	559	2690	20.8
Total population aged 15 and older with level of education lower than Grade 7	1066	5835	18.3
Total population aged 15 years and older	**4517**	**34996**	**12.9**

Source: StatsSA: Census 2011

Table 45: Functional Literacy Rate (2015)

FUNCTIONAL LITERACY RATE (2015)	
Functional Literacy Rate 2015	Percentage of people aged 15+ completed grade 7 or higher
South Africa	83.3%
KwaZulu-Natal	80.5%
Ugu DM	74.6%
uMgungundlovu DM	82.3%
uThukela DM	76.4%
uMzinyathi DM	67.4%
Amajuba DM	81.8%
Zululand DM	73.1%
uMkhanyakude DM	69.4%
uThungulu DM	76.9%
iLembe DM	75.6%
Sisonke DM	73.1%
eThekwini	88.2%

2.3.6.1 Scale and Scope

There are 1105 learning centres in the Province which serve as the bedrock of adult and literacy education. In addition to the services and support provided through these centres, the Province has, over the years, implemented two projects which have been immensely successful – Masifunde and Kha Ri. As a result of these projects, the province has successfully halved the number of people who could not read and write from 1.2 million in 2006. Through these projects, the total number of people educated over the 5-year period was 567,000. Table 46 shows the number of adult education centres in each district, with the associated number of educators and learners. The table also shows the enrolment trends from 2008 to 2011. The enrolment patterns for districts differ. For some districts, enrolment peaked in 2009 and 2010, but fell off sharply in 2011; for others the enrolment growth of 2010 continued into 2011. Enrolment in Masifunde and Kha Ri is presented in Tables 47 and 48.

Table 46: Public Adult Learning Centres KZN

PUBLIC ADULT LEARNING CENTRES KZN; ADULT EDUCATION AND TRAINING LEARNER ENROLMENT AND EDUCATORS												
DISTRICT	2008			2009			2010			2011		
	Centres	Educators	Learners	Centres	Educators	Learners	Centres	Educators	Learners	Centres	Educators	Learners
Amajuba	56	234	1704	56	232	3051	56	236	2634	46	238	2593
Ilembe	130	550	4266	124	562	4440	159	626	5750	132	626	3857
Uthukela	37	155	2500	95	411	4420	45	190	3942	41	187	1147
Pinetown	112	740	6324	37	172	2069	109	874	4556	112	600	5772
Sisonke	98	484	4759	102	712	6104	98	496	4250	110	625	3591
Ugu	89	645	6822	84	577	4760	87	649	5540	82	662	3643
Umgungundlovu	62	317	2061	59	293	2901	57	242	2807	62	229	1898
Umkhanyakude	91	685	5327	77	744	4141	88	1799	6456	109	1039	6194
Umlazi	65	514	4000	72	580	4764	81	736	4102	91	635	5406
Umzinyathi	81	388	4033	85	351	3864	90	388	4700	35	206	1114
Uthungulu	118	934	5419	121	859	6648	85	925	6335	166	1210	10795
Zululand	82	552	5125	68	549	4681	96	578	5434	119	605	6114
TOTAL	1021	6198	52340	980	6042	51843	1051	7739	56506	1105	6862	52124

Source: Adult Education Report 2011 KZN Department of Education

Table 47: Levels of Literacy per District 2006-2011 Masifunde Campaign

LEVELS OF ILLITERACY PER DISTRICT AND NUMBERS REACHED 2006 - 2011 MASIFUNDE CAMPAIGN			
DISTRICT MUNICIPALITY	KZN ILLITERACY STATS SA 2001	LEARNERS GRADUATED FROM MALC JUNE 2006-MARCH 2011	STILL ILLITERATE MARCH 2011
Ugu	105095	42188	62907
Umgungundlovu	97964	39326	58638
Uthukela	95675	38407	57268
Umzinyathi	101098	40584	60514
Amajuba	42760	17165	25595
Zululand	151919	60985	90934
Umkhanyakude	126969	50969	76000
Uthungulu	165718	66524	99194
Ilembe	79101	31754	47347
Sisonke	37637	15109	22528
Ethekwini	208146	83556	124590
TOTALS	1212082	486567	725515

Source: Adult Education Report 2011 KZN Department of Education

Table 48: Kha Ri Gude Mass Literacy Campaign

KHA RI GUDE MASS LITERACY CAMPAIGN

Year	Number of learners	Number of volunteers
2008	67 435	5 388
2009	132 395	8 826
2010	130 076	8 938
2011	**146 220**	**9 001**

Source: Adult Education Report 2011 KZN Department of Education

2.3.6.2 Performance and Performance Outcomes

The performance of adult education is assessed in terms of the levels of illiteracy in the Province, and in terms of the level of success of learners who entered and wrote exams. The sterling performance in the Province in the reduction of illiteracy was discussed and should be noted. But, as shown in Table 45, there are still large numbers of people who lack very basic skills for normal living and for using education as a foundation for success in life. Table 49 presents information on the success rate of learners. It is noted that there is, in general, a high level of success with an overall pass rate of 65% in exams. Again, the lowest performance is observed in Maths, Maths Literacy and Natural Science. Low performance is also observed in technology and in English. Even here, there is a general trend of under-performance in the subjects which matter most for further studies and for employment in areas with scarce and critical skills.

Table 49: Performance of Candidates in Each Learning Area June 2011

PERFORMANCE OF CANDIDATES IN EACH LEARNING AREA JUNE 2011					
LEARNING AREA CODE	**LEARNING AREA**	**ENTERED**	**WROTE**	**ACHIEVED**	**% ACHIEVED**
AAAT4	Applied Agric and Agric Technology	313	171	118	69.01
ANHC4	Ancillary Health Care	644	410	327	79.76
ARTC4	Arts & Culture	209	101	97	96.04
EMSC4	Economic and Management Sciences	547	281	185	65.84
HSSC4	Human and Social sciences	404	254	211	83.07
LCAF4	Afrikaans	2	1	0	0
LCEN4	English	1582	909	417	45.87
LCSO4	Sesotho	1	1	1	100
LCXH4	isiXhosa	17	11	9	81.82
LCZU4	isiZulu	645	341	321	94.41
LIFO4	Life Orientation	1225	708	603	85.71
MMSC4	Maths Literacy	2448	1581	832	52.62
	Mathematics	72	27	12	44.44
NATS4	Natural Science	982	576	316	54.86
SMME4	Small Medium & Micro enterprises	313	159	124	77.99
TECH4	Technology	262	127	70	55.12
TRVT4	Travel and Tourism	333	183	151	82.51
	TOTAL	**9999**	**5841**	**3794**	**64.96**

Source: Adult Education Report 2011 KZN Department of Education

2.3.6.3 Critical Issues in Adult Education

LTSM: There is not a wide range of high quality learning materials for adult learners. While progress is being made in this area, the population of adult learners is so diverse that properly targeted learning materials require a lot of resources to generate.

High Staff Turnover: Staff turnover in adult learning programmes is high, partly because of the low salaries paid. Staff leave frequently to find better opportunities since adult education programmes are sometimes used as a stepping stone to better opportunities.

Unqualified and Under-Qualified Educators: While much has been done to train adult learning practitioners, there is still a high percentage of unqualified and under-qualified educators in practice.

Low Throughput: As noted in Table 57, only 59% of the candidates who entered actually wrote exams; and of this, 65% passed. However, only 38% of those who entered actually passed. Success and throughput was not calculated as a percentage of those that are enrolled because of the unavailability of data at the time of publication. Anecdotal evidence however, suggests that throughput is low.

Expanding Population: While illiteracy is being eradicated, the population that is eligible for some form of adult education is constantly increasing given the high dropout rates in schools, and with a constant increase in the level of academic preparation that is needed to survive in a changing society. Being barely literate is no longer enough. While adult education in the Province has consistently moved toward skill-based learning and has incorporated an exposure to entrepreneurship, more creative programming may be necessary to meet the needs of the new wave of youth that are under-prepared for the world in which they must survive.

2.3.6.4 Summary

Table 50 presents a summary of what the current state of adult education may imply for an HRD Strategy for the Province.

Table 50: Summary of Current State of Adult Education

SUMMARY OF CURRENT STATE OF ADULT EDUCATION		
AREA	**FINDINGS**	**IMPLICATIONS FOR HRD**
Scale and scope	• 11,000 adult learning centres • 52,000 learners in 2011 • Centres distributed throughout the Province • Still a high population of those who can be defined as illiterate	Good footprint of centres throughout the province which can be used as the base for an expanded and reconceived structure of programming
Performance	• Significant reduction in illiteracy • Relatively high pass rate in exams • Lowest pass rates in maths, science, technology and English	• Need to strengthen capacity for instruction in maths, science, English, technology • Expansion of skill-based adult education programming • Expanded support for learners • Institutionalization of the creative approaches of Masifunde and Kha Ri.
Issues	• Expanding population • Need for more appropriate LTSM • Turnover • Unqualified and under-qualified educators	• Expanded and ongoing training of practitioners • Adult education programming could benefit from youth work and youth volunteerism

SUMMARY OF CURRENT STATE OF ADULT EDUCATION		
AREA	**FINDINGS**	**IMPLICATIONS FOR HRD**
		• Outreach programming in adult education – homes, communities, organizations

2.3.7 SETAs

The role of SETAs in skills development is a critical component of the Province's infrastructure for HRD. Already, the SETAs have made a significant investment in skills development in the Province. There are 8 SETAs with regional offices in KZN; and, there are many learnerships, apprenticeships, internships, and skills programmes being funded throughout the Province by SETAs in collaboration with a wide range of organizations. The full extent of the investment of SETAs in the Province is difficult to document accurately. An attempt was made to document the level of involvement of SETAs in the Province. A comprehensive set of data was not available at the time of publication. The structure which was developed for capturing and presenting the data on SETAs is placed in Appendix D. The table presents, by the respective SETA, a summary of the number of learners involved in various skills development programmes and the agency(s) with which the SETA collaborates in implementing such programmes.

2.3.8 Workplace Learning

Workplace learning here refers to worker education programmes offered by employers so that employees can enhance the skills required to effectively undertake their responsibilities, and to develop themselves for undertaking tasks in more senior positions. A full assessment of worker education in the Province was determined as most critical in the overall landscape of skills development in the Province. A sectoral analysis of worker education will assist in determining the level of investment made in the sector, and the extent to which this investment is associated with the performance of the sector.

In order to get a general overview of the status of worker education, a process was undertaken to assess the percentage of firms in particular economic sectors which submit Workplace Skills Plans (WSPs) and Annual Training Reports (ATRs) in order to document their investment in skills development. As part of this process interviews were sought with representative establishments of the specific sectors in order to assess the dynamics and issues of worker education in the sector. The process was a long and demanding process and could not be completed for publication in this report. It is anticipated that the study will continue so that HRD in the province could be informed by an assessment of skills development in the respective economic sectors.

2.4 Overview of Provincial Capacity

Provincial capacity here refers to the productive potential of the entire supply stream in producing people with the skills and talent needed by society and in the economy. In a simple sense, the capacity of the Province in developing and producing skilled people could be calculated as the overall sum of graduates from foundational learning programmes, TVET and higher education programmes, skilled based programmes of training, workplace based training such as

apprenticeships and learnerships, worker education programmes in the workplace, youth development and adult education programmes, among others. The format for presenting this information will, perhaps, be a table presenting programme level by programme type with the number of graduates in each programme. An attempt to develop such a table was not possible because of the inherent complexity of skills development in the Province. The diverse quality of programmes, and the range of capacity in graduates exiting from similar programmes are at the core of the problem. But beyond this, the inherent complexity is manifested in many ways. The main highlights of issues which give rise to this complexity are as follows:

- **Range of Quality:** It is not possible to sum graduates in various programmes in order to determine the provincial supply of such skills. The range of quality is much too wide. Individuals have vastly different skills upon graduation from different institutions. Individuals from Durban University of Technology, from a 3-week youth programme, from skills programmes in TVET Colleges, or from learnerships and apprenticeships, for instance, generally have vastly different skills. It will be misleading to produce a provincial total of these programmes as the provincial supply of such skills.
- **Inadequate Articulation:** Programmes are not properly streamlined and articulated so that levels of skills could be properly differentiated between graduates.
- **Variation in the Length of Programmes:** Similar programmes in different institutions vary in terms of programme length, and in terms of the staff, facilities and learning resources available for training. The capacity of graduates will naturally differ.
- **Varying capacity of Graduates with Similar Qualifications:** As a result of the above, and as a result of other factors such as academic requirements for admission, the capacity of graduates from programmes in different institutions vary substantially.
- **Inadequate and Incomplete Information:** One of the factors which limit the potential for presenting a simple summary of skills supply in the Province is the lack of a consistent format for collecting and reporting information so that the productivity of programmes could be more accurately documented. This is aggravated by the lack of consistent information on programme completion.
- **Institutional Differences:** There is a wide variation in the nature of institutions, the rigour of programmes, the level and availability of workplace practical training and the quality of instructors, among others. Different resources generate different results in terms of the capacity of graduates and the supply of skilled people who are ready for work.

In summarizing the productivity and potential of skills supply in the Province, the following should be noted.

- **The Pyramid of Talent in the Province:** If one examines the skills supply structure of the Province, it will reveal a pyramid in terms of the quality of talent that became available. At the top of the pyramid are highly talented people in all technical and professional fields who graduate from the best institutions in the province. These people are essentially the 'cream' of the skills that become available to the Province from year to year. The small percentage of highly talented who sit at the top of the pyramid have generally gone to the best schools and have had the best educational resources available to them for the duration of their schooling. This has changed in the last decade as more and more talented students are given opportunities regardless of the background, through bursaries and through transformational admission policies in institutions. However, at the top of the skills supply pyramid there are the select few who are highly talented. These represent only a small percentage of the talent

that is needed by society and in the economy, and, as a result, the space at the top of the pyramid must be extended.

At the bottom of the skills supply pyramid is a high percentage of untrained, under-trained and unskilled youth. This group is proportionally much higher in number, and is generally, is made up of: the dropouts from primary and high schools; those youth who have attended training programmes of poor quality; and those who have made subject or programme choices which do not give them access to jobs and successful careers. Those who fall to the bottom of the skills supply pyramid represent the underutilized human resource potential of the Province.

In the middle of the pyramid is a group of youth who have had relative success in TVET colleges and vocational schools, in learnerships and apprenticeships, in special youth development programmes, and in workplace-based training opportunities offered by employers. In most of these cases, youth would have enrolled in programmes that are responsive to the employment demand in the economy.

The HRD Strategy should give priority to the potential represented in the body of youth who sit to the bottom of the skills supply pyramid.

- **The Range of Programmes Available:** In terms of the supply of skills, there is a wide range of programmes available to respond to the diverse population in the Province. There are highly technical and professional programmes, an array of vocational and skills development opportunities, special youth programmes, apprenticeships and learnerships and workplace training and cooperative and entrepreneurial training programmes, among others. Although the range of programmes is adequate, the available programmes do not have enough places for all who apply for training. Even within this range of programming, the quality of training differs; and even within this range, new and emerging fields of practice are not sufficiently well represented.

- **Geographic Inequity of Opportunities:** While, as a Province, there may be adequate supply of talent overall, there is a disjuncture between the sources of supply and the places of demand for some critical skills. In some cases, therefore, the supply structure in districts is not consistent with the demand profile in the local economy.

- **Unemployed Graduates:** Because of poor programme choice, poor quality programmes or unresponsive institutions, there is an over-supply of skills in some fields, and hence, many graduates are unemployed for extended periods. This points toward external inefficiency of the education and training system. Training resources are not put to the best use when graduates are unable to become productively engaged when they have completed training.

- **Bottlenecks in Supply:** Bottlenecks in supply result from systemic blockages in the training system, where, for a variety of reasons, those in the skills development pipeline are unable to successfully complete their programmes and obtain certificates. Many NC(V) students in the TVET College system, for instance, are unable to graduate because of lack of opportunities for gaining the practical training that is required in their programmes.

- **Inefficiency of Supply:** The inefficiency of skill supply results from high dropout rates and low throughput and certification rates. In light of those who enter institutions, the system is unable to ensure that most are able to successfully complete their training and obtaining jobs.

- **Barriers to Entry:** Transition from School to Work: The supply stream is compromised by a wide ranges of biases and prejudices which hamper the transition from school to work. Sometimes, very viable streams of supply have limited value in the labour market because employers believe that the graduates from these institutions or programmes are less well prepared. For this and other reasons, all graduates do not have equal access to jobs.

- **The Role of Industry:** Employers and industry play a critical role in ensuring an adequate supply of talent to the economy. The experience in the Province has demonstrated that where education and training institutions have close links with employers, skills development programmes are more relevant and are more responsive to the economy, and students, as a result, have better access to employment. There is a higher level of internal and external efficiency in skills supply where industry partnerships exist.

2.5 Summary and Conclusion – Overview of Strategic Implications

This chapter has presented an overview of the Province's capacity to develop its people and to supply the skills and talent needed in the economy. In doing so, the chapter started with a detailed demographic analysis in order to lay the foundation for assessing the 'people potential' of the Province. Further, the chapter examined various phases of the skills supply stream in the Province in order to determine the scale, scope and performance of education and training in developing human resources.

A variety of issues were raised in terms of the performance of the system, overall. In the end, what stands out most from this analysis is the deep fragmentation that exists in the management of education and training as a unified and cohesive structure for human resource development. There is great potential for effective skills supply in the Province because of its range of institutions, its rich base of people and talent, and its strategic location in the national economy. In order to realize the potential in its people, the supply stream must be effectively managed and opportunities to be developed must be more equitable spatially.

3. THE DEMAND FOR SKILLS

3.1 Introduction

The previous chapter addressed the structures and processes for the development of people and the supply of skills to society in general and to the economy in particular. The purpose of the chapter was to examine the effectiveness and responsiveness of the skills supply pipeline in developing people for productive engagement and for positive contribution to society. In presenting an analytical overview, the chapter identified strengths and weaknesses in the stream of skills supply, and it provided an overall sketch of the capacity of institutions to supply the skills needed in the various economic and social sectors of the province. As a follow on to that chapter, this chapter focuses on skills demand and the capacity of society and the economy to productively engage people who are ready to enter the labour market. In this regard, the purpose of this chapter is to provide an overall picture of the economic environment for the utilization of skills. Its main focus is on the demand for skills in the economy; but, first of all, attention will be given to describing the environment for the utilization of skills, or the environment in which demand is created for the productive engagement (or employment) of people in the various geographic zones and economic sectors of the province. While the HRD strategy recognizes and responds to the priority given to social cohesion and to the contributions made by people to enable it, this chapter does not examine or explore the opportunities (or lack thereof) available in society for the productive social engagement of people. Because of the limitations of space in the report, the focus of this chapter will be restricted to skills demand in the traditional sense, and to opportunities for productive engagement of people in the economy.

The chapter is divided into 8 separate sub-sections. Each sub-section is outlined and briefly described below.

The Economic Landscape affecting Demand: The economic landscape affecting demand is the economic context and the structure of the economy which create the environment for current and future employment. The economic landscape is described in terms of the main economic sectors and their GVA contribution provincially and by districts. Also constituting the economic landscape affecting demand are: the development nodes and activity corridors; the economic sectors and activities prioritized as drivers of economic growth; and provincial development initiatives and new and emerging areas with economic development potential.

Status Assessment on the Productive Engagement of People: On a wider scale, the productive engagement of people in the economy is determined by employment, and is described in terms of the labour force employment and unemployment and the associated labour force participation rates. This sub-section of the chapter seeks to assess the extent to which the people of the province are effectively utilized in its economic and development activities; and the extent to which such engagement is rewarding in terms of liveable wages. The chapter lays the basis for enhancing the productive engagement of people in a manner which is relevant to the economy, and which is fulfilling to individuals, their families and the society in general.

Patterns and Trends in the Utilization of Skills: The economic structure for skill utilization presents an overview of the employed by economic sector and by district.

Economic Structure for the Utilization of Skills: This section seeks to present an overview of the manner in which skills are currently being utilized. It examines the distribution of the employed by economic sector; the skills level of the employed population by economic education

and sector; and the skill level of the employed population by districts. The purpose of this overview is to present a picture of where a particular profile of skills is being utilization of skills in the economy.

Sectoral Demand Profile - Implications for Skills Development: This section of the chapter presents an analysis of the demand for skills by their respective economic sector. Although the information is not presented at a significant level of detail, the analysis seeks to present a general overview of the skills needed by the various economic sectors. The content for this section was based on interviews with industry representatives and on a review of relevant trade literature. It should be noted here that not all establishments were cooperative in the process, and, as a result, the information gathered is not as comprehensive and detailed as it should be. Because of the critical nature of this information, this process should be completed as soon as possible. Accordingly, the section will present what information was gathered.

Geographic Analysis of Demand Potential: This section of the chapter seeks to assess demand for skills by the respective municipal districts. The content here seeks to look at current demand and to project demand potential. It also seeks to assess implications of district demand for skills development locally. Again, this analysis would be done in more depth and more comprehensively. From the interviews conducted, there was diverse perspectives on sector dynamics and on demand. For some sectors, sufficient information was not available to make reasonable judgments on demand. The section presents the information on the basis of what data was acquired.

Entrepreneurial Demand and Implications for Skills Development: This brief section discusses the concept of demand for entrepreneurs and the implications for skills development. It presents an approach to entrepreneurial development.

Employment Demand in the Public Sector and the Capacity of the State: Employment demand in the public sector is explored by examining the drivers of demand in each department of Provincial Administration and by noting implications for skills development.

Each of these topics will be discussed in the sub-sections to follow.

3.2 The Economic Landscape Determining Demand

The productive engagement of people and the ongoing utilization of their capabilities in the economy are reflected in their employment or engagement in the businesses and industries of the main economic sectors and sub-sectors of the provincial economy. The economic landscape of demand is therefore reflected in the distribution and productivity of these businesses within their respective sectors, and throughout the geography of the province. Essentially, the location of these businesses, and their size, success and productivity will, in large measure, determine where in the province people are needed, and the kind of skills they must possess in order to be hired by the business entities in various localities. In this regard, the points of economic opportunity in the landscape of employment demand are defined by sectoral spread of businesses in the province. Table 52 presents the sectoral spread of economic activity by the respective municipal districts. The level of contribution made by each sector (GVA) is noted for each district. The data provides an overview of the main economic activities of each district, and it provides an initial indication of possible demand profiles for employment in the respective districts.

The broad mapping of the distribution of economic activity is complemented with the designation of development nodes and activity corridors; with the selection and prioritization of economic

sectors and activities for enhancing economic growth in the province; with the identification of a variety of provincial and district development initiatives and projects to boost development and job creation; and with the prioritization of new and emerging areas which have economic and developmental potential for the province and the designated district municipalities. This level of economic prioritization begins to define pathways of job creation and employment. It also helps to support initiatives to manage the demand profile and assess demand possibilities in each of the economic sectors, in each of the respective geographic zones. The main features in the economic landscape of demand are presented in Table 51.

Table 51: Features of the Economic Landscape determining Demand

FEATURES OF THE ECONOMIC LANDSCAPE DETERMINING DEMAND	
FEATURES	**ECONOMIC LANDSCAPE OF DEMAND**
Distribution of economic activities by sectors	There are 10 major economic sectors in the province, with the manufacturing sector making the largest contribution to GDP and being the second largest employer. The manufacturing sector is sub-divided into 10 district sub-sectors.
Development nodes and activity corridors	• eThekwini/uMhlatuze corridor • eThekwini/Msunduzi/Umgeni corridor • uMhlatuze/Ulundi/Vryheid corridor • Lembombo SDI corridor • Port Shepstone/St Faiths/Ixopo corridor • Battlefields Route corridor (uMzinyathi) • Multi sectoral activity corridor • Tourism activity corridor • Agricultural activity corridor
Prioritized economic sectors and activities for economic growth	• The agricultural sector including agro-processing, high value agriculture • The tourism sector • Manufacturing sector • Clothing and textiles • Wood and wood products • ICT and electronics • Creative industries • Service sector including government services
Provincial and district development initiatives and projects for employment creation	Examples: • Agro-processing facilities and agriculture projects • Tourism facilities • Bio diesel development • Road infrastructure maintenance and development • Dube trade port • Richards Bay industrial complex
New and emerging areas with economic and development potential	• Green economy • Aqua culture and fishing • Development on the marine sector for coastal districts and cities • Cultural tourism • Knowledge economy

	• Money value chain and downstream benefication from mining • Social economy
Strategic infrastructure projects	**16 of 18 national projects have implications for the province**

Table 52: Contribution of Economic Sectors to Local Economic Activity at District Level

Sector contribution to Gross Domestic Product; 2015												
ECONOMIC SECTOR	KZN	DISTRICT										
		Ugu	uMgung	uThukela	uMziny.	Amajuba	Zululand	uMkhan	uThungulu	iLembe	Sisonke	eThekwini
Agriculture and Forestry	4.4%	10.9%	8.4%	7.2%	13.2%	4.2%	9.4%	16.9%	6.2%	13.4%	19.1%	0.6%
Mining and Quarrying	1.9%	0.8%	0.7%	1.4%	4.7%	10.7%	9.0%	2.0%	9.8%	0.7%	0.4%	0.3%
Manufacturing	16.3%	14.9%	14.3%	17.8%	8.6%	18.1%	6.1%	6.9%	25.5%	27.1%	8.1%	16.1%
Electricity and Water	2.1%	3.1%	3.7%	5.8%	4.3%	2.1%	5.1%	5.2%	1.5%	1.6%	3.9%	1.3%
Construction	4.3%	5.4%	4.0%	3.8%	3.3%	3.4%	3.6%	3.6%	3.7%	4.0%	3.8%	4.5%
Trade	14.1%	15.7%	12.8%	12.8%	13.1%	10.4%	10.5%	11.5%	8.7%	10.0%	18.2%	15.7%
Transport and Communications	11.4%	7.9%	10.0%	10.6%	7.8%	8.2%	8.3%	6.9%	10.4%	6.8%	6.8%	13.1%
Finance and Business Services	16.6%	13.0%	14.2%	10.3%	9.7%	13.1%	12.3%	13.7%	9.3%	11.1%	6.9%	20.1%
Community services	20.0%	18.6%	23.2%	20.2%	27.2%	21.4%	28.7%	26.1%	15.2%	12.5%	25.0%	19.5%
Total Industries	91.1%	90.3%	91.3%	89.8%	92.0%	91.6%	93.1%	92.7%	90.1%	87.2%	92.3%	91.3%
Taxes less Subsidies on products	8.9%	9.7%	8.7%	10.2%	8.0%	8.4%	6.9%	7.3%	9.9%	12.8%	7.7%	8.7%
Total (Gross Domestic Product - GDP)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Global Insight, 2015

3.3 Status Assessment on the Productive Engagement of People

The productive engagement of people in the province starts with the working age population, or the people in the province between the ages of 15 and 64. According to the 2011 census the working age population is 6,479,290. In 2015, the working age population was 6,855,635. The labour force in the province (employed plus unemployed) is 2,990,000 with 2,401,000 employed and 588,000 unemployed. Table 53 presents statistics on the labour force by the respective district municipalities. The eThekwini metro has the largest share of the province labour force with about 47% in 2009. uMgungundlovu has the second largest share with 11%, followed by uThungulu with 8%. The lowest share of the labour force is shared by the rural districts of uMkhanyakude, Sisonke and uMzinyathi with 3% each. Over the years the relative share of the labour force between districts has remained relatively constant.

Provincially, in 2015 the unemployment rate was 21.6% and the labour force participation rate is 80%. Nationally, the unemployment rate in 2015, was 25.3%. In terms of productive engagement in the economy, about 46% of people of working age are in the labour force, and roughly 37% are employed or productively engaged in the economy. While 588,000 people are defined as unemployed, the number of discouraged work seekers is as high as 563,000 thus increasing the number of people who desire to work but cannot find employment. The pattern of unemployment is more revealing when one looks at unemployment by age groups and by geographic zones. The analysis of unemployment by age cohorts reveals that youth unemployment (ages 15-35) is as high as 42% for the province and as high as 60% in some district municipalities (Quantec 2012).

Table 55 shows the labour participation rates by districts. The highest participation rates are generally in the five urban centres of the province. The lowest participation rates are generally in the rural districts. This has been a consistent pattern over the years, revealing the persistence of economic neglect and limited economic opportunities in the rural communities of the province.

Table 53: Labour Force (Employed plus Unemployed)

LABOUR FORCE (EMPLOYED PLUS UNEMPLOYED)																
DISTRICT	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2011**
Ugu	173,386 6%	176,942 6%	180,036 6%	182,721 6%	185,668 6%	188,460 6%	189,684 6%	193,356 6%	193,084 6%	191,899 6%	191,095 6%	190,723 6%	184,508 6%	174,993 6%	161,412 6%	179,589 6%
uMgungundlovu	372,344 13%	378,904 13%	383,534 12%	387,006 12%	390,553 12%	393,635 12%	394,265 12%	396,332 12%	392,133 12%	386,229 12%	381,386 12%	378,664 12%	367,122 12%	351,015 11%	326,574 11%	352,724 12%
uThukela	144,797 5%	151,205 5%	157,138 5%	162,718 5%	168,982 5%	175,225 5%	179,818 5%	181,725 5%	179,701 5%	176,732 5%	174,476 5%	173,589 5%	168,661 5%	162,081 5%	152,519 5%	148,534 5%
uMzinyathi	94,325 3%	95,287 3%	96,043 3%	96,715 3%	97,451 3%	98,209 3%	97,944 3%	99,953 3%	100,284 3%	100,113 3%	100,049 3%	99,851 3%	96,552 3%	91,311 3%	83,992 3%	79,739 3%
Amajuba	139,653 5%	144,318 5%	147,891 5%	150,921 5%	154,173 5%	157,421 5%	159,287 5%	160,743 5%	158,440 5%	154,651 5%	150,607 5%	146,789 5%	139,380 4%	130,372 4%	119,635 4%	130,673 4%
Zululand	154,186 5%	157,341 5%	160,282 5%	162,906 5%	165,630 5%	168,431 5%	169,381 5%	172,811 5%	173,654 5%	173,922 5%	174,883 5%	176,302 5%	172,668 5%	165,876 5%	154,825 5%	141,608 5%
uMkhanyakude	87,286 3%	89,290 3%	91,384 3%	93,547 3%	96,047 3%	98,883 3%	100,910 3%	103,094 3%	103,670 3%	103,826 3%	104,488 5%	105,668 3%	104,228 3%	101,443 3%	96,574 3%	103,028 3%
uThungulu	208,234 7%	216,845 7%	224,828 7%	231,992 7%	239,300 7%	246,127 8%	250,245 8%	255,259 8%	254,797 8%	252,791 8%	251,140 8%	250,516 8%	243,219 8%	232,428 8%	215,998 8%	227,091 7%
iLembe	170,224 6%	172,035 6%	172,379 6%	172,055 5%	172,731 5%	173,646 5%	173,433 5%	173,544 5%	170,174 5%	166,167 5%	162,610 5%	159,936 5%	153,169 5%	144,164 5%	132,247 5%	165,470 5%
Sisonke	88,938 3%	90,610 3%	92,812 3%	97,856 3%	100,063 3%	102,219 3%	103,113 3%	105,470 3%	105,688 3%	105,438 3%	105,349 3%	105,451 3%	102,513 3%	97,642 3%	90,303 3%	96,656 3%
eThekwini	1,292,024 44%	1,336,458 44%	1,368,566 45%	1,394,344 46%	1,420,684 46%	1,443,861 45%	1,462,924 45%	1,482,210 45%	1,475,558 45%	1,465,228 45%	1,454,706 45%	1,463,413 45%	1,439,774 46%	1,404,381 47%	1,329,465 47%	1,422,877 47%
TOTAL KZN	**2,925,397**	**3,009,235**	**3,074,893**	**3,132,782**	**3,191,282**	**3,246,116**	**3,281,006**	**3,324,496**	**3,307,183**	**3,276,995**	**3,250,789**	**3,250,901**	**3,171,795**	**3,055,704**	**2,863,543**	**3,047,989**

Source: Quantec 2012

Table 54: Unemployment by Local Municipality 2001-2011

UNEMPLOYMENT BY LOCAL MUNICIPALITY, 2005 - 2015			
District	**10 YEAR PERIOD**		
	2005 (%)	**2010 (%)**	**2015 (%)**
Ugu	37.0	29.5	28.5
uMgungundlovu	27.1	19.6	22.2
uThukela	37.7	22.2	32.8
uMzinyathi	47.2	37.2	27.7
Amajuba	39.4	26.7	29.1
Zululand	44.9	32.3	31.6
uMkhanyakude	45.0	27.2	32.1
uThungulu	34.9	24.9	27.1
iLembe	30.9	21.5	23.5
Sisonke	40.4	31.0	26.0
eThekwini	25.2	16.8	15.0

Source: Quantec (2005 and 2010) and Global Insight (2015)

Table 55: Labour Force Participation Rate

LABOUR FORCE PARTICIPATION RATE (EMPLOYED DIVIDED BY LABOUR FORCE)															
DISTRICT	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Ugu	73.9%	72.2%	70.5%	68.6%	66.7%	64.7%	63.5%	62.1%	60.7%	60.2%	60.5%	62.1%	64.0%	66.9%	70.0%
uMgungundlovu	79.0%	77.8%	76.6%	75.2%	73.8%	72.2%	71.1%	70.3%	69.2%	68.8%	69.2%	70.8%	72.6%	75.4%	78.1%

LABOUR FORCE PARTICIPATION RATE (EMPLOYED DIVIDED BY LABOUR FORCE)															
DISTRICT	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
uThukela	63.9%	62.5%	60.9%	58.9%	57.1%	55.4%	54.7%	55.4%	56.3%	57.9%	60.4%	64.2%	68.2%	72.9%	77.5%
uMzinyathi	60.5%	58.9%	57.5%	56.0%	54.5%	53.1%	52.4%	51.6%	51.0%	51.3%	52.5%	54.7%	57.4%	61.1%	65.3%
Amajuba	71.0%	69.2%	67.1%	64.6%	62.1%	59.7%	58.1%	57.1%	56.1%	56.0%	56.8%	59.1%	62.1%	66.3%	70.2%
Zululand	60.2%	58.8%	57.5%	55.9%	54.3%	52.8%	52.1%	51.6%	51.3%	51.8%	53.0%	55.3%	58.0%	61.9%	66.5%
uMkhanyakude	59.8%	57.7%	55.8%	53.8%	51.8%	50.1%	49.5%	50.0%	51.1%	52.9%	55.5%	59.2%	63.3%	68.2%	73.4%
uThungulu	71.6%	70.6%	69.5%	67.9%	66.3%	64.7%	63.7%	62.8%	62.0%	61.8%	62.4%	64.3%	66.5%	69.8%	73.2%
iLembe	75.5%	74.4%	73.0%	71.4%	70.0%	68.6%	67.6%	67.2%	66.5%	66.4%	67.2%	69.1%	71.3%	74.1%	76.8%
Sisonke	65.3%	63.6%	62.3%	63.7%	62.1%	60.6%	59.6%	58.4%	57.4%	57.2%	57.9%	59.6%	61.8%	65.0%	68.5%
eThekwini	79.6%	78.8%	77.7%	76.2%	74.7%	73.0%	72.3%	71.8%	71.1%	70.9%	71.3%	73.1%	75.2%	78.3%	81.2%
Kwazulu-Natal	74.5%	73.4%	72.1%	70.5%	68.9%	67.2%	66.4%	65.8%	65.1%	65.0%	65.8%	67.8%	70.2%	73.5%	76.8%
South Africa	**76.5%**	**75.5%**	**74.3%**	**72.8%**	**71.3%**	**69.8%**	**69.3%**	**69.1%**	**68.9%**	**69.2%**	**69.9%**	**71.4%**	**72.7%**	**74.1%**	**74.9%**

3.4 Economic Structure of the Utilization of Skills

In 2015, the number of people employed (formal and informal) was 2,650,000, with 2,169,284 being formally employed. The distribution of this formal employment between the economic sectors within KZN is displayed in Table 56. The table reveals that the sectors with the highest employment are community and social services, trade, finance and business, and manufacturing.

Table 57 and 58 looks at employment by sector (primary, secondary and tertiary) for the various district municipalities. For most districts, the majority of employed people (over 70%) are engaged in the tertiary sector. Employment in the primary sector (agriculture, forestry, fishing and mining) is the highest in the uThungulu, uThukela, iLembe, Sisonke, uMzinyathi and Ugu.

Table 56: Formal Employment by Industry: KZN (2015)

FORMAL EMPLOYMENT BY INDUSTRY: KZN PROVINCE		
INDUSTRIAL SECTOR	**2015**	
	Number	**Percentage**
Agriculture and Forestry	130 759	6.0%
Mining and Quarrying	7 731	0.4%
Manufacturing	308 801	14.2%
Electricity and Water	12 538	0.6%
Construction	146 364	6.7%
Trade	351 585	16.2%
Transport and Communications	127 100	5.9%
Finance and Business Services	321 357	14.8%
Community services	528 757	24.4%
Private Households	234 292	10.8%
TOTAL	**2 169 284**	**100.0%**

Source: Global Insight, 2015

Table 57: Employment by Sector

EMPLOYMENT BY SECTOR BY DISTRICT 2015													
SECTOR	**Formal / Informal Sector**	**KZN**	**UGU**	**UMGUNGUNDLOVU**	**UTHUKELA**	**UMZINYATHI**	**AMAJUBA**	**ZULULAND**	**UMKHANYAKUDE**	**UTHUNGULU**	**ILEMBE**	**SISONKE**	**ETHEKWINI**
PRIMARY SECTOR	Formal	138 490	12 470	25 800	10 922	4 754	4 445	7 173	5 278	16 085	12 350	9 203	30 010
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Informal	0	0	0	0	0	0	0	0	0	0	0	0
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total	138 490	12 470	25 800	10 922	4 754	4 445	7 173	5 278	16 085	12 350	9 203	30 010
		5%	9%	8%	10%	9%	4%	7%	7%	9%	10%	12%	2%
SECONDARY SECTOR	Formal	467 703	21 590	47 794	18 827	6 468	18 307	11 971	7 463	33 305	29 662	8 988	263 329
		80%	76%	77%	79%	68%	83%	71%	66%	78%	74%	65%	84%
	Informal	116 426	6 792	14 171	5 062	3 056	3 686	4 836	3 818	9 392	10 570	4 796	50 247
		20%	24%	23%	21%	32%	17%	29%	34%	22%	26%	35%	16%
	Total	584 129	28 382	61 965	23 888	9 524	21 992	16 807	11 281	42 697	40 232	13 785	313 576
		22%	20%	20%	21%	18%	22%	17%	15%	23%	31%	18%	23%
TERTIARY SECTOR	Formal	1 563 091	78 813	179 793	59 997	29 645	57 799	56 589	43 124	102 313	59 221	40 294	855 502
		81%	76%	81%	76%	76%	77%	76%	76%	80%	77%	76%	84%
	Informal	364 519	25 096	41 599	18 801	9 388	17 632	18 252	13 698	26 038	17 995	12 522	163 498
		19%	24%	19%	24%	24%	23%	24%	24%	20%	23%	24%	16%
	Total	1 927 610	103 909	221 393	78 798	39 033	75 430	74 841	56 823	128 351	77 215	52 816	1 019 000
		73%	72%	72%	69%	73%	74%	76%	77%	69%	59%	70%	75%
TOTAL		2 169 284	112 873	253 387	89 746	40 868	80 550	75 733	55 866	151 703	101 233	58 486	1 148 841

	Total Formal	82%	78%	82%	79%	77%	79%	77%	76%	81%	78%	77%	84%
	Total Informal	480 944	31 888	55 771	23 862	12 444	21 317	23 088	17 516	35 430	28 565	17 318	213 745
		18%	22%	18%	21%	23%	21%	23%	24%	19%	22%	23%	16%
	Total	**2 650 229**	**144 760**	**309 158**	**113 608**	**53 312**	**101 867**	**98 821**	**73 381**	**187 133**	**129 798**	**75 804**	**1 362 587**

Source: Global Insight, 2015

Table 58: Employment by Economic Sector by District

EMPLOYMENT BY ECONOMIC SECTOR BY DISTRICT 2015													
SECTOR	**Formal / Informal Sector**	**KZN**	**UGU**	**UMGUNGUNDLOVU**	**UTHUKELA**	**UMZINYATHI**	**AMAJUBA**	**ZULULAND**	**UMKHANYAKUDE**	**UTHUNGULU**	**ILEMBE**	**SISONKE**	**ETHEKWINI**
Agriculture and Forestry	F	130 759	11 602	25 294	10 571	4 422	4 222	6 523	4 496	14 166	12 049	8 560	28 854
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	I	0	0	0	0	0	0	0	0	0	0	0	0
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total	130 759	11 602	25 294	10 571	4 422	4 222	6 523	4 496	14 166	12 049	8 560	28 854
		5%	8%	8%	9%	8%	4%	7%	6%	8%	9%	11%	2%
Mining and Quarrying	F	7 731	867	506	350	332	223	650	783	1 919	302	643	1 156
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	I	0	0	0	0	0	0	0	0	0	0	0	0
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total	7 731	867	506	350	332	223	650	783	1 919	302	643	1 156
		0%	1%	0%	0%	1%	0%	1%	1%	1%	0%	1%	0%
Manufacturing	F	308 801	14 033	32 400	11 568	3 375	12 561	6 374	2 364	20 554	20 754	4 176	180 645
		89%	86%	87%	89%	81%	88%	82%	76%	88%	87%	80%	92%
	I	36 558	2 222	4 975	1 462	812	1 757	1 355	734	2 879	3 003	1 076	16 282

EMPLOYMENT BY ECONOMIC SECTOR BY DISTRICT 2015													
SECTOR	**Formal / Informal Sector**	**KZN**	**UGU**	**UMGUNGUN-DLOVU**	**UTHUKELA**	**UMZINYATHI**	**AMAJUBA**	**ZULULAND**	**UMKHANYAKUDE**	**UTHUNGULU**	**ILEMBE**	**SISONKE**	**ETHEKWINI**
		11%	14%	13%	11%	19%	12%	18%	24%	12%	13%	20%	8%
	Total	345 359	16 255	37 375	13 030	4 187	14 317	7 729	3 098	23 433	23 757	5 251	196 927
		13%	11%	12%	11%	8%	14%	8%	4%	13%	18%	7%	14%
Electricity and Water	F	12 538	721	1 858	745	278	372	541	392	858	600	214	5 960
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	I	0	0	0	0	0	0	0	0	0	0	0	0
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total	12 538	721	1 858	745	278	372	541	392	858	600	214	5 960
		0%	0%	1%	1%	1%	0%	1%	1%	0%	0%	0%	0%
Construction	F	146 364	6 837	13 536	6 514	2 816	5 374	5 056	4 707	11 893	8 308	4 599	76 724
		65%	60%	60%	64%	56%	74%	59%	60%	65%	52%	55%	69%
	I	79 868	4 570	9 196	3 599	2 243	1 929	3 481	3 084	6 513	7 567	3 721	33 965
		35%	40%	40%	36%	44%	26%	41%	40%	35%	48%	45%	31%
	Total	226 232	11 407	22 733	10 113	5 059	7 303	8 537	7 791	18 406	15 875	8 319	110 689
		9%	8%	7%	9%	9%	7%	9%	11%	10%	12%	11%	8%
Trade	F	351 585	18 506	35 803	14 183	5 711	15 058	10 503	7 337	22 241	14 445	8 244	199 555
		63%	56%	60%	57%	52%	61%	52%	48%	62%	57%	54%	68%
	I	206 859	14 498	23 689	10 707	5 293	9 629	9 726	7 924	13 877	10 898	7 024	93 593
		37%	44%	40%	43%	48%	39%	48%	52%	38%	43%	46%	32%
	Total	558 445	33 004	59 492	24 889	11 004	24 687	20 229	15 261	36 118	25 344	15 268	293 148
		21%	23%	19%	22%	21%	24%	20%	21%	19%	20%	20%	22%
Transport and Communications	F	127 100	5 402	10 864	3 638	1 581	5 043	3 555	2 403	10 387	4 009	2 030	78 188
		70%	64%	64%	62%	59%	65%	56%	65%	71%	62%	56%	75%

EMPLOYMENT BY ECONOMIC SECTOR BY DISTRICT 2015													
SECTOR	Formal / Informal Sector	KZN	UGU	UMGUNGUNDLOVU	UTHUKELA	UMZINYATHI	AMAJUBA	ZULULAND	UMKHANYAKUDE	UTHUNGULU	ILEMBE	SISONKE	ETHEKWINI
	I	53 269	3 046	6 036	2 203	1 090	2 732	2 752	1 287	4 192	2 462	1 610	25 859
		30%	36%	36%	38%	41%	35%	44%	35%	29%	38%	44%	25%
	Total	180 369	8 448	16 900	5 841	2 671	7 776	6 307	3 690	14 579	6 471	3 640	104 047
		7%	6%	5%	5%	5%	8%	6%	5%	8%	5%	5%	8%
Finance and Business Services	F	321 357	12 387	32 279	9 165	4 495	12 114	10 293	5 764	19 508	11 618	4 921	198 812
		92%	88%	91%	90%	87%	89%	88%	87%	91%	87%	86%	93%
	I	29 164	1 659	3 146	1 070	674	1 498	1 413	889	1 983	1 663	803	14 365
		8%	12%	9%	10%	13%	11%	12%	13%	9%	13%	14%	7%
	Total	350 521	14 045	35 426	10 235	5 170	13 611	11 706	6 654	21 491	13 281	5 724	213 177
		13%	10%	11%	9%	10%	13%	12%	9%	11%	10%	8%	16%
Community services	F	528 757	27 578	69 337	25 284	12 968	17 662	24 447	21 420	36 046	17 441	17 375	259 198
		88%	82%	89%	84%	85%	82%	85%	86%	86%	85%	85%	90%
	I	75 226	5 893	8 728	4 821	2 331	3 773	4 360	3 598	5 986	2 971	3 084	29 682
		12%	18%	11%	16%	15%	18%	15%	14%	14%	15%	15%	10%
	Total	603 983	33 471	78 065	30 105	15 299	21 435	28 808	25 018	42 031	20 412	20 459	288 880
		23%	23%	25%	26%	29%	21%	29%	34%	22%	16%	27%	21%
Private Households	F	234 292	14 940	31 509	7 727	4 889	7 922	7 791	6 200	14 132	11 708	7 725	119 749
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	I	0	0	0	0	0	0	0	0	0	0	0	0
		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total	234 292	14 940	31 509	7 727	4 889	7 922	7 791	6 200	14 132	11 708	7 725	119 749
		9%	10%	10%	7%	9%	8%	8%	8%	8%	9%	10%	9%
TOTAL		2 169 284	112 873	253 387	89 746	40 868	80 550	75 733	55 866	151 703	101 233	58 486	1 148 841

EMPLOYMENT BY ECONOMIC SECTOR BY DISTRICT 2015													
SECTOR	**Formal / Informal Sector**	**KZN**	**UGU**	**UMGUNGUNDLOVU**	**UTHUKELA**	**UMZINYATHI**	**AMAJUBA**	**ZULULAND**	**UMKHANYAKUDE**	**UTHUNGULU**	**ILEMBE**	**SISONKE**	**ETHEKWINI**
	Total Formal	82%	78%	82%	79%	77%	79%	77%	76%	81%	78%	77%	84%
	Total Informal	480 944	31 888	55 771	23 862	12 444	21 317	23 088	17 516	35 430	28 565	17 318	213 745
		18%	22%	18%	21%	23%	21%	23%	24%	19%	22%	23%	16%
	Overall Total	**2 650 229**	**144 760**	**309 158**	**113 608**	**53 312**	**101 867**	**98 821**	**73 381**	**187 133**	**129 798**	**75 804**	**1 362 587**

Source: Global Insight, 2015

3.5 Patterns and Trends in the Utilization of Skills

This section looks at the occupational profile and the skill level of the employed by economic sectors and by geographic zones. The intent here is to get a general measure of the educational profile of the employed in their respective economic sectors. Although not sufficiently specific, the information shed some light on patterns of skills demand in different economic sectors. On this basis, the information could be used for assessing the need for skills development in geographic areas where particular sectors are concentrated. Table 59 presents the occupational profile of the major economic sectors. The table reveals that most sectors have a high concentration of workers at the unskilled or semiskilled levels, i.e. elementary workers and operators. This is particularly evident in agriculture, forestry and logging, and in the trade sector where many elementary workers are used. In sectors such as transport, textiles and clothing, wood and wood products, food and beverages and manufacturing, operators with higher skill levels are heavily used.

Trade workers and artisans are concentrated in construction, furniture, food and beverage and manufacturing. The highest concentration of professionals and technicians is in community and other services and finance, but also in furniture making and manufacturing. Table 61 presents the educational level of workers by occupational category and by level of education. Table 62 looks at the skill level of workers in the formal sector by district municipalities. The table confirms that the majority of the employed in each sector are categorized as unskilled or semi-skilled. Only 12% of the working population in the formal sector is classified as highly skilled. The data reveals the following:

- Most managers are educated at the level of TVET. In the fields of construction, fuel and petroleum and transport, many managers have attained education at the GET level only.
- Across occupational categories and across economic sectors the majority of workers have attained TVET as their highest level of education.
- Elementary workers and operators generally have categorized ‘no schooling or GET’ as their highest level of education. This is particularly so in sectors such as agriculture, forestry and logging, wood and wood products, construction and trade.

Employment patterns in a sector will determine the educational and skill development interventions that are needed to serve that sector. Strategic interventions at the level of TVET seems to be of high value to most economic sectors in the province, since most of the sectors use people qualified at the TVET level across the occupational spectrum.

Table 59: Number and Distribution of Workers by Sector

NUMBER AND DISTRIBUTION OF WORKERS BY SUB-SECTORS													
	SUB-SECTORS												
OCCUPATION	Agriculture & Hunting	Forestry & Logging	Manufacturing: Metal Products, Machinery & Appliances.	Food, Beverages & Tobacco Products	Fuel, Petroleum, Chemical & Rubber	Wood & Wood Products	Furniture & Other Items	Textiles, Clothing & Leather Goods	Construction	Trade	Transport	Finance	Community Services
Managers	5528 2.5%	543 1.6%	6629 7.5%	1992 4.4%	4278	3491 7.6%	1287 9.3%	2570 2.0%	6552 5.5%	45025 10.2%	13808 11.6%	14282 7.6%	20493 5.1%
Professionals			459 0.5%		1240	882 1.9%	1881 13.5%	715 0.6%	840 0.7%	3058 0.7%	3311 2.8%	13354 7.1%	56468 14%
Technicians	391 0.2%		8714 9.9%	3133 7.0%	5669	594 1.3%		7533 6.0%	1884 1.6%	11626 2.6%	6787 5.7%	20058 10.7%	169440 41.9%
Clerks	812 0.4%	591 1.7%	7193 8.2%	6270 14.0%	7912	6974 15.1%	941 6.8%	6162 4.9%	3054 2.6%	55751 12.6%	19108 16.1%	38743 20.7%	49512 12.3%
Service and Sales	625 0.3%	2815 8.2%	1424 1.6%	2126 4.7%	1800	681 1.5%		2065 1.6%		126960 28.7%	5537 4.7%	67594 36%	59514 14.7%
Agriculture Workers	90754 41.7%	7536 21.9%										694 0.4%	
Trades Workers	2478 1.1%		20413 23.2%	10954 24.4%	948	8904 19.3%	4484 32.2%	23643 18.7%	82611 69.9%	44942 10.2%	7250 6.1%	2726 1.5%	4136 1%
Operators	20529 9.4%	4080 11.9%	30155 34.3%	12031 26.8%	11880	19187 41.6%	2758 19.8%	71744 56.7%	1046 0.9%	16118 3.6%	42998 36.0%	5583 3%	9389 2.3%
Elementary	96416	18776	12414	8365	6767	5413	2558	12049	21441	138165	20234	24545	35 021

	44.3%	54.7%	14.12%	18.6%		11.7%	18.4%	9.5%	18.1%	31.4%	17.0%	13.1%	8.7%
Not Defined			536 0.6%						800 0.7%				
TOTAL	**217533**	**34340**	**87937**	**44871**	**40494**	**46127**	**13908**	**126480**	**118228**	**441644**	**119034**	**187589**	**403974**

Source: KZN Department of Economic Development, Tourism & Environmental Affairs, 2011

Table 60: Employment by SOCC Classification (KZN) 2nd Quarter 2012

EMPLOYMENT BY SOCC CLASSIFICATION (KZN) 2ND QUARTER 2012		
CLASSIFICATION	**EMPLOYED**	**PERCENTAGE**
Clerks	226,597	8.9%
Professionals	127,826	5%
Technical and associate professionals	308,848	12.2%
Service workers and shop and market sales workers	367,668	14.5%
Legislators, senior officials and managers	156,506	6.2%
Skilled agricultural and fishery workers	7,612	0.3%
Craft and related trades workers	310,960	12.2%
Plant and machine operators and assemblers	274,104	10.8%
Elementary Occupation	566,197	22.3%
Domestic workers	194,302	7.6%
TOTAL	**2,540,620**	

Source: KZN Department of Economic Development, Tourism & Environmental Affairs, 2012

Table 61: Percentage of Workers by Sub-Sectors by Occupation and Level of Education

PERCENTAGE OF WORKERS BY SUB-SECTORS BY OCCUPATION AND LEVEL OF EDUCATION														
OCCUPATION	LEVELS OF EDUCATION	SUB-SECTORS												
		% Agriculture	% Forestry & Logging	% Manufacturing: Metal Products.	% Food, Beverages & Tobacco	% Fuel, Petroleum, Chemical &	% Wood & Wood Products	% Furniture & Other items	% Textiles, Clothing & Leather	% Construction	% Trade	% Transport	% Finance	% Community Services
Managers	No Schooling	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	4.4
	GET	7.7	0.0	7.9	0.0	25.7	0.0	0.0	0.0	38.9	8.2	26.9	3.7	13.0
	TVET	68.5	100	76.0	67.1	55.0	74.7	47.9	100	47.1	85.1	47.0	62.5	58.2
	HET	23.8	0.0	10.6	32.9	19.3	25.3	52.1	0.0	14.0	6.6	20.3	33.7	24.4
Professionals	No Schooling			0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	GET			0.0		0.0	0.0		0.0	62.5	0.0	0.0	0.0	0.6
	TVET			100		62.6	0.0		0.0	0.0	42.1	67.5	40.3	15.2
	HET			0.0		37.4	100		100	37.5	57.9	32.5	59.7	84.2
Technicians	No Schooling	0.0		0.0	0.0	0.0	0.0	0.0	9.4	0.0	0.0	0.0	0.0	2.8
	GET	0.0		19.3	0.0	10.3	0.0	11.3	9.6	0.0	26.0	14.9	6.4	5.1
	TVET	100		80.7	80.5	89.7	100	88.7	81.0	100	70.8	54.2	82.4	86.4
	HET	0.0		0.0	19.5	0.0	0.0	0.0	0.0	0.0	3.2	30.8	11.2	5.7
Clerks	No Schooling	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
	GET	23.0	0.0	2.3	15.9	4.9	1.5	0.0	28.2	38.2	16.2	13.0	10.4	7.3
	TVET	77.0	100	97.7	67.6	95.1	98.5	100	71.8	61.8	81.4	85.1	85.4	91.1
	HET	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0	0.0	2.4	2.0	3.3	1.6
Service and Sales	No Schooling	0.0	13.9	0.0	0.0	0.0	0.0		0.0		2.9	0.0	0.2	0.6
	GET	100	60.6	0.0	74.1	44.6	100		0.0		32.3	13.9	22.2	22.6

PERCENTAGE OF WORKERS BY SUB-SECTORS BY OCCUPATION AND LEVEL OF EDUCATION														
OCCUPATION	LEVELS OF EDUCATION	SUB-SECTORS												
		% Agriculture	% Forestry & Logging	% Manufacturing: Metal Products.	% Food, Beverages & Tobacco	% Fuel, Petroleum, Chemical &	% Wood & Wood Products	% Furniture & Other items	% Textiles, Clothing & Leather	% Constructio n	% Trade	% Transport	% Finance	% Community Services
	TVET	0.0	25.5	100	25.9	55.4	0.0		100		64.8	86.1	75.6	76.1
	HET	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	1.9	0.7
Agriculture Workers	No Schooling	15.9	13.1										0.0	
	GET	49.3	66.9										0.0	
	TVET	34.8	20.0										100	
	HET	0.0	0.0										0.0	
Trades Workers	No Schooling	13.1		0.0	10.0	0.0	11.6	4.9	8.8	7.8	3.9	0.0	0.0	0.0
	GET	32.3		19.3	34.5	0.0	35.5	47.2	44.7	54.6	25.6	43.5	14.1	36.1
	TVET	54.5		71.8	55.4	100	52.8	47.9	46.5	37.0	70.6	56.5	85.9	63.9
	HET	0.0		8.9	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.1
Operators	No Schooling	20.6	23.0	0.0	2.6	0.0	0.0	0.0	1.7	42.4	5.6	3.1	13.8	0.0
	GET	60.0	77.0	20.2	31.1	29.8	28.1	33.4	38.7	32.8	39.6	40.8	26.5	25.6
	TVET	19.4	0.0	79.8	66.3	70.2	71.9	66.6	59.1	24.8	54.8	56.1	59.7	74.4
	HET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Elementary	No Schooling	16.1	16.9	4.4	3.4	6.1	18.4	0.0	11.7	9.8	10.8	0.0	5.1	3.9
	GET	72.7	68.4	33.1	16.1	37.5	4.5	100	22.0	61.9	52.4	36.3	47.3	57.7
	TVET	11.2	14.7	62.5	75.9	56.4	77.0	0.0	66.3	28.3	36.7	63.7	47.5	38.4
	HET	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not Defined	No Schooling			0.0						0.0				
	GET			0.0						100				

PERCENTAGE OF WORKERS BY SUB-SECTORS BY OCCUPATION AND LEVEL OF EDUCATION														
OCCUPATION	LEVELS OF EDUCATION	SUB-SECTORS												
		% Agriculture	% Forestry & Logging	% Manufacturing: Metal Products.	% Food, Beverages & Tobacco	% Fuel, Petroleum, Chemical &	% Wood & Wood Products	% Furniture & Other items	% Textiles, Clothing & Leather	% Constructio n	% Trade	% Transport	% Finance	% Community Services
	TVET			100						0.0				
	HET			**0.0**						**0.0**				

Source: Source: KZN Department of Economic Development, Tourism & Environmental Affairs, 2011

Table 62: Skills Level by District 2010

SKILL LEVEL BY DISTRICT 2010																							
SKILL LEVEL	KZN	%	DISTRICTS																				
			UGU	%	UMGUNGUNDLOVU	%	UTHUKELA	%	UMZINYATHI	%	AMAJUBA	%	ZULULAND	%	UMKHANYAKUDE	%	UTHUNGULU	%	ILEMBE	%	SISONKE	%	ETHEKWINI	%
Formal employment by skill (highly skilled)	217795	13	10086	12	25370	13	10936	12	5071	12	8560	13	10302	13	6751	12	14739	12	8873	11	5555	12	111552	14
Formal employment	743411	44	36293	41	85712	43	39045	43	17888	41	29442	45	35279	43	23993	43	50580	41	31968	41	19563	41	373647	45

by skill (skilled)																							
Formal employment by skill (semi and unskilled)	736142	43	41158	47	88723	44	40564	45	20422	47	27824	42	36466	44	25076	45	59043	47	37007	48	22648	47	337212	41
Formal employment by skill TOTAL	1697347	80	87536	79	199806	82	90545	78	43381	81	65825	80	82048	81	55819	80	124361	80	77848	80	47767	80	822411	79
Informal employment TOTAL	429091	20	23795	21	44131	18	25665	22	10399	19	16582	20	19093	19	13764	20	30507	20	19891	20	11758	20	213506	21
Formal and informal employment TOTAL	**2126438**		**111332**		**243936**		**116209**		**53780**		**82408**		**101141**		**69584**		**154868**		**97739**		**59525**		**1035917**	

Source: KZN Department of Economic Development, Tourism & Environmental Affairs, 2010

3.6 Sectoral Demand Profile – Implications for Skills Development

The demand for skills in each sector is complex and is driven by a variety of factors that are unique to the specific sector. In understanding demand, therefore, it is necessary to reflect on sector-specific variables, and to note the implications of the sector-specific demand dynamics. On the basis of interviews with industries representing each sector, an analysis was made of the drivers of demand, and factors which impose constraints on demand, the assessment of demand potential and the implications of particular demand scenarios on the need for skills development. Since most sectors are constituted of a complex array of sub-sectors, the information presented in this document is pitched at a very general level, but it is presented in more detail in an accompanying analysis of each particular economic sector. The data shows both potential and constraints in each sector, and the net impact on demand will depend on the extent to which drivers of demand have a positive impact on the performance of the sector. An assessment is made on the geographic zones that are likely to be impacted by growth in particular sectors, and of the possible impact on skill requirements. Table 63 presents an overview of the skills demand scenario by the respective economic sectors.

Table 63: Analysis of Demand Potential and Skills Needed by Main Economic Sectors

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED BY MAIN ECONOMIC SECTORS			
KEY ECONOMIC SECTORS/SECTOR PERFORMANCE	**DRIVERS OF DEMAND/CONSTRAINTS ON DEMAND**	**DEMAND POTENTIAL/GEOGRAPHIC ZONES**	**SKILLS NEEDED**
Agriculture, Forestry & Fishing	• New export markets e.g. BRICS • Climate change and demands imposed for corrective interventions • Availability of land under ITB • Vulnerability to environment and water systems • Loss of biodiversity and need to respond • Decline in forestry resources - particularly hardwoods • Need for value add to agricultural products • Reducing dependency on imported agricultural goods • Threat of food security • Poaching of wildlife	• Aqua culture • Agri-processing • Agriculture export markets • Bio fuels production • Citrus production and processing • Livestock • Game farming	• Fish pathologists • Agricultural economists • Plant pathology • Bio Resource Engineering • Silviculture • Forest ecology • Plant production methods • Agri processing • Forest hydrology • Ichthyology • Statistical modelling for fisheries management • Game wardens • Game park security specialists
Mining and Quarrying	• New production technologies • Commissioning of abandoned coal mines • Depletion of fossil fuels • Plans to increase small scale mining operations	• Downstream beneficiation • Mine rehabilitation • Increased concerns regarding the satiety record of mines	• Metallurgical engineers and technicians • Craftsmen to work in mines • Carpenters • Electricians

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED BY MAIN ECONOMIC SECTORS			
KEY ECONOMIC SECTORS/SECTOR PERFORMANCE	**DRIVERS OF DEMAND/CONSTRAINTS ON DEMAND**	**DEMAND POTENTIAL/GEOGRAPHIC ZONES**	**SKILLS NEEDED**
	and formalize community mining • Expansion of building material mining • Government incentives for the beneficiation of minerals • Aging technical workforce in mining sector • Labour unrest in sector • Permitting processes • Smaller areas open for exploration	• Increased construction and infrastructure development	• Heavy equipment technicians • Diesel mechanics • Occupational health and satiety representatives • Machine operators • Downstream activities - jewellery manufacturing • Satiety specialists and inspectors
Manufacturing **Note: There are 10 key sub-sectors in manufacturing, and each has its unique demand dynamics**	• Expanding export markets • Growth in ICT and production technology • Low levels of domestic plant investment • Implication of the green economy • Plans for ease of access to zoned industrial land • Investment promotion initiatives by DTI • Cluster/value chain approach to industrial development • Investment in product research and development • Market share in a range of product categories	• Manufacturing for green economy. • There are 10 key sectors in manufacturing. Different sectors have different demand profile	• Quality control technicians • Production control and process technicians • Process engineering technicians with 'top up' training in the specific sectors of manufacturing • Manufacturing production technicians • Machinists • Basic computing skills • Mechatronics technicians • Millwrights • Instrumentation technicians • Quality control specialists in specific fields
Construction	• Government investment in infrastructure • Need to improve water in infrastructure • Insufficient electricity infrastructure to meet rising demands • Plans re linking SMMEs to large scale construction projects	• Growing demand throughout Province in light of infrastructure and catalytic projects • Construction industry is labour-intensive	• Civil engineers specializing in water management • Earth moving equipment mechanics • Craftsmen and technicians in all construction fields (electricians,

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED BY MAIN ECONOMIC SECTORS			
KEY ECONOMIC SECTORS/SECTOR PERFORMANCE	**DRIVERS OF DEMAND/CONSTRAINTS ON DEMAND**	**DEMAND POTENTIAL/GEOGRAPHIC ZONES**	**SKILLS NEEDED**
			carpenters, masons and bricklayers)
Wholesale and Retail Trade, Catering and Accommodation	• Investment in ports and harbours • Increased foreign direct investment • Growth in export markets • Enhanced business support services • Increased local travel and tourism • Trends in disposable income	• Increased use of computers • More competitive industry	• ICT professionals • Marketing and merchandizing • Import and export planners and managers • Clerical staff in trade and import and export operations
Electricity and water	• Increased demand for electricity and energy production • Focus on renewable sources of energy • Increased investment in energy • Concern regarding water quality	• Expansion in the use of alternative energy • Plans to expand nuclear energy production	• Technicians in alternative energy • Civil engineers and technicians specializing in water management • Technicians and craftsmen in electricity and electronics • Instrumentation technicians • Nuclear engineers and technicians
Transport, Storage and Communication	• Establishment of transport corridor • Trade gateways in province • Investment in transport infrastructure • Increased export-oriented activities • Upgrading of corridor routes • Expanding economic base • Increase in manufacturing and downstream activities	• Growth in economic output is not generally accompanied by growth in employment • High level of informal employment and work in the land transport sector	• Diesel mechanics • Heavy earth moving equipment mechanics • Logistics control specialists • Wide range of specialist to support expanded rail transport • Wide range of specialist to support expanded marine activities
Finance, Insurance, Real Estate and Business Services	• Investor confidence • Increased desirability of the Province as a place to work, reside and play • Durban's increased role as a trade, finance and	• Application of ICT in finance and business • Expansion of number of entrepreneurs and support for small businesses	• Business management for small business owners and emerging entrepreneurs

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED BY MAIN ECONOMIC SECTORS			
KEY ECONOMIC SECTORS/SECTOR PERFORMANCE	**DRIVERS OF DEMAND/CONSTRAINTS ON DEMAND**	**DEMAND POTENTIAL/GEOGRAPHIC ZONES**	**SKILLS NEEDED**
	business centre in the region		• Accountants and accounting technicians • Auditors
Community and Social Services	• Emigration and movement out of the profession • Poor salaries and working conditions • Impact of poverty • Burden of diseases in Province • Need for social services in schools • Increase in volunteerism	Demand is high primarily in urban and peri-urban areas	• Social workers • School social workers • Early childhood development workers • Youth and community workers
General Government	• Disenchanted communities and service delivery sensitivity • Development priorities proposed in provincial strategies • Institutional development to increase government capacity • Impact of climate change and need for disaster management • Increased burden of diseases in province • Impact of poverty and inequitable distribution of economic benefits • National policy and strategic leadership in all fields • Housing backlogs • Rural development and spatial integration	• Health professionals • Engineers and project managers • Teachers – maths, science, technology • Environmental specialists	• Doctors • Professional nurses • Teachers – maths and science • Engineers • Social workers • Policy developers • Project managers • Professors and senior researchers in all fields to work in universities

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED BY MAIN ECONOMIC SECTORS			
KEY ECONOMIC SECTORS/SECTOR PERFORMANCE	**DRIVERS OF DEMAND/CONSTRAINTS ON DEMAND**	**DEMAND POTENTIAL/GEOGRAPHIC ZONES**	**SKILLS NEEDED**
Tourism	• Refocus on domestic market • International focus on wild life • Government support for tourism initiatives • Establishment of tourism corridors • New marketing of Zulu kingdom • Increased community based tourism initiatives	Cultural tourism Heritage	• Tourist guides in heritage and cultural tourism • Cultural event planners • Talent coaches • Talent agents

3.7 Geographic Analysis of Demand Potential

There are distinct geographic differences in the industrial structure of the province, and, as a result each district municipality has a unique potential for development. The PSEDS, in outlining a spatial development strategy for the province, has identified and mapped the economic development potential of different geographic zones. In this regard, the key economic sectors in each district municipality have been identified, and the development potential of the associated economic sectors has been assessed. In addition, the economic development potential of each district in terms of expanded and new development has also been determined. The result, therefore, is a full mapping of the economic basis for demand, and an initial foundation for beginning to assess the need for skill development in particular vocational fields. On the basis of information presented in PSEDS and in the PGDS, and on the basis of a review of the IDPs of districts and municipalities, and on the basis of consultations with development planners in districts, Table 64 presents a geographic analysis of potential demand. This analysis is only preliminary, and a lot more work must be done in this area with a comprehensive and in-depth analysis of district potential. Each district and each local municipality has extensive plans and a wide variety of development activities. All these have implications for skills development; but the circumstances in each municipality must be examined in more detail to accurately assess implications for skills development. It should be noted here, however, that the skills needs of the district must be balanced with the skills that are already available. This must be assessed in more detail.

The analysis notes the main economic sectors in the respective districts according to GDP contribution. It also presents information on the district's potential for development as assessed by PSEDS, and the skill development interventions which may be needed to adequately serve the economic development needs of the geographic area. The skills development interventions needed have been roughly determined through selected interviews with key informants representing the sectors targeted for development. As noted earlier, it will be necessary to conduct further and more in-depth analyses to confirm the general needs identified in the respective geographic areas.

Table 64: Geographic Analysis of Demand Potential

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
Amajuba	• Metal products (11.6%) • Education (8.7%) • Coal & lignite (7.8%) • Finance (4.6%) • Health and Social work (6%) • Real estate activities (5.9%) • Land & Water transport (5.8%) • Retail trade (5.3%) • Public admin (4.8%) • Agriculture (3.7%)	• Aquaculture & Agri-processing in Emanlangeni and Danhauser local municipalities • Cultural tourism potential in Newcastle local municipality • Industrial development opportunities in the Newcastle area • Large services sector in the Newcastle area and less in the Emanlangeni and Danhauser areas • Agrarian revolution target Projects	• Basic trades and craft areas - mechanical, electrical, civil • Cultural tourism - tourist guides • Social workers • Food processing technologists • Aqua culture technicians and fish pathologists • Marine mechanics and electricians • Machinists and skills in the mechanical trades • Livestock production
uThungulu	• Metal products (8.1%) • Transport (7.5%) • Education (6.9%) • Mining of metal ores (5.6%) • Wood and wood products (5.4%) • Agriculture and hunting (4.2%) • Food, beverage & tobacco products (4.1%) • Health (4.1%) • Trade (4%)	• Aquaculture & Agri-processing in Mthonjeni, Ntambanana, Mbonambi, Nkandla and Umlalazi local municipalities • Cultural tourism opportunities in large area of Uthungulu (i.e. Nkandla, Mthonjeni, Ntambanana, Mbonambi, Umlalazi) and opportunities for eco-tourism through the centre of Uthungulu (Nkandla, Umlalazi), as well as beach attraction in Umhlatuze • Industrial development potential in the Umhlatuze (Empangeni) area • Large services sector in the Umhlatuze and much less sporadically spread over the other local municipalities • Expansion of Ntingwe Tea Out-grower development • Household greening (citrus and peaches) projects in partnership with Nkwaleni Valley commercial farmers • Essential oils (rose geranium) projects in partnership with Nkandla communities and uThungulu district	• Motor mechanics • Heavy equipment mechanics and operators • Electricians, welders, machinists • Process engineers and technicians • Metal fabricators • Skills in the mechanical trades • Agricultural production - fruit farming

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
		• Mushroom production and distribution sites at all hospitals and clinics with high malnutrition records and seriously low levels of child growth rates in conjunction with vitamin supplementation programmes	
Zululand	• Education (12.8%) • Public administration & defence (8.4%) • Mining of coal & lignite (7.8%) • Transport (6.7%) • Real estate activities (6.7%) • Retail Trade & repairs (6.5%) • Agriculture & hunting (6.2%) • Health (5.5%) • Construction (3.6%) • Finance (3.4%)	• Aquaculture & Agri-processing in Nongoma, Ulundi & Abazulusi local municipalities • Cultural tourism opportunities in Zululand spread across Umpongolo, Nongoma, Ulundi and Abaqulusi. • Not a large services sector, but evident in the Abaqulusi, Pongola and Ulundi areas and to a much lesser extent in the Ndumbe and Ngoma areas • Massified/high impact maize and bean projects in conjunction with market/processing facilities, mechanization fund and sustainable infrastructure • Mushroom production and distribution sites at all hospitals and clinics with high malnutrition records and seriously low levels of child growth rates • Implement Nguni projects in partnership with livestock associations established under the Siyavuna Dip tank Programme and the ARRUP corridors • Citrus and peaches project at Bululwane irrigation scheme in partnership with local communities in Zululand district	• Guides in cultural tourism • Food processing technicians • Electricians, mechanics, machinists • Mining technicians • Diesel mechanics • Agricultural production and agronomy • Agricultural marketing • Health professionals • Teachers in maths and science • Livestock production
uMkhanyakude	• Education (11.2%) • Agriculture (10.9%)	• Aquaculture & Agri-processing in Umhlabuyalingana, Jozini,	• Aqua culture technicians

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
	• Real estate activities (8.3%) • Health and social work (6.3%) • Retail trade (5.7%) • Forestry (5.7%) • Public admin (4.9%) • Transport (4.4%) • Food, beverage & tobacco products (4.2%) • Other service activities (3.7%)	Hlabisa and Mtubatuba local municipalities • Cultural tourism opportunities in Hlabisa, Mtubatuba and eco-tourism opportunities along Umhlabuyalingana, The Big 5 False Bay and Mtubatuba local municipalities • Small amounts of services sector in Jozini, Hlabisa, Mtubatuba, The Big 5 False Bay and Umhlabuyalingana areas • Existing sugar and cotton initiatives • Projects according to the Integrated Makhathini Development Plan i.e. Nguni Development, intensive citrus and vegetable production along the Pongola river, and cotton, groundnut and cashew nut development in drier eastern areas • Supporting targeted research into the potential for aqua-culture projects via the Makhathini research station	• Agricultural production • Food processing and marketing • Cultural tourism - guides • Teachers - maths, science • Motor mechanics • Health and social work professionals • Teachers in maths and science • Teachers and lecturers in technology • Livestock production
uThukela	• Education (9.7%) • Transport (8.6%) • Agriculture (6.4%) • Retail trade (5.9%) • Food, beverages & tobacco (4.9%) • Finance (4.7%) • Public admin (4.2%) • Fuel, petroleum, chemical and rubber (4.2%) • Health (4%) • Electricity & Water (3.8%) • Construction (3.8%)	• Aquaculture & Agri-processing in Okhahlamba, Umtshezi and Imbabazene local municipalities • Cultural tourism opportunities in Indaka, Umtshezi, Okhahlamba and Emnambithi, as well as eco-tourism potential along Okhahlamba and Imbabazene • Industrial development opportunities exist in the Emnambithi area • Services sector in Emnambithi and Umtshezi areas and less in the Okhahlamba area • Supporting targeted research into the potential for aqua-culture projects via the	• Aqua culture technicians • Cultural and heritage tourism guides • Agriculture and Agri-processing, agricultural production • Motor and diesel mechanics • Livestock production • Pecan production and processing

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
		Tugela estates aqua-culture facility • Resuscitation of vegetable production at Tugela Estates in partnership with social partners (CORD) • Massified/high impact maize and bean projects in conjunction with market/processing facilities, mechanization fund and sustainable irrigation infrastructure • Mushroom production and distribution sites at all hospitals and clinics with high malnutrition records and seriously low levels of child growth rates (in conjunction with vitamin supplementation programmes) i.e. Bergville and Estcourt areas • Nguni projects in partnership with Livestock Associations established under the Siyavuna Diptank Programme and the ARRUP Corridors • Greening projects (pecans) in partnership with Department of Economic Development	
iLembe	• Food, beverages & tobacco (13.1%) • Agriculture (12.8%) • Education (6.2%) • Real estate (5.9%) • Transport (4.6%) • Retail trade (4.5%) • Construction (4%) • Wood products (3.9%) • Wholesale & commission trade (3%) • Finance (3%) • Health (2.7%)	• Aquaculture & Agri-processing in Maphumulo and Ndwedwe local municipalities • Tourism (beaches) opportunities along Mandeni and Kwa Dukuza • Industrial development opportunities exist in the Mandeni and Kwa Dukuza areas • Small pockets of services sector in Maphumulo and Mandeni and slightly more in KwaDukuza	• Production and process technicians • Skills in production agriculture, marketing and in Agri-processing • Skills in business management for downstream agricultural activities • Wood and pulp technologists • Skills in mechanical trades and in furniture manufacture

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
uMgungundlovu	• Education (8.3%) • Health & social work (6.9%) • Finance & Insurance (6.4%) • Land & water transport (6.2%) • Agriculture & hunting (5.8%) • Retail trade (5.7%) • Other business activities (5.2%) • Public admin & defence (4.8%) • Construction (4%)	• Aquaculture & Agri-processing in Mpofana, Umngeni, Umzunduzi and Richmond local municipalities • Tourism (arts & culture) opportunities in central uMgungundlovu in the Umngeni and Mpofana areas as well as eco-tourism opportunities in parts of Mpendle area • Industrial development opportunities in the Umngeni and Umzunduzi areas • Services sector in Umzunduzi area with smaller amount in Mpofana, Umngeni, Richmond and Umshwathi • Massified/high impact maize and bean projects in conjunction with market/processing facilities, mechanization fund and sustainable irrigation infrastructure • Mushroom production and distribution sites at all hospitals and clinics with high malnutrition records and seriously low levels of child growth rates (in conjunction with vitamin supplementation programmes) • Nguni projects in partnership with Livestock Associations established under the Siyavuna Diptank Programme and the ARRUP Corridors • Infrastructural support to PDI cut flower growers in partnership with uMgungundlovu district and Department of Economic Development	• Health and social workers • Entrepreneurial training in a broad spectrum of areas • Diesel and motor mechanics • Heavy equipment mechanics • Forest ecology • Plant pathology • Agricultural production • Agricultural processing • Water management technicians • Cut flower production, processing and marketing
uMzinyathi	• Agriculture & hunting (8%) • Retail trade (7%)	• Aquaculture & Agri-processing in Nquthu and Msinga local municipalities	• Teachers in maths, science, ICT and technology • Social workers

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
	• Health & social work (6.6%) • Public admin (6.3%) • Land & Water transport (5.7%) • Forestry & logging (5.2%) • Mining of coal & lignite (3.9%) • Finance & Insurance (3.8%) • Real estate (3.4%) • Construction (3.3%) • Wholesale & Commission Trade (3.1%)	• A lot of cultural tourism opportunities in parts of Umzinyathi namely Msinga, Endumeni, Nquthu and Umvoti • Services sector in Endumeni and less in Nquthu, Msinga and Umvoti • Massified/high impact maize and bean projects in conjunction with market/processing facilities, mechanization fund and sustainable irrigation infrastructure • Nguni projects and construct basic abattoir (see Utrecht Game facility) in partnership with Livestock Associations established under the Siyavuna Diptank Programme and the ARRUP corridors • Resuscitation of defunct vegetable pack house at Msinga	• Agronomy and plant pathology • Production agriculture • Agri-processing and marketing • Health professionals and social workers • Tourist guides for cultural tourism • Aqua-culture specialists • Forest ecology • Agricultural production • Livestock production
eThekwini	• Finance & Insurance (10%) • Transport (8.8%) • Retail trade (7.9%) • Education (7.1%) • Health & social work (6.2%) • Wholesale & Commission Trade (5.1%) • Other business activities (5.1%) • Real estate activities (5%) • Fuel petroleum, chemical & rubber (4.8%) • Construction (4.5%) • Food beverages & tobacco products (3.8%)	• Aquaculture & Agri-processing in parts of eThekwini • Plenty of tourism opportunities in eThekwini in the form of cultural and eco-tourism • Plenty of industrial development opportunities in the eThekwini area • Large portion of services sector	Metro area is a relatively open labour market, and all skill areas seem to be relevant here. High need for: • Health and social workers • Skills in the construction trades • Skills in the electrical and mechanical trades • Teachers to fulfill replacement demand • Accountants and auditors • Skills associated with the marine industry • Process and production technicians • ICT professionals

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
Sisonke	• Education (12%) • Agriculture & hunting (11.7%) • Retail trade (7.8%) • Forestry (7.4%) • Wholesale & Commission Trade (6.3%) • Health & social work (6.2%) • Land & Water transport (4.7%) • Public admin (4.6%) • Construction (3.8%) • Finance & insurance (3.7%) • Food, beverages & tobacco (3%)	• Aquaculture & Agri-processing in Ubuhlebezwe, and Umzimkhulu local municipalities • Eco-tourism opportunities in Kwa Sani and Ubuhlebezwe areas • Services sector in Greater Kokstad, Ubuhlebezwe areas and less in Kwa Sani and Ingwe areas	• Agricultural production • Agri-processing and marketing • Aqua-culture and fish pathology • Ecotourism planners • Forest ecology • Forest hydrology
Ugu	• **Agriculture (8.7%)** • **Education (8%)** • **Retail trade (7%)** • **Construction (5.4%)** • **Finance (5.3%)** • **Food, beverages & tobacco (4.9%)** • **Wholesale & commission trade (4.6%)** • **Transport (4.6%)** • **Real estate (4.4%)** • **Health (4.4%)** • **Public admin (3.5%)**	• Aquaculture & Agri-processing in Vulamehlo, Umzumbe and Umziwabantu local municipalities • Ugu district has enormous potential for attracting tourism along its popular beaches • Industrial development opportunities along the Hibiscus Coast area • Large amount of services sector along Hibiscus Coast and less in Umziwabantu area. • Banana out-growers in partnership with Ugu district, commercial farmers and the ARRUP Corridors • Mushroom production and distribution sites at all hospitals and clinics with high malnutrition records and seriously low levels of child growth rates (in conjunction with vitamin supplementation programmes) i.e. Kokstad and Vulamehlo	• Aquaculture and fish pathology • Alternative energy • Agri-processing • Agricultural production methods • Construction and mechanical trades • Production and process technicians

GEOGRAPHIC ANALYSIS OF DEMAND POTENTIAL: IMPLICATIONS FOR SKILLS DEVELOPMENT			
DISTRICT MUNICIPALITIES	**MAIN ECONOMIC SECTORS BY GDP CONTRIBUTION (2015)**	**POTENTIAL FOR DEVELOPMENT**	**KEY SKILL DEVELOPMENT INTERVENTIONS NEEDED**
		• Existing macadamia nut and sugar out-grower initiatives	

Source: Global Insight 2015 (GDP Statistics)

Table 65: Analysis of Demand Potential and Skills Needed in Manufacturing Sector

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED IN MANUFACTURING SECTOR			
COMPONENTS OF MANUFACTURING SECTOR/SUB-SECTOR PERFORMANCE	**DRIVERS OF DEMAND BY SECTORS**	**DEMAND POTENTIAL AND DEVELOPMENTS**	**SKILLS NEEDED**
Food, Beverage, Tobacco	• Globalization • Cost efficiency in production • Reliable supply chain management • Increasing competition • Imports • Barriers to entry	Anticipated increase in demand as income levels rise	• Food and beverage process machine operators • Food technologists • Industrial engineers • Wine makers • Electrical engineers • Mechanical engineering technicians • Millwright • Fitters and turners • Good technicians
Textiles, Clothing and Leather Goods	• Competition from China and other countries in the east • Increase cost of raw materials • Competition for raw materials • Growing consumer demand • Potential for export markets	• Decline in the textiles and clothing sector • Growth in the demand for leather goods • Plans to support expansion in marketing sector	• Production and process technicians • Clothing designers and fashion merchandizing • Leather craft
Wood, Paper, Publishing and Printing	• Increased need for wood and paper products • Expansion of printing industry and new technology in printing	• Growing demand in the sector • Potential expansion of sector in rural areas with downstream potential in forestry • Export markets regionally	• Printing technicians and craftsmen • ICT skills • Pulp and paper technologist • Process technicians

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED IN MANUFACTURING SECTOR			
COMPONENTS OF MANUFACTURING SECTOR/SUB-SECTOR PERFORMANCE	**DRIVERS OF DEMAND BY SECTORS**	**DEMAND POTENTIAL AND DEVELOPMENTS**	**SKILLS NEEDED**
	• Decline in hardwood availability in South Africa • Growth in demand for printing • Decline in forestry resources • Expansion in the furniture industry		
Petroleum Products, Chemicals, Rubber, Plastics	• Increased prices of raw materials • International competition • Impact of scarce and critical skills results from lack of skills in maths and science	• Potential for expansion as KZN becomes a regional trade centre • Growth in need for products	• Chemical engineers and technicians • Professionals in the pharmaceutical industry • Manufacturing engineers • Product development specialists
Other Non-Metal Mineral Products	No data collected from this sector		
Metals, Metal Products, Machinery and Equipment	• International prices and competition • Large infrastructure projects will drive demand for products • Expanded markets in the region • Exports	• Relatively stable industry • High skills demand in the mechanical and metal crafts and trades	• Metal machinists • Tool and die makers • CNC operators • Machine setter/mechanic • Die caster, die cutter • Jig maker
Electrical Machinery and Apparatus	• International competition affects prices • Expansion in the manufacturing sector	Generally small sector with low levels of employment	• Process and manufacturing engineers and technicians
Radio, TV, Instruments, Watches and Clocks	• International competition affects prices • Consumer demand rise with income levels	• Small assembly and repair sector • Some demand for people in the electrical and mechanical trades	• Electronic technicians • Service and repair technicians • Marketing and sales workers
Transport Equipment	Growth of KZN as a transport hub	Enhanced transport infrastructure	• Automotive mechanics • Diesel mechanics • Tool and die makers • welders
Furniture and other Manufacturing	• Increased competition from the east	• Growing sector	• Cabinet makers • Process engineers

ANALYSIS OF DEMAND POTENTIAL AND SKILLS NEEDED IN MANUFACTURING SECTOR			
COMPONENTS OF MANUFACTURING SECTOR/SUB-SECTOR PERFORMANCE	**DRIVERS OF DEMAND BY SECTORS**	**DEMAND POTENTIAL AND DEVELOPMENTS**	**SKILLS NEEDED**
	• Decrease in the availability of hardwoods and rise in the use of metal and synthetic fabrics	• Advantage gained through design and marketing	• Mechanical technicians • Machine operators and service

Table 66: Employment Demand in the Public Sector: Implications for Skills Development

EMPLOYMENT DEMAND IN THE PUBLIC SECTOR – IMPLICATIONS FOR SKILLS DEVELOPMENT		
DEPARTMENTS IN PROVINCIAL ADMINISTRATION	**DRIVERS OF DEMAND**	**SKILLS NEEDED**
Agriculture and Environmental Affairs	• Priority given to agriculture in rural development in the new growth path • Increase in Agri-processing and downstream agriculture • Growing importance of aqua-culture and marine industry • Advancement in genetics in agriculture • Expanded agricultural research and experimentation	• Agricultural Engineer (level 5) • Conservation Officer (level 5) • Livestock Inspector (level 4) • Agricultural Scientist (level 5) • Veterinarian Technician • Plumber (General) Level 3 • Agricultural Consultant (level 5) • Earth & Soil Scientist (level 5)
Arts & Culture	• Growth in KZN as a national centre for the entertainment industry • Growth in cultural tourism • Growing concern for cultural preservation • Growing concern of the productive engagement of youth	• Gallery or Museum Curator (level 5) • Archivist (level 5)
Community Safety & Liaison	• Increase in crime • Social impact of poverty and unemployment on families • Tensions between community groups	• Youth and community workers • Community policing expertise • Social workers
Cooperative Governance and Traditional Affairs	• Concern regarding the performance and capacity of some local municipalities • Growing need to coordinate provincial development strategies with local municipalities • Lack of skills in critical areas – e.g. planning urban and regional • Increase in the number of projects administered at the municipal level	• Urban and regional planners • Public finance expertise • Project managers

EMPLOYMENT DEMAND IN THE PUBLIC SECTOR – IMPLICATIONS FOR SKILLS DEVELOPMENT		
DEPARTMENTS IN PROVINCIAL ADMINISTRATION	**DRIVERS OF DEMAND**	**SKILLS NEEDED**
Economic Development, Tourism & Environmental Affairs	• Industrial plans • Provincial and spatial economic strategy • Economic development and transformation in the Province • Increased emphasis on tourism in PGDS • Growth in tourism in KZN • Economic challenges – unemployment, job creation, spatial equity	• Economist (level 5) • Finance Manager • Policy Analyst (level 5) • Urban and Regional Planner (level 5) • Policy and Planning Manager • Programme or Project Manager
Education	• Increased demands on education to perform in line with international standards • Impact of HIV and AIDS on the teaching workforce • Expanding economy requires more skills and talent • National plans and targets to be met • Urgent need to resolve gross inequities in the education system • Dearth of skills in maths, sconce and technology	• Maths and science teachers • Foundation phase teachers • Career guidance counsellors • Finance managers • Internal auditors • Project managers for infrastructural programmes • ICT, engineering and technology • Lecturers for TVET colleges
Health	• Re-emergence of certain diseases • HIV and AIDS epidemic • MDR TB • Increased prevalence of chronic diseases – hypertension • Emigration of highly skilled medical professionals • More health professionals required to do community service • Role of the private sector in health provision • Increased awareness of patients' rights	• Nurses • Ethicists in health • Doctors • Radiographers • Speech therapists • Pharmacists • Dentists • Research and development pharmacologist • Bio medical engineers
Human Settlements	• Backlogs in housing • Impact of poverty • Emigration into cities and urban areas • Poor sanitary facilities in some communities	• Engineer Manager (level 5) • Architect (level 5) • Town Planning Technician (level 4) • Quantity Surveyor (level 5) • Quality Assurance Manager (level 5)
Legislature	• Increased accountability and policy control • Growing need to align provincial developments with national policies and strategies	• Policy analyst • Legal drafters • Monitoring and evaluation experts
Office of the Premier	• Enhanced accountability in government	• M&E experts • Policy analyst

EMPLOYMENT DEMAND IN THE PUBLIC SECTOR – IMPLICATIONS FOR SKILLS DEVELOPMENT		
DEPARTMENTS IN PROVINCIAL ADMINISTRATION	**DRIVERS OF DEMAND**	**SKILLS NEEDED**
	• Accelerated developments in the Province • Array of policies and plans and strategies to which departments must align • Increase in special projects • Constraints on funding combined with expansion of need	• Skills in inter-governmental relations • Project management
Provincial Treasury	• Increased number of strategic and catalytic projects • Decline in funding base • Increased number of strategies and strategic initiatives to implement	• Project management • Economists • M&E expertise
Public Works	• Increased number of strategic and infrastructure projects • Expansion in the physical assets of the state and the demands for building and maintenance	• Quantity Surveyor (level 5) • Civil Engineer (level 5) • Mechanical Engineer • Electrical Engineer • Programme or Project Manager • Architect (level 5)
Social Development	• Impact of poverty and unemployment on families • New project initiatives to meet strategic and development goals • Expanding population of unserved youth • Rural development initiatives	• Social Worker • Community Worker • Social Auxilliary Worker • Parole or Probation Officer • Accountant (general) • Finance Manager • ICT Customer Support Officer
Sport & Recreation	• Expanding population of under-served youth • The increased visibility of sport as an economic alternative • Plans for SA to enhance its international visibility and stature in sport	• Sports management • Youth workers • Coaches • Event planning • Sports saTVETy experts • Sports medicine
Transport	• Increased position of KZN as a transport hub • New transport infrastructure – highways, rail • Strategic and catalytic projects	• Mechanical Engineering Technician (level 4) • Civil Engineering Technician (level 4)

Source: Skills Development Plans of the respective departments and selected interviews with officials in respective departments

3.8 Entrepreneurial Demand and Implications for Skills Development

The development of entrepreneurs and the consolidation of efforts to build the SMME sector are activities that are highly prioritized on the economic agenda of the Province. These priorities are supported by a wide range of recent legislation, and by national and provincial strategies to

promote entrepreneurship and to support small enterprises. The prioritization is also in response to the extensive efforts that are undertaken in the province to transform the structure of the economy, and to realize more spatial equity in the distribution of economic opportunities. In this regard, therefore, HRD and skills development efforts should respond to the agenda for the development of entrepreneurs. The purpose of this section of the report is to assess entrepreneurial demand, to note efforts that are currently being undertaken to build and strengthen entrepreneurship, and to assess the implications of entrepreneurial development for skills development and training. This section of the report will discuss, briefly, entrepreneurial demand, entrepreneurial development activities undertaken in the Province, issues in entrepreneurial development and implications for skills development.

3.8.1 Entrepreneurial Demand

Entrepreneurial demand here refers to the need for, or the level of employment demand, for entrepreneurs. Technically, it refers to the level and nature of opportunities for people to engage in their own businesses. Demand cannot be accurately assessed in the traditional sense, but it seems to be high, and the potential seems to be there if properly managed. The factors which seem to contribute to the expansion of opportunities for entrepreneurs are as follows:

Restructuring the Economy: Efforts to restructure the economy raises a new set of opportunities for entrepreneurs. These efforts include benefication and downstream activities in many sectors; efforts to open new supply chains in sectors that were heavily monopolized; BEEE efforts; and a wide array of programmes for SMME support. These have stirred interest in entrepreneurship and have increased entrepreneurial demand.

Job Creation and the Expansion of Employment Opportunities: Small businesses (SMMEs) create significant employment in the economy. Since there is policy priority on job creation and the expansion of employment opportunities, particularly for youth, much emphasis has been placed on entrepreneurial development; and, because other employment options are restricted, youth and adults have looked increasingly at entrepreneurship as a most viable option.

The Agenda of Transformation: The agenda to transform the economy is a significant impetus for entrepreneurial development. Transformation of the economy has various streams of consideration. The first consideration is to facilitate the entry of more PDIs into the economy. The second concern is the expansion of entrepreneurship into previously closed sectors, and into areas where entrepreneurial development and the entry of PDIs are restructured. The third consideration is rural development and the expansion of particular sectors into rural areas.

Availability of Funding and Support: Significant funding is available for entrepreneurship and for supporting SMMEs. These include incubator programmes, training and development initiatives, seed funding to start businesses and various forms of business support. Such funding has increasingly become available from a wider and wider network of agencies.

Spatial Gaps in Economic Opportunities: The province is seeking, in its industrial development and spatial economic development strategies, to fill the spatial gaps in the availability of economic opportunities. This has expanded the opportunity for entrepreneurial development in less developed areas.

Development Efforts to Expand the KZN Economy: Many efforts have been undertaken in the province to expand the economy in terms of expanded investments, the development of strategic

and catalytic projects, and the development of a more favourable business climate. These have expanded opportunities for entrepreneurship.

New and Emerging Business Opportunities: New and emerging opportunities in aqua-culture, the green economy, the marine industry and in Agri-processing, among others, have created a host of opportunities for new entrepreneurs. The overall assessment, therefore, is that entrepreneurial development is high. But such demand must be facilitated and encouraged in order to capitalize on this demand. Individuals will not always opt for opportunities if they are not aware that such opportunities exist; and, most individuals do not currently see the pursuit of their own business as a viable option for employment. Inter-agency efforts will be necessary in order to develop, nurture and sustain a viable supply steam for new entrepreneurs.

3.8.2 Efforts to Build and Strengthen Entrepreneurship

In addition to national initiatives, the province currently has an administrative and policy framework for the development of entrepreneurs. Among the policy instruments in the province are its small enterprise development strategy; its cooperative development strategy; the informal economy strategy; and the youth economic empowerment strategy. All these are framed within the Provincial Growth and Development Strategy, the PSEDS and the Province's effort in entrepreneurial development is spearheaded by the enterprise development sub-programmes of the Department of Economic Development and Tourism. The sub-programme has two sub-components: small business development and cooperative development. The objective of the sub-programme is to promote small enterprise development (SMMEs and cooperatives) and entrepreneurial development (informal and social enterprises). The areas of focus of the sub-programme are as follows:

- Facilitation of access to markets for small enterprises
- Skills development and capacity building for small enterprises
- Facilitation of access to finance for small enterprises
- Creation of competitive SMME and Cooperatives sectors in the province
- Support and promotion of entrepreneurship.

In fulfilling its objectives, the sub-programme has managed 2 critical projects between 2009 and 2013- the SMME training and capacity building programme, and the small enterprise pre-finance training programme. The SMME training and capacity building programme is funded to provide training and capacity building to enhance business management, technical skills and basic computer skills. Since its inception, 2319 males and 1546 females have benefited from the programme. The programme is funded for R20.3 million and is expected to maintain 2301 jobs. The DEDT works with TVET colleges in KZN in implementing this programme. The pre-finance and business support programmes is aimed at assisting and preparing the emerging small enterprises to access business loan financing. A total of 542 males and 362 females have benefited from the programme. The programme is funded at R6.1 million and is expected to maintain 516 jobs. The DEDT works with KZN SEDA in the implementation of this programme.

3.8.3 Issues in Entrepreneurial Development

There is a wide range of issues which affect entrepreneurial demand in the Province. Among the key issues are the following:

- The complex environment on which small businesses operate, presents a wide range of difficulties for emerging as well as established SMMEs. Integrated intervention by all

stakeholders is necessary for small businesses to be successful. Currently the efforts of stakeholders are not properly articulated and well streamlined to serve small businesses.

- The demand for support for small businesses is high, and this puts pressure on government resources. As a result, there is not usually enough resources to serve all small businesses which need assistance.

- Small business is restricted to a few sectors of the economy where start-up costs are relatively low, and where monopolistic practices by large corporations are minimized. There is a need for efforts to widen the sectoral representation of SMMEs in an effort to restructure the economy.

- There is need for information and advocacy in promoting entry into entrepreneurship, and for encouraging new entrants to enter sectors in which representation is low.

- Entrepreneurial education begins at a late stage, and usually when emerging entrepreneurs are most in need of assistance. While this training is effective, and while it benefits SMMEs, education is sometimes provided much too late in their careers to enable sustained success. There is a need for entrepreneurial education to begin early in secondary schools in order to build a vibrant culture of entrepreneurship.

- Many SMMEs have good ideas and are able to manage their businesses effectively, but they do not have the level of access to markets that will sustain their success.

- Different geographic regions have different levels of support structures available and different levels of access to markets. Support for SMMEs must be tailored to the circumstances and dynamics of the region in which they will operate.

3.8.4 Implications for Skills Development

Entrepreneurial training should begin in secondary schools, or before, as a general introduction to the world of work.

All TVETs should offer entrepreneurship as a compulsory course for all programmes. Higher education institutions should offer entrepreneurship courses as an option within the specific programme or discipline.

There is need for more established inter agency and collaborative structures for the overall governance of entrepreneurial development.

3.9 Employment Demand in the Public Sector and the Capacity of the State

With an estimated employment of 186,945 the public sector in KZN employs about 7.7% of the total employment (PSETA, 2011), and represents a key component of the development agenda of the province. The central role of the public service has been expressed as outcome 12 among the 12 national outcomes of government; strategic priority 10 of the MTSF. The role of human resources in realizing the public service envisioned is expressed as commitment 7 in the Human Resource Development Strategy of South Africa 2010-2030. Because of the role employers in the public service are expected to play, and because of the increased expectations on the performance of the public service, the employment demand will normally be expected to grow,

but potential growth in employment demand will be constrained by restrictions in funding in the public sector, by efficiency gains in the delivery of services and by the increased use of outsourcing of services and contract employees in conducting the business of the state. As a result, it is difficult to predict employment demand in the public service without further study. However some of the factors which will affect demand are itemized below.

- Contract appointments and the turnover of administrative leadership
- Competition with the private sector for scarce and critical skills
- Innovations in public service administration such as shared service facilities, public-private partnerships and outsourcing and contracting, among others
- Decline in budgets resulting from changes in equitable share funding, economic growth under the projected levels, and the growth in the public sector wage bill
- Large public sector investment projects and the number of strategic and catalytic projects
- The wide range of strategic initiatives, nationally and within the province which must be undertaken and managed within the public service
- The impact of HIV and AIDS on the public service employees in terms of illness and death of public servants
- The role of technology such as e-government on employment demand
- Increased efficiency in the public service through enhanced accountability measures
- Increased efforts to use competency standards and management and skills development measures to improve the skills and capacity of those who are already employed

In the end, therefore, it will be necessary to assess the potential impact of these factors on employment and employment demand in the public service in KZN.

4. THE SCHOOL TO WORK TRANSITION

4.1 Introduction

What is generally referred to as the "school to work" transition is the support given to learners to prepare for and to find employment when they graduate from educational programmes. But beyond supporting individuals to make this transition, the services provided to bridge the gap between school and work is an important measure in connecting the supply and demand for labour, and in facilitating and managing the flow of people into productive roles in the economy. The "school to work" transition is therefore a critical component of the overall management structure for HRD, a structure which seeks to enhance the development and utilization of the potential and capacity of people. But the "school to work" transition is not only about the movement of people from educational programmes to employment. In this chapter, the school to work transition is seen as the movement of people from a wide range of unproductive or under-productive circumstances into more productive roles in society and the economy. As we maximize the utilization of the potential of people in the province, we constantly seek to locate them in places where their potential and capacity could be more fully utilized. In this regard, people make the transition from schools as learners, successful graduates or dropouts; from idleness in their homes and communities; from under-employment or volunteer positions in communities and business enterprises; and from other situations such as being incarcerated, emigrating from elsewhere, being unemployed or being unsuccessful in business ventures undertaken. The key consideration becomes the manner in which pathways are created for diverse populations that are unengaged to become more positively occupied. Here again the transition of movement of people may not necessarily be into formal employment or "work" in the economy. Productive engagement may open a wider range of opportunities. While people may move into formal employment or self-employment, they may also access a variety of post-school options such as apprenticeships or learnerships or they may be productively engaged in volunteer and development activities as part of social cohesion initiatives. The key here in advancing the productive engagement of people is ensuring that they are placed on positive pathways of growth, self-reliance and success.

This chapter explores the status of "school to work" programming in the province, and it sets out a basis for considering strategic options in HRD. The chapter is divided into 3 sub-sections as follows: (1) rationale for facilitating school to work transitions; (ii) an assessment of practice, and (iii) options and strategic implications.

4.2 Rationale for Facilitating "School To Work" Transitions

The pathway to employment and other forms of productive engagement is a restricted passage, and a bottleneck in the flow of people from "school to work". This restriction results largely because the flow is unfacilitated and unmanaged. Few people enter the pathway because the majority are unprepared and incapable of manoeuvering the passage to employment and other post school options; many are unsuccessful in their endeavours because of the absence of a readily available source of information and because of their lack of knowledge about the options available to them; and, finally, failures result because of the lack of opportunities that are accessible or opportunities for which they are prepared and capable. The few who manage to bridge the gap between school and work find themselves in environments that are alien to them, and many are unable to cope with the new cultures.

Facilitating the transition between school and work is important because it promotes efficiency in the use of human resources and responsiveness in serving the needs of the economy. First of

all, "school to work" transition programmes prepare individuals for the world of work and for other options of productive engagement. This preparation produces a higher level of readiness among people for options they choose, and, in the end, it results in a lower tendency to drop out, higher job satisfaction and productivity, and a higher level of overall success. The most valued asset of school to work transition programmes, however, is the capacity to manage information that assists in connecting people to workplaces, and to other opportunities for productive engagement. Proper management of the process of transition into "work" resolves a variety of labour market malfunctions which arise because of the lack of information about the opportunities that are available and the skills set in the market.

4.3 Assessment of Practice

The assessment of practice in managing the school-to-work transition seeks to document the structure, availability and content of those programmes. The findings are summarized in Table 67. The table identifies 12 areas of critical content for managing the school to work transition, and it provides short evaluative comments regarding the state of practice. It also notes whether, on average, these services are generally available to particular target groups. Some of the key findings are summarized below.

School to Work Transition: The 'school to work transition" is interpreted very narrowly to mean movement from institutions of learning to employment, and it is not seen in a wider sense to include other opportunities for positive engagement.

Fragmentation of Services: School to work transition services are very fragmented with different approaches being taken by different institutions and agencies. Each institution seeks to set up its own practice, build its own relationships and serve the particular audience for which it is responsible. As a result available opportunities are not widely shared and some critical audiences who need such services are under-served.

Lack of Full-Service Approach: No institution or agency addresses the full spectrum of services which could be provided to individuals. A full time service approach begins with early preparation and guidance of learners into the correct areas of learning and development so that they have the foundation to eventually explore the widest range of options. Full service will include all the components of content in Table 76, and will end with the necessary follow up and follow through services. Learners are generally abandoned when they exit their respective learning programmes, or before, and they are not generally prepared for the world they will face.

Lack of Databases and Information Systems: While some agencies and departments have small databases which they use for their clients and their designated purposes, truly comprehensive and robust databases for managing transitions to work are not available. The database used in employment centres by the Department of Labour is the only database that is generally available to the public in seeking employment opportunities.

Narrow Interpretation of Audiences to be Served: School to work transition is interpreted narrowly to mean movement from school into employment. The transition of a growing number of out of school youth and unemployed adults into employment or other forms of productive engagement is not considered within the confines of this narrow meaning. As a result, a large percentage of the eligible population do not have access to full service programmes to assist them in exploring opportunities to be productively engaged.

Limited Scope of Representation in Career Exposure: There is evidence of a wide array of events and interventions that are intended to expose learners to careers. Among them, the series of career expos organized in the province stands out. Unfortunately, however, learners are exposed to only a limited range of careers, since the careers on display depend largely on the participants in the relevant events. There are expos in specific fields such as tourism or health.

Limited Availability of Aptitude Testing Services: Aptitude testing is not widely practiced in institutions or in programmes which seek to assist out of school youth. As a result, many learners who progress to and exit the senior phase of secondary schooling would not have thoroughly explored their interests and aptitudes. In fact, many learners choose subjects for the NSC exams without even exploring their interest, aptitudes or prospective career options.

Not Enough Professionals in Career and Vocational Guidance: Very few high schools have career guidance programmes and very few programmes for out of school youth offer career guidance services. While one reason for this is the unavailability of financial resources. Another reason is the unavailability trained career guidance professionals. In many programmes where career guidance services are offered, the assigned teachers or counsellors are not trained.

Limited Emphasis on Volunteerism and Youth Work: While the Department of Education is now beginning to implement nation building and heritage projects in schools; and projects which foster social cohesion are beginning to emerge, the concept of volunteerism and youth work is given a low priority in schools. Little training or placement services are offered in promoting volunteerism.

Limited Information on Work Integrated Learning Programmes or Programmes bridging School and Work: Programmes which bridge school and work include learnerships, work expanse programmes (WEPs), apprenticeships and internships, among others. These are experiential programmes which blend theory and practice and enable the smooth transition into employment. These programmes are heavily promoted in national policy. There is little information available in the province on the extent of these programmes and their relative success and impact. A comprehensive data management system is needed to manage work integrated learning programmes.

Lack of Knowledge among Learners: Learners graduating from high schools generally lack knowledge about themselves and their career interest, and information about the range of post school options that are available to them. As a result, many make incorrect career choices from which they eventually withdraw. The majority move into unemployment and a life of idleness without the skills to explore and capitalize on opportunities that are available to them. This lack of knowledge and information is more prevalent among learners in rural and disadvantaged schools.

Limited Access to Experiential Learning: Because of the limited number of places or slots in business and industry for learners to gain work experience in fields related to their interest and learning programmes, many school graduates are well honed in the theory but are relatively uninformed about practice in the respective field. Unfortunately, in the current business environment, practice and work experience bear significant weight in employment. The limited opportunities for learners to gain experience in industry undermines the effectiveness of the school to work transition process.

Table 67: Assessment of Programming on School to Work Transition

ASSESSMENT OF PROGRAMMING ON SCHOOL TO WORK TRANSITION							
CRITICAL CONTENT IN MANAGING SCHOOL TO WORK TRANSITION	TARGET GROUPS						COMMENTS
	HIGH SCHOOL GRADS	OUT OF SCHOOL YOUTH	UNIVERSITY GRADS	UNEMPLOYED ADULTS	UNDER-EMPLOYED	RETRENCHED	
Knowledge of the economy, work and work cultures. **…to promote an overall understanding of business and industry, the factors which give rise to opportunities for employment and values and expectations of the world of work.**	-	-	-	-	-	-	In all cases knowledge in this regard is non-existent, or it is limited and restricted to particular sectors. No efforts are made to formally impart this content as part of the process of preparing people for work. This knowledge is acquired to some extent by students who enroll in business-related programmes.
Understanding self, aptitudes and career possibilities (e.g. career and aptitude testing). **…self understanding is the basis for understanding one's interest and capacity, and it is the basis for making choices that will be sustainable.**	-	-	-	-	-	-	No formal processes exist for aptitude testing in many educational institutions and programmes. While tests are available, they are administered privately for a fee for those who can afford. As a result, many students make incorrect choices and eventually change programmes or drop out.
Guidance and counselling support to enable young people to explore options. **…young people benefit from opportunities to interact with others who understand the career decision making process and who can assist in them in exploring their options and in structuring experiences for them to grow.**	✓	-	✓	✓	-	-	This is available to a limited extent in some high schools and at most universities. Some form of guidance is available in some programmes which serve out of school youth and adults. But many young people do not have access to career guidance, and counselling, and many who provide career guidance support are not trained in the field.

ASSESSMENT OF PROGRAMMING ON SCHOOL TO WORK TRANSITION							
CRITICAL CONTENT IN MANAGING SCHOOL TO WORK TRANSITION	TARGET GROUPS						COMMENTS
	HIGH SCHOOL GRADS	OUT OF SCHOOL YOUTH	UNIVERSITY GRADS	UNEMPLOYED ADULTS	UNDER-EMPLOYED	RETRENCHED	
Managing the availability of opportunities for productive engagement – employment, volunteerism, self-employment, education and training, among others. **…transition is about support in accessing opportunities to explore and employ one's talent. One aspect of school to work programming is an ongoing process of seeking opportunities and managing and facilitating access to these opportunities.**	✓	✓	✓	✓	✓	✓	Such programmes are available for all to access through Department of Labour, Employment Centres or Labour Exchanges. The focus generally is on finding jobs and the level of throughput to jobs is low. Many programmes for youth and adults, even when they are skill based, do not facilitate access to jobs and other opportunities. Some programmes such as co-ops and work integrated learning provide natural bridges to work. However labour exchanges remain the only means of general access to employment. The need for such services is so great that many youth, at a significant cost, resort to private labour brokers.
Management of referral services. **…referral services are made available through structured processes to manage opportunities by maintaining databases, inter-organizational networks, and means of processing and screening talent for placement.**	-	-	✓	-	-	-	This process is not formalized and efficient. It does not exist in high schools, but exists, to some extent, in a few programmes which serve out of school youth. Universities generally have a referral network; but even here, operations are not given high priority. Part of the complexity is the fragmentation in service to the audiences targeted. Many agencies of government have developed their own databases and referral systems. The target audiences here are very limited.
Managing learning programmes which bridge school and work – internships, learnerships, apprenticeships, cooperative education.	✓	✓	✓	✓	✓	✓	While national policies in skills development promote these programmes, they still represent only a small slice of the education and training enterprise. While data is available

ASSESSMENT OF PROGRAMMING ON SCHOOL TO WORK TRANSITION							
CRITICAL CONTENT IN MANAGING SCHOOL TO WORK TRANSITION	TARGET GROUPS						COMMENTS
	HIGH SCHOOL GRADS	OUT OF SCHOOL YOUTH	UNIVERSITY GRADS	UNEMPLOYED ADULTS	UNDER-EMPLOYED	RETRENCHED	
…such learning programmes are work integrated learning approaches which is a natural bridge to productive engagement.							in the national database in DHET on learnerships and apprenticeships, and while each SETA has its own records on these programmes, there is no comprehensive provincial analysis on these.
Managing programmes to expose people to careers – expos, industry visits, mentoring and coaching. **…as part of the process of exposing learners to careers, designing structured experiences for them to explore and assist in their career development.**	✓	-	✓	-	-	-	There is an increasing number of career expos and structured involvement of industry in the career exposure of learners. Career expos, particularly, present a valuable opportunity for career exposure. It is difficult to design such programmes so that learners are exposed to a broad variety of career options and to the many industry/business sectors in the province – even the new and emerging sectors.
Employability skills training in preparing for the world of work. **…when learners understand the expectations of the world of work, they are more capable of sustaining employment. Employability skills relate to the basic behaviours, skills and expectations which lead to comfort, acceptance and success in the world of work.**	✓	✓	✓	-	-	-	Some unemployability skills training is part of the life skills programme in high schools; and many programmes for youth that are conducted by provincial departments have some form of employability skills training. The depth and scope of training varies, but is generally superficial; and, there is no standard programme of high quality that is applied.
Support in preparing documentation for job search or for other post school options.	✓	✓	✓	-	-	-	While this support is sometimes available at high schools, universities and some out-of-school youth programmes, it is not generally acceptable to most youth and there are no

ASSESSMENT OF PROGRAMMING ON SCHOOL TO WORK TRANSITION							
CRITICAL CONTENT IN MANAGING SCHOOL TO WORK TRANSITION	TARGET GROUPS						COMMENTS
	HIGH SCHOOL GRADS	OUT OF SCHOOL YOUTH	UNIVERSITY GRADS	UNEMPLOYED ADULTS	UNDER-EMPLOYED	RETRENCHED	
…learners and young adults benefit from support to prepare applications, CVs and relevant documentation in seeking opportunities.							set standards of materials in place to properly package this support.
Training and support for volunteerism and youth work. **…youth can contribute to the needs of communities as youth workers and participate in other forms of positive social engagement.**	-	✓	-	-	-	-	While there are a few programmes which train for and encourage and promote volunteerism, only a small percentage of out of school youth are involved.
Follow up and follow through services to track, trace and support recent placements that are vulnerable or may be at risk. **…even after placement into positions some support services are sometimes necessary to provide mentorship support and to assist youth with the challenges they may encounter.**	-	-	-	-	-	-	Follow up and follow through support are rarely available in most school-to-work transition programmes. Institutions are generally unable to account for the progress and success of their graduates.
Information systems to manage placements and referrals. **…the capacity to electronically store and manage information promotes efficiency in managing the transition to work and other opportunities, and promotes effectiveness in screening, selecting, referral and placement. Web-based information systems also facilitate tracking and tracing of clients.**	-	✓	-	-	-	-	Some departments of government have databases for serving out of school youth. However, there is no central database for the province to manage intake, referral, placement and follow-up services.

4.4 Options and Strategic Implications

The transition into productive engagement in society (whether economically or socially) should not be left to chance, but should be planned, designed and managed as a provincial priority. There are 8 strategic options which could be considered. These are enumerated and described briefly below.

1. **Full Service Programming**: Design specifications should be formulated for promoting full service school to work transition programming. Such full service programming should span the spectrum of services from early preparation for subject choices in the NSC, to employability training and support, and should also embody placement and referral services, and follow up and follow through support. Early entry into the career pursuits of learners and even out of school youth will be of significant value.

2. **Standardization of Content**: It would be helpful to develop and promote a standardized learning and support package for facilitating the school to work transition. This package and the associated standards of practice will ensure quality programming for all audiences.

3. **A Provincial Database and Referral System**: A provincial database for youth is a necessity. This database should coordinate registration and referrals and should embody a network of provincial departments and local municipalities, a body of public and private service providers, and a representative set of employers representing each major industrial sector.

4. **Policy Intervention**: It would be helpful if policies are established with standards and guidelines to promote quality in school to work programming.

5. **Training Professionals**: More professionals must be produced and placed as career guidance counsellors, so that all learners and out of school youth and adults who are not productively engaged have the benefit of professional assistance and advice in making decisions about career and about options for supporting the development of their communities.

6. **Expanding Accessibility to Services**: Access to support for making the transition from school to work should not be limited only to learners who are leaving school or exiting education and training programmes. These programmes should be extended to all groups or audiences that are not productively engaged, and to all individuals who are seeking such opportunities.

7. **Expanding and Managing the Areas of Opportunities for Career Exposure**: Particular attention must be given to occupational areas and industrial sectors in the province which are not generally represented in career expos. Attention must also be given to other interventions which are designed to create more exposure for learners and young people who are out of school.

8. **Promotion of Volunteerism and Social Engagement:** More formal structures must be established to train for and promote volunteerism.

5. SCARCE AND CRITICAL SKILLS

5.1 Introduction

Given the economic activities of the province, a particular profile of skills is needed for sustained economic performance. The absence of these skills places a "binding constraint" on economic growth. The impact of skills availability on the economy is best understood by examining the performance and skills requirements in designated economic sectors. Each economic sector has a particular structure of occupations and applies a designated set of skills that are considered as essential for production. Even within a particular occupation, the skills set and job requirements for that occupation may differ by economic sector. The concern for scarce and critical skills in the economy is, in essence, a concern about whether specific sectors of the economy have the range of skills needed for sustained economic performance. Although the HRD strategy for the province is concerned with scarce and critical skills province-wide, priority is placed on understanding and projecting scarce and critical skills for each economic sector. In addition to the sectoral approach to examining scarcity, the strategy also prioritizes the "geography of scarcity" in the province. The latter is in recognition that because of the diversity of the province, the rural/urban divide, and the spatial emphasis in economic development, the impact of skills scarcity on the particular economic sectors must also be seen in terms of the location of these sectors. In examining the scarce and critical skills in the province, this chapter is divided into 6 sections as follows: (i) the concept of scarce and critical skills – definitions; (ii) considerations for assessing scarce and critical skills; (iii) scarce and critical skills by economic sectors; (iv) scarce and critical skills in the public service; (v) the geography of skills scarcity; (vi) institutional responses to the scarcity of skills. Each of these sections is discussed below.

5.2 The Concept of Scarce and Critical Skills – Definitions

In terms of the agreed definition accepted by the Department of Labour, scarce skills refer to a current demand for skilled, qualified and experienced people to fill particular roles, professions, occupations or specializations in the labour market. Scarce skills can be absolute or relative.

Absolute scarcity means that the desired skills are not available in the labour market, and as a result, establishments are unable to find people to fill positions that become open. Because of the inability to fill these positions, challenges arise in respect to quality, service delivery and overall productivity. Absolute scarcity arises when occupations are new and emerging and people with such skills are unavailable in the country or province. Such scarcity also arises when establishments are unable to replace people who leave because educational establishments do not produce enough graduates to meet replacement demand.

Relative scarcity exists where suitably skilled people are available in the labour market, but they do not meet other employment criteria. For example: they may not have the work experience necessary; they may not be located in the geographic region where work is available, and hence may not be willing to relocate; or, they may not meet equity considerations for filling the desired position. In respect to the latter, sometimes there are few candidates with the requisite skills from the specific groups that are available to meet the skill requirements.

Most frequently, people are available in an occupation, but do not have a particular set of capabilities that are needed to undertake responsibilities in a designated sector, or in a specific establishment within that sector. These skills are referred to as "critical skills". When critical skills are scarce, productivity and service delivery are also compromised.

Once stable and consistent over time, the skills environment is not dynamic and in constant flux. It is affected by industrial innovation, the emergence and application of new technologies, policy changes which affect practice, the changing needs of society, and, among others, competitive pressures in a global market which forces establishments to adopt more capital intensive and electronically mediated means of production. As a result, the profile of scarce skills in the economy may change over time and measures must be in place to adapt to these changes.

5.3 Considerations for Assessing Scarce and Critical Skills

Five critical considerations were brought to bear in the assessment and presentation of scarce and critical skills in the province. These are itemized and described briefly below:

1. **Public/Private Distinction**: Scare and critical skills in the public and private sectors were considered separately largely because the factors promoting scarcity may differ. In doing so, efforts were made to assess the reasons for scarcity of skills in each department in the public sector, and the factors which affect the demand for skills.

2. **A Sectoral Approach**: Scarce and critical skills are presented by the respective economic sectors, and by specific departments in Provincial Administration. This approach is taken in promoting the perspective adopted in the province for a sectorally targeted approach to economic development. It seeks to complement this approach with a sectorally targeted approach to skills development and productivity improvement.

3. **Categorization of Skill and Occupational Levels**: In examining scarce skills, a distinction is made between scarce skills in the professional occupational category, and scarce skills among technicians, trade workers and artisans. This distinction is useful in beginning to distinguish between the education and training implications for higher education institutions and implications for TVET colleges.

4. **Separating Scarce and Critical Skills for Presentation**: In the same manner as above, scarce and critical skills are separated particularly for the private sector. This separation my also assist in programming education and training. It is assumed that different training approaches may be adopted for designing programmes and imparting knowledge on critical skills. Many of these may require short courses as "top up" endorsements to qualifications.

5. **Identifying already earned Core Skills on the Scarce and Critical Skills Lists**: Core skills on the scarce and critical skills list are those scarce skills that are common to most economic sectors and are pivotal to productivity and sustained economic performance. These core skills are identified and noted separately since measures must be established for ensuring the ongoing availability of these skills to the economy, and the ongoing availability of opportunities for enhancing and upgrading these skills.

5.4 Scarce and Critical Skills in the Respective Economic Sectors of the Province

Table 68 presents a summary of the scarce and critical skills in the key economic sectors of the province. The "scarce skills profile" is presented by the occupational categories for professionals and technicians and trade workers and by the key areas in which critical skills are scarce. The main observations in the listing of scarce and critical skills for the key economic sectors of the province are itemized below:

Critical skill shortages exist across the high and semi-skilled spectrum of occupations, particularly in the case of artisans and professionals in areas which require maths and science as an academic foundation for qualifying in the field.

There are core areas of skill shortage that are common to most economic sectors. These are referred to later in this chapter as "core areas" of scarce and critical skills. In the professional occupational category these "core areas" are in the fields of finance and engineering. In the occupational category of technicians and trade workers, the core areas of scarce skills are in the basic artisan trades such as machinery, welding, electricians and mechanics. While the basic "skills set" of these trades are indeed common to most industries, particular sectors and establishments require specializations and experience that are sometimes unique to their industry.

Every sector in the provincial economy is affected by the scarcity of skills. However, the sectors which seem most affected are: agriculture, manufacturing, and the creative industries. The factors affecting the scarcity of skills in each of these areas are different. Preliminary data has also revealed scarcity of skills in the maritime industry, in the knowledge economy and in the green economy. Again, the factors affecting scarcity in these areas are different.

Although critical skills differ by sector, core areas of critical competencies are in inter-personal skills and communications, project management, occupational health and saTVETy and computer literacy.

Table 68: Analysis of Scarce Skills by Sector

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
Electricity Gas & Water	• Water Operation Engineers • Control and Instrumentation Engineers • Piping Engineers • Geohydrologists • ICT Engineers • Accountants • Electrical Engineers	• Electricians and Electrical Artisans • Millwright • Fitters and Turners • Radiological Nuclear Operator • Boilermakers • Welders • Instrument Technicians • Plumbing	• Experience in specific machines and equipment • Understanding electronic applications • Health and saTVETy procedures • Inter-personal communication
Chemical Industries	• Chemists • Industrial Pharmacist • Accountant (General)	• Petroleum Tanker drivers • Diesel motor mechanic • Fitter(general) • Fitter and Turner • Electrician (general) • Electrical Engineering Technician • Mechanical Engineering Technicians • Chemical Production Machine Operators • Millwright • Chemistry Technician • Chemical and Biochemical engineering technicians • Precision instrument maker and repairer • Welders • Glacier • Film fitter • Tool and die makers • Explosive technicians • Riggers	• Occupational health and saTVETy • Computer literacy • Communications
Agriculture, Forestry and Fisheries	• Veterinarians • Agricultural engineers • Plant health specialists and pests risk analyst	• Agriculture and food Quarantine technicians • Aquaculture equipment technicians -	• Farm management skills • Enhanced literacy numeracy levels

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
	• Agricultural statisticians • Agro meteorologists • Pasture scientists • Production managers (food processing) • Agro meteorologists • Specialized food analyst (pesticide residue analyst, processed food and dairy analysts, wine and spirit analysts) • Aquaculture professional • Marine resources health specialists • Agricultural importer/exporter	repairers of machinery and equipment • Electrical craftsmen – maintenance and installation • Air-conditioning and refrigeration mechanics • Millwrights • Automotive mechanics • Electricians • Welder (first class) • Fitters and Turners • Metal fabricator • Pest and weed controllers • Horticultural technicians and specialists • Diesel motor mechanic • Plant production specialists (ornamental crops, hydroponics) • Food technologists • Marine resources health technician • ICT and telecommunications technicians • Net makers and menders • Marine electrical technicians	• Project management • Business plan development marketing and processing • Transportation management • Knowledge of markets • Production management • Entrepreneurship • Occupational health and saTVETy
Creative Industries	• Venue management • Artistic management • Artists management • Entertainment lawyers • Fundraising and marketing • Planning and logistics • Curators • Art critic and writers	• Exhibition designers and technicians • Fine art framers • Generalist and specialist restorers	• Communications • Business management • Project management • ICT and the application of technology

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
	• Corporate art consultants • Gallery and exhibition administrators		
Manufacturing - Printing and Packaging	• Operations/Works Managers • Advertising and public relations • Sales and marketing managers	• Electronic originators/DTP operators • Photo compositions • Photo lithographers • Plate makers • Litho multi colour machine minders • Web offset machine minders (1 colour, multi colour) • Gravure machine minders • Folding machine operators • Sewing machine operators • Corrugated board printing and finishing technicians • Sheet metal worker	• Occupational health and saTVETy • Inter-personal relations • Application of technology
Finance, Real Estate and Business Services	• Internal auditors • External auditors • Actuary • Software engineers • System analyst • Accountants • Accountants – tax auditors • Statisticians • Advertising, marketing and sales managers	• Database administrators • Accounting clerks • Bookkeeper • Purchasing and supply chain officers • Contract, programme and project administrators • Data entry operators • Creditor loans officers	• Risk and regulatory compliance • Information technology • Customer interface • Risk, credit, investment analysis • Selling and marketing skills • Legislative compliance • Inter-personal relations
Manufacturing - Automotive/Motor	• Mechanical engineer • Industrial engineer • Sales and marketing managers • Electronics engineers	• Automotive mechanic • Mecatronic technician • Millwright	• Occupational health and saTVETy • Application of technology

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
	• Supply and distribution managers • Accountant (general) • Chemical engineer	• Automotive electrician • Electrician (general) • Tool and die maker • Fitter • Metal machinist • Motorcycle and scooter mechanic • Panel beaters • Automotive spray painters • Diesel motor mechanic • Automotive machinist • Rubber productions mechanic	• Inter-personal relations
Manufacturing - Metal Fabrication	• Workplace industrial relations officer • Production managers	• Crane or hoist lift operators • Metal manufacturing machine setter and minder • Motor mechanic • Fitter • Welder • Electronic instrument mechanic • Toolmaker • Plumbers • Engineering production systems worker • Structural steel erectors • Metal fabricator • Millwright • Sheet metal trades worker • Metal machinist • Fitter and turner • Computer Numerical Control machinist (CNC)	• Application of technology • Occupational health and saTVETy • Communications • Mentorship skills • Supervisory and management skills

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
Manufacturing - Plastics	Mechanical Engineer	• Plastic production machine operator • Thermoplastic welder • Plastic manufacturing technician • Plastic manufacturing machine setter • Reinforced plastic and composite trade worker • Plastic fabricator and welder • Boat builder repairer • Mechanical engineering technician • Carpenter and joiner • Ship electrician	• Application and technology • Communications • Process management • Health and saTVETy
Mining and Quarrying	• Production Operations manager • Surveyor • Mechanical engineer • Mining engineer • Geologist • Metallurgist • Occupational health and saTVETy advisor • Chemical engineer	• Civil engineering draftsperson • Electrical engineering technician • Mechanical engineering technician • Mining technician • Automotive electrician • Diesel motor vehicle mechanic • Metal fabricator • Fitter • Fitter and turner • Precision instrument maker and repairer • Millwright • Electrician • Electronic instrument technician • Boat builder and repairer	• Occupational health and saTVETy • Communications and inter-personal relations

ANALYSIS OF SCARCE SKILLS BY SECTOR			
ECONOMIC SECTOR	**SCARCE SKILLS PROFILE**		
	PROFESSIONAL	**TECHNICIANS AND TRADE WORKERS**	**CRITICAL COMPETENCIES AND SKILLS**
		• Driller • Earthmoving plant operator	
ICT and Electronics	• ICT business analyst • ICT support engineer • ICT systems test engineer • ICT customer support officer • Computer network and systems engineer • Software engineer • Telecommunications engineer • Electronics engineer • Chemical engineer	• Developer programmer • Computer systems technician • Web developer • Hardware technician • Telecommunications technician • Database administrator • Network administrator	Inter-personal relations and communications
Manufacturing - Food and Beverages	• General manager • Production managers • Quality assurance managers • Research and development managers • Mechanical engineers • Electrical engineers • Electronics engineers • Industrial engineers • Chemist • Winemaker • Accountants • Systems analyst	• Electrical engineering draftsperson • Mechanical engineering technician • Electronic engineering draftsperson • Millwright • Electrician • Air conditioning and refrigeration mechanic • Fitter an d turner • Electronic instrumentation technician • Metal machinist • Bakers • Meat process workers • Diary product makers	• Inter-personal relations • Health and saTVETy • Process management

5.5 Scarce and Critical Skills in the Public Service

Table 69 presents the range of scarce and critical skills that are present in the departments of Provincial Administration. For each department, the scarce and critical skills are presented, as well as the reasons for the scarcity of these skills. Table 70 presents the critical skills that are identified for transversal training in the Provincial Administration.

The following observations are made:

- Most of the scarce skills, even in the public sector, are in finance, the medical field and in engineering; and, most of these occupations require maths and science as the academic foundation for earning qualifications in the respective areas.
- For many of the occupations in which there is a scarcity of skill, the departments, as public sector entities, must compete with the private sector for qualified people. Even with OSD, the departments are not able to retain staff with critical skills and lose them to private companies.
- Critical skills scarcity is most prevalent in the Departments of Health, Education, Agriculture and the Provincial Treasury. These are departments that are critical to both the performance of the economy and the performance of Provincial Administration.
- Most scarce skills in the Departments of Provincial Administration are classified as relative scarcity due to replacement demand or geographic location.

Table 69: Scarce and Critical Skills in the Public Sector

SCARCE AND CRITICAL SKILLS IN THE PUBLIC SECTOR		
DEPARTMENT	**SCARCE AND CRITICAL SKILLS**	**REASONS FOR SCARCITY**
Department of Agriculture	• Agricultural Engineer (level 5) • Conservation Officer (level 5) • Livestock Inspector (level 4) • Agricultural Scientist (level 5) • Veterinarian Technician • Plumber (General) Level 3 • Agricultural Consultant (level 5) • Earth & Soil Scientist level 5)	• Relative scarcity due to equity consideration • Relative scarcity due to the geographic location • Relative scarcity due to replacement demand • Other
Department of Arts & Culture	• Gallery or Museum Curator (level 5) • Archivist (level 5)	Relatively scarce due to replacement demand
Department of Community, SaTVETy & Liaison	No specific areas of scarce skills reported	No specific areas of scarce skills reported
Department of Cooperative Governance and Traditional Affairs	• Geographer (level 5) • Engineering Manager (Level 5) • Urban and Regional Planner (level 5) • Construction Project Manager (level 5)	• Other • Absolute scarcity due to new and emerging occupation • Relative scarcity due to replacement demand

SCARCE AND CRITICAL SKILLS IN THE PUBLIC SECTOR		
DEPARTMENT	**SCARCE AND CRITICAL SKILLS**	**REASONS FOR SCARCITY**
Department of Economic Development, Tourism & Environmental Affairs	• Economist (level 5) • Finance Manager • Policy Analyst (level 5) • Urban and Regional Planner (level 5) • Policy and Planning Manager • Programme or Project Manager	Relative scarcity due to replacement demand
Department of Education	• Maths and science teachers • Foundation phase teachers • Career guidance counsellors • Finance managers • Internal auditors • Project managers for infrastructural programmes • ICT, engineering and technology • Lecturers for TVET colleges	There is an absolute scarcity of maths and science teachers. There is relative scarcity of skills in most of the other fields due to geographic location and replacement demand
Department of Health	• Psychiatrist • Pathologist • Obstetrician & Gynecologist • Dental Therapist • Intensive Care/Ambulance Paramedic • Ambulance Officer • Electrician – General – (level 3) • Carpenter (level 3) • Bricklayer (level 3) • Plumber – General (level 3) • Fitter (General) (level 3) • Life Science Technician • Medical Lab Technician • Cardiac Technician • Social Worker • Clinical Psychologists • Remote/Rural Area Nurse • Registered Nurse (surgical) • Registered Nurse (perioperative) • Registered Nurse (mental health) • Registered Nurse (medical) • Registered Nurse (Disability and Rehabilitation) • Registered Nurse (critical care and emergency) • Registered Nurse (community health) • Registered Nurse (child and family health)	• Relative scarcity due to replacement demand • Relative scarcity due to geographic location

SCARCE AND CRITICAL SKILLS IN THE PUBLIC SECTOR		
DEPARTMENT	**SCARCE AND CRITICAL SKILLS**	**REASONS FOR SCARCITY**
	• Nurse Practitioner • Midwife • Radiologist • Ophthalmologist Emergency Medicine Specialist • Paediatrician • Clinical oncologist • Specialist Physician (General Medicine) • General Medical Practitioner • Speech Pathologist • Physiotherapist • Occupational Therapist • Dentist • Orthotist or Prosthetics • Retail Pharmacist • Hospital Pharmacist • Optometrist • Medical Diagnostic Radiographer • Accountant (General) • Secondary Health Services Manager (level 5) • Laboratory manager • Medical Superintendent	
Department of Human Settlements	• Engineer Manager (level 5) • Architect (level 5) • Town Planning Technician (level 4) • Quantity Surveyor (level 5) • Quality Assurance Manager (level 5)	Absolute scarcity due to growth/expansion
Office of the Premier	No specific areas of scarce skills reported	No specific areas of scarce skills reported
Department of Public Works	• Quantity Surveyor (level 5) • Civil Engineer (level 5) • Mechanical Engineer • Electrical Engineer • Programme or Project Manager • Architect (level 5)	Absolute scarcity due to growth/expansion
Department of Social Development	• Social Worker • Community Worker • Social Auxilliary Worker • Parole or Probation Officer • Accountant (general) • Finance Manager • ICT Customer Support Officer	Relative scarcity due to replacement demand

SCARCE AND CRITICAL SKILLS IN THE PUBLIC SECTOR		
DEPARTMENT	**SCARCE AND CRITICAL SKILLS**	**REASONS FOR SCARCITY**
Department of Sports & Recreation	No specific areas of scarce skills reported	No specific areas of scarce skills reported
Department of Transport	• Mechanical Engineering Technician (level 4) • Civil Engineering Technician (level 4)	Relative scarcity due to replacement demand
Provincial Treasury	• Finance Manager • Supply & Distribution Manager (level 5) • Economist (level 5) • Internal Auditor • Finance Manager • Organization and Methods Analyst • Engineering Manager (level 5) • External Auditor (level 5) • Security Consultant (level 2)	• Relative scarcity due to replacement demand • Absolute scarcity due to growth/expansion

Table 70: Areas of Critical Skills for Generic Training in the Public Sector

AREAS OF CRITICAL SKILLS IN THE PUBLIC SECTOR	
CATEGORY OF GENERIC SKILLS	TRAINING PRIORITIES
Communications	• Advanced report writing training • Basic isiZulu • Batho Pele and service delivery • Business communication training • Communication and report writing • Diversity management • Facilitation and presentation skills • Government communication and marketing • Human relations training • Human resource management • Minute taking skills
Training	• Assessor and moderators • Facilitation, mentoring and coaching • Knowledge management • Mentoring and coaching • Mentoring for growth
Policy and Strategy	Policy formulation, development and analysis
Ethics and values	Values and ethical behaviour
Management and Policy	• Administration procedures • Advanced management development programme • Change management

AREAS OF CRITICAL SKILLS IN THE PUBLIC SECTOR	
CATEGORY OF GENERIC SKILLS	TRAINING PRIORITIES
	• Conflict resolution and negotiation • Construction and contract law • Constriction/business project management • Corporate governance • Legislative frameworks • Effective management for junior managers • Effective management principles for junior managers • Emerging management development programme • Ethics and values for SMS • Ethics and values in the public service • Facility management • Gender mainstreaming • Induction and orientation for SMS • Junior management development programme • Junior management training • Leadership pipeline and management development' • Leadership programme • Legal administration • Management and leadership skills • Mid level worker training • Middle management development programme • Organizational strategy execution • Problem solving and decision making • Problem solving and analysis • Strategic capability leadership • Strategic operational management • Supervisory skills • Transformation management • Women in management • Workplace diversity and transformation
Social Services	• Clinical training • Community health worker training • Social facilitation
ICT	• Computer literacy (MS Project, PowerPoint, Excel, etc.) • Computer programmes/courses • Computer skills • Computer training • Data management training • Information management • Information security • Information technology (Persal, BAS, MS Microsoft Programmes) • Information, communication and knowledge technology management • MS Projects • Persal training
HR and labour Relations	• Disciplinary procedures and grievance handling • Investigation

AREAS OF CRITICAL SKILLS IN THE PUBLIC SECTOR	
CATEGORY OF GENERIC SKILLS	TRAINING PRIORITIES
	• Job evaluation training programmes • Labour relations • Massification induction programme
Auditing and Finance	• Anti-Fraud management • Finance management • Financial literacy • Financial management • Financial management for non-financial managers • Risk management • Standard chart of accountants • Supply chain management
Health and SaTVETy	• Employee health and wellness and productivity management • HIV/AIDS • HIV/AIDS in the workplace • Occupational health and saTVETy – procedure and measure • Occupational health and saTVETy

5.6 The Geography of Skills Scarcity

The relative scarcity of skills due to geographic location is a major consideration in the future management of scarce and critical skills in the province. The geographic differences in the availability of skills are due to: the rural /urban divide and its consequences on the migration of population; the spatial distribution of industries in the province and its impact on the concentration of jobs and people's performance regarding the geographic location; the location of the major education and training institutions and the nature of the training programmes they offer; and among others, the nature of rural infrastructure and amenities which make it unattractive for many qualified people to locate in rural zones. As a result, cases of relative scarcity due to geographic location abound. Although there may not be an absolute scarcity of regional planners, for instance, local and district municipalities struggle to attract and retain planners because of their reluctance to reside in rural areas. The situation is similar in many other areas – medical professionals, maths and science teachers, senior managers in finance and accounting, engineers and professionals in a variety of other fields.

Another aspect in the geography of scarce skills is that institutions continue to prepare people with skills that are not needed in the immediate geographic area, but may be required in other geographic zones. As a result, there is a growing number of unemployed artisans who remain economically inactive because of their reluctance to relocate to areas where there are job openings.

The management of scarce and critical skills in the province is therefore a complex undertaking. The key considerations here are the readiness and responsiveness of education and training institutions; the availability of labour market signalling information; and,

among others, the willingness to embark upon new structures and processes occur for retrieving and upgrading of qualified people within geographic areas in response to locally determined needs.

The geographic distribution of scarce skills is examined in more detail in the sector-based strategic frameworks for HRD that have been prepared to accompany this document. For each economic sector, the skills needs and scarce skills profile of the sector are presented. Also presented in these documents is an analysis of geographic differences and patterns in the profile of scarce skills.

5.7 Institutional Responses to the Scarcity of Skills

There is a wide range of programmes and interventions that are undertaken to address the issue of scarce and critical skills. While some of these interventions have borne fruit in making skilled people available, others have not. Part of the problem here is the fragmentation in the management of scarce and critical skills and the absence of a comprehensive and integrated provincial strategy to manage scarce skills. Some of the interventions made to manage scarce and critical skills are itemized and described briefly below.

- Ensuring that learners acquire a sound academic foundation in maths, science and technology so that they are academically prepared to pursue careers in which there is a scarcity of skills.
- Many efforts are made to attract learners to careers in areas of scarce skills. Among these efforts are early outreach programmes to stimulate the interest of learners to enter specific fields at an early age; programmes to expose learners to careers such as Imbizos, expos, field visits and career mentors; and, among others, guidance and counselling programmes.
- Partnerships with industry remain one of the most effective ways for addressing scarce and critical skills. Some industries establish partnerships with local TVETs in order to train artisans to their requirements and expectations.
- Labour market signalling and the ongoing preparation of scarce and critical skill lists remain a valuable source of information for scarce and critical skills management. But this is not enough. More information must be collected on a sectoral basis to effectively manage scarce skills in the province.
- Upgrading, retaining and retooling workers is very effective when proper programmes are available. Here upgrading programmes should be designed such that people who have already acquired the basic skills and experience are selected to be prepared to develop a complementary set of skills in a related but more critical area of the craft.
- The departments in Public Administration offer bursaries based on their ongoing assessment of scarce and critical skills which affect service delivery in their respective areas.
- Some firms fast track employees who show the aptitude and interest in entering new fields in the practice of their craft.
- Many firms resort to the importation of skills for outside the province or outside of the country.
- Learnerships and apprenticeship programmes, in large measure, focus on learning areas for which skills in the economy are scarce and critical.

- Recent policy initiatives have been taken to expand the intake of TVETs and higher education institutions so that the throughput and supply of talent in critical occupations can be increased.
- These ideas constituted the key goals of interventions for designing comprehensive and integrated programmes for scarce skills management.

6. Toward a 20-Year Implementation Planning Horizon

6.1 Introduction

The purpose of this section is to provide a framework for the formulation of a KZN Labour Market Scenario Plan as part of the Review of the Human Resource Development (HRD) Strategy in KZN. The main focus of this paper and the formulation of the scenarios relates to the third objective of the Provincial HRD Strategy which is to provide a social, economic, labour market analysis and spatial context with prioritisation of interventions.

A series of workshops is to take place during which the scenarios for the future development of the labour market will be unpacked and structured. This section therefore provides the framework within which such workshops will take place and the scenarios will be formulated.

6.2 Scenario Planning in Perspective

South Africa is a country experiencing rapid change and development on all fronts and also in the needs and demands of the labour market. This, combined with fluctuations and uncertainties in the global economy and changes in socio-political economic power blocks, create an environment of uncertainty in the future development of growth of the country and KwaZulu-Natal. These are some prominent changes and questions asked about the labour market for which there are widely divergent views – some optimistic, some ominous.

Scenario planning is one of the set of strategic planning tools used to come to grips with changes and uncertainties in the future. Scenario planning is not an exact science and relies on the identification of the key factors that play a role in defining the future of a sector or a country. It then relies on storytelling to knit together a logical play-out of a sequence of events. Although scenarios are stories and therefore fictions, they are based on an assessment of the anticipated key factors that will make a difference in the future. Scenario planning's strength lies in the fact that it informs debate without committing anyone to any particular position. It enables planners to deal with the fact that, while it cannot predict or control the future, it assists in anticipating major changes and enables pro-active actions to be taken.

But there are also many uncertainties in the future. There are many global, national, provincial and local events and factors of influence that is not known or anticipated, and are uncertain as to their outcomes and impacts. What kind of leadership might government

officials, business leaders, elites (old and new), the landless poor, traditional leaders, young people and commercial farmers exercise when in a position to influence the future of land reform? How will the political landscape unfold? Will economic growth pick up? How might patterns of land use and tenure change?

The process of developing scenarios about the future are often more important than the scenarios themselves. It's the process of identifying, determining and assessing possible future events and factors of influence that are important in scenario planning.

Scenario development as a tool for strategic planning is therefore borne from the knowledge that it is impossible to predict the future accurately. But it is possible to sketch alternative future possibilities. Its most fundamental contribution to a strategic planning process is to help question assumptions made about future events and influences. In doing so an understanding is gained of the current state of the major certainties and uncertainties and then speculate how these factors may impacts on the future.

The following section provides insight into the potential scenarios that can influence the growth and development of the labour market in KZN. The methodology for developing the scenarios are undertaken through a desktop and consultation process. The desktop analysis identified the initial list of aspects that may impact on the labour market while the workshops ensures that all aspects are dealt with in the context of the KZN HRD Strategy. The debates surrounding the formulation of the scenarios is important. This ensures that the key decision makers are informed about those factors that may have an impact on the future development of the labour market and the HRD Strategy.

The process that is followed is the following:

- **Step One: The current of the socio-economy and labour market in KZN**
  The historical trends, current state and possible future factors of influence in the socio-economic environment of the labour market in the Province is reviewed based on existing available data and information. An understanding of the existing status of the market in the province is necessary before any future impacts and implications can be considered. The existing situation analysis leads to the identification of those factors that may influence the future development of the labour market.

- **Step Two: Environmental Scan and Analysis**
  An environmental scan is conducted simultaneously to the current state analysis. The environmental scan is initially informed by a desktop review of research papers, policies, strategies and business plans dealing with the development of the broader labour market considerations. Global, national and regional factors of influence and impacts are identified through this process. These factors are analysed in terms of the likely impact of the events or forces occurring. The identified factors are thereafter, assessed on the implications it would have for the labour market in KZN.

- **Step Three: Identify and Clustering of Key Driving Forces and Uncertainties**
  From the identified list of potential influencing factors on the growth and development of the labour market, the key drivers are identified and prioritised. The prioritisation process involves an analysis of an importance and uncertainty matrix. Factors that are important and certain to take place are identified as key drivers of development while

important but uncertain factors of influence are posed at wild cards. Hence, key drivers (important and certain factors) may be viable and may be capable of producing significant alternative outcomes; while the wild cards (important but uncertain factors) feeding into the narrative of the key drivers.

- **Step Four: Build Alternative Scenarios of the Future**
  The key drivers hold potential for 2 dimensions which relates to the "wanted outcome" and "most likely outcome." To draft the scenarios involving the key drivers and influencing factors, the process involves the portrayal of the wanted environment outcome, there after the most likely outcome and then the total opposite of the expected outcome. Thus, portraying 3 scenarios that illustrate the potential for high growth, a likely growth and low growth relating to factors of influence. The essence of the task is to build on the frameworks, quantifying, if possible, the impact of the key forces.

  Step Five: Implications and Conclusions
  Most important in scenario planning are the implications and conclusions that can be drawn for the scenario learning experience. It is the anticipated implications of the scenarios, as well as the factors that give lead to the development of those futures, that decision makers and planners need to take into account in the formulation of their development plans.

6.3 Environmental Scan and Identification of the Key Factors of Influence

6.3.1 National and International Economic Trends

The global economic growth has been slow for the last 2 to 3 years and was 3.1% in 2015 with a projected growth at 3.4% in 2016 and 3.6% in 2017. The slowdown of the Chinese economy, lower commodity prices, and strains in some large emerging market economies will continue to weigh on growth prospects in 2016–17. In advanced economies, a modest and uneven recovery is expected to take place and maintain an average annual growth in the order of 3 to 4 % in the longer term. The picture for emerging market and developing economies, especially in Africa is diverse but challenging.

Risks to the global outlook remain high for South Africa and KZN influenced mainly by:

- High levels of fluctuation in emerging market economies;
- China's economic slowdown and long term recovery;
- Lower commodity prices are likely to continue for some time and is likely to only turn around by 2019 / 2020;
- Fundamental changes in the USA's economic structure and the foreign trade relations; and
- The uncertainties emerging from Brexit is likely to remain for the next 3 to 5 years.

Most countries in sub-Saharan Africa including South Africa is likely to experience a gradual pickup in growth but with high levels of fluctuation between high and low growths.

The domestic South African economy is under severe pressure as a result of subdued global economic performance. The International Monetary Fund (IMF) has reduced SA's economic growth outlook for 2016 from 1.3% to 0.7%, the lowest forecast on record so far since 1994. As such, the combination of factors like high debt service costs, high costs of compensation of employees and contracting tax base, places the economy under strain. Public expenditure is likely to remain restricted for a number of years.

6.3.2 KZN Economic Trends[2] [3]

The economy of KwaZulu-Natal is the second largest within South Africa, contributing approximately 16.5% to national Gross Value Added (GVA). The economic base within the Province is diverse, with the provincial economy being driven largely by the manufacturing sector (22%), and supported by tertiary services such as tourism, finance and insurance, transport and storage, and other business services.

Noting this background, the province of KZN has confronted large challenges in the post-global financial crisis period. A number of challenges remain but a number of positive developments have emerged. A particularly positive development to emphasise for KZN is growth having resumed, at least for the period for which data is available and noting that many indicators looked at for the situational analysis are not available post 2013.

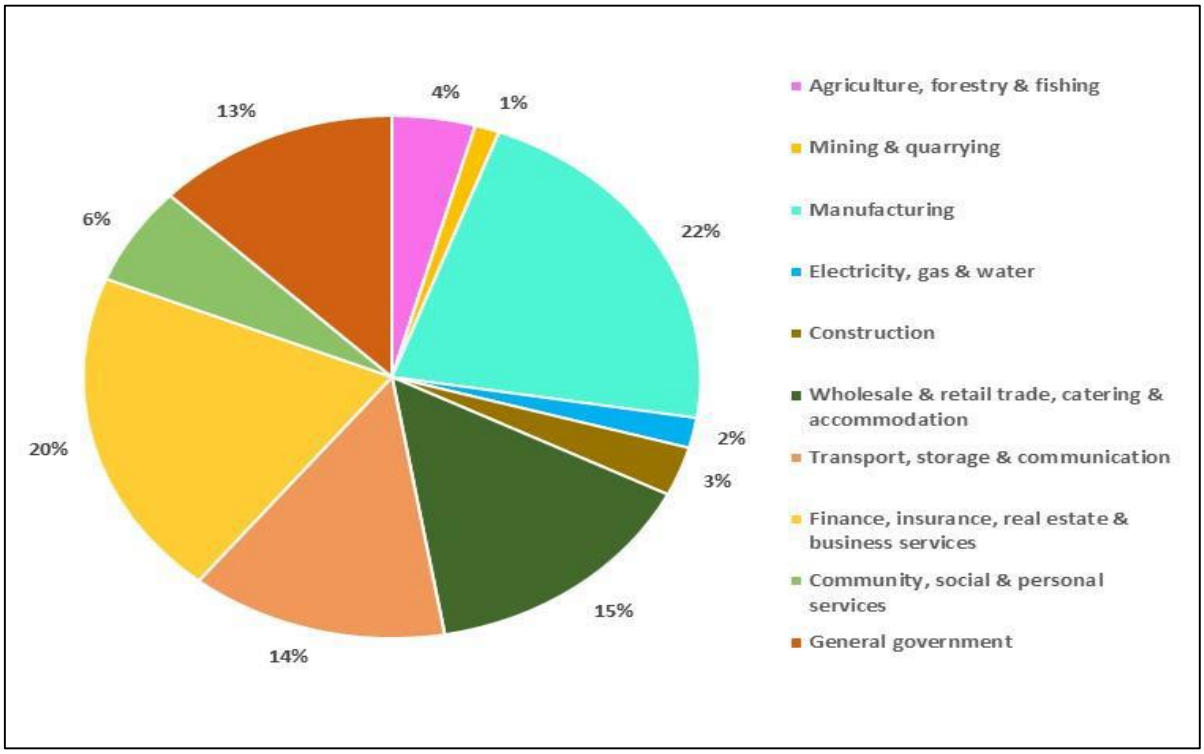
The main challenge in KZN is with serious threats arising on the labour market front. KZN is seeing a growing number of youth entering the labour force market while the labour absorption rate has remained low. Women are particularly vulnerable in the job markets and constitute a large group in the unemployed. Moreover, those that are unemployed are increasingly unemployed for a long time, particularly if they were previously engaged with manufacturing. All in all, jobs are scarce, particularly in some growth-inducing sectors such as manufacturing. This is in a context in which national demand for goods and services is low; this low national demand base is observed not only through regular downward GDP revisions for South Africa but through the fact that the Province has been, post-crisis, growing faster than South Africa as a whole. Internationally, the economic context is not particularly buoyant and adverse developments are emerging in many countries; the value of world exports has been stagnant for a number of years and has, more recently, been decreasing though it is set to grow again soon.

A key concern is that while enhancing labour absorption in the economy is a central aspect of the NGP, a number of sectors that are labour intensive, such as textiles and clothing and furniture appear to be stagnant. Also, some sectors, such as agriculture and forestry that have experienced a growth in the total value of activities have either shed labour or not grown their workforce.

[2] Kwazulu-Natal Provincial Planning Commission; Provincial Growth and Development Strategy; Reviewed June 2016; Draft for Comment

[3] State of the KZN Province Address. The Premier; February 2016.

Figure 3: Economic Sector Contribution to Employment in KZN, 2015



In terms of the composition of the Provincial labour market, the provincial unemployment rate (official) is currently siting at 20.5 and expanded rate is 35.5. Between Q3:2014 and Q3:2015, the number of discouraged and unemployed persons have decreased quite significantly. The Community and social services, trade and manufacturing sectors are the biggest contributors to employment in the province.

Growing unemployment means that those that are employed are also becoming more vulnerable. On this, data shows that the number of those in informal employment is growing rapidly in the province, faster than in the whole of South Africa. Although what is informal employment is complex, this would also indicate, amongst other, strong cost-controlling pressures inside the firms that are currently operating from the province. This comes after the period for which the NPC identified that high wages for new labour market entrants curbed the demand for such employees. In other words, getting youngsters to be employed is much harder now than before. Women are also badly placed in terms of their probability of finding employment again while unemployed, particular African women.

Generally, there are indications that the KZN production platform is fragile and needs to be reinforced as well as supported. GDP growth rebounded to 1.2 % in 2015 Q3, bolstered by manufacturing (6.2%), finance (2.7%) and Trade (2.6%). This came after contracting by -1.6% q-o-q in 2015Q2 on account of a contraction of -17.4% in agriculture, -8.6% in Mining and -6.3% in manufacturing. Agriculture, mining and electricity contracted again in 2015Q3 falling into recession. Manufacturing rebounded at 6.2% after posting -6.3% in 2015Q2

Strategically addressing this problem area requires a further push around private sector development. This is critical as the private sector is a major source of sustainable rather than temporary new jobs and for the retention of existing jobs. Job loss associated with

firm closure, in turn, means a reduction of productive capabilities with the eventual threat of the complete disappearance of some economic sub-sectors from the province and, in the long term, from South Africa (e.g. electrical).

Investment has to be expanded more markedly than is currently the case. Investment also has to be in labour-intensive sectors and areas; a number of small green economy sectors and various green economy projects are relevant for this and need to be supported or developed accordingly. The pattern of growth of domestic investment that is taking place in the province together with the pattern of sectoral growth would suggest that firms are turning to a mix of capital and labour rather than to more markedly to labour for production, particularly in manufacturing.

Although tourism offers benefits to a large number of people, international tourist numbers have dropped recently. Although the spending by each foreign tourist is relatively high and benefit many people in the province, tourism facilities are vulnerable to strong fluctuations in revenues (e.g. hotels and catering establishments). Positively, domestic tourists' spent has increased and domestic tourist numbers are good; but, these tourists tend to locate around beach/coastal areas rather than penetrate the less developed parts of the Province (e.g. the Battlefield Route). Of interest is however the fact that tourists are diversifying their product demand in such a way so as to benefit a larger number of people than 5 years ago. Tourism demand is also becoming increasingly turned to what rural and peripheral urban areas have to offer.

A stronger expansion of rural development as it is currently set out and pushed by the Province is required. Cooperatives and small scale agricultural projects have a key role to play in supporting the development of rural communities and in further reducing food insecurity. There is, however, limited information on the total scale and sustainability of the projects in this particular area though a great number of projects have been put into place and are being expanded in the rural parts of the province. New ideas are still being tested and it is too early to see the impacts of a number of these. But, presently social cohesion in some rural communities is relatively fragile with some rural areas exhibiting high crime levels and troublesome relations between different types of agricultural actors.

There is a serious threat in these developments as poverty has been progressively reduced in the province. Going forward, attention will need to be paid to the fact that unemployment increases the vulnerability of households to further economic shocks. Also, of note is that a high proportion of the poor are young, less than 25 years of age. It is harder for a youngster with only secondary education to obtain a job now than before moreover. And the longer a person is without a job, the longer this person remains unemployed.

A second challenge which the province confronts is in terms of growing the value of economic activities further. Economic activities with high returns have not yet noticeably set up in KZN. Despite the fact that economic activities appear to be growing faster than the number of people in the province, there are no clear cut sign of significant value addition increase happening across economic sectors. It appears that the very large infrastructure investments that are being unlocked in the Province have not yet had their full impact. In turn, while the skills base of the province appears relatively similar to that of South Africa, the skills might not be the right skills require to lead to the required transformation.

Relatively small increases of the value of economic activities per capita undermines development efforts and future growth prospects. It also limits efforts to reduce inequality outside redistribution through welfare schemes. Investments in machinery and equipment in KZN have grown slightly less rapidly than in South Africa as a whole. Foreign investment would continue to play a role on this going forward together with attracting particular types of innovating firms in the province. However, foreign investment is observed to be, internationally, increasingly towards services. The Province is still under-performing relatively to its asset base. This is seen through the gap between the province's contribution to national economic activities and its population and its low GVA per capita position when compared to other provinces. KZN is increasingly displaced by Gauteng.

A third problem area is in terms of the fact that economic activities are still concentrated in the three main economic hubs of the Province. Notably, there has been little shift in the aggregate in the last five years in favour of the smaller economic regions of the province. But, whereas shifts have happened, they are relatively uneven and small in scale with the exception of a few District Municipalities. They are moreover around the tertiary and primary sectors rather than around manufacturing.

This means that, whereas the district municipalities of KZN appear to develop along their own growth path, they are still unable to either notably attract new economic players or to get existing economic players expand more notably than is currently the case, particularly in industry. Nevertheless, the fact that there is growth in the districts of KZN is positive news and means that development is taking place in the smaller areas of the province.

The data still shows that a few District Municipalities appear to be experiencing some economic weaknesses: uThungulu has seen a contraction of its primary sector activities; uMzinyathi is not performing notably well for its small economic base; iLembe's manufacturing performance has been relative lacklustre between 2009 and 2013; Amajuba, which has been the smallest contributor to agricultural production in KZN, might need attention to help boost its agricultural production further. A few District Municipalities in KZN also see general government services dominate their economic activities. This is worrying for a future growth of economic activities which rely on private sector taking over the economic space.

A fourth problem area that could undermine future growth prospects is in a stagnation of economic activities in electricity and water. KZN has about one-fifth of electricity available nationally but the sector has grown little in the last five years when investments are badly needed following long period of under-investment; economic activities in water have stagnated while water is critical for agriculture and other human activities in a water-scarce country and province. Investments in water and electricity have grown very little since the crisis moreover. There are nevertheless, on this, signs that investment in the sector has increased recently in South Africa, at least in the Renewable Energy sector and driven by private investors.

The summary, there are a number of remaining issues that need to be addressed in the province. Whilst priority needs to remain with strengthening the key sectors of manufacturing, agriculture, tourism, and transport and logistics, as well as continuing support of emerging key sectors such as ICT and green energy production and processes, a

number of key constraints facing the Province are curtailing the expansion of the key primary and secondary sectors. These constraints include:

- High "cost of doing business" in a context of limited domestic demand;
- The rising cost of capital and other major key input costs (i.e. machinery, electricity and highly skilled and skilled labour);
- Skills shortages;
- Weak partnerships in place with business, labour and the youth for the purpose of further unlocking job-creation opportunities. Fragile partnerships remain with rural actors moreover.
- Government-led job creation efforts do not fully incorporate the importance and number of localisation opportunities. Particular types of small businesses (e.g. Youth, female-owned and township enterprises) are still weakly and comprehensively supported.
- Ad hoc business retention interventions rather than fully institutionalised and operational Business Retention and Expansion programmes in place across KZN Municipalities due to lack of awareness on support available in this area.
- Finally, government is still to show the way in terms of green practices and to unlock opportunities in the area of green procurement. The range of green economy opportunities has to be acknowledged in this regards but this requires government to be properly capacitated in this area.

6.3.3 KZN Socio-Demographic Trends[4]

The population of KwaZulu-Natal grew gradually from 9.58 million in 2001 to 10.27 million in 2011. Its share of the national population declined slightly from 21.1% in 1996 to 19.9% in 2015, making KwaZulu-Natal the second most populous province in the country in 2015. Its overall share of the national population in the foreseeable future will depend on different demographic and other factors.

KwaZulu-Natal is a net exporter of people to other parts of the country. Of the total population in 2011, 9.4 million were non-migrants, 74 168 were immigrants, 282175 moved into KwaZulu-Natal from other parts of the country. A little more than this number (306 121) left KwaZulu-Natal for other parts of the country. These movements gave rise to a negative net migration number. The number of people who left the province between 2006 and 2011 is estimated to be 23 946 more than those who moved into the province.

eThekwini metropolitan district had an estimated population of 3.6 million, or 33% of the provincial population in 2015. Other districts with significant shares of the provincial population are uMgungundlovu (1.1million), uThungulu (0.98 million), Zululand (0.86 million and Ugu (0.77 million). Harry Gwala had the smallest estimated share (just about half a million) of the population in 2015.

KwaZulu-Natal remains one of the three provinces in South Africa where the rural population outnumbers the urban population, though with a decreasing margin. Fifty-three percent of people in the province lived in rural areas in 2011. The estimated number for the 2014-2015 period is fifty-one percent. Figure above shows that greater proportions of the population

[4] Kwazulu-Natal Provincial Planning Commission; Provincial Growth and Development Strategy; Reviewed June 2016; Draft for Comment

of eThekwini (85%), uMgungundlovu (58.1%) and Amajuba (55.2%) lived in urban areas in 2011.

There are problems in the area of rural development, these and the general failure of land reform programmes as previously conceived have been acknowledged. New initiatives are being implemented such as the Agri-Park programme of the DRDLR and new legislation has been passed that is set to markedly unlock agricultural production and rural development. Moreover, new models of partnership between traditional authorities and local government have been unpacked. These, together with the recent identification of the principles underlying agrarian transformation in KZN and the initiation of a range of key initiatives in agriculture areas and value chains are likely to lead to better quality of life of those in the rural areas.

KwaZulu-Natal had a 26.3% share of the poor in South Africa in 2011. The percent of individuals in poverty in KwaZulu-Natal declined from 69.1% in 2006 to 56.6% in 2011. The poverty gap, also declined from 35.7 in 2006 to 25.5 in 2011, and the severity of individual poverty declined from 22 in 2006 to 14.1 in 2011.

Recent statistics show that twenty-three percent of households with children reported that children seldom or sometimes experienced insufficient food. For six percent of households with children, insufficient food for children was a regular experience. The highest proportions of households experiencing insufficient food for children in 2014 were in rural areas, among those headed by people in the 18-39 age group, and also among female-headed and African households.

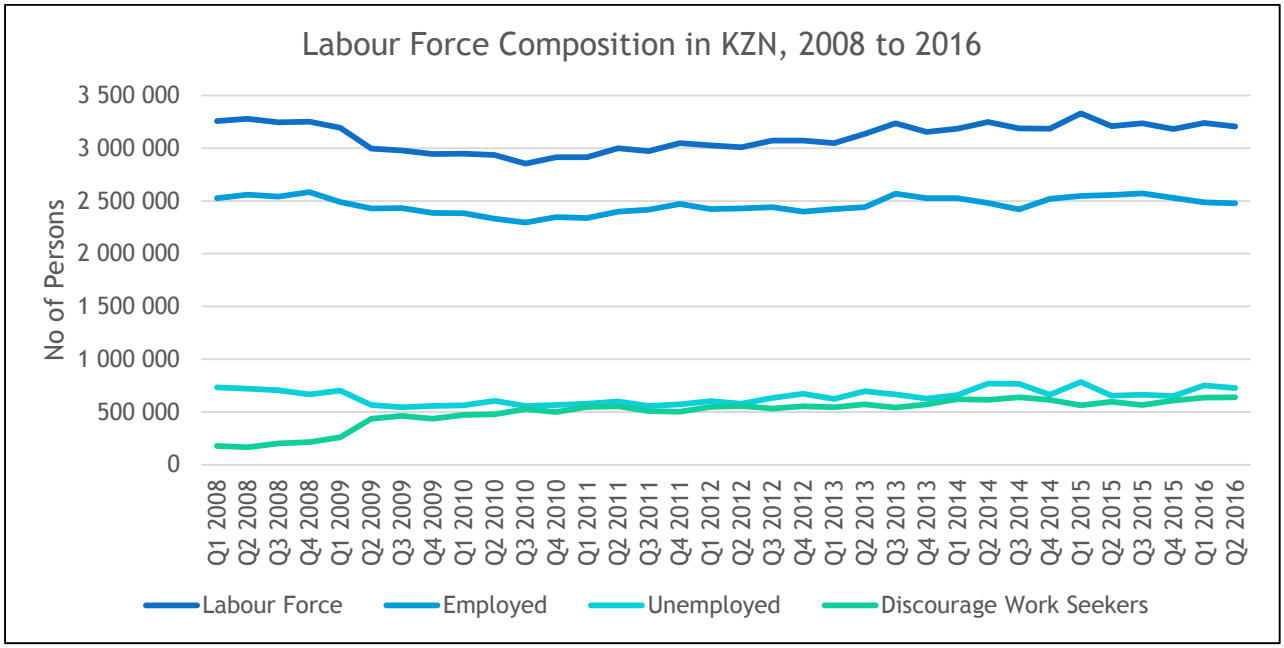
Majority of people KwaZulu-Natal are healthy. In 2014, half of the population reported that they were in excellent or very good health, and thirty-eight percent reported that their health was in good condition. An estimated number of 926 345 people reported a disability in the Province in 2014. The incidence of reported disability in KwaZulu-Natal was 8.8% in 2014, compared to a national average of 10.4%. The incidence of disability in the province is positively associated with age; less than ten percent of people under the age of 15 years reported a disability, compared to thirty-eight percent among those aged sixty-five years or older.

Decent work gaps remain pervasive across all regions in one form or another, from high rates of unemployment in developed economies to chronic vulnerable employment rates in many emerging and developing economies. In 2015, the global unemployment rate stood at 5.8% and total global unemployment increased by over 0.7 million to reach 197.1 million. Global unemployment is thus estimated to stand at more than 27 million higher than the pre-crisis level of 2007.

The global developments in unemployment were shaped by stronger than expected labour market conditions in developed economies. The unemployment rate for developed economies, which accounts for nearly one-quarter of global unemployment, is reported to have decreased from 7.1% to 6.7% between 2014 and 2015. This downward trend in the unemployment rate has been driven by improvements in the Northern, Southern and Western Europe region (from 10.7% to 10.1%, with notable reductions in Germany and Italy), and the United States (from 6.3% to 5.3%).

The total labour force in KZN which includes employed and unemployed persons varied around 3,25 million persons between 2008 and 2016. However, a significant large proportion of the people in the province also fall into the informal and discouraged worker categories being in the order of 500 000 persons.[5]

Figure 4: Labour Force Composition in KZN (2008-2016)



A number of factors impact on economic performance and the availability of skills in the labour force is one of these. However, other equally important factors are the level of inequality and access to markets. What is clear is that the availability of skills is an increasingly important factor affecting the level of investment in any economy.

The demand and supply of skills in KZN is seen as a fundamental pillar to improving employment and productivity. KZN has a youthful population and has shown impressive gains in economic growth and in poverty reduction over the last two decades. The necessary sustained growth requires three critical steps: (1) increase productivity in the strategic economic sectors, (2) diversify the economy, and (3) expand employment. Raising the level and range of skills in the province provides a key contribution to these core drivers of sustained growth.

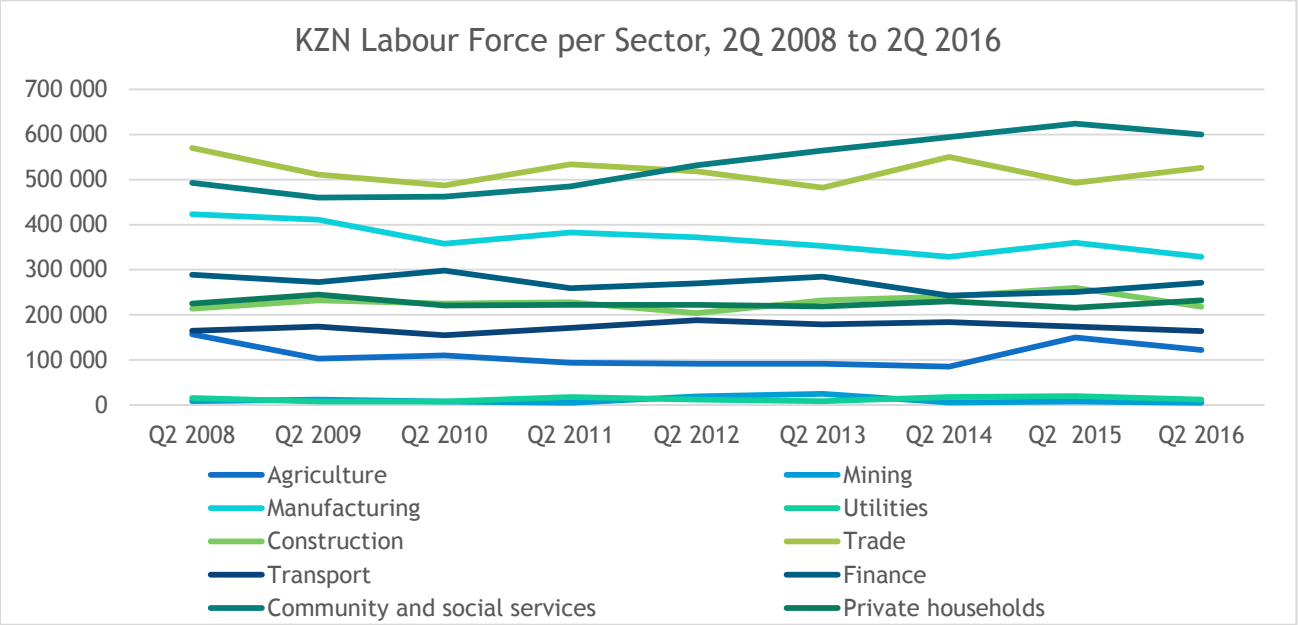
Fluctuations in the spread of the labour force across the economic sectors is shown in the following graph.[6] The Community and Social Service by-passed the Trade sector in 2012 as the largest sector with over 600 000 persons employed. This is followed by manufacturing showing a decline from over 400 000 persons in 2008 to close to 300 000 by 2016. The smallest sectors are the Utilities and Mining Sectors in KZN.

[5] KZN Treasury; Economic Data, August 2016.

[6] KZN Treasury; STATSSA, 2016

The state of skills in the KZN economy and society has been identified as a major concern in the province. This has been approached in a number of ways but three important points emerge as markers in the debate around skills development[7]. Firstly, the KZN economy continues to experience a shortage of skills in key economic sectors. Such a shortage is not a new phenomenon. A shortage of skills has long been a feature of South Africa's economic and social landscape. The principal, but not the only, cause of persistent skills shortages has been the effects of pre-1994 apartheid government policies and the structural shifts that have occurred in the economy, from being an inwardly focused economy concentrated on minerals and manufacturing to becoming a more diversified and globally oriented economy.

Figure 5: KZN Labour Force per Sector (Second Quarter of 2008 to Second Quarter of 2016)



A second aspect in the discussions about skills shortages is that there is no quick fix solution to the skills problems that have developed over a substantial period of time. Improving and developing KZN's stock of skills will not be fully resolved through short-term measures.

Thirdly, there has been much reference to skills development as one way of supporting economic growth. This is an important and complex issue. It is not one that can be approached in terms of simple relationships between skills and growth.

6.4 Identification of Key Demand and Supply Factors that Impact on the KZN Labour Market

Key demand and supply factors that may impact on the future of the economy and also on the Labour Market is identified in this section.

The identification of the key factors takes place within a sustainability framework of PESTEL which stands for:

[7] Inception Report: Review of The Human Resource Development (HRD) In KZN

- POLITICAL AND INSTITUTIONAL FACTORS
- ECONOMIC AND RELATED FACTORS
- SOCIO-DEMOGRAPHIC FACTORS
- TECHNOLOGY, PHYSICAL AND SPATIALLY RELATED FACTORS
- ENVIRONMENTAL FACTORS
- LEGAL AND POLICY RELATED FACTORS.

The key factors are identified from existing sources of information, research and planning reports as indicated in the Bibliography of this paper. The factors currently contained in the list below is an initial list that will also be reviewed as part of the workshops and additional consultative inputs that are received.

The Analysis and Formulation of the Drivers and key uncertainties are dealt with in the following section.

Table 71: Identification of Factors of Influence

SUPPLY AND DEMAND	BASE DIMENSION	FACTORS OF INFLUENCE; CHANGES AND DEVELOPMENTS WITHIN THE FOLLOWING FACTORS
		Enhance Industrial and Economic Development
Demand	Economic	Agriculture
Demand	Economic	Applied Sciences
Demand	Economic	Business Management
Demand	Economic	Clothing and Textiles
Demand	Economic	Communication & Media
Demand	Economic	Creative Arts
Demand	Economic	Dev Finance
Demand	Economic	Education
Demand	Economic	Engineering
Demand	Economic	Food Sciences
Demand	Economic	Green Economy
Demand	Economic	Maritime
Demand	Economic	Medical
Demand	Economic	Public Management
Demand	Economic	Tourism
Supply	Economic	Government funding
Demand	Economic	A generalized slowdown in emerging market economies;
Demand	Economic	Agriculture, food production
Demand	Economic	Agro processing
Demand	Economic	Business outsourcing
Demand	Economic	Chemical and biotechnology
Demand	Economic	China’s economic slowdown;
Demand	Economic	China's economy collapses
Demand	Economic	Construction
Demand	Economic	Europa's decline and Brexit
Demand	Economic	Growth of other Africa markets
Demand	Economic	Growth of the global city eThekwini
Demand	Economic	ICT
Demand	Economic	Lower commodity prices
Demand	Economic	Metals & mining
Demand	Economic	National minimum wage
Demand	Economic	Revival of the USA
Demand	Economic	SA Economic growth in the future

SUPPLY AND DEMAND	BASE DIMENSION	FACTORS OF INFLUENCE; CHANGES AND DEVELOPMENTS WITHIN THE FOLLOWING FACTORS
Demand	Economic	Services
Demand	Economic	The uncertainties emerging from Brexit and EU
Demand	Economic	Tourism
Demand and Supply	Environmental	SA bio-physical environment under stress
Supply	Environmental	Global climate change
Supply	Political	Capacity of the State to Deliver Services
Demand	Political	Transformation and BEE Score card
Supply	Political	National policy changes: PPA
Supply	Political	Local and Metro political power balance uncertainties and changes
Demand	Social	Entrepreneur-ship in all Sectors
Social	Social	Migration patterns out of the Province
Supply	Social	Development and expansion of the harbours of KZN
Supply	Social	Early Childhood Development
Supply	Social	FET Institutions
Supply	Social	Higher Education Institutions
Supply	Social	Labour relations
Supply	Social	Labour unrest and strikes
Supply	Social	Policy Integration
Supply	Social	Primary School
Supply	Social	Professional Associations
Supply	Social	Scarce and Critical Skills
Supply	Social	Secondary School
Supply	Social	SETA Programming
Supply	Social	Workplace and Worker Education
Supply	Social	Youthful population
Demand	Social	Level of foreign direct investment
Supply	Social	Changing demographic and its profile of SA / of the World
Supply	Social	Contribution to provincial GDP and regional economies
Supply	Social	Emerging markets
Supply	Social	Generation X and Y population profile
Supply	Social	Global security and risks of international migration and travel
Supply	Social	Growing middle-class
Supply	Social	HR practices and issues
Supply	Social	Impact of regulatory framework in performance and use of skills
Supply	Social	Internal private sector skills development initiatives
Supply	Social	Labour markets for current skills of different levels
Supply	Social	Occupational profile with critical skills for enhanced performance
Supply	Social	Political conflicts and terrorism
Supply	Social	Profile of skills withdrawal by occupations (readiness impact)
Supply	Social	Relevance and contribution of related SETA
Supply	Social	Scarce skills profile
Supply	Social	Skills demand profile (including scarce skills)
Supply	Social	Skills supply streams (including education institutions, learnerships, etc.)
Supply	Social	Social media and new communications

SUPPLY AND DEMAND	BASE DIMENSION	FACTORS OF INFLUENCE; CHANGES AND DEVELOPMENTS WITHIN THE FOLLOWING FACTORS
Supply	Social	Assessment criteria developed for quality in ECD provision §
Supply	Social	Awareness of ECD standards §
Supply	Social	Early enrichment programmes §
Supply	Social	Ease / difficulties of transcending international (Rest of Africa) borders
Supply	Social	Enhanced literacy and numeracy levels for out of school youth and adults
Supply	Social	Enrolment in Maths and Science
Supply	Social	Health and healthy lifestyle
Supply	Social	Health and Welfare
Supply	Social	Increased number of programmes which enhance employment and employability
Supply	Social	Infant mortality §
Supply	Social	Literacy and numeracy levels Secondary Indicators
Supply	Social	Parental education programmes development§
Supply	Social	Performance and achievement in general education
Supply	Social	Poverty
Supply	Social	Primary School Education
Supply	Social	Professionalism and productivity of teachers
Supply	Social	Resourcing education at all levels
Supply	Social	Secondary Education
Supply	Social	Security
Supply	Social	Social cohesion
Supply	Social	Social security
Supply	Social	Special programmes for the “gifted”
Supply	Social	Urban rural migration and interactions
Demand	Technical	Geographic location and economic centres
Supply	Technical	Technological innovations and applications and related impact
Demand	Technology	Successes of large scale infrastructure projects
Demand and Supply	Technology	Mobile phone application and accessibility to a broad population
Supply	Technology	Rural to urban migration
Supply	Technology	Urbanisation - internally in KZN and externally especially into Gauteng
Supply	Technology	Socio-cultural sustainability
Supply	Technology	Skills and quality of service

6.5 Analysis Clustering Drivers and Uncertainties

6.5.1 Analysis of the Factors that Impact on the KZN Labour Market

In the following sub-section the factors identified above are analysed in terms of the following criteria.

Table 72: Analysis of Factors

NATURE OF INFLUENCE	To be distinct from the direction of the influence. This requires research and inputs from stakeholders as to the nature of the factor of influence.
DIRECTION OF INFLUENCE	To be distinct from the Extent of the impact: Positively impact on tourism market and product growth; Negatively impact on labour market and product growth and development; No or limited impact
DURATION	A measure of when and how long the factor of influence is likely to have an impact. Short (0 to 3 years); medium (4 to 5 years); Long term (5 + years)
INTENSITY	A measure of the intensity of the impact: high; medium; low
EXTENT	A measure of the area of impact i.e. region (specify), provincial, national, international
IMPORTANCE	Likely to be an Important or Unimportant influence. This value judgement is arrived at from the preceding analysis
PROBABILITY	Certainty or Uncertainty of influence. This value judgement is arrived at from the preceding analysis

6.5.2 Clustering Drivers and Uncertainties

Predetermined elements are developments and logics that work in scenarios without being dependent on any particular chain of events. That means, a predetermined element is something that seems certain, no matter which scenario come to pass. For example, the most commonly recognized predetermined element is demographics, because it is changing so slowly. Decision makers can commit to some policies and feel sure about them. There are several useful strategies for analysing predetermined elements. For example, slow-changing phenomena like the growth of populations or the building of physical infrastructure. It could include constrained situations, where departments or companies have at least for a certain time, no choices.

In every future scenario there are critical uncertainties. Scenario planners seek them to prepare for them. Critical uncertainties are often related to pre-determined elements. They often related to base assumptions about predetermines elements and chains of predetermined elements. One method to identify the most important critical uncertainties is, to rank key factors and driving forces on the basis of two criteria: first, the degree of importance for the success of the focal issue or decision identified in step one; second, the degree of uncertainty surrounding those factors and trends. The point is to identify the two or three factors that are most important and most uncertain. These factors are forming then the basis for the different scenarios, because the goal is to end up with just a few scenarios whose difference make a difference to decision-makers.

The clustering of the Drivers and Uncertainties of the factors of influence takes place by means of the following matrix analysis:

Table 73: Matrix Analysis of Key Drivers and Uncertainties

	IMPORTANT FACTORS	LESS IMPORTANT FACTORS
FACTORS OF CERTAINTIES	**DRIVES**: Factors that are certain to take place and are important are grouped together in logical forces of change	These factors are considered to be of peripheral importance
FACTORS OF UNCERTAINTY	**WILD CARDS**: Factors that are Important but that are Uncertain as to their occurrence becomes Wild Card in scenario planning	These Factors are discarded as part of the scenario plan from direct consideration

The Key Drivers and the Wild Cards become the main components that are used in the formulation of the scenarios. The analysis of the factors of influence are leads to the grouping of the drivers and the wild cards as presented in the following table.

A noticeable characteristic of scenario planning and the identification of the clusters of drivers and wild cards are that there are often divergent and also overlapping factors in both groupings. Many if not most of the drivers and the wild cards will not have a simplistic impact on the future development of the Province. In many instances similar or related factors of influence will have both elements of certainty and uncertainty imbedded in the impacts on the economy, society, political and technological components. This is reflected in the table below where a number of drivers and wild cards are seemingly on both side of the spectrum.

The Drivers and Wild Cards listed in the following table informs the formulation of the scenarios in the following section.

Table 74: The Key Drivers and Wild Cards in the KZN Environment Identified

ECONOMIC DRIVERS AND WILD CARDS	
DRIVERS	**WILD CARDS**
ECONOMIC SECTORS IN KZN	**ECONOMIC SECTORS**

Agriculture	Clothing and Textiles
Agriculture, food production	Education
Agro processing	Construction
Food Sciences	Manufacturing and Engineering
Creative Arts	
Green Economy	**FINANCE AND FUNDING**
Maritime	Government funding
Tourism	Lower commodity prices
Chemical and biotechnology	National minimum wage
Business outsourcing	
ICT	**GENERAL NATIONAL ECONOMIC FACTORS**
Services	Enhance Industrial and Economic Development
	SA Economic growth in the future
DEMAND FOR SKILLS	Development and expansion of the harbours of KZN
Development Finance	
Applied Sciences	A generalized slowdown in emerging market economies;
Business Management	
Communication & Media	**GLOBAL ECONOMIC FACTORS**
Medical	China's economic slowdown;
Public Management	China's economy collapses
Health and Welfare	Europa's decline and Brexit
	Revival of the USA
	The uncertainties emerging from Brexit and EU
	Level of foreign direct investment
	Growth of other Africa markets
	Emerging markets
SOCIAL DRIVERS AND WILD CARDS	
DRIVERS	**WILD CARDS**
POPULATION AND DEMOGRAPHICS	**SOCIAL TRENDS**
Youthful population	Social cohesion

Changing demographic and its profile of SA / of the World **Poverty** **POPULATION MOVEMENTS** **Migration patterns out of the Province** **Urban rural migration and interactions** **LIFESTYLE CHANGES** **Growing middle-class** **Generation X and Y population profile** **Social media and new communications** **Health and healthy lifestyle** **Global security and risks of international migration and travel** **EDUCATIONAL AND SKILLS TRAINING** **Early Childhood Development** **FET Institutions** **Primary School** **Secondary School** **SETA Programming** **Workplace and Worker Education** **Internal private sector skills development initiatives** **Profile of skills withdrawal by occupations (readiness impact)** **Relevance and contribution of related SETA** **Awareness of ECD standards** **Early enrichment programmes** **Enrolment in Maths and Science** **Parental education programmes development** **Professional Associations**	**EDUCATIONAL AND SKILLS TRAINING** Higher Education Institutions Literacy and numeracy levels Secondary Indicators **WORK PLACE TRENDS** Labour relations Labour unrest and strikes Performance and achievement in general education **POPULATION AND DEMOGRAPHICS / SECURITY** Infant mortality Political conflicts and terrorism

Scarce and Critical Skills **CHANGING SOCIAL TRENDS** **Increased number of programmes which enhance employment and employability** **Security** **Entrepreneur-ship in all Sectors**	
POLITICAL DRIVERS AND WILD CARDS	
DRIVERS	**WILD CARDS**
Transformation and BEE Score card **National policy changes** **Policy Integration** **Impact of regulatory framework in performance and use of skills**	Capacity of the State to Deliver Services Local and Metro political power balance uncertainties and changes
TECHNOLOGY DRIVERS AND WILD CARDS	
DRIVERS	**WILD CARDS**
Growth of the global city eThekwini **Geographic location and economic centres** **Technological innovations and applications and related impact** **Mobile phone application and accessibility to a broad population** **Rural to urban migration** **Urbanisation - internally in KZN and externally especially into Gauteng** **SA bio-physical environment under stress**	Successes of large scale infrastructure projects Socio-cultural sustainability

6.6 Scenario Formulation

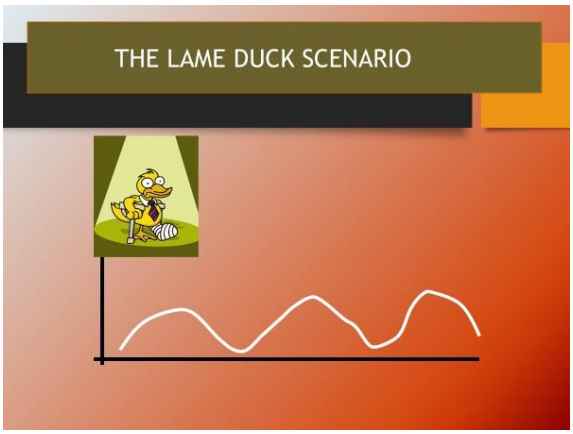
Scenarios describe how the driving forces might plausibly behave, based on assumption of predetermined elements and critical uncertainties.

The following three scenarios aims to create a picture for the future changes in the labour markets relating to current projections and potential influencers that can impact the positive or negative growth of the market over the long-term.

The scenarios take in the consideration the impact these key drivers will have. There are three possible scenarios that are unpacked in the following subsections.

6.6.1 The Lame Duck Scenario

The premise that this scenario is based on is that the socio-economic and political landscape of South Africa, and consequently also of the KZN Province, does not manage to recover in the long term. The economy moves through cycles of optimism and growth followed by periods of a loss of confidence and a declining economy.



The basis of this scenario lies in the political uncertainties that prevails in the country with frequently fluctuations in policy and strategies direction.

In terms of this scenario domestic and international confidence levels in the country remains low and therefore foreign direct investment is at a minimum. Little new production and business development takes place in the formal economy and little expansion of existing industries take place. The international competitiveness of the country fall resulting in further decline and even disinvestments from time to time.

Some of the larger infrastructure project of Government are successful giving rise to renewed confidence in the economy of the country leading to investments and employment creation. This is however short lived as political infighting, strive and corruption undermines the economy. Corruption levels increase leading to renewed levels of dissatisfaction. Nepotism and favouritism is at the order of the day and the divide between the haves and the have-nots increase.

The agricultural sector remains the backbone of the economy as does the export of raw materials with little beneficiation. Rural development remains one of the priority sectors of Government in an effort to alleviate poverty and also to counter the push and pull factors of urbanisation. The rural development and agricultural programmes suffer from a shortage of government injections and tends to fail soon after its implementation. This has further consequences of agricultural production and agri-processing that cannot take place at a large scale. The timber industry in the northern and southern parts of the province show growth but little processing of the raw timber takes place. It's produced mainly for the export markets.

The manufacturing sector in higher valued goods flounders although basic goods are produced at a localised level. The need for skills in the higher skill levels is low with demand mainly for lowly skilled personnel and basic levels of employment. The dream of decent employment remains a dream.

Export levels, other than of basic raw materials and agricultural produce, is low. Due to the general lack of adequate income levels, import levels also remain low other than basic materials and equipment. This has a direct impact on the harbours of KZN with little new investment and upgrading of infrastructure taking place. The harbours which used to be the growth engines of KZN flounders and are unable to boost the economy of the province.

The construct and building industry is at a low level of performance other than for the housing sector. Government maintains its housing programmes as one of the key job creation industries in the country and in province. Poorly located human settlement programs on cheaper and therefore in the further outlying areas places an additional financial burden on poor communities that now has to travel long distances to get to work and shops.

The retail sector is one of the few private sector areas that still shows growth potential although it is at an increasing low level and mainly for entry level goods and services.

The transport industry is under pressure due to the fall in demand and an increase is seen in smaller scale localised transport companies. Increasing cost of maintaining the aging infrastructure discourages investment in the industry which becomes less competitive. Opportunities exist for transport contracts into the rest of Africa and a gradual move of high level transport companies into the rest of Africa takes place.

Due to the poor performance of the economy in general, exchange rates fall alleviating the difficulties of the export industry somewhat. Imports declining further due to the low value of the Rand. One positive outcome this the fall in the Rand value is that the tourism industry continues to grow. This is however mainly in the foreign international markers attracting high end tourists. The benefits of the high income travellers visiting the country is however relative small and of little benefit for local disadvantaged communities. Domestic tourism flounders further and many accommodation and tourism attraction products suffer due to the fall in demand and low prices.

Tertiary sector businesses remain relatively robust and is mostly associated with Government and donor country contracts. High skilled and technology advanced business fail decreasing the demand of highly skilled personnel.

The informal sector grows due to the larger numbers of unemployed persons that entre the labour market. Due to international pressures business already active the Green Economy experience some growth and development. Infrastructure development, the building and construction industry are in decline although maintenance programmes from time to time provides relieve to the industry.

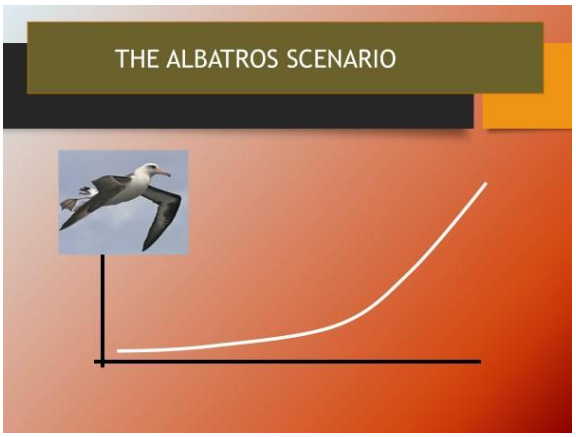
The floundering economy holds in dire consequences for civil society. Social strife and labour and student unrest becomes a normal occurrence. Long term strikes and go-slow initiates often undermines the efficiencies of industry and business. The main impact is felt by the lower income communities so that poverty levels are on the increase.

This gives rise to two main social trends. One the one hand urbanisation takes place rapidly. The youth and opportunists tend to flow to the urban concentrations mainly located at the metros. This leads to the rise of new shanty towns and urban based poverty. One the other hand, the disenchanted returns to their rural roots where they try and revive their farms.

The demand for welfare services increases and health service comes under severe strain. Medical service consequently flounders and social and mental illnesses in communities' increase.

A general brain drain of the Province takes place; to Gauteng mainly but also to foreign countries. Population growth increases and the average household size increases due to the uncertainties and to counter the rising cost of living and shortage of housing. The youthfulness of the populations consequently increases and the demand for education, health and welfare service place further burdens on Government services. Safety and security becomes and major problem and services in many communities face collapse.

6.6.2 The Albatross Scenario



The premise that underlies this scenario is based on a long term but slow recovery of the economic starting initially with weak but steady growth. New investment in the economic is initially at low levels but due to growing levels of confidence and a stabilisation of the political landscape, investment and employment creation continues to improve.

In KZN the economy is slow to respond to the positive recovery of the national economy. The main flows of foreign direct investment are mainly to Gauteng and Western Cape at first and slowly expands to KZN. However, the gradual stabilisation of the Rand and the return of confidence in the country leads to increases in international trade that boosts the harbour throughputs. The KZN economy responds to the change in investor climate and starts to branch out to the rest of the Provincial economy.

Agriculture, and the export of processed produce leads to a revival of the rural economy of the province. The smaller towns see a slow return of economic activity driven by the provision of agricultural based services. This in turn leads to a recovery of the retail sectors and business services.

The manufacturing sector in KZN is however, slow to respond but reaches a critical point in the medium term and then takes off. This leads to high growth rates, at first from a small base, but increasing becomes robust and in the long term experience high levels of sustainable growth and development. The industrial sectors that responds first to the turnaround in the economy are the base sectors vested in agriculture, transport and related industries. Later, in the medium to long term, the higher technology sectors also respond positively leading to an increase in demand for higher skilled persons especially in the chemical and related industries.

The competitiveness of the country increases attracting more international investment leading to an expansion of existing businesses and the creation of new enterprises. Small and medium level firms respond positively to new opportunities and employment opportunities increases rapidly in the medium term. The new investments also lead to a

growth in the construction and building industry and the human settlement programmes of government received renewed injections of capital.

The increase in household income and expenditure levels lead to an increase in domestic tourism. KZN benefits most from the growth in this market sector as its beaches and nature resources in the form of the World Heritage Sites and Nature Reserves remain popular attractions. This is followed by an increase in foreign tourism and both international and rest of Africa trips to the Province increases. Local communities especially along the coast benefits form the increase in tourism and local investment by private sector entrepreneurs expands. Small businesses, retail shops and general business services industries follow the expansions along the coast.

The initial focus of new investment and growth along the coast spreads in the longer term to the rest of the Province and the in land regions start to experience new investments. First in agriculture and later in other sectors. The growth in the agriculture sector is broad based, making use of the animal husbandry, field crop and horticulture opportunities of the province. The dairy industry in the province recovers and there is a return for the once booming industries i.e. abattoirs and feedlots, vegetable wasting and packaging plants and processing of field crops. Some of the agricultural industries such as the sugar processing mills however, do not recover. The higher cost of labour and value of coastal properties forces the industries to locate to the warmer neighbouring African countries.

The value of the Rand slowly recovers making imports more affordable leading to high end facilities and equipment to be maintained and developed. Efficiency levels and also the competitiveness of industries and business improves due to the investment in state-of-the-art technology. The demand for highly skilled personnel increases and there is an inflow of persons into the Province. The standard of primary, secondary and higher education facilities improves and there is a return to international recognition of the diploma and degree qualifications from KZN universities and technical institutions of learning. FET Colleges increases the quality and breadth of courses offered.

Poverty levels in the Province retreats in the longer term in the cities first and then in the rural areas. The growth in employment opportunities leads to a rapid urbanisation and the Metro and medium sized cities benefits from the increasing number of people and industry. Municipalities becomes sustainable and are able to address backlogs and the new growth in demand.

The population is a youthful one and the new optimism in the economy spills over to households. The population grows at relatively low levels but an urbanisation trends takes place and smaller household sizes creates a demand for housing and a return of higher property values. This, in turn, boosts the rates base of municipalities that are now able to initiate and sustain infrastructure development programmes.

6.6.3 The Soaring Eagle Scenario

The existing well developed infrastructure base and relatively high existing skills level in South Africa, enables the economy to respond quickly to positive political settlement and stability. This leads to a rapid increase in all economic activity across the board with accompanying employment growth and demand.

The new growth so initiated is sustainable due to the continued certainty of stability in the country and the growth of the economy. Society in general and also in KZN focus on building out the strengths of the economy and implementing the National Development Programme and the Provincial Growth and Development Strategy. The high immediate growths that take place in the short term feeds on itself and the high level of confidence in the country boosts foreign and domestic investment.

The investment by private sector and the positive change in production capacity grows the coffers of government and it is able to implement most of its large scale infrastructure and economic projects. International investors view the country favourable as one of the most attractive investment destinations globally. The competitive level of the country and KZN improves rapidly and the country is able to export more and practice inward economic growth, reducing the need to imports of essential goods. Agricultural development feeds agri-processing development which assists local manufacturing investment to take place. Higher technology based industries, especially in the Green Economy, give impetus to new innovations and Durban becomes and hub of new development in the creative industries and technology. The demand for high skilled personnel draws international experts to the Province and assists in establishing a robust international tourism base.

The fast growing economy experiences capital and cash flow short falls from time to time but is not sufficient to curtail the optimism that runs through society as a whole. Poverty eradication objectives are being met and this leads to greater urbanisation base on relatively low population growth. The population is however a youthful one and they are able to afford higher education and specialisation. The sectors that enjoys most attention are innovation technologies in the mobile and communication industries, chemical and related fields and innovation in agricultural technology and practices.

Exports grow at an exponential rate in spite of the sluggish global economy that persists in the short to medium term. The growth in exports means that the economy invests in upgraded and new production facilities increasing efficiency levels and productivity. Transport systems are developed to match the new efficiencies in the economy causing the KZN harbours for flourish and grow. Plans for new investment in the KZN harbours are brought forward and that, together with the higher throughputs of the harbours fuels growth in industry and supporting support services.

The construction industry requires skilled apprentices and therefore the need for improved capacities and standards in primary, secondary and higher education institutions takes place. Trainers and educators are in high demand and are attracted from Gauteng and abroad. The new brain gains in the Provence energises further innovation and Durban and the Province leads in the energy and telecommunication sectors.

The sustainability of local government municipalities and institutions is established quickly and the pace of basic service delivery increases. New approaches to water and sanitation provision, electricity distribution, generation and applications precedes hard infrastructure provision such as roads and rail developments. This causes some capacity back-logs in especially the transport infrastructure to development and over utilisation takes place from time to time. The ability of government to quickly identify problem areas and to allocate resources to such problem areas, enable the Province to quickly alleviate key problem areas.

Government revenue increases and the trade balance improves. Some of the critical long term commitments of treasury is addressed and the ever increasing strangle hold that high interest payments have on government is address. Government is able to allocate more resources away from paying international debts towards health, welfare and basic service provisions.

Communities are able to exit endemic poverty cycles due to the improved living conditions, unemployment levels are reduced and the informal sector contracts. Entrepreneurship and emerging businesses is on the rise and soon SMMEs become the main employer in the economy allowing it to respond quickly to changes and opportunities in the economy.

Social cohesion permeates the KZN society and political differences are addressed through the democratic and IGR systems. National, provincial and local government work in unison to address the new challenges that develop in the economy.

6.7 Implications and Conclusions

Once the scenarios have been developed in some detail, then it is time to return to the key decisions identified in step one.

How does the decision respond to each scenario? What vulnerabilities have been revealed? Is the decision or strategy robust across all scenarios, or does it look good in only one or two of the scenarios?

If a decision is positive in only one of several scenarios, then it qualifies as a high-risk decision, especially if the department has little control over the likelihood of the required scenario coming to pass. The question what should be discussed then by decision makers is, how the strategy should be adapted to make it more robust if the desired scenario shows signs of not happening.

The scenarios generated in the previous sections are fantasy and fiction. They have however been developed to highlight some of the key changes and factors that drives those changes whether as a positive influence or as an uncertainty. The value of scenario planning lies in the ability to fantasies about the future and therefore to think outside the box. Decision makers need to understand the factors giving impetus to the changes and the inter-relationships that exist between social, economic, political and technological influences. But most important, decision makes should be able to distinguish between those factors that they have an influence over and those that are exogenously generated and over which they have no control.

The synopsis of the main features of the different scenarios in the following table intends to assist decision makers in the broader HRD field to identify the factors that they have a decision making power over.

Table 75: Synopsis of the Key Characteristics and Features of the Scenarios

	LAME DUCK SCENARIO	ALBATROS SCENARIO	SOARING EAGLE SCENARION	COMMON AND DIVERGING FEATURES THAT EMERGE
MAIN CHARACTERISTICS	➢ Cycles of low growth and decline ➢ Diverging policies and strategies ➢ Low employment growth; unemployment and informal sector expansion ➢ Society strife and uprisings and declines in social cohesion. ➢ Demands for basic services and lack of consistent service delivery	➢ Confidence returns slowly in the economy; ➢ Low initial growth is expanding slowly but eventually, in the longer term, grow exponentially; ➢ Sustainability permeates the economy and flows over to service delivery ➢ Low skills required initially but a demand for highly skilled personnel eventual emerges	➢ Confidence returns quickly in the SA society in political systems ➢ The existing strong base of infrastructure and skills in the country enables rapid growth ➢ Foreign and domestic investment drives new production capacity expansion ➢ Poverty is addressed.	➢ Levels of confidence ➢ Investment ➢ New capacity ➢ Competitiveness ➢ Expansion of existing industry and business ➢ Agriculture ➢ Manufacturing ➢ Exports and imports ➢ Harbours of KZN ➢ Construction and building ➢ Housing ➢ Rural development ➢ Transport ➢ Rand value exchange rate ➢ Tourism and the creative industries ➢ Tertiary sector businesses ➢ Government services - national and local ➢ Informal sector ➢ Green economy ➢ Innovation ➢ Infrastructure maintenance ➢ Service delivery
POLITICAL SYSTEMS	➢ Political strife and uncertainty	➢ Slow return of confidence levels in the political landscape	➢ Political confidence returns quickly and ➢ National and local political fragmentation disappears. ➢ Sound policies and strategies are implemented	
ECONOMIC SYSTEMS	➢ Bouts of low growth and decline ➢ Lack of investment ➢ Agriculture is the back bone of the KZN economy ➢ Contracting formal economy and growth of the informal sector	➢ New investments flow slowly into the country ➢ Capacity expansion of locally produced goods and services returns, initially slowly and then more rapidly	➢ Strong infrastructure and skills base of the country are the foundation building blocks ➢ New investment takes place with vigour	

	LAME DUCK SCENARIO	ALBATROS SCENARIO	SOARING EAGLE SCENARION	COMMON AND DIVERGING FEATURES THAT EMERGE
	➢ Both exports and imports decline ➢ Low skill requirements and falling educational and skills training standards ➢ Corruption is at the order of the day ➢ Exchange rate falls ➢ International tourism improves but domestic tourism flounders	➢ Agriculture remains the back bone of the economy ➢ Manufacturing takes off in KZN very slowly ➢ Growing levels of exports and imports that triggers harbour development ➢ Transport sector develops ➢ Technology industries respond in the longer term ➢ International and domestic tourism improves over time	➢ Balance of payments improves and SA rids itself of its debt burden ➢ Competitive position of SA is restored ➢ Demand for highly skilled personnel is significant ➢ Exports and imports increases; SEZ programmes and other large scale project takes off ➢ Development of the KZN harbours takes place and fuels further growth especially in the transport sector. ➢ Tourism is an important growth sector	➢ Technology – mobile ➢ Social strife ➢ Health Medical services ➢ Welfare ➢ Student and labour demands and unrest ➢ Poverty ➢ Food security ➢ Rural development and agro-processing ➢ Higher skilled brain drain ➢ Private sector educational programmes for the privileged ➢ Population growth ➢ Youth ➢ Urbanisation ➢ Safety and security
SOCIAL SYSTEMS	➢ Social strife and community failures emerge ➢ Labour relations deteriorates and student unrest becomes and common feature of KZN ➢ The population remains youthful ➢ Urbanisation increases rapidly leading to urban shanty towns and	➢ Household income increases slowly and progressively ➢ Service delivery improves together with the construction and building industry ➢ Poverty is halted and then slowing declines ➢ The population remains youthful ➢ Urbanisation takes place ➢ The construction industry lags behind the other	➢ Household income levels increases ➢ Poverty levels decreases rapidly ➢ Human settlement programmes receive new injections ➢ Education and training standards increases ➢ Rural development takes place on the back of agricultural development and agri-processing	

	LAME DUCK SCENARIO	ALBATROS SCENARIO	SOARING EAGLE SCENARION	COMMON AND DIVERGING FEATURES THAT EMERGE
	➢ There is a somewhat return to rural areas and small scale agriculture	sectors by eventually takes off		
TECHNOLOGICAL SYSTEMS	➢ Communication and technology sectors remain robust	➢ Communication and technology sectors remain robust	➢ Communication and technology sectors become key innovation sectors ➢ Technology innovation permeates all facets of society and the economy	

7. KZN Labour Market Employment Growth Projections

The Section takes the previous scenario plans further into an interpretation of future employment growths in KwaZulu-Natal. Thus, based on the results and principles of the scenarios, alternative future employment growth estimates are made taking the historical trends and current reality into account.

This Section accordingly deals with the following aspects:

- Current Reality in The KZN Labour Market; 1993 To 2015
- KZN Labour Market Growth Projections; 2015 To 2030
- KZN Labour Market High Growth Projections; 2015 To 2030
- KZN Labour Market Medium Growth Projections; 2015 To 2030
- KZN Labour Market Low Growth Projections; 2015 To 2030
- Conclusion: KZN Labour Market Medium Growth Projection.

7.1 CURRENT REALITY IN THE KZN LABOUR MARKET; 1993 TO 2015

The long-term historical growth trend of South African's total labour force which includes formally and informally employed person, grew at an average annual compounded growth rate of 1,9% between 1993 and 2015. Compared to this the KZN's total labour forces expanded at an average annual rate of 1,5% which is below the national rate indicating that KZN has lost some ground in employment terms against the national average. The historical growth trends are shown in Tables 3 and 4.

The economic sectors most responsible for the relatively low growth of the economic are the primary and the secondary sectors[8], at national and KZN levels the primary sector contracted in employment terms by about 3% pa between 1993 and 2015 and the secondary sector contracted between 1,3 and 1,7% respectively in the country and KZN. The tertiary sector made up for the loss of the other two sectors by growing at an average annual growth rate of 4 % in the case of the country and 3,4% in KZN. This means that the loss in contribution that KZN suffered to the national average lies in the relatively lower growth rate of the Tertiary Sector.

Table 76: RSA Total Employment (formal and informal sectors) Per Major Economic Sector, 1993 to 2015

RSA PER MAJOR SECTOR	1993	2000	2005	2010	2015	% AVE PA
I1: Primary sector	2 214 151	1 943 450	1 682 215	1 277 924	1 511 825	**-3,1**

[8] The primary sector includes agriculture and mining; the secondary sector includes manufacturing, utilities and transport; the tertiary sector includes trade and warehousing, business and personal services, general government and community services.

I2: Secondary sector	3 179 282	2 534 080	2 533 489	2 448 709	2 702 651	**-1,3**
I3: Tertiary sector	7 220 729	8 083 503	8 628 275	10 056 106	11 520 911	**4,0**
Total	12 614 162	12 561 033	12 843 979	13 782 739	15 735 387	**1,9**

Table 77: KZN Total Labour force (formal and informal) Per Major Economic Sector, 1993 to 2015

KZN PER MAJOR SECTOR	1993	2000	2005	2010	2015	% AVE PA
I1: Primary sector	245 977	238 161	200 496	129 786	170 543	-3,0
I2: Secondary sector	573 965	470 014	460 587	432 731	464 428	-1,7
I3: Tertiary sector	1 178 811	1 302 550	1 380 123	1 580 222	1 775 233	3,4
Total	1 998 753	2 010 725	2 041 206	2 142 739	2 410 204	1,5

The loss in contribution that KZN suffered compared to the national labour force is shown by industry sector in Table 5. In overall terms KZN's contribution to the total labour force decreased from 15,8% in 1993 to 15,3% At industry level the greatest fall in contribution have been in the following sectors:

- Manufacturing;
- Electricity, gas and water; and
- Community, social and personal services.

Table 78: KZN Labour Force Contribution to The National Labour Force; 1993 AND 2015

TOTAL EMPLOYMENT	KZN % Contribution to National in 1993	KZN % Contribution to National in 2015
I01: Agriculture, forestry and fishing	14,9	15,8
I02: Mining and quarrying	1,5	1,8
I03: Manufacturing	20,8	19,3
I04: Electricity, gas and water	13,8	12,6
I05: Construction	14,9	15,2
I06: Wholesale, retail, catering accommodation	15,0	15,3
I07: Transport, storage and communication	16,6	16,1
I08: Finance, insurance, real estate and business services	14,7	14,5
I09: General government	16,8	16,9

I10: Community, social and personal services	18,7	15,1
I1: Total Primary sector	11,1	11,3
I2: Total Secondary sector	18,1	17,2
I3: Total Tertiary sector	16,3	15,4
Average all Sectors	15,8	15,3

Figure 6 and Table 79 record the total employed persons (formal and informal) in KZN from 1993 to 2015. The total number of employed persons increased from 1 998 753 in 1993 to 2 410 204 in 2015 and represents an average annual increase of 1,5%pa for the 22 years. The Agricultural and manufacturing Sectors experienced the greatest decline in employment while the Finance, insurance, real estate and business services sector experienced the greatest increase in employment over the period.

Figure 6: KZN Total Labour Force 1993 to 2015

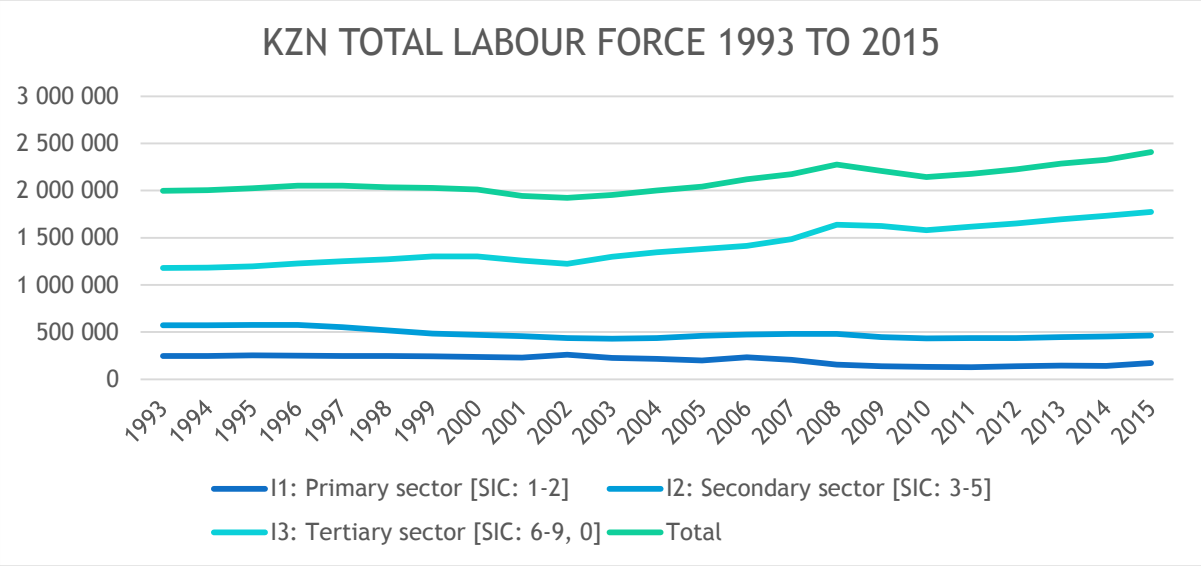


Table 79 KZN Total Employment per Industry 1993 to 2015

Total Employment by Industry	1993	2000	2005	2010	2015	% AVE PA
I01: Agriculture, forestry and fishing	236 588	232 015	192 558	120 809	161 908	-3,1
I02: Mining and quarrying	9 389	6 146	7 938	8 977	8 635	-0,6
I03: Manufacturing	356 675	330 081	324 249	279 622	264 884	-2,4

I04: Electricity, gas and water	7 215	6 943	6 761	7 561	8 245	1,1
I05: Construction	210 075	132 990	129 577	145 548	191 299	-0,7
I06: Wholesale, retail, catering accommodation	349 549	407 543	429 187	496 291	564 198	4,1
I07: Transport, storage and communication	123 128	92 858	97 527	120 635	140 719	1,1
I08: Finance, insurance, real estate and business services	145 191	237 277	288 145	325 558	357 541	7,8
I09: General government	251 244	237 913	253 181	300 702	332 495	2,3
I10: Community, social and personal services	309 699	326 959	312 083	337 036	380 280	1,7
Total	1 998 753	2 010 725	2 041 206	2 142 739	2 410 204	1,5

Figure 7 to 13 provides a graphic present of the employment trends per sector between 1993 and 2015.

Figure 7 KZN LABOUR FORCE BY INDUSTRY; 1993 TO 2015

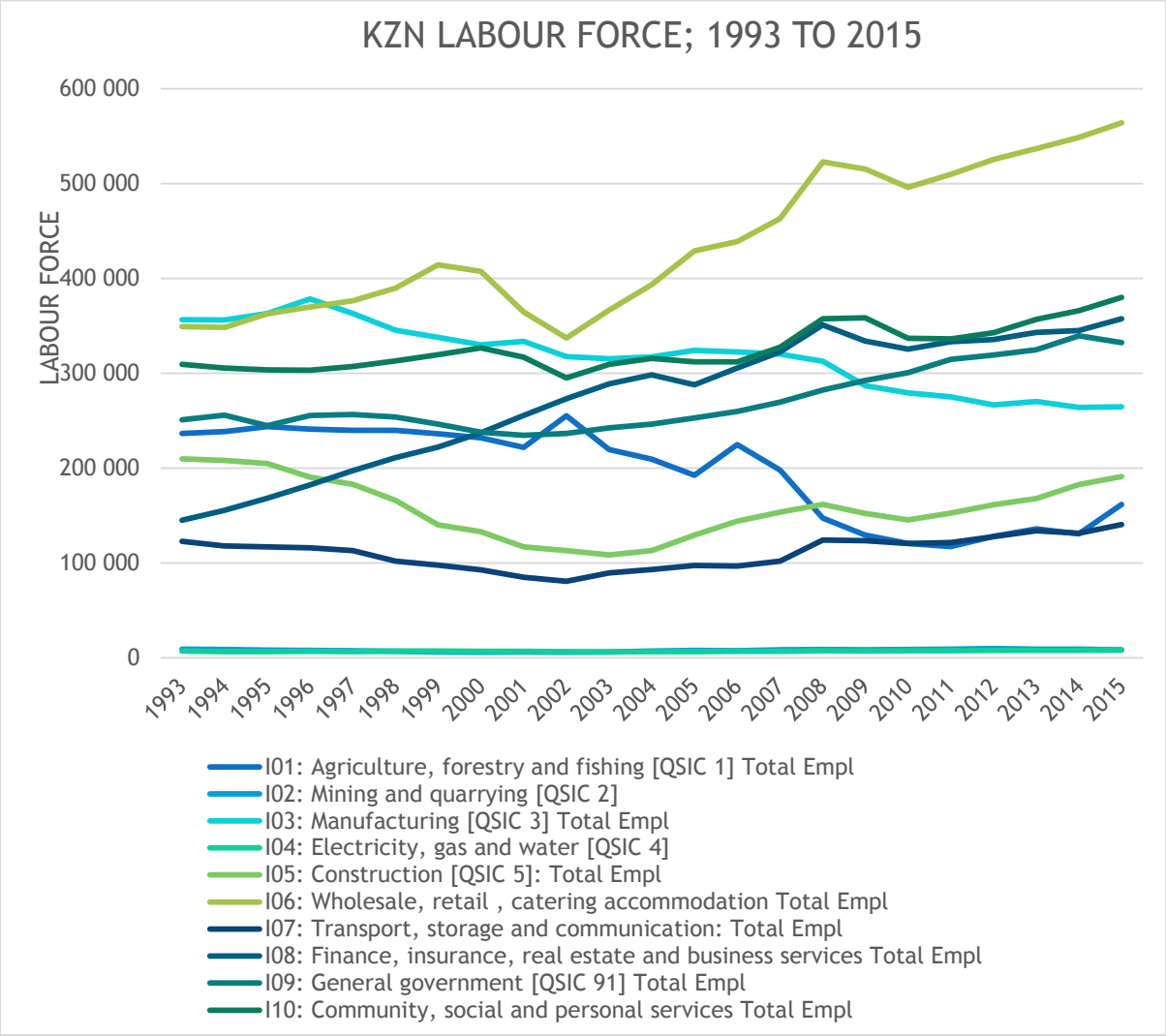


Figure 8 KZN Agriculture Labour Force Composition; 1993 TO 2015

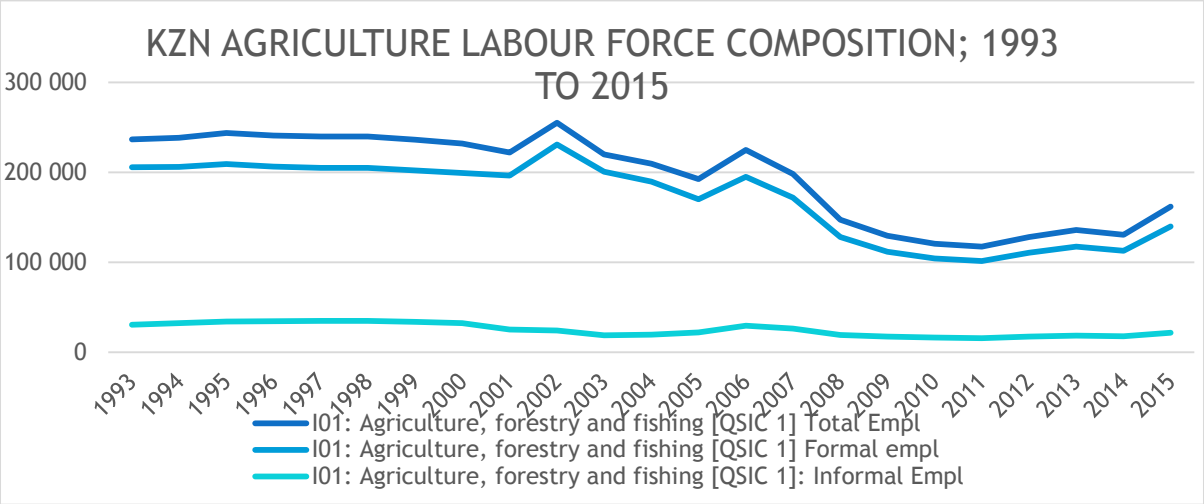


Figure 9 KZN Manufacturing Sector Labour Force; 1993 TO 2015

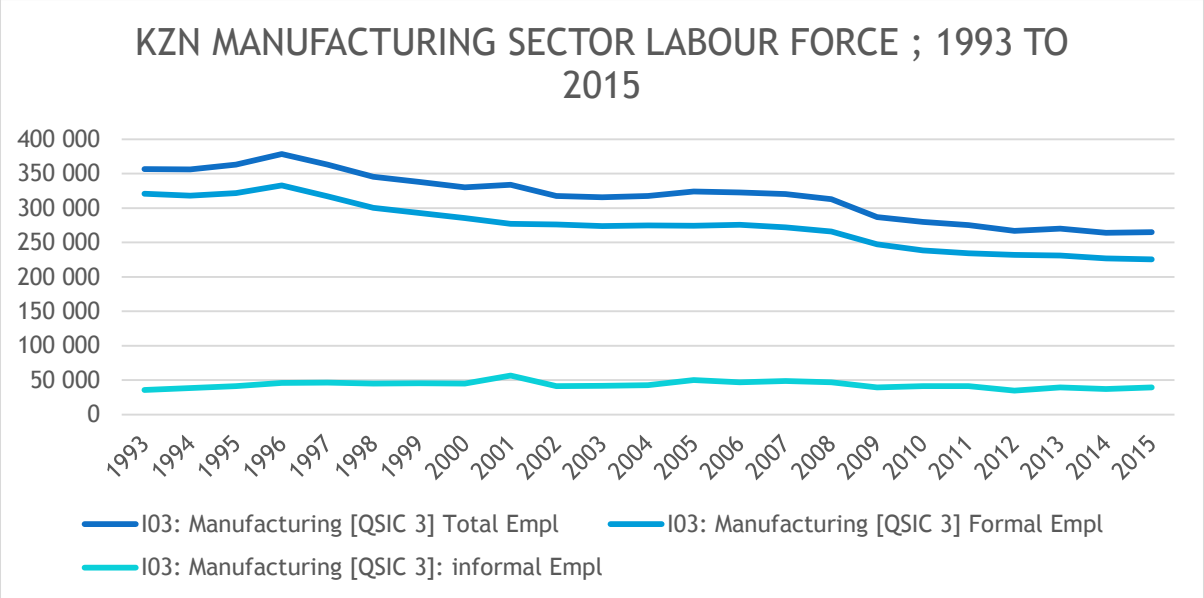


Figure 10 KZN Construction Sector Labour Force; 1993 TO 2015

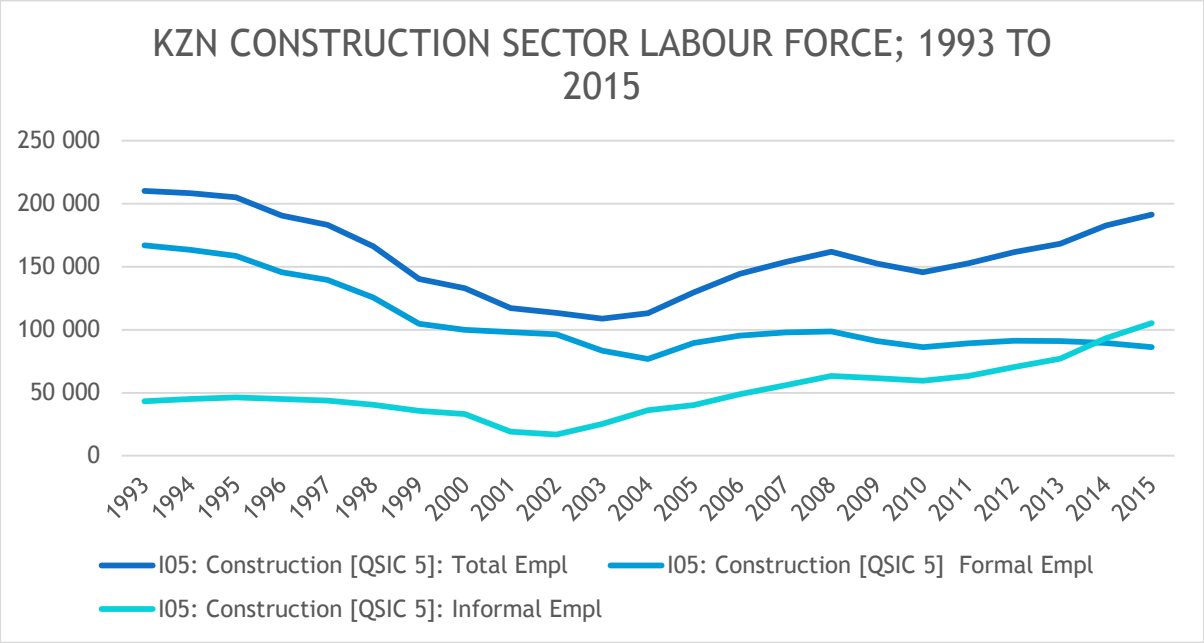


Figure 11 KZN Transport and Storage Labour Force; 1993 TO 2015

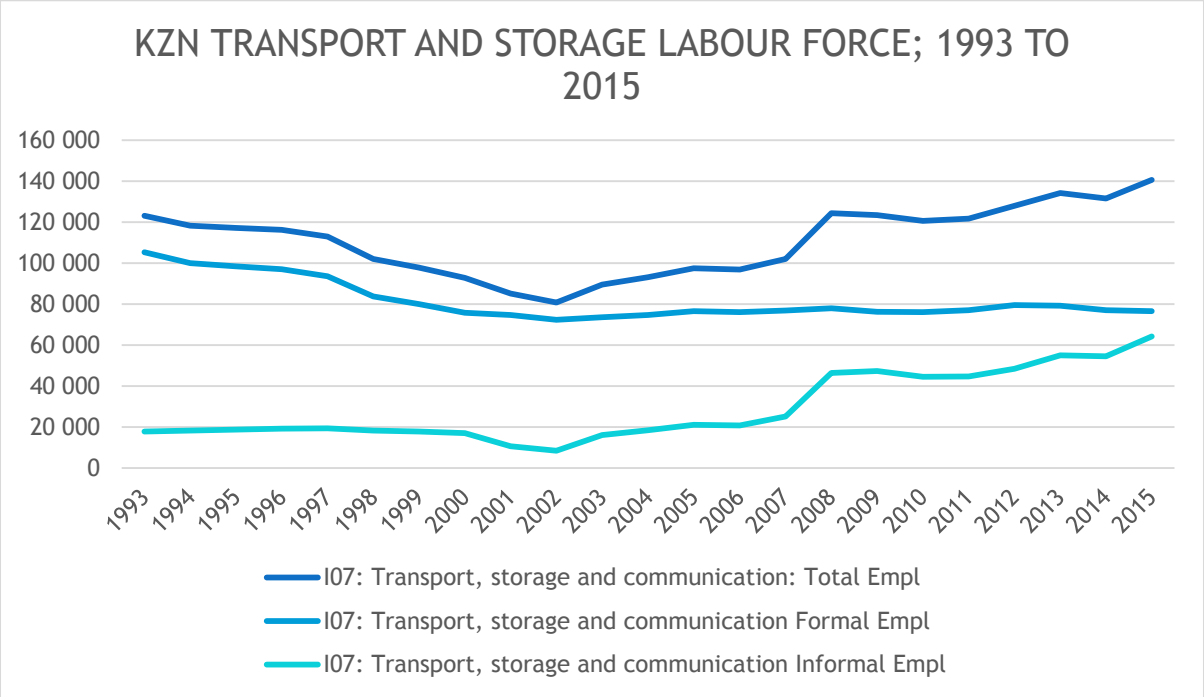


Figure 12 KZN Wholesale, Retail, Accommodation and Hospitality; 1993 TO 2015

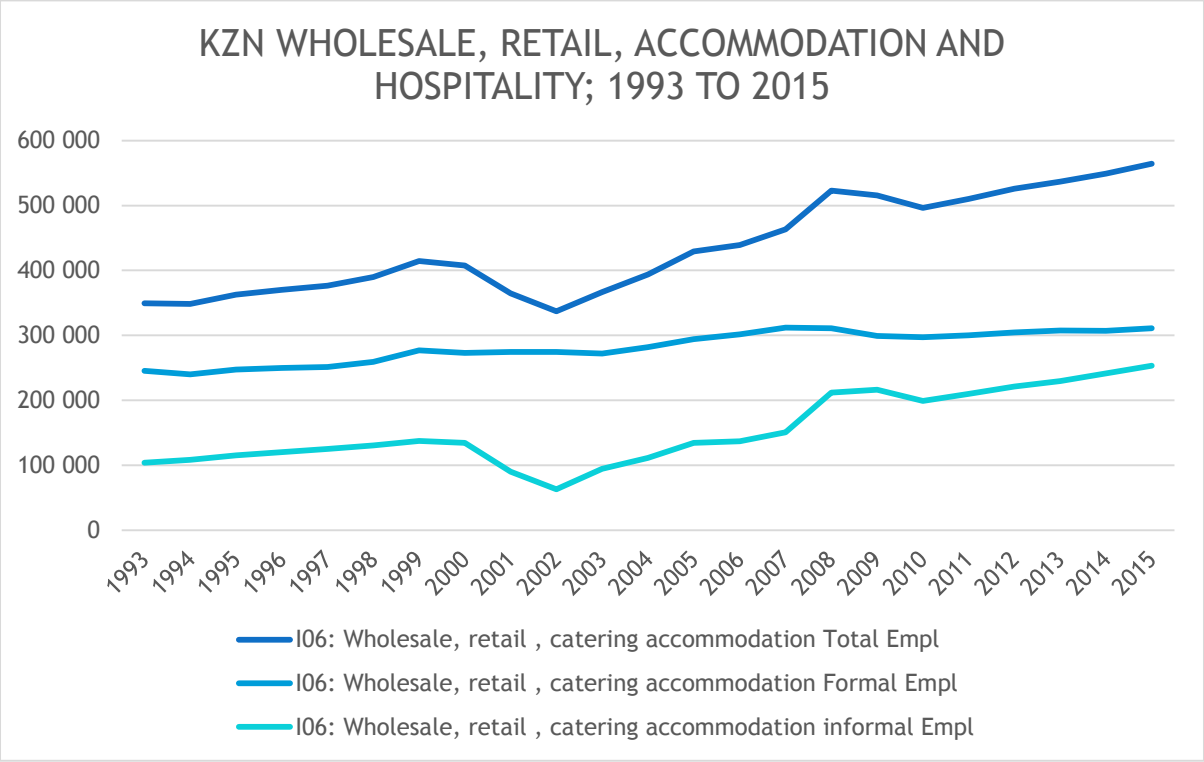
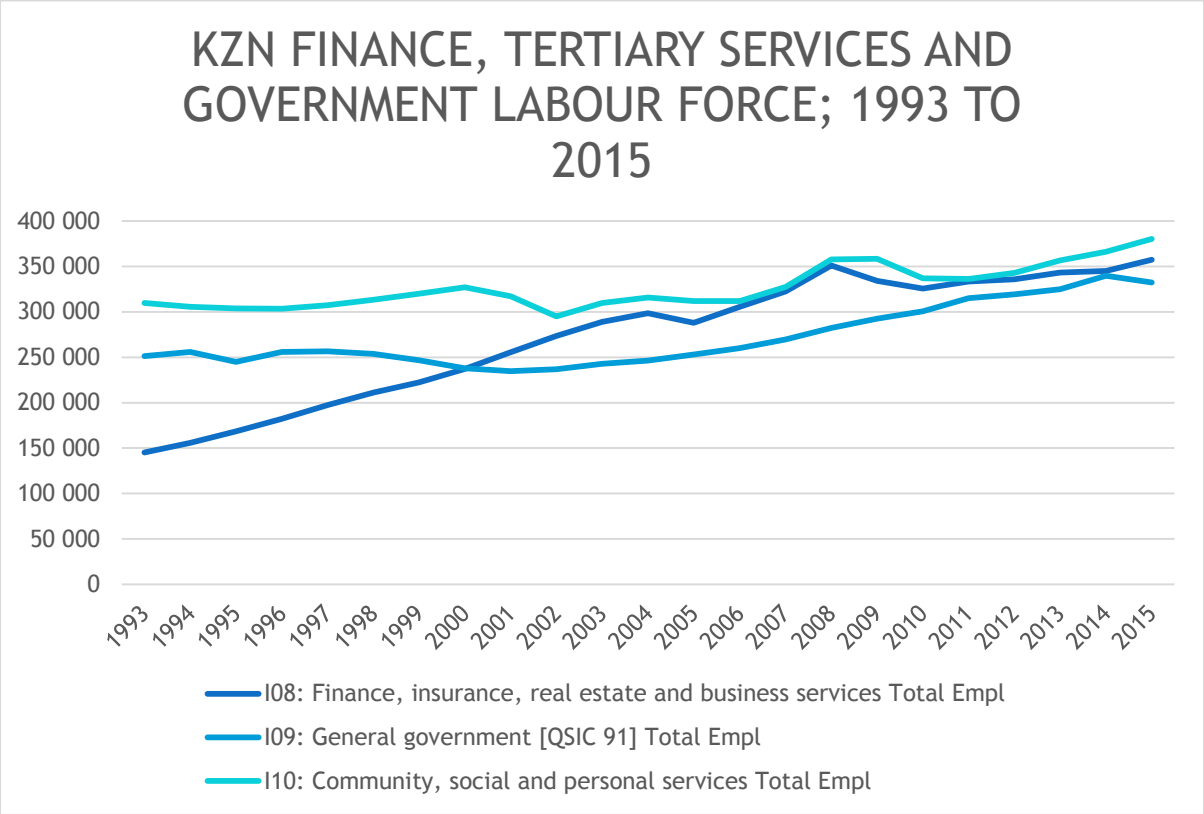


Figure 13 KZN FINANCIAL, Tertiary Services and Government Labour Force; 1993 TO 2015



7.3 KZN LABOUR MARKET GROWTH PROJECTIONS; 2015 TO 2030

The future economic and employment trends postulated in the National Development Plan and the KZN Provincial Growth and Development Plan has been used bases from which to project three possible employment growth trends for this project.

- The important parameters that have been taken into account are indicated in this section.
- The National Development Plan works on an average annual growth rate of 5,4%pa between 2011 and 2030;
- a fall in the strict unemployment rate from 25 percent to 14 percent in 2020 to 6 percent by 2030;
- A rise in the labour force participation rate from 54 percent in 2010 to 65 percent is estimated to be realistic;
- About 11 million additional jobs will be created nationally by 2030.

The economic model use in this project make provision for an increase in the participation rate and increase in formal employment based on the NDP parameters. The table 80 shows the structural change built into the model between 2016 and 2030.

Table 80 Decision Rule: Change In Economic Contribution Between 2016 To 2030 Per Sector: High, Medium And Low Growth Projections

Total Employment per Industry	% Economic Contribution 2016	% Economic Contribution 2030 **2030**
I01: Agriculture, forestry and fishing [QSIC 1] Total Empl	6,9	8,8
I02: Mining and quarrying [QSIC 2]	0,3	0,1
I03: Manufacturing [QSIC 3] Total Empl	10,7	8,3
I04: Electricity, gas and water [QSIC 4]	0,3	0,1
I05: Construction [QSIC 5]: Total Empl	8,1	10,1
I06: Wholesale, retail, catering accommodation Total Empl	23,4	23,4
I07: Transport, storage and communication: Total Empl	5,9	6,0
I08: Finance, insurance, real estate and business services Total Empl	14,8	14,1
I09: General government [QSIC 91] Total Empl	13,7	13,2
I10: Community, social and personal services Total Empl	15,8	15,6
Total	100	100

Based on the historical growth trends per sector and the estimated future growth of the national economy, a high, medium and low projection of the future employment in KZN is estimated. This is shown in Table 81 and illustrated in Figure 14.

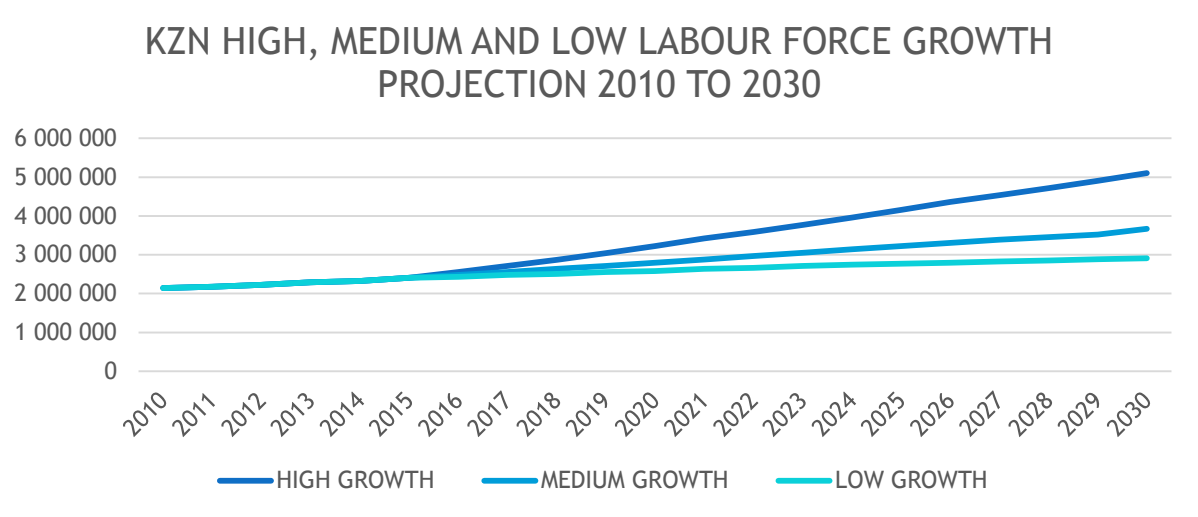
The Annexure contains the details of the formal and informal employment per sector for the high, medium and low projections.

Table 81 KZN High, Medium and Low Labour Force Growth Projection 2010 TO 2030

Industry	2015	2020	2025	2030	% Ave Annual Growth pa
HIGH GROWTH	2 410 204	3 225 397	4 155 719	5 104 684	5,13
MEDIUM GROWTH	2 410 204	2 794 087	3 223 389	3 664 326	2,83

Industry	2015	2020	2025	2030	% Ave Annual Growth pa
LOW GROWTH	2 410 204	2 583 558	2 769 381	2 910 647	1,26

Figure 14 KZN High, Medium and Low Labour Force Growth Projection 2010 TO 2030



7.4 KZN LABOUR MARKET HIGH GROWTH PROJECTIONS; 2015 TO 2030

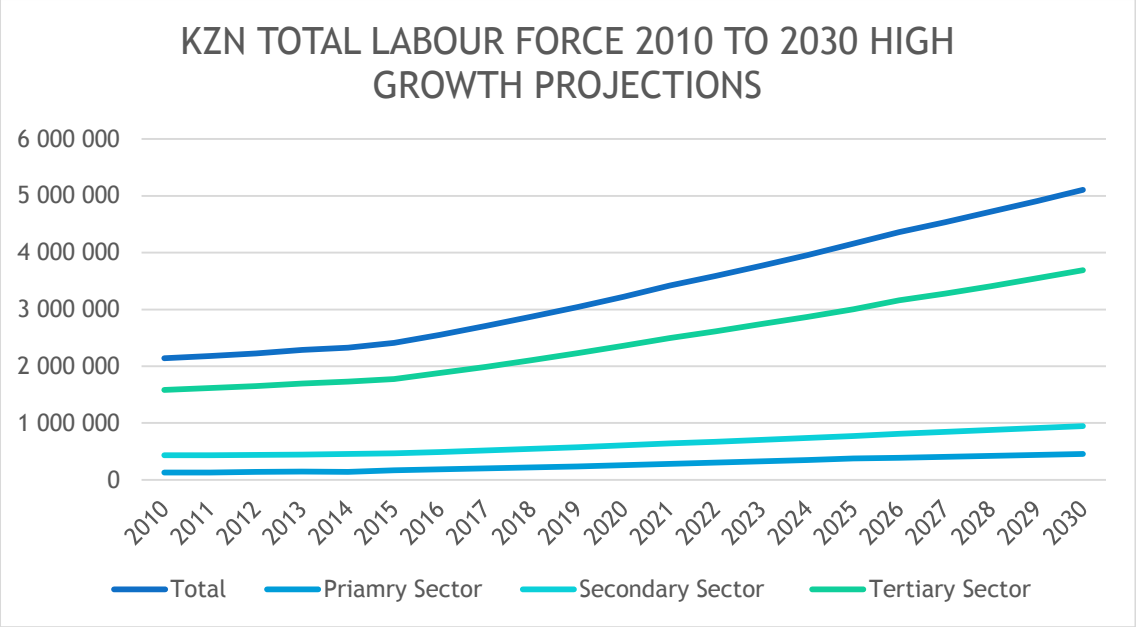
Table 82 and Figure 15 indicates the growth projections of the total KZN labour force for the high growth scenario.

Table 82 KZN Total Labour Force Projections - High Growth Per Sector

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing	161 908	250 784	372 815	451 526
I02: Mining and quarrying	8 635	7 491	2 277	3 813
I03: Manufacturing	264 884	307 506	340 463	424 851
I04: Electricity, gas and water	8 245	8 020	4 125	5 948
I05: Construction	191 299	291 284	425 703	516 452
I06: Wholesale, retail, catering accommodation	564 198	759 027	974 568	1 192 008

Industry	2015	2020	2025	2030
I07: Transport, storage and communication	140 719	191 462	248 648	305 293
I08: Finance, insurance, real estate and business services	357 541	466 385	583 239	718 700
I09: General government	332 495	435 958	547 895	674 818
I10: Community, social and personal services	380 280	507 479	649 694	798 682
Total	2 410 204	3 225 397	4 155 719	5 104 684

Figure 15 KZN Total Labour Force 2010 To 2030 High Growth Projections



7.5 KZN LABOUR MARKET MEDIUM GROWTH PROJECTIONS; 2015 TO 2030

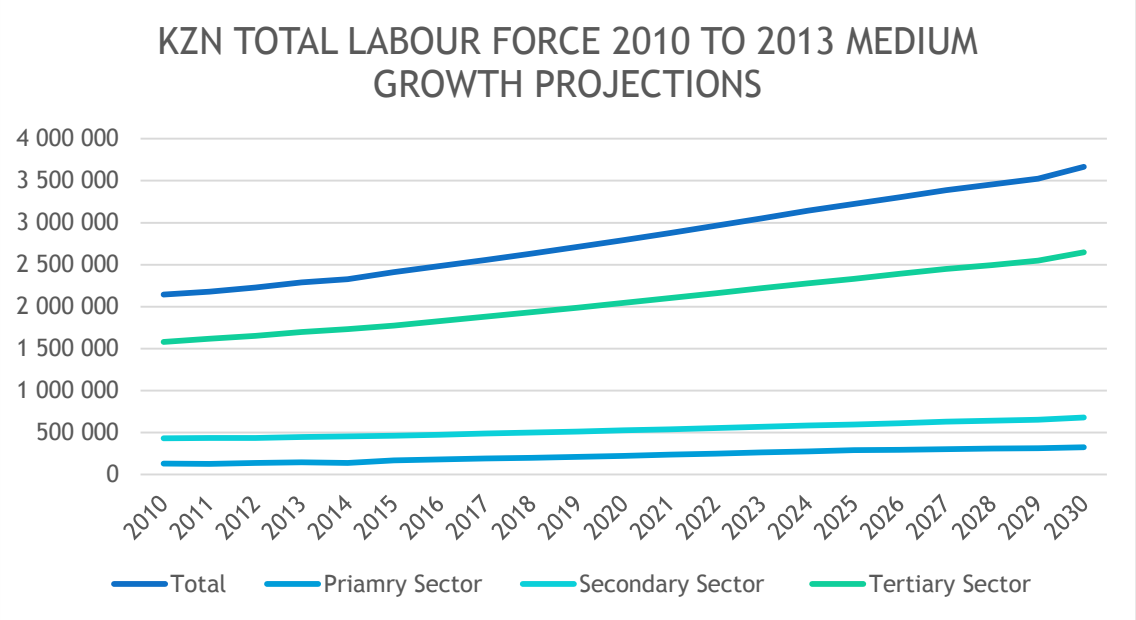
Table 83 and Figure 16 indicates the growth projections of the total KZN labour force for the Medium growth scenario.

Table 83 KZN Total Labour Force 2010 To 2013 Medium Growth Projections Per Sector

Industry Total Employment	2010	2015	2020	2025	2030
I01: Agriculture, forestry and fishing	120 809	161 908	217 248	289 174	324 122

Industry Total Employment	2010	2015	2020	2025	2030
I02: Mining and quarrying	8 977	8 635	6 489	1 766	2 737
I03: Manufacturing	279 622	264 884	266 385	264 081	304 974
I04: Electricity, gas and water	7 561	8 245	6 947	3 200	4 270
I05: Construction [QSIC 5]	145 548	191 299	252 333	330 197	370 728
I06: Wholesale, retail, catering accommodation	496 291	564 198	657 528	755 925	855 666
I07: Transport, storage and communication	120 635	140 719	165 860	192 864	219 150
I08: Finance, insurance, real estate and business services	325 558	357 541	404 019	452 390	515 909
I09: General government	300 702	332 495	377 661	424 976	484 408
I10: Community, social and personal services	337 036	380 280	439 617	503 936	573 323
Total	2 142 739	2 410 204	2 794 087	3 223 389	3 664 326

Figure 16 KZN Total Labour Force 2010 To 2013 Medium Growth Projections



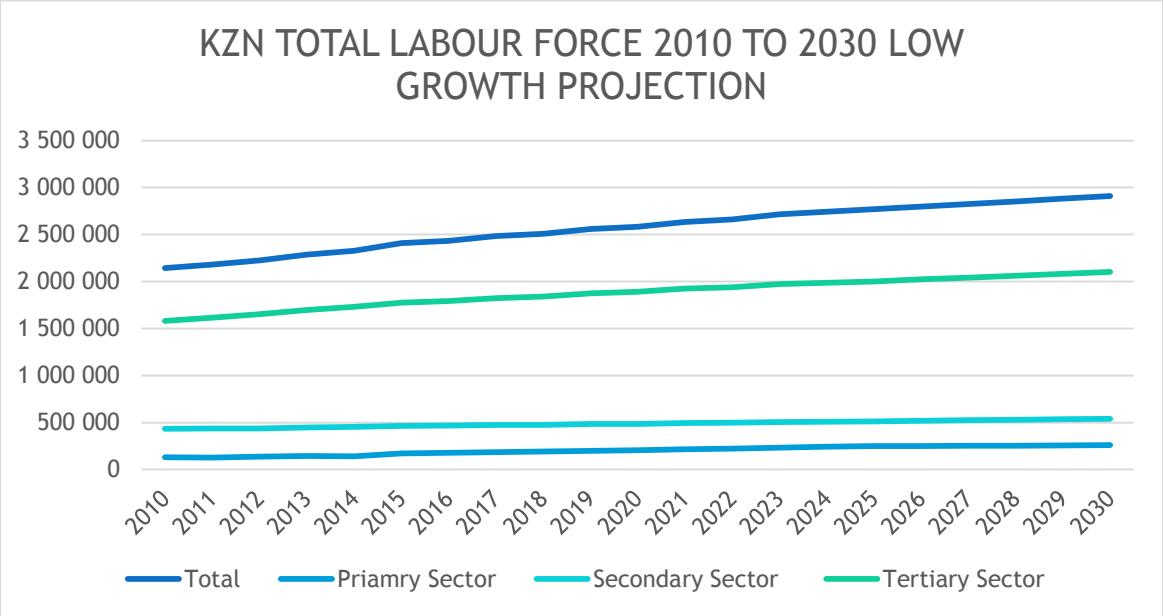
7.6 KZN LABOUR MARKET LOW GROWTH PROJECTIONS; 2015 TO 2030

Table 84 and Figure 17 indicates the growth projections of the total KZN labour force for the Low growth scenario.

Table 84 KZN Total Labour Force 2010 To 2030 Low Growth Projection Per Sector

Industry Total Employment	2010	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1] Total Empl	120 809	161 908	200 879	248 445	257 457
I02: Mining and quarrying [QSIC 2]	8 977	8 635	6 000	1 518	2 174
I03: Manufacturing [QSIC 3] Total Empl	279 622	264 884	246 313	226 885	242 247
I04: Electricity, gas and water [QSIC 4]	7 561	8 245	6 424	2 749	3 392
I05: Construction [QSIC 5]: Total Empl	145 548	191 299	233 320	283 689	294 477
I06: Wholesale, retail, catering accommodation Total Empl	496 291	564 198	607 985	649 455	679 673
I07: Transport, storage and communication: Total Empl	120 635	140 719	153 362	165 699	174 075
I08: Finance, insurance, real estate and business services Total Empl	325 558	357 541	373 577	388 672	409 797
I09: General government [QSIC 91] Total Empl	300 702	332 495	349 205	365 119	384 775
I10: Community, social and personal services Total Empl	337 036	380 280	406 493	432 958	455 402
Total	2 142 739	2 410 204	2 583 558	2 769 381	2 910 647

Figure 17 KZN Total Labour Force 2010 To 2030 Low Growth Projection



7.6 CONCLUSION: KZN LABOUR MARKET

Table 85 indicates, in conclusion, the medium growth projections per industrial sector. The table indicates that a nett total of about 1,25 million new employment opportunities at a medium growth projection will be created between 2015 and 2030. The most significant industrial sectors where such employment growth will take place are the Agricultural, Construction, Wholesale and Retail, Finance, General Government and Community services sectors.

Table 85 KZN Total Employment Medium Growth Projection - Additional Employment Opportunities 2015 to 2030

Industry	2015	2030	New Additional Employment Opportunities 2015 to 2030
I01: Agriculture, forestry and fishing [QSIC 1] Total Empl	161 908	324 122	162 214
I03: Manufacturing [QSIC 3] Total Empl	264 884	304 974	40 090
I05: Construction [QSIC 5]: Total Empl	191 299	370 728	179 429
I06: Wholesale, retail, catering accommodation Total Empl	564 198	855 666	291 468
I07: Transport, storage and communication: Total Empl	140 719	219 150	78 431

I08: Finance, insurance, real estate and business services Total Empl	357 541	515 909	158 368
I09: General government [QSIC 91] Total Empl	332 495	484 408	151 913
I10: Community, social and personal services Total Empl	380 280	573 323	193 043
Total	**2 410 204**	**3 664 326**	1 254 122

7.7 IMPLICATIONS AND CONCLUSIONS

Once the scenarios have been developed in some detail, then it is time to return to the key decisions identified in step one.

How does the decision respond to each scenario? What vulnerabilities have been revealed? Is the decision or strategy robust across all scenarios, or does it look good in only one or two of the scenarios?

If a decision is positive in only one of several scenarios, then it qualifies as a high-risk decision, especially if the department has little control over the likelihood of the required scenario coming to pass. The question what should be discussed then by decision makers is, how the strategy should be adapted to make it more robust if the desired scenario shows signs of not happening.

The scenarios generated in the previous sections are fantasy and fiction. They have however been developed to highlight some of the key changes and factors that drives those changes whether as a positive influence or as an uncertainty. The value of scenario planning lies in the ability to fantasies about the future and therefore to think outside the box. Decision makers need to understand the factors giving impetus to the changes and the inter-relationships that exist between social, economic, political and technological influences. But most important, decision makes should be able to distinguish between those factors that they have an influence over and those that are exogenously generated and over which they have no control.

The scenarios provide the basis on which the future employment growth of the sectors in the Province are estimated in terms of a medium, high and low projections are estimated. The results of the medium growth projection is summarised in the following table.

Table 86 KZN Total Employment Medium Growth Projection - Additional Employment Opportunities 2015 to 2030

Industry	2015	2030
I01: Agriculture, forestry and fishing [QSIC 1] Total Empl	161 908	324 122
I03: Manufacturing [QSIC 3] Total Empl	264 884	304 974

I05: Construction [QSIC 5]: Total Empl	191 299	370 728
I06: Wholesale, retail, catering accommodation Total Empl	564 198	855 666
I07: Transport, storage and communication: Total Empl	140 719	219 150
I08: Finance, insurance, real estate and business services Total Empl	357 541	515 909
I09: General government [QSIC 91] Total Empl	332 495	484 408
I10: Community, social and personal services Total Empl	380 280	573 323
Total	**2 410 204**	**3 664 326**

8. OVERVIEW OF CRITICAL ISSUES

8.1 Introduction

While in its simplest sense, effective human resource management, which is concerned with balancing the supply and demand of labour, effective planning and management of human resources on a provincial basis, is fraught with complexity. This complexity results from the wide range of factors which affect the supply of skilled people, the multiple factors which affect the dynamics of demand, and the host of factors which influence the capacity of the economy, and society, to always put the skills and talent of people to productive use. For this reason, the effectiveness of planning and management of HRD will depend on the extent to which it is possible to monitor and respond to this wide range of factors, and the extent to which it is possible to exercise policy control over the wide array of issues affecting supply, demand and the absorption of skills into the economy and society.

In effect, the strategic management of HRD is concerned with the supply of talent, the creation of opportunities for such talent to be used, and the management and control of the issues that affect performance in both these areas. Accordingly, the purpose of this chapter is to take a brief look at the secondary factors, or the factors that have an indirect influence on supply and demand. The chapter reinforces the understanding that the HRD equation, as perceived in supply and demand scenarios, may not be as simple as it first appears. In this regard, the chapter focuses on a limited, but specific, sample of core issues which must be considered in human resources planning, management and development in the Province. The chapter first presents a conceptual framework of issues affecting HR planning and management, and follows up with a brief discussion on each of these issues. The chapter ends with an overview of initiatives to be undertaken in effectively managing the issues outlined.

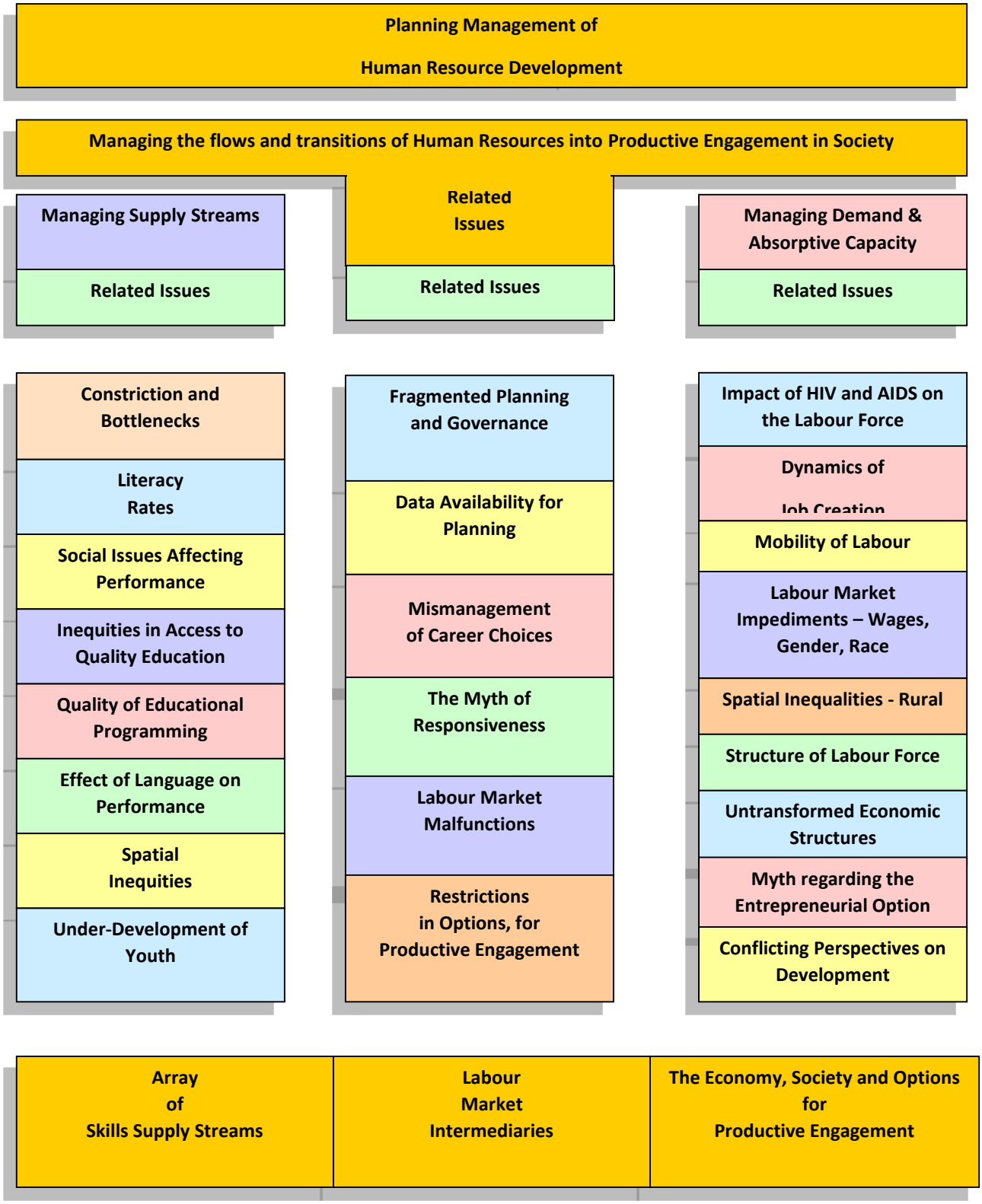
8.2 The Conceptual Framework on Issues

Figure 19 below presents a simplified framework of the issues that affect the planning and management of HRD. The issues are categorized or clustered into three primary areas, as follows:

- issues related to the management of the various streams of supply, or the management of institutions and establishments which prepare people with the relevant competencies and skills for employment or productive engagement;
- issues related to the management of employment demand for tracking and managing the absorptive capacity of the economy and society; and finally,
- issues related to the transition of people from education and training into productive roles in society.

Within these three main areas lies a field of critical factors that affect the development and engagement of people, and hence influence the planning and management of HRD. These issues will be discussed briefly below. It should be noted, however, that only key issues are presented and discussed under each of these headings. These issues seek to highlight the complexity of managing HRD, and they seek to note the importance of attending to and tracking an array of factors that are beyond the neatly packaged figures on the supply and demand for skills. Each set of issues will be discussed in their respective categories.

Figure 18: Conceptual Framework of Issues to be Considered in the planning and Management of HRD



8.3 Managing the Supply Stream

The supply of skilled people is, essentially, the graduation of individuals who are properly educated and trained from various institutions of learning and employment establishments, or from a variety of projects or programmes that seek to impart skills to people. It is anticipated that these avenues of supply will, in the end, be responsive to the needs of society and the economy, and will continue to develop people, from cradle to grave, for productive and responsive roles in society. In large measure, the society and the economy depend on the education and training system as the mainstay of skills supply. In a perfect world, one would be able to sum the graduates from various education and training programmes and determine the capacity and efficiency of society to prepare its people for productive roles. In a perfect world, the productive potential of all who are born in society will be fully developed and utilized, and the stream of supply will be responsive to the needs and dynamics of a vibrant and changing society. This is not the case because of imperfections in the supply stream, which affects the quality of preparation and the readiness of people for productive roles, the efficiency of the education and training system to provide opportunities for all to succeed, and the consistency of programming to ensure evenness in the quality of skills and readiness of people for productive roles. The associated issues are discussed briefly below.

8.3.1 Constrictions and Bottlenecks:

In light of the population of the Province, the availability of highly skilled and talented people is limited. Such constrictions in supply result from a variety of factors. These include: the low throughput of the education system resulting from dropouts and the inability of learners to successfully complete programmes; the limitation in the early years, of children's capacity to achieve academically in the future because of the health and social circumstances in which they are raised; the impact of HIV and AIDS and other communicable diseases on children, families and the labour force; to emigration of talented people out of the Province; and, among others the lack of proper articulation of programmes which will ensure a smooth flow of people into programmes of training across and between the level of education and training. As a result, the flow of talented people into society and the economy is inconsistent with the potential of the Province in light of its population.

8.3.2 Literacy Rates and Education Level of the Population:

The educational level of the population is a general indicator of the extent to which the human potential of the Province could be effectively applied in achieving its developmental priorities. It also represents the quality of the labour force, and it gives an overall sense of the productive potential of the population. While literacy and the education level of the population have increased steadily over the last 10 years, the overall quality of the labour force is still low in terms of skills, and in terms of the level of education achieved. According to the 2011 Census, 11% of the population have no schooling and 26% of the population have not completed primary school. In terms of the standard measures of literacy used by the census, there are still 382,000 (6%) people who cannot write their name. Eight percent are

unable to read, 11% are unable to fill in a form and 5% are unable to work out the change to be received when buying something (Table 86). A total of 631,000 or 9% of the population are unable to read road signs. While there is a higher level of education participation among youth, and while this has accounted for an overall increase in the level of education of the population, this increase has masked some of the key problems that still exist. The labour force is still predominantly a low-skilled labour force with 80% of all workers classified as unskilled or semi-skilled. The level of education of the population affects the education and welfare of children, since a large percentage of parents, young and old, do not have the educational foundation necessary to effectively support their children at school. The quality of skills supply is compromised, and the productive potential of the population is not maximized.

Table 86: Population Aged 15 Yrs. And Older with Level Of Education Lower Than Grade 7 Who Have Some/A Lot Of Difficulty/Unable To Do Basic Literacy

DEGREE OF LITERACY	KWAZULU-NATAL	SOUTH AFRICA	% of KZN POPULATION (6,987,781)
Writing name	380	1649	6%
Reading	543	2637	8%
Filling in a form	748	3714	11%
Writing a letter	602	2900	9%
Calculating/working out how much change should be received	371	1474	5%
Reading road signs	631	2690	9%
Total population aged 15 and older with level of education lower than Grade 7	1348	5835	19%
Total population aged 15 years and older	**7167**	**34996**	**6,987,781**

Source: StatsSA 2011 Census

8.3.3 Social Issues Which Affect the School:

The quality of supply or the educational capacity of people, is also compromised by a wide range of social issues which affect schools and schooling; and an array of factors which limit their potential for development and the opportunities that are available to them as children and youth. Poverty, unemployment, crime and violence, and the absence of positive role models are some of the factors that affect learners, their capacity and their aspirations. Hungry learners are sometimes physically unable to cope academically; learners who are physically affected by family violence are unable to perform; some learners live in fear and insecurity because of the violence in communities and in their schools. They too, sometimes have difficulties coping educationally. Without adequate social support, these

circumstances affect the overall performance and achievement of learners, and hence affect the ability of the Province to fully benefit from the potential in its people.

8.3.4 Inequities in Access to Quality Education:

Schools are not all equal in their capacity to deliver educational services; and hence, learners do not have equal access to schools that offer quality educational programmes. This distinction is clear at all levels of the education system – ECD; primary and secondary schools; and higher education. The distinction is even evident in learnerships and apprenticeships, and in various types of short term skills programmes. At the lower levels, access to quality is determined by geographic location, by socio-economic status and by a variety of other social and economic factors. At the higher levels, this distinction is determined primarily by academic status and performance, economic means and by membership in designated groups with preferential status. The end result is the existence of a highly-differentiated system of supply, where access to quality is restricted, where economic means usually guarantees accessibility, and where different streams of preparation produce different quality of graduates and have different prospects for success.

There is a need for young girls to study to perform well in mathematics, science, engineering and technology subjects from Foundation phase. Educators' attitudes, knowledge and skills should be enhanced in order to develop appropriate teaching interventions for these subjects for teaching young girls and children with disabilities. The curriculum is currently not engendered and teachers have not been trained to deliver the curriculum in a gender sensitive manner. The Department of Basic Education (DBE) should, implement recommendations of studies such as the GETT study from Foundation Phase onwards, to ensure that the curriculum is engendered. Institutions of Higher Learning (IHLs) should implement appropriate curricular and development programmes for teacher trainees. These should be monitored on a regular basis.

8.3.5 Quality in Educational Programming:

Differences in the quality of graduates result from differences in the availability of resources to programmes, and, consequently, differences in the quality of programming and the thoroughness of training. Differences in resources will include differences in the quality of teachers, the availability of learning resources and facilities, the accessibility of practical training, and, among others, the availability of a wide range of learner support services. While these differences are observed in the quality of programmes among public institutions, such differences are sometimes more pronounced between public and private institutions, and between rural and urban communities – although there are marked exceptions to be noted. Differences in the quality of programming contribute to the differences that are observed in the capacity of graduates from different institutions. The differences in the output of different supply streams result in a wide range of quality among graduates, and the consequent tendency for bias to enter employment decisions.

Interventions are needed to increase the number of women who are enrolled at district TVET colleges and Institutions of Higher Learning in professional and technical sectors. These include awareness measures and active recruitment by TVET colleges, provision of bursaries with quota ringfenced for women students, and quotas set for the enrolment of young women.

8.3.6 Effect of Language:

The overall quality of supply is further compromised by forcing learners in the 'early years' and beyond, to learn in a language that is alien to their upbringing, divorced from their culture and different from general outlook and perspectives they have acquired.

8.3.7 Spatial Inequities:

Spatial inequities refer to differences in education and training opportunities because of geographic location. Opportunities differ geographically, with a wider range of education and training programmes available in urban areas, and a very limited set of options available in communities that are more rural. This imbalance in the pattern of programming disrupts the geographic balance in the supply of skilled people. As a result, there is an oversupply of some skills in the urban areas and an under-supply in some rural communities. But spatial inequities also result from other circumstances such as: the out-migration of skills from rural areas; the lack of responsiveness of education and training programmes to the economic and social needs of rural communities; the lack of sufficient opportunities for workplace learning in rural areas, which limits the potential viability of particular technical and vocational programmes; and among others, the inability to attract and retain capable teachers and lecturers in rurally-based education and training institutions. Consequently, patterns of skills supply are sometimes structurally inefficient with an under-supply of trained people where they are needed and an over-supply of people where they are not needed.

8.3.8 Under-Development of Youth:

Since youth constitutes a large percentage of the population of the Province, and since the youth population represents a significant asset for the growth and development of the Province, it is anticipated that care and investment in education and training will fully tap the productive potential of this segment of the population. This is hardly the case. The mainstream of skills supply in the Province is under-developed as a growing number of youth continue to drop out of secondary schools in large numbers, where they are unable to complete and certify in higher education programmes and continue to enlarge the body of unemployed, under-skilled and unengaged young people. Only 14% of learners entering Grade 1 end up passing matric exams four years later; and of this number, only a small percentage go on the higher education programmes. The throughput of the education system is low. The under-development of youth significantly skews the pattern of skills

supply in the Province, as the system continues to generate unskilled and under-skilled people in large numbers.

8.4 Managing Employment Demand and Absorptive Capacity

If the talent developed in people is not used then the value of our efforts in education and training is diminished. As a result, the supply and demand equation in human resource management relies on the component of demand in order to ensure that the resources and talent of the state are fully utilized, and that the people in the Province are productively engaged. Generally, demand and absorptive capacity is seen as obtaining employment and finding jobs that are consistent with one's training. Here, demand and absorptive capacity is seen as productive engagement in society, either in employment, in entrepreneurship or in other activities or means of making positive contributions to the economy and society. But the productive engagement of people that are educationally prepared, through whatever means, is not a simple matter; and, one cannot assume that training will automatically lead to jobs. The availability of jobs, and the creation of opportunities for using the skills that are acquired by people, defines a complex field of endeavour that is laden with issues. Some of these issues are highlighted and discussed briefly below. The discussion seeks to highlight the fact that, in light of the complexity, demand must be properly planned and managed. The strategic implications of the issues raised are outlined in the table at the end of the chapter. Each issue is presented below.

8.4.1 The Impact of HIV and AIDS on the Labour Force:

One of the factors that fuels replacement demand, is the impact of HIV and AIDS and related communicable diseases on the labour force. The impact of HIV and AIDS is such that there is a high rate of attrition among people who are in the most productive years of their life and careers. While the impact of these diseases has shown positive signs in recent years, society continues to shed its talent in terms of many groups of teachers, skilled workers and other professionals in various fields. This creates gaps in scarce and critical skills, and, in some occupations, leaves vacancies that cannot be readily filled. The prevalence of the disease also requires adjustments in employment conditions, and adjustments in human resource management approaches to deal with the increase in absenteeism and the resulting decline in productivity in some sectors. The situation alters the nature of employment demand, and its impact on particular economic sectors must be fully understood and managed.

8.4.2 The Dynamics of Job Creation:

In the traditional sense of employment demand, it is essential to create jobs in the economy and thereby expand opportunities for people to be employed. While the supply of talent rests, primarily, with education and training institutions, the creation of jobs, on the other hand, results from the complex dynamics of the economy, the intricate interplay of policy in economic management, and a host of other factors such as creativity and technological

innovation, the labour or capital intensity of production, productivity growth, and the degree to which it is favourable for businesses to be established to survive or to expand their operations. These factors are inherently more difficult to manage, and hence job creation is inherently more difficult to control, manage or realize. Even beyond job creation in the traditional sense, opportunities must be created for the productive engagement of people; and, even this is difficult to plan and manage. The heart of the issue here is that job creation and employment demand is not automatic, but must be properly planned, managed and coordinated. The Province currently has a wide variety of job creation programmes in terms of small projects in local municipalities, and much larger initiatives in the strategic infrastructure and catalytic projects. Such programmes could be more effective if they are properly coordinated, and if the employment demand and job creation implications are properly investigated and well known.

8.4.3 Mobility of Labour and Concentration of Economic Activity:

Employment demand scenarios in the Province are affected by the mobility of labour and by the concentration of economic activity in various geographic zones in the Province. As a result, the pattern of demand and the availability of labour differ considerably on a geographic basis. Several factors account for this. One factor related to the mobility of labour, therefore, is migration patterns into cities as employment opportunities are more concentrated in urban areas, and people perceive that they are more likely to be successful in their job search where employment opportunities are concentrated. Migration out of the Province is another factor to be considered. The outward migration of skills creates skills gaps in the economy, particularly in areas of scarce and critical skills. While information is available on outward migration of people, little information is available on the skills that are lost from the Province as a result. Apart from employment opportunities, people change residence for many other reasons – improved quality of life; increase in educational options of their children; access to health facilities; and exposure to economic and social environments where more options are available. All these are considered in searching for jobs and in accepting job offers. The mobility of labour must be considered in managing demand. Geographic areas must be made sufficiently attractive to draw labour; there, incentives must be provided so that people with critical skills opt to move into areas that may be otherwise unattractive; spatial planning must continue to promote the expansion of economic opportunities into rural areas; and, among others, education and training institutions must be more responsive to the needs and priorities of their respective service areas so that trained people do not have to change residence to find jobs.

8.4.4 Labour Market Impediments:

Balancing the supply-demand equation is not merely matching the skills produced with the employment opportunities that are available in the economy. The reason for this is because skills and qualifications are not sole determinants of access to and success in finding jobs. A wide variety of factors in the labour market intervene in the transition into employment. Factors such as wages, race and gender biases, working conditions, nepotism, agreements and resolutions in labour relations, and, among others, employment policies such as

affirmative action, all affect whether those who are appropriately qualified will accept or be accepted in positions that are available.

Support and mentoring programmes need to be put in place for women students enrolled at district TVET colleges and IHLs, in professional and technical sectors, to enable them to complete their qualifications successfully. These include measures to address GBV on campuses and in residences.

A database should be established of women graduates in the professional and technical sectors, and partnerships established between professional and technical industry stakeholders, DHET, DTI, Department of Labour and women's professional and entrepreneur networks, to encourage and promote recruitment and employment of women from these sectors. No baseline information exists on current employment statistics of women disabilities in the professional and technological sector. The Office of the Premier should source this information and compile baseline information on current employment statistics of women in the technical/professional sector, and the Department of Labour (DoL) should ensure the inclusion of women in their database of job-seekers, actively seeking and encouraging registration of job seekers from this category, and disaggregate their database accordingly.

8.4.5 Spatial Inequities:

The structure of the economy and the availability of employment opportunities differ by geographic zones and regions. Of particular note in this regard, is the differences in the economic opportunities between rural and urban areas. There are several consequences to such differences in opportunities. In rural areas, there a fewer, and a more restricted range of economic opportunities, and, as a result, unemployment is generally high if there are no major employers in the area. Most rural areas have fewer options, and sometimes no options at all, for skills development; and, where vocational and technical training is available, learners have very limited opportunities for practical training and workplace exposure. The result is massive out-migration of mostly unskilled people from rural areas into the major employment centres of the Province.

8.4.6 Structure of the Labour Force:

The structure of the labour force, both provincially and in particular geographic regions, will determine the development potential, provincially and regionally, and will influence the prospect of success for planned economic activities. Development will generally determine the availability of employment opportunities and the prospects for attracting and retaining skills in the Province and in districts. Overall, and particularly in districts, the structure of the labour force does not always favour development as planned. Generally, the labour force is structured with a small percentage of highly qualified technical and professional people at the top of the labour pool and skill pyramid and a massive and expanding base of semi-skilled, unskilled and unqualified people, particularly youth; at the bottom of the pyramid. This general pattern of skill distribution remains the same

throughout the Province, with a larger proportion of unskilled people generally found in rural areas. The structure of the labour force is critical in assessing the prospects for development, and the profile or distribution of skills that are available in particular regions indicate the potential viability of planned economic activities. Already employers complain about the lack of skills as a constraint on development and expansion. In stimulating demand and creating jobs, it is essential to ensure that the profile of skills represented in the labour force is appropriate.

Further, there is no generally accepted notion of worker education nationally or provincially. At the same time skills development continues to be a contested terrain and has had limited transformational impact in the world of work, on job creation or living standards of the working class.

Vocational training remains alienating and intended to extract productivity often with little consideration for the overall development of the person undergoing such processes. Key principles of the NQF including articulation, portability, the practice of RPL and lifelong learning remain in the realms of theory rather than general practice. There are large institutional divides between different sub frameworks and Quality assurance bodies in the form of HEI, SETAs and FETs.

Skills development and education often take place in a relative vacuum uninformed by the productive needs of capital or the social needs of the working class.

There has not been a significant increase in broader socio economic and political education amongst workers and their organisations and functional elements of trade union education continue to be scattered and of limited positive impact on the lives of workers and the communities from whence they come.

Adult basic education is systemically limited and reach very few let alone opening access to higher forms of learning. Community education is very limited and where it does take place fails to bridge into vocational or empowering dimensions of education in most instances.

Efforts in all of these areas remain silos, ignoring the potential multipliers of an integrated approach.

8.4.5 Untransformed Economic Structures:

Employment demand is predicated on economic performance; and, economic performance relies, partly, on the extent to which particular economic sectors sustain opportunities for expansion and growth. While opportunities for expansion lie in the verities of the market, it also depends on the extent to which economic sectors are transformed in order to allow new players, new products and a more open structure of economic relations.

Current industrial policy favours this economic transformation in terms of the expansion of downstream and benefication in relevant sectors; the transformation of supply pipelines to include previously disadvantaged individuals; the expansion of entrepreneurial activities in all economic sectors; and among others, ensuring that dominant players in the economy do not create barriers to entry in the respective sectors and thus limit competition and growth. Currently many economic sectors are in the process of transformation in this respect, and,

while this increases economic opportunities and creates positive prospects for jobs, it also creates instability in particular sectors which sometimes results in shedding jobs.

In this respect, it should be noted, that the longer it takes sectors to transform, the more constraints there will be on expansion, demand and employment creation. Tracking and responding to policies and strategic initiatives that seek to transform the economy are critical in managing HRD in the Province.

The integration of knowledge economy commonly referred to as the 4th industrial revolution has not been adequately addressed in the country and province. HRD planning must respond to this robustly to ensure that the transition is not detrimental to job creation efforts.

8.4.6 The Myth of the Entrepreneurial Option:

Some stakeholders in the field have advanced a compelling consideration that entrepreneurship is a natural alternative to seeking employment in already established businesses. But, for many aspiring and new entrepreneurs, the option of self-employment through entrepreneurial initiatives is fraught with challenges. The first challenge is that entrepreneurial activities seem too limited, or even restricted, to specific economic sectors and occupations where the capital outlay for entering the sector is low. As a result, most entrepreneurs are involved in food service, cleaning services and stationery tenders for government. Some are involved in the mechanical or electrical trades, others in transportation and logistics, and a few are involved in agricultural activities and small scale manufacturing. Although the exact figures must still be determined, and although small businesses account for a high percentage of total employment, new and emerging entrepreneurial activities represent only a very small segment of the economy. The second set of challenges is the inherent difficulties in starting one's own business. Start up activities such as raising capital, acquiring licenses and permits, establishing markets and managing start up costs present problems. Assistance is available but not enough to promote the level of success needed or anticipated. In addition, there is not yet a fully established tradition and process of training in the Province for grooming and developing new entrepreneurs, particularly in the black community. As a result, for many, entrepreneurship is a compelling idea, but a faint reality. Few are able to acquire the resources, support and mentorship necessary to become successful entrepreneurs, and subsequently emerge as the business leaders of the future.

8.4.7 Conflicting Perspectives on Development:

One of the goals of the HRD strategy is training for employment, and the importance of organizational structures for more effectively managing employment demand and job creation. The HRD strategy does not promote employment-oriented training as the sole focus of its approach. Rather, it promotes the concept of productive engagement of its people in society so that all can benefit from the talent they have acquired. Notwithstanding, some stakeholders have expressed concern regarding training for employment demand, and the overall approach taken to HRD. The basis of the concern

expressed, as we have come to understand the concern, is that any model which promotes the production of skilled and talented people to serve a capitalist economy, is ill-conceived. Others argue, however, that it is important to manage the economy so that jobs can be created and the economy can expand to offer more opportunities to people to better their lives. This will assist in alleviating poverty and will promote social welfare where people can lead productive lives for themselves, their families and their communities. The latter perspective is contested. While the divergent perspectives can promote healthy and useful debates, and while it may constantly alert us to the importance of grooming a new cadre of business and industrial leadership, it also fragments the support and solidarity that is needed among stakeholders to realize the full benefit of an HRD strategy.

8.5 Managing the Flows and Transitions of Human Resources into Productive Engagement in Society

The bridge between education and work, or between the development of people and their productive engagement in society is, in an ideal world, a conduit through which people who desire work are placed into available roles in society for which they are ready and capable, and in which they can make a positive contribution to development. In this world, the conduit serves as a filter or a sorting mechanism- which ensures that human resources are adequately placed. In the real world, however, the transition between development and productive engagement in society is left relatively unattended, and, as a result, the bridge between education and employment represents a major bottleneck in the effective utilization of the talent of the Province. One of the major issues here is the overriding assumption that, once trained, people will find work or they will naturally undertake roles that utilize their talent. As a result, the movement from education into productive roles in society is largely left up to the individuals themselves. This section of the chapter presents a brief discussion on 6 of the key issues which affect the smooth transition between school and work, and the issues which create bottlenecks, mismatches and misallocations between the viability and the demand for talent in society. The issues are itemized and discussed below.

8.5.1 Fragmented Planning and Governance:

There are a few formal structures for managing the transition from school to work; and, the structures that now exist operate largely independently. Some higher education institutions have job placement functions that assist students in getting employment. In addition, the Department of Labour has exchanges throughout the Province, which registers both individuals and employers with vacancies, and provides a service to match job seekers with employment opportunities. There are also a variety of small short term projects throughout the Province which seeks to make the link between training and employment, and between education development and volunteerism, youth work and community service. These include entrepreneurship training projects, learnerships, apprenticeships and the facilitation of internship opportunities. All these programmes seek to strengthen the bridge between education and employment, but none is sufficiently comprehensive to offer a full

suite of coordinated services in creating effective pathways for people to enter into productive roles. While this is generally the case, it should be noted that the Department of Labour has an exemplary model in its labour exchanges that can be expanded to serve a more diverse audience, and to offer a more comprehensive set of services to both individuals and employers. The database and information and service infrastructure of the Department of Labour can be used as the basis for stemming the fragmentation in the planning and governance of school to work transitions.

8.5.2 Data Availability for Planning:

Planning and managing the school to work transition requires the ongoing availability of data on supply – those available to be placed – and demand, the opportunities that are available for people to be placed. Such data is generally unavailable in the detail necessary and they are rarely produced on an ongoing basis. Institutions maintain data on the people they have prepared, but such data is not submitted at a common point to be processed in a comprehensive database. On the other hand, employers do not submit information on employment vacancies to a common provincial database. Some employers use the Department of Labour exchanges, but this represents only a very small percentage of employment establishments. Many employers use labour brokers, but most have their own systems for the recruitment and hiring of staff. In all these cases, there is no common point for submission, processing and management of data on employment vacancies. The data that is available from the varied sources mentioned, is sometimes outdated, generally unreliable and always incomplete in respect to a basic set of information requirements for matching people to opportunities.

8.5.3 Mismanagement of Career Choices:

Current management of the school to work transition assumes that students understand the world of work; that they are aware of their career aspirations; and they are able to properly assess their individual capabilities for the roles they hope to assume in the economy. This is not always the case. In fact, students rarely understand their career aspirations and options, and many are unable to make proper choices of careers. A large percentage of students who graduate from secondary schools, and higher education institutions have not had any exposure to career guidance, and do not have coaches, mentors or role models who can assist them in making their choice of careers. This lack of knowledge about careers sometimes results in the wrong choice of jobs. This leads to job dissatisfaction, employment instability, reduced productivity in the workplace and movement into positions for which individuals do not have the capacity.

8.5.4 The Myth of Responsiveness:

The transition from school to work is made more effective to the extent that institutions of higher learning are responsive to the needs of the economy and society, and the extent to which they are aware of the availability of opportunities for people to be productively

engaged. This requires a high degree of flexibility in planning and programming, and it depends on the availability of systems which will provide ongoing information of the needs and priorities of society for particular skills. In reality, however, institutions are rarely set up with the degree of flexibility so as to ensure responsiveness. TVETs, for instance, have an established set of NC(V) programmes from which students must choose with little attention, and most cases, to the ends of the local economy. In fact, the programming structure in these colleges limits the exercise of flexibility, labs and workshops are in place, lecturers are hired on long term contracts and the funding model which supports the curriculum at these colleges encourages investment in programmes which are sometimes not viable in terms of responding to employment demand. Many colleges do offer some skills programmes and a few vocational courses that are outside of the routine framework of course programming, and are therefore more responsive to local needs and economic priorities. Such programmes are in the minority.

8.5.5 Labour Market Malfunctions:

Labour market malfunctions refer to the wide range of factors that create bottlenecks in the transition of individuals from education to employment or from development initiatives to productive engagement in society. These include: access to information; access to service, contacts or supply to gain entry into establishments; and, among others, meeting the demographic profile that is sometimes required to qualify for available positions or for the services that are required to gain entry into these positions. In all these cases, it is necessary to promote equity in access and establish policy structures which will eliminate bias and prejudice in the availability of services to enter the workplace.

8.5.6 Restrictions in Options for Productive Engagement:

The transition into productive engagement in society is usually interpreted to mean the transition into formal employment and into other wage earning activities. In this sense, the concept of productive engagement in society is restricted, and the many other ways in which individuals could be of benefit are generally ignored, or are given a lower priority in building bridges between employment and work. Productive engagement refers to employment and entrepreneurship, but it also refers to various forms of youth work, volunteerism, assuming various forms of civic responsibilities and public service, and, among others, involvement in activities to promote social cohesion. Even individuals who are employed could be productively engaged in assisting those who are not. Unfortunately, however, most structures that are established to facilitate the school to work transition are designed to enable job placement and promote employment.

8.6 Summary of Issues

A summary of the strategic implications of the issues discussed are presented in Table 88.

Table 87: Strategic Implications in Planning and Management of HRD

ISSUE AREA	KEY ISSUES	STRATEGIC IMPLICATIONS
Managing supply streams	Constriction and bottlenecks	▪ Academic support programmes to maximize throughput. ▪ Early years educational programming in order to maximize potential to achieve. ▪ Enhanced programme articulation – horizontally and vertically. ▪ Support programmes to enable transitions between levels of education preparation.
	Literacy and educational level of the population	▪ Adult education to build educational level of population. ▪ Community support programmes to assist learners with homework.
	Social issues affecting performance	▪ Social support programmes in all schools. ▪ Training teachers to understand and respond to social issues.
	Inequities in access to quality education	▪ Educational resourcing and support to promote equity. ▪ Ensuring one exemplary school – fully resourced in each district. ▪ Collaborating and sharing resources between schools.
	Quality of educational programming	▪ Promoting responsiveness in educational programming.
	Effect of language on performance	▪ Full implementation of language policy. ▪ Movement to full educational programmes in indigenous language.
	Spatial inequities	▪ Research and planning in education and training to ensure spatial equity. ▪ Educational programming linked to PSEDS.
	Under-development of youth	▪ Preparation of local youth development plans and strategies.

		▪ Range of programming to suit the diverse characteristics of youth. ▪ Academic support programmes to maximize throughput.
Managing demand and absorptive capacity	Impact of HIV and AIDS on the labour force	▪ Need to monitor the impact of HIV and AIDS on the economy. ▪ Need to monitor and manage policy and other initiatives taken in response to absenteeism and decline in productivity in the workplace. ▪ Need to ensure that education and training institutions respond to the decline in skills in scarce and critical occupations.
	Dynamics of job creation	▪ Job creation must be collaboratively monitored and managed on a sectoral basis.
	Mobility of labour	▪ Research and data collection on the out-migration of skills from the Province ▪ Spatial representatively of economic opportunities. ▪ Incentives for people with scarce and critical skills to accept employment in rural and challenging areas. ▪ Promoting the responsiveness of training institutions to the economic priorities in their respective geographic areas.
	Labour market impediments – wages, gender, race	▪ Ensuring the availability of policies which limit race and gender bias and nepotism in employment. ▪ Tracking and managing the effect of wages on employment in particular occupational areas. ▪ Studying the labour market implications of labour resolutions.
	Spatial inequalities – rural	▪ Education and training initiatives and HRD projects must be aligned with the PSEDS. ▪ Employment demand and job creation must be planned and managed on a geographic basis, and by the respective economic sectors.

	Structure of labour force	▪ Ongoing assessment is needed to track and manage the representation of skills in the labour force in geographic regions. ▪ The employment demand of strategic infrastructure and catalytic projects must be matched with the structure and availability of skills in the labour pool. ▪ Training and skills development initiatives must be responsive to the demand in districts, the prospects for development and perceived deficits in the current pool of labour.
	Untransformed economic structures	▪ HRD must monitor and respond to the policy agenda of transforming the economy through training and advocacy within institutions and outside. ▪ It is essential to adopt a sectoral approach to HRD planning and management.
	Myth regarding the entrepreneurial option	▪ Need for full service entrepreneurial training and support. ▪ Entrepreneurial training should begin in primary school. ▪ Business mentorship is a critical aspect of entrepreneurial development ▪ HRD must work with EDTEA and on PSEDS and KIDS (Kwazulu-Natal Industrial Development Strategy) in order to support economic transformation.
	Conflicting perspectives on development	▪ Need to conduct advocacy to promote a more balanced view of training for employment as a legitimate and necessary feature of development policy and HRD strategic initiatives.
Managing the flows and transitions of HR into productive engagement in society	Fragmented planning and governance	▪ Need for inter-agency collaboration in making information available of individuals who are seeking employment or positions in which they could be productively engaged. ▪ The labour exchanges of the Department of Labour could be used as the basis of a comprehensive system for facilitating the employment transition.

	Data availability for planning	▪ Need for a comprehensive provincial database on qualified graduates and available vacancies and employment positions. ▪ Need for a coherent and articulated infrastructure for the ongoing collection, processing and use of data on the supply of graduates and the availability of opportunities for the use of their skills. ▪ System is needed to monitor and manage the currency and credibility of data.
	Mismanagement of career choices	▪ More emphasis must be placed on career guidance in schools and colleges. ▪ Institutions of higher learning should provide a comprehensive system of job placement support. ▪ More use should be made of role models, mentors and coaches in career guidance and career development.
	The myth of responsiveness	▪ Structures and policies must be adjusted to promote more flexibility in programming so that TVETs could be more responsive to the needs in their respective service areas. ▪ Restructure skills development and programming to provide and certify in basic areas with specialist 'top up' endorsements in specific skills or disciplines as needed by industry.
	Labour market malfunctions	▪ Monitoring and management of policies to eliminate biases and prejudice in the workplace. ▪ Research on the effect of labour market malfunctions in transition into employment.
	Restrictions in options for productive engagement	**▪ Establishment of formal structures to facilitate youth work, volunteerism and civic responsibility through service to the public. ▪ Educational initiatives to prepare youth for a wider range of post school options.**

Annexure 1:

1. Policy Trends

1.1 Provincial Growth and Development Strategy Draft for Comment (2015)

1. Improve early childhood development, primary and secondary education

Objective Indicators:

- Percentage of learners performing at the required levels in all grades in the Annual National Assessments;
- Percentage of NSC pass rate (70% across KZN should be the minimum requirement for the province);
- Percentage of children in lower quintiles who succeed in primary and secondary school;
- Percentage of children with special needs (disability, giftedness) and "at risk" children whose needs are being adequately met by the education system;
- Provincial coverage of ECD provision.

The following are the intervention strategies, albeit not exhaustive, that are part of Early Childhood Development.

- Development and Basic Education (Grades 1-12):
- Review and resource teacher education and capacity development programmes;
- Develop and implement schools water, sanitation and electricity programmes;
- Develop and implement programme to enhance logistical support to facilities (books and equipment);
- Improve school and educational district management;
- Support effective governance at schools and develop governance capacity;
- Performance management of educators;
- Counselling and career guidance to be provided in all schools.

2. Support skills alignment to economic growth

KZN must find solutions to the brain drain of critical skills in the province; this involves identifying the skills shortage and engaging with different stakeholders to find solutions. The province should also identify lead employment sectors so that district planning may link skills development with these to enhance economic opportunities.

Importantly, the strategy emphasises the need for information about careers and professions to be circulated at schools so that learners are equipped with relevant information about job opportunities.

This second objective's success hinges on TVET sector colleges, which are facing numerous problems, and the presently non-existent Community Education and Training Colleges. TVET colleges currently has a focus on artisan training, which is evident in the objective indicators and interventions.

Objective indicators:

- Improved capacity in the province for skills planning. The KZN HRD Strategy describes how this can be achieved;
- Improved performance of the provincial TVET and CET colleges. This indicator will measure a cluster of outcomes related to governance, curriculum and course development and capacity of the colleges;
- Number of artisans qualifying in scarce skills. The NDP mentions a target of 30 000 per annum. The quantum required per province varies, obviously, but for comparison KZN turns out a few 100 per annum.

The following are the intervention, albeit not exhaustive, that are part of skills alignment to economic growth:

- Develop skills plans for lead economic sectors per district municipality based on skills demand and implement in partnership with tertiary institutions;
- Re-vitalise the TVET sector and develop CET Colleges;
- Contribute to the expansion of the TVET and CET physical infrastructure in the province. Contributing to the establishment of more campuses, preferably in each municipal district in order to Increase access to skills development at all levels of post-school education by KZN young people;
- Rigorous collection of information on skills development in the province;
- Skills development for the informal sector, township and rural economies focussing on enterprise education and technical skills.

3. Enhance youth and adult skills development and life-long learning

There is a critical urgency to deal with education challenges in the province. Programmes need to be designed that simultaneously link people with the economy while skilling the unemployed youth - redundant in the current economy - with capabilities that they do not have. The new Community Education and Training (CET) colleges which are about to be established will incorporate the Adult Education and Training curricula and will combine

with skills centres and NGO programmes to form a college. This is envisaged to be rolled out per district municipality.

Objective Indicators:

- Provincial coverage in the provision of Adult Education Training through centres that adhere to government norms and standards;
- Development and throughput of the CET College sector across the province, disaggregated by types of courses studied;
- Number of education and training programmes prepared for delivery in community-based colleges.

The following are the proposed strategic interventions, albeit not exhaustive, towards youth skills development and life-long learning:

- Research and information on the size, needs, characteristics and location of the out-of-school youth to be served. Documentation of 4 – 24 year olds who are participating in education, training or work in any given time;
- Assessment and development of district based supply pipelines that are responsive to the needs of the geographic area;
- Preparation of district based HRD plans linked to IDPs;
- Contribute towards the availability of facilities for the provision of Community Education and Training Colleges;
- Support to Co-operatives, people manufacturing, trading or providing services in the informal economy and entrepreneurship activities at local levels **(KwaZulu-Natal Provincial Planning Commission, 2016)**

1.2 National Integrated ECD Policy (2015)

New services that will be introduced to fill the gaps identified and expand the range of available services include:

1. Early childhood development services provided through home visits by community health workers (CHWs) from conception until the child reaches the age of 2 to vulnerable pregnant women, and post-natal services for women and children at high risk of poor, early childhood development.

2. Micronutrient and food supplementation for all pregnant women, with special attention to underweight pregnant women and children who fail to thrive because of poverty and associated social problems.

3. Food and nutritional support provided by CHWs for pregnant women and young children at risk.

4. Screening, counselling and referrals of pregnant women and mothers of young children for mental health, substance abuse and domestic violence.

5. Birth screening and follow-up screening for the purposes of early identification of disabilities, checking immunisation status and tracking children at risk. This will include the Golden Standard Model for the screening and early intervention of infants with disability.

6. Screening of young children for abuse and neglect and the provision of follow-up counselling and referrals of caregivers and their children for remedial support.

7. An augmented programme of parenting support, including the preparation of pregnant women and partners and of mothers of young children to enable them to optimise their young children's development across all domains, especially in the areas of child safety, the provision of positive parenting practices, food and nutrition, and early learning.

8. Pre-registration during the third trimester of pregnancy for the CSG to ensure that children have access to the benefits of the grant from birth.

The policy also reflects increased support for children with disabilities, including funding allocations, however states that plans are still to be put in place via consultations with DSD, DOH, DBE and the Treasury.

1.3 Ordinary schooling or foundational learning:

Inter-Departmental Partnerships and Collaboration: Accordingly, the trend in educational service delivery is partnerships and collaboration. In outlining the delivery agreement for Outcome 1, the role of 17 departments in a collaborative network of services for education is specified (page 8). The role of the Department of Social Development in ECD below Grade R is specified, and the role of this department in rendering social services to the poor is also given priority. Partnerships in TVET are also highlighted.

Regular Assessment to Track Learner Progress: Assessment is given a high priority. In this regard, the Annual National Assessment (ANA) has been adopted, with mandatory assessment of learners at Grades 3, 6 and 9. The emphasis here is to make schooling more accountable. A critical aspect of this approach is that neither poor performance nor outstanding performance should go unnoticed. Both should signal the need for intervention, and both should signal the need for parental involvement. Current policy positions by the Department of Basic Education stress the importance of the involvement of parents in the assessment process, and in monitoring and tracking the performance of their children. But, in order for this to be realized, parents must have the capacity to do so.

Improved Teacher Capacity and Practices: Sixteen educational outcomes are directly dependent on teacher capacity and performance. According to the delivery agreement, new methods will be initiated to support teachers through quality training packages via distance education and e-learning. In addition, there are plans for adopting a monitoring system for teachers through the South African Council for Educators (SACE). The Action Plan to 2014 has, as one of its priority areas, teachers and teaching processes. The emphasis here is on recruiting young and motivated teachers, managing teacher utilization to promote learning outcomes and improving the professional and subject knowledge of teachers.

The Availability of Learning Materials to all Learners: There is recognition that the success of learners could be compromised by the unavailability or the untimely delivery of learning materials. Among the 27 goals of the Action Plan to 2014, therefore, one goal is to "ensure that every learner has access to the minimum set of textbooks and workbooks that are required according to National Policy". Another concern here is that rural and remote areas, which are generally located in the poorer areas of the province, are the most disadvantaged in the distribution and availability of learning materials.

Improved Quality of ECD: There is an overall recognition of the importance of ECD in the future success of children. Here again ECD has priority in the Action Plan, in the HRDSA, in the Delivery Agreement and in White Paper 5, among others. The role of the Department of Social Development in ECD below Grade R, and the importance of collaboration are also highlighted.

Strengthening School and District Management: In the Action Plan 2014, and in the performance areas established for the Action Plan, two critical policy areas are cited for attention: school governance and management, and support by District Offices. Both policy areas stress the importance of proper management and support for schools and for teachers. The performance measure for school governance and management is to "ensure that the basic annual management processes occur across all schools in the country in a way that contributes to a functional school environment". In support of this, Provincial Departments of Education are expected to "improve the frequency and quality of the monitoring and support services provided by District Offices to schools".

Enhanced Learner Performance: The focus of all educational policy is to enhance learner performance because of the commonly held belief that the performance of learners is the core business of schools. The enhancement of learner performance is measured through the performance of learners in the Annual National Assessment (ANA) at Grades 3, 6 and 9; and the performance of learners in the National School Certificate (NSC) exams. Performance is assessed, not only in terms of pass rates, but in terms of the quality of passes and the subject focus. In the lower grades, numeracy and literacy is a priority; but for secondary schools there is a policy emphasis on enrolment in maths, science and technology and on the performance in these subjects in the NSC exams. There is also an emphasis on increasing the number of learners who pass with eligibility for a programme of study at the Bachelor's level.

Promoting Equity in Resourcing of Schools: Promoting equity in the resourcing of schools is an important policy priority. This is reflected in the quintile structure for funding schools, in the norms and standards for funding and in concerns and corrective initiatives regarding the quality of education in small schools due to school provisioning norms. The performance measure for school provisioning norms, as identified in the Action Plan, seeks to "ensure that all schools are funded at the minimum per learner levels determined nationally, and that funds are utilized transparently and effectively".

Health Promotion and Social Welfare of Learners and Teachers: In light of the impact of HIV and AIDS and associated communicable diseases, and in light of the impact of poverty and deprivation on the health, welfare and academic performance of children, educational policy has placed due emphasis on health promotion and social welfare. The National Development Plan (National Planning Commission, 2011), for instance, has highlighted the

eradication of child under-nutrition and the eradication of vitamin A deficiency among children as an important part of a vision for education.

Specialist Services for Learners with Learning Difficulties: There is recognition that, in light of health and social conditions resulting from poverty, many learners suffer learning difficulties, and most of these learners go undetected and unattended. Policy initiatives are being made so that all teachers are able to identify and attend to learning difficulties. The object is to "increase the number of ordinary schools that offer specialist services for children with special needs".

Promote Adult Literacy and Numeracy: Adult education and training is a critical feature of educational policy. Its priority is due to the large percentage of people who have had historical educational deprivation, and the large and increasing number of out-of-school youth who have not completed basic education.

1.4 Post School Education

Access and Equity – Increasing Enrolments: The policy thrust in the post school sector is expansion – creating more places in institutions, and expanding access to opportunities in higher education and training. The expansion is focused on opportunities for poor and disadvantaged communities and target groups.

Improving the Quality, Quantity and Diversity of Provision: Improving the quality of provision seeks to respond to the lack of capacity of many TVET graduates. The quality of provision responds to the low certification and throughput rates; and the diversity of provision responds to the programming structure of institutions. If TVET programming must become responsive to the needs of the economy and the needs of society, then there must be more flexibility in programming, and there must be a greater range and diversity in programmes.

Enhancing Cohesion and Articulation of the Post School System: Cohesion and articulation is necessary to maximize the progression of learners within the system. It is also intended to rationalize and align the regulatory structures for qualifications, and certification and the institutional structures for delivery.

The Promotion of Economic Linkages and Responsiveness to the Labour Market through Industry Partnerships: The Green Paper on Post School Education has identified and prioritized the need to develop strong links between education and training and the labour market in support of learners. The lack of the responsiveness of the TVET sector stems partly from the limited partnerships between TVETs and industry, and from the general lack of effective labour market information and research to guide programmes. The TVET structures and processes may not be adequate for responding to the dynamics of the labour market in terms of the scope and scale of delivery, the general inflexibility of programming, and difficulties experienced in keeping current with changing technology and modernized practices in industry.

More Effective Management of the Feeder System for TVET Education: There is lack of academic readiness of learners who enter the TVET system. Policy trends require more responsiveness to the population to be served in the establishment of structures and processes to meet their unique needs. Some of the options discussed are: bridging

programmes for learners who are not adequately qualified; student support services to serve the unique needs of disadvantaged learners; and outreach programmes to feeder schools to boost the readiness of learners who enter TVET.

Alignment and Rationalization of Regulatory Agencies: TVET and higher education is governed by an array of legislation and statutory bodies within the overarching regulatory framework of the NQF. The DHET Green Paper on post education and training has noted the duplication, incoherence and inconsistency which sometimes exist. In some areas, the qualifications framework does not effectively respond to occupational requirements. The policy thrust here is to strengthen and align regulatory structures so that they are more responsive to existing needs and development priorities.

Establishment of Community Education and Training Centres: The DHET's Green Paper has also proposed the establishment of community education and training centres (CETCs). These centres are intended as "second chance learning opportunities" for out-of-school youth and adults, and they are conceived as one vehicle through which a fragmented structure of programming could be consolidated within a cohesive framework of programming that can serve a more diverse population of clients. These centres are conceived, first of all, as community-based service centres which are programmed to meet the needs of out-of-school youth and adults.

Promotion of Workplace Learning: All policy documents on post school education and training stress the importance of workplace learning in bridging the gap between theory and practice, and closing the distance between education and work. While there is a general understanding of the difficulty experienced in realizing the scope and number of workplace learning opportunities that are needed in the TVET sector to adequately serve learners, the importance of workplace learning is stressed, and the value of establishing partnerships with industry to achieve this is promoted.

Flexible and Diversified Mix of Programmes: The movement towards a more flexible and diversified mix of programmes is at the heart of the transformation of the TVET sector. The notion of flexibility, as expressed in the National Development Plan (National Planning Commission, 2011), signals that the TVET will only be responsive to the extent that it is flexible in its programming so that it can adapt and respond to changing needs in the economy. The concept of diversified programming, as expressed in the Green Paper on post school education and training (DHET, 2011), notes that a "diversified mix of programmes will significantly benefit the poor" who are most likely to struggle with schooling and most likely to drop out. The concept of diversity here speaks to a range of options at different levels of difficulty and at different skill levels. This concept of diversity allows ease of entry into skills development and enhances employment and self-employment opportunities.

Promotion of Research and Innovation: The role of the university in promoting research and innovation has been given a high priority in most policy documents pertaining to growth and economic development. In this respect, the National Development Plan (2011) supports: centres of excellence in universities; collaboration with HEIs, science councils, SOEs, private industry and research institutes; and, among others, a coherent national plan for higher education which includes innovation and the development of knowledge. As part of the research and innovation thrust, policy has prioritized the increase in the number of PhDs trained at universities.

Maximizing Throughput of Learners: The National Development Plan and Green Paper on Post School Education and Training have both called for a higher level of internal efficiency in post school education. In this respect, the NDP has noted the importance of higher productivity units in terms of throughput, graduation and participation rates. One critical criterion for determining the success of TVETs is the decrease in the dropout rate, and an increase in the participation of learners in level 6 programmes.

Networking Providers in Flexible and Innovative Modes of Delivery – Open and Distance Learning: The notion of networking in the delivery of education and training services is increasingly being promoted. These provider networks are intended to increase access and expand opportunities, while, at the same time, maintain quality and relevance in delivery. The concept of provider networks with support centres is advanced by DHET in its conception of post school education. Similarly, the NDP has raised the idea that "a diverse set of private, workplace and community-based providers should be supported to offer targeted work-based training as well as community and youth development programmes".

1.5 Skills and Artisan Development

1.5.1 Established Policy Trends and Priorities in Skills and Artisan Development

Massification of Skills Development Delivery: The overall policy objective is to significantly expand skills development delivery, particularly through the TVET College system. According to the National Skills Accord (2011), the intent is to increase the number of artisans as well as other scarce skills that are produced through the national training system. Similarly, the Green Paper holds as its vision, to "dramatically increase the numbers of students enrolling in TVET Colleges". But the TVET College will not be the only avenue of this expansion. The skills accord suggests the use of public sector facilities more fully, but also proposes the use of SOEs and private sector companies to train beyond their current internal needs. The purpose of this expansion is to produce more artisans for the economy, but an even more critical purpose is to provide more opportunities for youth to be trained and become employed or otherwise productively engaged.

Initiatives to Promote Enhanced Performance of TVET Colleges: The Green Paper, as well as other policy documents, present a comprehensive analysis of the challenges endured by TVET colleges. One of the key policy objectives in skill development is the initiative to enhance the functionality and performance of TVET Colleges. These initiatives are aptly summarized in the NSDS111 as efforts made to overcome access, success and progress barriers; and they are specified in Commitment 8 of the National Skills Accord. Initiatives to improve the performance of TVET colleges include a wide scope of interventions which target the well-known challenges facing the sector. Some of these initiatives seek to improve administrative efficiency and effectiveness through the adoption of more effective systems for monitoring and evaluation, the initiation by DHET of a comprehensive set of TVET College Improvement Projects, and, among others, the recent efforts made to appoint CFOs in TVET Colleges. Other initiatives to enhance the performance of TVET colleges include the improvement of student success and performance such as reducing dropout rates, increasing certification rates and improving trade test pass rates, among others. Initiatives have also been made to target learning systems and resources such as workshop facilities, upgrading lecturers and applying technology to monitor class attendance by

lecturers and learners. In this respect, the National Skills Accord cites the commitment of businesses to develop a plan for workplace exposure of students, use engineers on the payroll as part time lecturers or guests or sponsoring machinery for training laboratories.

Increased Supply of Learnerships and Artisans: Increased supply of learnerships and artisans has been heavily promoted in skills development policy – from NSDS111, Delivery Agreement 5, the Skills Accord and in HRDSA, among others. Specific targets have been set. For instance, employers have committed to producing 30,000 new artisans per year and this includes the artisans produced through the government sector and by SOEs. The increased supply of artisans, and the central role to be played by employers in ensuring this supply, signals the importance of workplace learning in building a cadre of competent artisans who are up to date with developments in their craft.

Focus on the Unemployed and Disadvantaged: The NSDS111 and the Delivery Agreement for Outcome 5, in particular, place high priority on the unemployed and the disadvantaged as target groups for skill development interventions. Focus on the unemployed seeks to address both the high rate of unemployment and the issues which constrain youth development. This priority also stems from the growing awareness of the effect of unemployment on poverty, and the effect of poverty on the life chances and success of residents in rural and disadvantaged communities. Current views on skill development for the unemployed and the disadvantaged have implications for the manner in which institutions programme their education and training services for youth and young adults.

Spatial Focus – Access to Occupationally Directed Programmes in Needed Areas: Access generally refers to the availability of places in relevant vocational programmes so that prospective students have opportunities to participate in programmes of their choice. But the notion of access is increasingly being expanded to include geographic access and ease of access for disadvantaged applicants. Delivery Agreement for Outcome 5 highlights the importance of geographic access by noting the importance of increasing access to high level occupationally directed programmes in needed areas. Similarly, the National Development Plan and other policy documents refer to the disadvantage suffered by youth and adults in rural and remote communities because of the limited access to opportunities for skills development.

Building Human Capital for Research and Innovation: Human capital for research and innovation is seen as sorely lacking in the economy and in institutions of higher learning. Initial comparisons have placed South Africa low on the list of countries in terms of the production of PhDs per million of population. While this is addressed in a variety of other policy documents, the framework for the NSDS111 makes a special case for programmes that build the academic profession and engineer innovation. This is not limited to higher education initiatives. The framework for the NSDS111 has noted that "researchers and innovators that pioneer new knowledge and develop its useful applications are seen as inhabiting another world to that occupied by the skills development community; but this is far from true. It has noted that without research and innovation, industry would stagnate and competitiveness would wither"

Programmatic Focus – Focus on Programme Areas needed for Accelerated Economic Growth: More initiatives are being made to influence, and perhaps define, the programming structure of skills development institutions. There is a growing policy expectation that skills

development programming must be responsive to the needs of the economy for accelerated growth. The debate has gone beyond the general expectations of responsiveness, to define particular areas in which institutions need to respond. Commitment 7 of the National Skills Accord, for instance, commits to aligning training to the New Growth Path; and the HRDSA prioritizes the need for skilled personnel in areas of design, engineering and artisanship that are critical to the manufacturing, construction and culture industries. In this respect, the NSDS111 has promoted a new modality, and, part of this modality is the focus, not only on the specific needs of the economy, but on the needs of specific economic sectors. It is noted that "the new modality must recognize that sectors are different in their skills needs". It notes that the TVET college system should be responsive to the respective economic sectors and to local and regional needs and priorities.

Creating the Foundation for Learning in the Early Years – ECD: The HRDSA also prioritizes early childhood development as the foundation of learning for future success. The case for ECD is a compelling case for realizing the best in people. It is generally agreed that what is achieved academically and developmentally in the future is actually the product of the interventions, exposure and positive stimulation in the early years. It is in these early years that we begin build and to nurture our human resources for the future.

Equity Impact – Promoting Equity in Skills Development: The NSDS111 (DHET, 2011) uses the term "equity impact" to refer to one aspect of the new modality of skills development. Equity impact requires that "those who have been excluded should now be embraced so that our future is brighter for all", and that unfair exclusion should be eliminated. In this respect, equity must be promoted in terms of class, race, gender, age and disability; and, therefore, all skills development initiatives must reflect these equity considerations. Among the implications of these equity considerations are the following: the enrolment of women in non-traditional vocational and technical programmes; the expansion of skills development programmes into disadvantaged areas; and the elimination of racial bias in apprenticeships. Racial bias in apprenticeships has been an ongoing concern, and it has been raised again in a recent HSRC report on patterns and shifts in skills formation (Van Rensburg, et al, 2011).

Emphasis on Workplace-Based Skills Development: Every effort is being made to ensure that skills development is practice-based with an emphasis on work-based learning and workplace experience and content. The National Skills Accord (2011), for instance, notes the importance of workplace exposure for TVET college lecturers and learners, and has suggested many initiatives in this regard. It notes the responsibilities of private industry, SOEs and the government sector in ensuring opportunities for work-based learning. The NSDS111 encourages better use of, and more innovativeness, in work-based learning and skills development. While the lack of practical workplace experience is recognized as one of the primary weaknesses of the TVET sector, there is full awareness that without the creative use of partnerships with employers, neither learners nor lecturers will get the necessary workplace experience. Plans and structures must be in place to ensure that there are opportunities to acquire workplace experience.

Entrepreneurial Development: The importance of entrepreneurial development is stated most clearly in Minister Nzimande's description of skills development to support small enterprises. It is noted that: "Skills development is not just about training people for employment; it must also empower people to create opportunities to make a living for

themselves" (Page 19). In this respect, skills development is promoted for supporting cooperatives, small enterprises, worker-initiated operations and community training initiatives. In building an inclusive economy, small and micro enterprises will play a critical role, and must therefore benefit from financial and non-financial support. Part of this non-financial support is that of skill development interventions to capacitate owners of small businesses to be successful. The National Development Plan suggests, for instance, that training for start-ups and emerging businesses should be supported by the National Skills fund and managed by the respective government departments and agencies.

Career and Vocational Guidance: Career and vocational guidance is increasingly seen as an important component of structures for the delivery of skills development services. Again the NSDS111, in Output 4.8, notes the importance of building career and vocational guidance for the benefit of youth. The lack of career guidance prevents young people from getting proper career direction and it prevents them from getting into programmes for which they have an aptitude. Lack of career guidance also prevents learners from getting into programmes that are needed by the economy. Under the NSDS111, labour market information is seen as critical in matching abilities of learners to occupational requirements. SAQA is envisioned as having a central role in the career guidance information system aligned with HESA and NiSHE. In this regard, a business intelligence reporting system will be developed capitalizing on existing data sets.

Maximizing the Efficiency in Skills Supply: The efficiency of skills supply refers to the objective of accomplishing more with what resources are available. It refers to producing more qualified graduates within the current structures and processes for skills and artisan development. Here, efficiency gains will result from increasing throughput in the respective institutions. But efficiency gains are expected from partnerships with government agencies and the private sector, from diversification of programming so that students can enroll in programmes that are appropriate to their aptitudes and readiness, and from better articulation between institutions so that there could be more mobility of learners and staff between the different structures of the education and training system.

Importance of a Sound Foundation in General Education: The HRDSA promotes general education as a basis for success in post school education and training, in skill and artisan development, and in all technical and professional fields. The HRDSA also promotes a sound foundation in general education as a basis for promoting the values that are consistent with good citizenship. The managers of many TVETs in the province have asserted the importance of a sound general education for the performance of students in TVET colleges. Many are unsuccessful and drop out because of their inability to cope with the academic requirements of the TVET college curriculum. Again, many students cannot be placed on workplace learning assignments because of lack of proper communication skills, for instance. The NSDS111 promotes foundation learning programmes and adult education and training to fill the learning gaps left by incomplete and inadequate schooling.

Commitment to Youth Development: While education and training policy promotes lifelong learning, much emphasis is currently placed on development of youth. HRDSA seeks to "accelerate the implementation of training programmes for youth which are focused on employment creation", and "to leverage public and private sector programmes to create employment opportunities and work experience for new entrants in the labour market".

The NSDS111 seeks to address the low level of language and numeracy skills among youth and adults in order to enable youth to access opportunities for additional education and training.

Recognition of Prior Learning (RPL): RPL seeks to recognize and cater for people who have skills, but who may not have the standard qualifications as required under the current qualifications framework. In expanding access and opportunity, allowance must be made for people who seek to enroll in programmes without the standard entry qualifications. Here, these individuals must have the opportunity to assess the skills they have acquired through experience against the skills they now require to attain a particular qualification.

Focus on the Unemployed: While some skills development funds are targeted to those who are already employed, most of the resources are directed to the unemployed. The focus on the unemployed is to build capacity in people who are currently engaged in order to increase the prospect of their success in getting jobs.

1.5.2 Emergent and New Policy Proposals and Priorities in Skills and Artisan Development

Initiatives to enable more Effective School to Work Transition: The transition from school to work is no longer a burden that is solely left to students. It is now recognized that job seekers need more and more assistance in managing their entry into the labour market. Beyond career guidance and counselling, which have been recognized as important, active labour market policies are now being considered to increase skills supply and to facilitate the transition into employment. Many proposals are made in the NDP to strengthen labour matching, and to increase skills development and supply. Some of the options include: driver training for learners in school; giving a subsidy to firms in the placement sector to identify, prepare and place matric graduates into work opportunities; and initiate the use of training vouchers by making them directly available to work seekers; among others. The Delivery Agreement 5 prioritizes providing students with career guidance and information on colleges and their programme offerings, information and assistance for determining career choices beyond college and information on student financial aid.

Integrated Institutional Mechanisms for Skills Planning: There is an overall concern that skills development objectives will not be readily attained without more stringent skills planning and information management. While both the HRDSA and the NSDS111 have highlighted the importance of skills development planning, Delivery Agreement 5 has provided a comprehensive set of details on what is required. As its first output for establishing a skilled and capable workforce, the agreement proposes to establish "a credible institutional mechanism for skills planning". It notes that "there is currently no fully integrated institutional mechanism that provides credible information and analysis in regard to both the supply …. and the demand for skills". This institutional mechanism will assist in meeting the requirement of the HRDSA to ensure that skills development programmes are demand-led.

New Institutional Arrangements to Promote Effective Delivery: There are 3 initiatives which, together, point to a fundamental reconceptualization of delivery and new institutional arrangements for skills development. Of these, the most significant is making skills development a national competence under the Department of Higher Education and

Training. The establishment of a National HRD Council with a designated Secretariat is also a critical development. The Council is charged with advancing a comprehensive agenda to strengthen skills development, and is supported by a Secretariat that is divided into 8 task teams to address the most critical priorities on the HRD agenda of the State: artisan development; development of professionals; alignment of HRDSA with NGP; industry-education partnerships; worker education; SETA system review; and foundational learning. Delivery Agreement 5 also refers to the new institutional arrangements that are needed: one is the institutional structures and systems in colleges to manage industry-education partnerships, and the other is the reconceptualization of the institutional landscape for skills development to go beyond the use of school facilities as the sole purveyor of knowledge and skills, and begin to embrace private and parastatal entities in an expanded network of skills development establishments. Partnerships and learning delivery networks are emerging as critical features of the new landscape for skills development. Skills development networks which include NGOs, private providers and public institutions collaborating in regional delivery arrangements are continually being advanced as the way forward in strengthening skills development structures.

Reconstruction of Funding Policy for TVETs: There are plans to review the current college funding policy as a basis for developing a holistic integrated funding model. These plans, as expressed in the Green Paper (2011), seek to respond to the problems being experienced such as unfunded enrolments, funding for NC(V) versus N courses, and differences in financial years between colleges and the fiscus. TVET principals have expressed the concern that the current funding model limits flexibility and responsiveness. In this respect, consideration is being given to core funding for colleges to enable them to become more responsive to the dynamic environment in which they operate. Consideration is also being given to revising funding norms and standards to enable money for TVET colleges to be taken from both the fiscus and from the levy grant system. Reconsideration of funding policy for skills development is essential as a foundation for creating more flexible and responsive structures for skills development.

Creation of "Second Chance" Programmes: "Second chance" programmes are directed primarily to out-of-school youths and adults who do not hold matric-equivalent qualifications, and among whom the unemployment rate is highest, nationally and in most jurisdictions. This is addressed by one of the sub outputs of Delivery Agreement 5. There is now recognition that adults and out-of-school youth have needs that are different to learners that are of school age, and hence, they should be served by programmes that bear a difference in their approach to delivery. Among the delivery considerations mentioned in the 'second chance' programmes are: workplace learning, support services for learners, and flexible assessment. Consideration is also being given to the manner in which those learners who choose the occupational route can be more adequately assisted.

Code of Decent Conduct, and Code of Ethics and Good Citizenship: The framework for NSDS111 sees skills development as a means through which unethical practices in the workplace could be challenged. It is recommended that codes of ethical practices and codes of decent conduct be developed and integrated into the programme content for skills development delivery. The recommendation is raised for adoption on a sectoral basis where "peer policing" will serve to limit unethical practices such as fraud and corruption. This concept is not unlike the trend in other policy proposals which have been adopted to ensure

that education and training undertake responsibility for equipping learners with sound values that are consistent with good citizenship, and equipping them with skills to prepare for full occupational competence as well as critical citizenship.

Diversified Programming Structure or Programming Architecture Reflected in Mix of Programmes in Structure: One of the growing policy concerns in skills development is the range of programme offerings. These programmes are offered in education and training institutions. The concern stems from the general perception that programmes in post school education and training institutions are not sufficiently responsive. On the one hand, there is inadequate responsiveness to economic needs, priorities and dynamics; and, on the other, there is little responsiveness to the nature and circumstances of the population to be served. There is a growing sense that programme structures are too rigid and too well-established to respond to change. The NSDS111 notes that the new context of skills development calls for a wider spectrum of programmes which lay a broader foundation for work in a variety of occupational contexts. In this respect, it has suggested four kinds of programmes in a diverse programme structure. The Green Paper also raises concerns about the need to review the NC(V) curriculum at TVET Colleges in order to strengthen it as the main route for vocational education and training. The current focus is on the target group for these programmes, as well as the content relevance and responsiveness of programme offerings.

Establishment of a Sector Focus in Skills Development: A sector focus on skills development is constantly raised as the avenue through which more relevance and responsiveness in programming will result. The sector focus seeks to recognize that economic sectors are sometimes unique in programming in terms of their skills development needs and practices, and are generally different in terms of the dynamics which affect their performance and their capacity to create employment. Even in respect to the development of codes of good practice in skills development, the sector approach is suggested.

Defining a Specific Role for SOEs in Skills Development: The National Skills Accord (2011) has defined clear roles and targets to be achieved by state owned enterprises in skills development. This signals a promising trend as SOEs will, as in the past, play a critical role in the development of the nation's artisans. It also embraces and confirms the trend to adopt a sectoral focus to skills development, and to encourage sectorally-considered contributions to strengthening skills development delivery.

Incentives to Promote an Increase in Private Spending on Training: The National Skills Accord has also confirmed a commitment by businesses to voluntarily spend more than the compulsory 1% training levy on workplace training. In this respect, government has proposed a variety of options, and, as a result, commitments have been made in respect to the following: incentive funding for employers such as tax credits; making a commitment that part of the mandatory grant (10%) will be used for training University of Technology and TVET College students; ensuring that training and skills enhancement is given more prominence on the BB-BEE score card. There is an overall recognition that skills development can be significantly enhanced if SOEs and the private sector play a more central role.

1.6 Youth Development

An Integrated and Coordinated Package of Service for Youth: Because of the diverse groups which fit into the youth cohort, service to youth is seen as an integrated and coordinated package of interventions. In this respect, current policies have identified an array of agencies and institutions which have roles in providing services to youth. As a result, such policies have promoted the integration and coordination of services to achieve desired policy and strategic objectives. The coordination of services should, in the end, offer a wide range of service options, development opportunities, relationships and support that will be necessary for the welfare of young people.

Social Cohesion and Youth Volunteerism: One of the fundamental principles of youth policy is that youth should be involved in meaningful activities which benefit communities and which help to develop their sense of patriotism and their commitment to service. Such policies promote participation, the development of positive bonds, and initiatives to nurture young people as individuals, citizens of their communities and as key stakeholders in development processes. They seek to empower young people to take responsibility for themselves, to make responsible decisions, and take responsibility for others and the environment. The objective of social cohesion has seen practical value in the promotion of volunteerism among youth, the rise of youth work as a professional field, in recommendations for a National Youth Service, and among others, in the increasing development and use of youth ambassadors for a variety of social initiatives. This policy trend signals the importance of youth development in creating better communities, a better society, and a generation of committed young people.

Creating Enabling Environment for Youth to Participate in the Economy: Recent policies have acknowledged the need to give priority to youth in job creation, in building a new generation of entrepreneurs and in advancing the objectives of the new growth path. The concept of a new and restructured market place is being promoted where new business models are employed to give youth opportunities in economic sectors which have previously been closed to youthful entrepreneurs. Among the suggestions tabled are: local beneficiation of mineral resources; involvement of youth in agriculture and agro-processing; creating value chains that serve as feeders to large organizations with a priority on youth involvement; enabling access to peer networks that give youth opportunities and support in established economic and industrial sectors. The policy perspective here is that youth will not successfully enter the highly structured economic environment without strategic support initiatives to enable access and to nurture success.

Consideration of Youth as a very Diverse and Special Target Group: The integrated youth development strategy has listed a representative set of target groups which, together, constitute the population cohort generally referred to as youth. The listing shows the diversity in this cohort of the population. Among the 24 target groups listed are teenage parents, orphaned youth, youth with disabilities, rural youth, young migrants and refugees, youth in conflict with the law and youth who are at risk of or are being abused, among others. This listing is important, if only to signify the diverse needs of youth, and to highlight the importance of support systems in programmes which serve youth.

Professionalization of Youth Work: One of the most significant developments in youth policy over the last decade is the move towards professionalization of youth work as a field

of study and one of the career prospects for young people. It not only enables social cohesion, but it involves youth in meaningful activities which benefit their communities; it develops the abilities of youth through learning and service; and it creates jobs which foster patriotism and sets standards to which all youth can aspire. Many universities, including University of KZN, now offer youth work as a field of study leading to qualifications at a certificate level and up to a master's degree. The NYDA has outlined the benefits of youth work as a profession (NYDA, 2010, p123). This documentation promotes the importance of youth workers in communities and substantiates the recognition of youth work as a scarce and critical skill.

Multi-Sectoral Responses for Service to Youth: Policies promote multi-sectoral partnerships and strategies in serving youth. The issues and challenges facing youth are multi-disciplinary and generally cannot be addressed by one agency or one corporate body. In the area of youth health and wellbeing, for instance, issues to be addressed include teenage pregnancies, substance abuse and HIV and AIDS, among others. This requires interventions by the Health and Education Departments as well as the Department of Social Development, Community Service Organizations (CSOs) and the private sector. Again, the concept of service networks emerges as a critical organizational approach in serving youth.

Priority of Youth Health and Wellbeing: One of the strategic goals of the IYDS (2010) is that of improving the health and wellbeing of young people. The notion here is that young people cannot be productively engaged and cannot lead fulfilling socio-economic lives without good health. As a result, health-promoting initiatives are important in the service to youth. This is particularly important where youth are brought up in environments where they are at risk, and where their success and progress are compromised by issues related to their health and personal wellbeing.

Education and Skills Development for Youth: Consistent with recent policy in education and skills development, the IYDS also seeks to promote access to quality education and skills development for in-and out-of-school youth. Here again, the emphasis is on access, progress and success in skills development programmes that are of high quality and one relevant to economic and social needs. The IYDS stresses, however, that an enabling environment must be created for youth to successfully participate in education and skills development. This enabling environment is seen to include: disability friendly infrastructure; functional community libraries; appropriate educational and social support services in institutions; and proper resources in terms of infrastructure and educators, among others. An enabling environment must be in place to respond to the diverse needs of youth, and the growing number of young people who drop out of educational institutions.

Life Skills for Sustainable Development: One aspect of this enabling environment is the availability of relevant and responsive life skills programmes. Life skills development is increasingly seen as an important component of the education of youth. While there is a basic framework of content that is normally considered in life skills programmes, the policy trend is to adapt life skills programming to the unique needs of particular groups to be served. The circumstances of young people must be taken into consideration in order to maximize their assets, and grow their potential, capacity and capability to respond effectively to life's challenges. Here, the concept of sustainability is most critical. In addition to the technical skills that are acquired through education and skills development

programmes, young people need coping skills and skills which empower them to overcome the challenges they face in the workplace, in their communities, and in their familial relationships.

Uniqueness of Programme Design Approaches: Policy and strategic documents on youth development, particularly the IYDS, have tabled a wide range of ideas and have presented a wide range of considerations about the manner in which programmes should be designed for youth. These considerations seek to respond to the diverse needs of the youth population, and they seek to honour the principle of social cohesion. Some of the key considerations mentioned are as follows: youth programming should be holistic and should encompass all aspects of a young person; the promotion of diversity in recognizing and catering to the diverse background of young people; and, among others, the engagement in participative processes in programme design so that young people could be involved in the development of the services they may receive. In addition, redress and social protection have also been raised as ideals in programming. Redress recognizes that young people have been affected in different ways by the injustices of the past; and social protection highlights that youth development interventions should put measures in place to protect young people and to promote their wellbeing.

1.7 Adult Education and Training

Community Education and Training Centres (CETC): The Green Paper on Post School Education and Training has promoted the concept of CETCs as a measure intended to strengthen adult education delivery in communities. There are two aspects of this measure that are critical. The first is that AET must be planned in response to the needs and circumstances of communities; the second is the consolidation of service delivery in communities within an institutional framework which offers a wider range and diversity of services.

National Registry of Private Providers in AET: Although the Adult Education Act makes allowance for the registration of private providers, the Green Paper notes that "There is currently no national register for private adult education and training centres and this needs to be developed" (page 31). There are many private providers in AET, including NGOs and CBOs, offering a diverse range of programmes. Because of the importance of AET to the large and growing population of out-of-school youth, it is necessary to monitor and manage both the standards and quality of programming and the geographic accessibility of services. A registry is also essential as a basis for developing strong delivery networks for AET.

Employment Related Focus of AET: Adults and young people are interested, not only in completing their schooling, but also in gaining skills for the labour market and for ensuring sustainable livelihoods. AET programming, therefore, should accommodate employment-related content in terms of technical skills, employability life skills and labour market awareness. It is recognized that youth and adults drop out of AET programmes largely because of economic reasons. The policy trend is to encourage AET to consider employment and the demand for skills in the labour market in making programming decisions. This is in line with the overall policy direction of job creation and economic participation for young people and adults.

Community-Based Lifelong Learning: The concept of "community-based" delivery is paramount, not only in AET policy, but in all education and skills development. This concept advances lifelong learning in communities, and it offers a range of options for skills development, numeracy and literacy, and in other programmes to "enhance personal, social, family and employment experiences". The community-based concept recognizes the need to programme services in response to the needs of the community, and in order to maximize the use of community resources in delivery. The true power of the "community-based" concept of delivery, however, is in its potential for mobilizing and committing stakeholders and partners in a comprehensive and integrated structure for AET at the local level.

Articulation of AET with the Post School Sector: The new integrated framework for AET at the community level is not envisioned as a "stand alone" structure. According to the Green Paper, one of the key issues to be addressed with CETCs is the articulation and partnership of these institutions with others in the post school sector. The concept of "community-based" is not only seen in respect to AET, but in respect to a network of public-private post school delivery institutions and agencies at the local level. The concept of "full service" post school delivery at the local level is certainly a policy trend that will transform education and training in the province.

Diversify AET Delivery: The NDP proposes "stronger public adult learning centres that fall under departments other than the Department of Higher Education and Training" (page 287). The concern here is that DHET will be burdened with too many obligations in the post school sector which will make it more difficult for the Department to perform well in serving adults. There is also some concern for diversifying delivery, where different departments with different core emphases could manage PALCs that are targeted to a specific learner community. This will address the specific and unique needs of the communities to be served. In the structure of programming that is conceived for AET, there is a growing sense that it is not possible to properly serve out-of-school youth and adults within a single programming philosophy and organizational structure.

Delivery Networks for AET: In respect to the policy trends noted in the sections above, the policy orientation is toward the establishment of delivery networks for AET which will involve a wide range of public and private service providers who collaborate in the provision of services. With AET, such networks may be more complex to build, and there may be greater need to establish policy structures to formalize the necessary collaborative arrangements. Both the Green Paper and the NDP recognize the diverse array of agencies that are currently involved in AET, and the benefits to be realized in capitalizing on this existing capacity. Likewise, both policy documents signal the need for structures to be in place before the latent potential in adults and youth can be tapped.

Norms and Standards for PALCs: Norms and standards for PALCs were published in December 2007 and were implemented by most provinces in January 2011. While this has enhanced the delivery of AET, it has also imposed some constraints, and these norms and standards are scheduled for revision by DHET. The critical point to be noted in this regard, is that the adoption of norms and standards for AET will continue to have an impact on the quality of delivery of AET programmes. When revised, these norms and standards will be

more consistent with policy trends for flexibility, diversity and learner support in AET programming.

Responsiveness to the Needs of Learners: Here again, there is concern for the diversity represented in the population of out-of-school youth and adults. Policy has always encouraged the targeting of programmes to the particular requirements of specific learning audiences, but this has now become standard in education policy, particularly AET, because of the diverse audience to be served.

Entry Point for Further Learning: AET is not seen as an end in itself, but as an entry point to further learning and development. This concept is so critical in the policy disposition of government, that the HRD strategy for the public service (DPSA, 2007) requires career orientation interventions as part of AET programming. In this respect, learners are required to have professional development plans (PDPs), and accommodation must be made to ensure that learners progress and advance in their employment. This is now a general orientation in AET programming where agencies must consider "what next" in their service to out-of-school youth and adults.

1.8 Employment Demand – the economic engagement of people

Industrial Development which focuses on Industrial Restructuring: In the post-apartheid era, industrial policy is focused on a fundamental transformation of the industrial structure of the economy. The NGP refers to this as the need to reindustrialize. This reindustrialization or restructuring seeks to promote diversification, focus on manufactured value-added products, encourage labour absorbing industrialization, realize higher levels of participation of historically disadvantaged people, and revise the economic geography which has excluded many communities from economic opportunities and prosperity. These considerations have influenced industrial policy post 1994 in an effort to balance economic growth with social equity and the expansion of economic opportunities. Such policy interventions have included: labour laws; the regulation of competition; the establishment of modern infrastructure for linking people, business and markets; focus on sectors which will most adequately respond to industrial policy priorities; and the enhanced analysis and focus on the geographic potential for industrial development. The emphasis has been to focus on core initiatives with high economic potential in particular areas, rather than to spread development efforts in a manner which will limit the desired outcomes. This policy dispensation affects HRD in terms of managing the supply and to meet the needs of a restructured and re-industrialized economy.

Embedding in Industrial Strategies, Initiatives for Employment Creation: In pursuing a labour absorbing industrial strategy, it is essential that favourable conditions be created for the various sectors of the economy to perform sufficiently well and to employ factors of production which generate jobs. Poor economic performance in the sector will shed jobs, and a high capital intensity of production will limit the creation of jobs, particularly in light of the low skills level of the population. Several job drivers have been identified in the New Growth Path. Among these the most significant are: substantial public investment in infrastructure; targeting more labour absorbing activities across the main economic sectors; taking advantage of the new opportunities in the knowledge and green economies; leveraging social capital in the social economy; and promoting spatial development through fostering rural development and regional integration. In each of these areas, a specific

number of jobs have been targeted. In addition to these drivers, policy initiatives have been taken to: support the development and transform the value chain in critical sectors to create opportunities for new entrants; build markets; and invest in research and innovation to create comparative advantage and to grow markets for products. All these initiatives are both part of the industrial restructuring agenda, and part of the agenda, to create jobs in the economy.

Outlining Industrial Strategic Priorities for Employment Creation – Targeting Sectors and Jobs to be Created: The current trend in industrial policy is to target sectors to be developed, jobs to be created and even the employment intensity of growth to be achieved. While the New Growth Path (NGP) has identified industrial sectors to be targeted, particularly for employment generation, other national and provincial policy documents have also identified priority sectors for focus. Industrial and economic sectors have been prioritized on a variety of criteria with the main challenge being that of balancing sustained economic growth and expansion with that of advancing transformational priorities such as job creation and transforming industrial structures. The sectors that are prioritized by the NGP for employment creation are: infrastructure; the agriculture value chain; the mining value chain; the green economy; the manufacturing sectors included in IPAP2; and tourism and certain high level services. IPAP2 has classified priority sectors into 3 areas of focus: qualitatively new areas of focus; scaled-up and broadened interventions; and sectors with potential for the development of long term advanced capabilities.

Addressing in Industrial Policy the Social Dimensions of Employment Creation: The New Growth Path (2010) has stressed the need to strengthen "the connection between economic and social measures" (page 8). The main areas of focus here are income equality and the disadvantages suffered in rural communities. Although there are poverty zones in the province's urban centres, rural areas are generally the poorest regions of the province, with the highest unemployment rates, the lowest household incomes, the most vulnerable workers and the most disadvantaged youth. Current industrial and economic policy measures seek to address the needs of the rural poor and to promote income equality and opportunities for the poor through skills enhancement, small enterprise development, wage and productivity gain sharing policies, progressive taxation and public services targeted primarily at low income households (NGP page 8). In this regard, education and health are prioritized as crucial investments for the welfare of people and their productive participation in the economy. Employment creation is seen as a central measure for addressing the inequalities in society and expanding opportunities for peoples' success in life.

Addressing in Industrial Strategy the Spatial Dimensions of Employment Creation: Spatial development recognizes regional differences and the need to make the best use of the inherent potential of different geographic zones. Here, one of the most critical considerations in industrial policy is the spatial perspective promoted in the NSDP (National Spatial Development Perspective, 2011). The spatial perspective is based on: (1) the exclusivity of economic growth; (2) the need for basic services to all citizens wherever they reside; (3) the need to ensure that government spending is based on localities of economic growth and potential; (4) the need to focus and address social inequalities which are localized; and (5) the need to address the spatial distortion of the apartheid era by focusing future settlement and economic development into activity corridors and nodes. The spatial

perspective seeks to ensure that the poor are able to benefit from growth and development opportunities in areas of economic potential. The Provincial Spatial Economic Development Strategy (PSEDS) (2011) has mapped the areas of economic potential in the province, and has identified the most deprived areas where economic activity will be beneficial. The PSEDS has also mapped the primary and secondary corridors, and noted the economic potential of each. Spatial industrial and economic development is also affected by industrial infrastructure programmes such as industrial development zones; the establishment of ports, airports and telecommunications infrastructure; the establishment of industrial parks, hi-tech and science parks and catalytic projects such as cold chain facilities.

Promoting Self Employment to Boost Economic Opportunities: While one aspect of employment creation is a focus on specific economic sectors with the potential for labour absorption, another aspect of employment creation which is gaining momentum is that of self-employment. In this regard, one avenue of industrial restructuring is that of expanding opportunities for self-employment in the value chain of established sectors of the economy such as mining and agriculture.

Promoting Stakeholder Participation so that Joint Responsibility is taken for Labour Absorptive Growth: Skills development, job creation and the management of socially sensitive economic growth is increasingly seen as a joint responsibility of social partners and stakeholders in the process of economic development. The NGP recognizes that "Not all the steps required to secure the necessary employment and growth outcomes can be done by government" (page 26). Social partners have a key role to play and, in sharing the benefits and sacrifices to be made, joint efforts will require "intensive social dialogue". This model of "social dialogue" is required in all components of the development agenda, including HRD planning, restructuring and delivery.

1.9 Employment Demand – the social engagement of people

Volunteerism: The NYS Development Policy Framework 2002 prioritized the participation of youth in volunteerism as a mechanism to build patriotism and generate social cohesion. Here, youth of different age groups are provided with a variety of opportunities to volunteer. But this volunteerism is complemented with the opportunity for youth to develop skills, build core values and acquire work experience. The concept of volunteerism is about productive engagement which builds the capacity of youth and adults to assume responsible roles in society. Structures must be created to encourage volunteerism and ensure social fulfillment as volunteers. The NGP, for instance, has suggested the establishment of educational programmes in rural education, literacy development, greening and green education and HIV education. Youth brigades and the tourism industry have established youth ambassadors. Volunteerism is not common among the poor and among young people who are uneducated, unskilled and unemployed (VOESA 2006). As part of investment in social capital, programmes could be established where unengaged youth and adults can receive stipends for services they offer.

Sports, Arts, Culture and Heritage: One of the avenues of social engagement is participation in sports and recreation, and involvement in activities related to arts, culture and heritage. The IYDS has promoted sports and recreation as one of the avenues for the social engagement of youth. However, a study by HSRC reported that 50% of South Africans do not participate in sport because of lack of facilities (HSRC 2005). Opportunities for

participation in sports and recreation exist and are steadily increasing, but still not available to the extent necessary. Similarly, opportunities in arts, culture and heritage exist, but are relatively unexplained on a wide scale, and generally not developed in many communities. The IYDS notes that "There is limited access, both in and out of school premises, to facilities, equipment and guidance for young people interested in and with the talent for art and cultural activities" (page 188). Yet these areas are seen as having significant economic and social potential. For instance, social cohesion is seen as a means to address the protection, development and presentation of heritage attributes (DAC 2011), and the craft sector is seen as presenting many opportunities for emerging entrepreneurs (IPAP11) and the social engagement of youth (IYDS). These areas are seen to have significant potential for social engagement in current policy.

Civic responsibility and participation: Civic responsibility is a broad term to reflect the level of social commitment to the welfare of society and one's immediate community. Civic participation is usually reflected in voter registration and in participation in community activism, volunteerism and decision making. Voter registration among youth has stagnated or is in decline, and opportunities for youth to participate in decision-making are not always explored to the fullest. There are, therefore, two aspects of civic responsibility to be considered – civic education and opportunities for civic participation. In terms of civic education, the Civic and Citizenship Education Programme (CCEP) and the Civic Shared Social Responsibility Programme (CSSRP) promoted by the IYDS are examples worth noting. In terms of civic participation in critical development activities it is necessary to consider the promotion of youth networks that connect and inform young people and communicate opportunities for them to engage socially.

2. Skill Supply Stream

Table 88: HDI over a 10 Year Period per District

HUMAN DEVELOPMENT INDEX (HDI) BY DISTRICT 2001-2011											
District	**10 year period**										
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
KwaZulu-Natal	**0.52**	**0.51**	**0.5**	**0.49**	**0.49**	**0.49**	**0.49**	**0.48**	**0.49**	**0.49**	0.52
Ugu	0.48	0.47	0.47	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.45
uMgungundlovu	0.54	0.53	0.52	0.52	0.51	0.51	0.51	0.5	0.51	0.51	0.55
uThukela	0.48	0.47	0.46	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.43
uMzinyathi	0.46	0.45	0.44	0.43	0.43	0.43	0.44	0.44	0.45	0.45	0.37
Amajuba	0.49	0.48	0.48	0.48	0.47	0.48	0.48	0.48	0.48	0.49	0.52

Zululand	0.47	0.45	0.44	0.44	0.43	0.43	0.43	0.43	0.44	0.43	0.39
uMkhanyakude	0.45	0.44	0.43	0.43	0.43	0.43	0.43	0.43	0.44	0.44	0.35
uThungulu	0.51	0.5	0.49	0.48	0.48	0.48	0.48	0.47	0.48	0.48	0.47
iLembe	0.49	0.49	0.48	0.47	0.48	0.48	0.48	0.47	0.49	0.49	0.47
Sisonke	0.46	0.45	0.44	0.43	0.43	0.43	0.43	0.42	0.43	0.43	0.4
eThekwini	0.57	0.56	0.55	0.55	0.55	0.55	0.55	0.53	0.54	0.54	0.61

Source: Quantec 2011

Table 89: Gini Coefficient by District 2001-2011

GINI COEFFICIENT BY PROVINCE AND DISTRICT, 2001-2011											
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
KZN	**0.67**	**0.67**	**0.67**	**0.68**	**0.67**	**0.67**	**0.67**	**0.67**	**0.66**	**0.66**	**0.64**
Ugu	0.63	0.64	0.64	0.65	0.65	0.65	0.65	0.65	0.65	0.64	0.62
uMgung	0.65	0.66	0.67	0.67	0.66	0.66	0.66	0.66	0.65	0.65	0.64
uThukela	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.61	0.59
uMzinyathi	0.62	0.63	0.63	0.63	0.62	0.62	0.61	0.61	0.60	0.59	0.57
Amajuba	0.67	0.67	0.68	0.68	0.67	0.67	0.67	0.67	0.66	0.65	0.63
Zululand	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.61	0.60	0.57
uMkhan.	0.61	0.61	0.61	0.61	0.60	0.60	0.60	0.59	0.58	0.57	0.53
uThungulu	0.66	0.67	0.67	0.67	0.66	0.66	0.66	0.66	0.66	0.65	0.63
iLembe	0.60	0.61	0.61	0.61	0.61	0.61	0.61	0.61	0.60	0.60	0.58
Sisonke	0.59	0.60	0.60	0.60	0.60	0.60	0.60	0.61	0.60	0.59	0.56
eThekwini	0.64	0.64	0.65	0.65	0.64	0.64	0.63	0.63	0.63	0.62	0.61

Source: Quantec 2011

Table 90: Income Distribution for KZN and Respective Municipalities

KZN EDUCATION LEVEL PER DISTRICT 1995 AND 2011 FOR PERSONS 20 YEARS AND OLDER																
DISTRICT	YEAR	TOTAL DISTRICT POPULATION	NO SCHOOLING	%	GRADE 0	%	SOME PRIMARY (G1-G6)	%	COMPLETED PRIMARY (G7)	%	SOME SECONDARY (G8-G11)	%	COMPLETED SECONDARY (G12)	%	TOTAL HIGHER EDUCATION	
TOTAL	1995	8838426	1691517	19	-		2248829	25	489228	6	1730211	20	783754	9	245619	3
TOTAL	2011	5868247	720,789	11	351,700	3	2,188,443	26	471,584	6	2,670,372	29	1,934,771	13	526,801	5
Ugu	1995	667115	145972	22	-	-	207,607	31	37393	6	106,092	16	35488	5	11763	2
	2011	722484	57,641	12	27,222	4	179,021	30	37,156	6	188,044	28	102,081	9	26,805	3
Umgungundlovu	1995	892004	142395	16	-	-	214,350	24	54181	6	204,370	23	91178	10	32498	4
	2011	1017763	60,378	8	31,817	3	202,099	25	46,523	5	279,279	29	198,560	13	66,576	6
Uthukela	1995	572254	121022	21	-	-	156,578	27	34459	6	104,166	18	35954	6	8979	2
	2011	668846	54,503	13	26,129	4	162,328	32	33,651	6	171,580	28	100,496	9	20,516	3
Umzinyathi	1995	458436	141205	31	-	-	126,510	28	20161	4	56,547	12	18877	4	4823	1
	2011	510838	68,177	19	21,712	4	134,684	29	25,337	5	112,276	23	57,050	6	11,340	3
Amajuba	1995	426906	66497	16	-	-	110,356	26	26695	6	94,612	22	39620	9	10210	2
	2011	499841	25,352	7	18,876	4	111,976	24	23,469	5	136,124	26	90,494	11	22,818	6
Zululand	1995	721742	182459	25	-	-	206,339	29	37921	5	107,959	15	36293	5	8933	1
	2011	803575	81,939	16	34,436	4	203,431	34	39,386	6	184,291	29	115,438	8	20,057	3
Umkhanyakude	1995	523447	172647	33	-	-	143,732	28	23757	5	59,744	11	19616	4	4193	0
	2011	625845	81,067	17	26,800	4	160,445	29	30,376	5	135,216	23	81,548	7	14,161	3
Uthungulu	1995	790772	192849	24	-	-	213,589	27	39377	5	116,315	15	49992	6	14788	2
	2011	907520	85,576	14	33,787	4	205,853	28	40,857	5	212,626	27	155,750	10	37,423	4
Ilembe	1995	543858	123447	23	-	-	150,154	28	30650	6	90,664	17	34709	6	6826	1
	2011	606810	58,341	13	21,992	4	139,190	25	30,367	5	157,364	26	96,882	8	19,610	3
Sisonke	1995	408090	79010	19	-	-	145,344	36	24877	6	60,320	15	13121	3	5845	1
	2011	461421	26,549	12	19,618	4	135,738	38	28,412	7	121,433	28	48,091	6	12,749	3
Ethekwini	1995	2833797	324014	11	-	-	574,271	20	159757	6	729,421	26	408906	14	136761	5
	2011	3442362	121,266	6	89,311	3	553,678	20	136,050	5	972,139	33	888,381	20	274,746	7

Source: Stats SA Census 2011 Supercross Tabulation

Table 91: Highest Level of Education per Person KZN 2011

STATS SA: CENSUS 2011 HIGHEST EDUCATION LEVEL PER PERSON KZN		
CATEGORY	**POPULATION**	**PERCENTAGE**
Grade 0	351,701	3.43
Grade 1 / Sub A	337,208	3.28
Grade 2 / Sub B	334,645	3.26
Grade 3 / Std 1/ABET 1Kha Ri Gude;SANLI	342,542	3.34
Grade 4 / Std 2	392,225	3.82
Grade 5 / Std 3/ABET 2	384,132	3.74
Grade 6 / Std 4	397,690	3.87
Grade 7 / Std 5/ ABET 3	471,585	4.59
Grade 8 / Std 6 / Form 1	619,449	6.03
Grade 9 / Std 7 / Form 2/ ABET 4	530,018	5.16
Grade 10 / Std 8 / Form 3	732,789	7.14
Grade 11 / Std 9 / Form 4	788,117	7.68
Grade 12 / Std 10 / Form 5	1,934,771	18.84
NTC I / N1/ NIC/ V Level 2	15,273	0.15
NTC II / N2/ NIC/ V Level 3	11,388	0.11
NTC III /N3/ NIC/ V Level 4	15,606	0.15
N4 / NTC 4	12,001	0.12
N5 /NTC 5	10,537	0.1
N6 / NTC 6	13,255	0.13
Certificate with less than Grade 12 / Std 10	12,248	0.12
Diploma with less than Grade 12 / Std 10	14,499	0.14
Certificate with Grade 12 / Std 10	90,427	0.88
Diploma with Grade 12 / Std 10	119,312	1.16
Higher Diploma	100,777	0.98
Post Higher Diploma Masters; Doctoral Diploma	17,305	0.17
Bachelors Degree	80,354	0.78
Bachelors Degree and Post graduate Diploma	32,913	0.32
Honours degree	34,948	0.34
Higher Degree Masters / PhD	24,019	0.23
Other	16,632	0.16
No schooling	720,791	7.02
Unspecified	-	-
Not applicable	1,308,143	12.74
GRAND TOTAL	10,267,300	

Source: Stats SA Supercross: Census 2011

Table 92: Education level per District 1995 and 2010

KZN EDUCATION LEVEL PER DISTRICT 1995 AND 2011 FOR PERSONS 20 YEARS AND OLDER																
DISTRICT	YEAR	TOTAL DISTRICT POPULATION	NO SCHOOLING	%	GRADE 0	%	SOME PRIMARY (G1-G6)	%	COMPLETED PRIMARY (G7)	%	SOME SECONDARY (G8-G11)	%	COMPLETED SECONDARY (G12)	%	TOTAL HIGHER EDUCATION	
TOTAL	1995	8838426	1691517	19	-		2248829	25	489228	6	1730211	20	783754	9	245619	3
TOTAL	2011	5868247	720,789	11	351,700	3	2,188,443	26	471,584	6	2,670,372	29	1,934,771	13	526,801	5
Ugu	1995	667115	145972	22	-	-	207,607	31	37393	6	106,092	16	35488	5	11763	2
	2011	722484	57,641	12	27,222	4	179,021	30	37,156	6	188,044	28	102,081	9	26,805	3
uMgungundlovu	1995	892004	142395	16	-	-	214,350	24	54181	6	204,370	23	91178	10	32498	4
	2011	1017763	60,378	8	31,817	3	202,099	25	46,523	5	279,279	29	198,560	13	66,576	6
Uthukela	1995	572254	121022	21	-	-	156,578	27	34459	6	104,166	18	35954	6	8979	2
	2011	668846	54,503	13	26,129	4	162,328	32	33,651	6	171,580	28	100,496	9	20,516	3
Umzinyathi	1995	458436	141205	31	-	-	126,510	28	20161	4	56,547	12	18877	4	4823	1
	2011	510838	68,177	19	21,712	4	134,684	29	25,337	5	112,276	23	57,050	6	11,340	3
Amajuba	1995	426906	66497	16	-	-	110,356	26	26695	6	94,612	22	39620	9	10210	2
	2011	499841	25,352	7	18,876	4	111,976	24	23,469	5	136,124	26	90,494	11	22,818	6
Zululand	1995	721742	182459	25	-	-	206,339	29	37921	5	107,959	15	36293	5	8933	1
	2011	803575	81,939	16	34,436	4	203,431	34	39,386	6	184,291	29	115,438	8	20,057	3
Umkhanyakude	1995	523447	172647	33	-	-	143,732	28	23757	5	59,744	11	19616	4	4193	0
	2011	625845	81,067	17	26,800	4	160,445	29	30,376	5	135,216	23	81,548	7	14,161	3
Uthungulu	1995	790772	192849	24	-	-	213,589	27	39377	5	116,315	15	49992	6	14788	2
	2011	907520	85,576	14	33,787	4	205,853	28	40,857	5	212,626	27	155,750	10	37,423	4
Ilembe	1995	543858	123447	23	-	-	150,154	28	30650	6	90,664	17	34709	6	6826	1
	2011	606810	58,341	13	21,992	4	139,190	25	30,367	5	157,364	26	96,882	8	19,610	3
Sisonke	1995	408090	79010	19	-	-	145,344	36	24877	6	60,320	15	13121	3	5845	1
	2011	461421	26,549	12	19,618	4	135,738	38	28,412	7	121,433	28	48,091	6	12,749	3
Ethekwini	1995	2833797	324014	11	-	-	574,271	20	159757	6	729,421	26	408906	14	136761	5

	2011	3442362	121,266	6	89,311	3	553,678	20	136,050	5	972,139	33	888,381	20	274,746	7

Table 93: Inter-District Differences in Highest Level of Education attained

INTER DISTRICT DIFFERENCES IN HIGHEST LEVEL OF EDUCATION ATTAINED PERSONS 20 YEARS AND OLDER 2011 AND 2015																
DISTRICT	YEAR	TOTAL DISTRICT POPULATION	NO SCHOOLING	%	COMPLETED SECONDARY (G12)	%	SOME PRIMARY (G1-G6)	%	COMPLETED PRIMARY (G7)	%	SOME SECONDARY (G8-G11)	%		%	TOTAL HIGHER EDUCATION	
TOTAL KZN	2011	5868247	720,789	11	351,700	3	2,188,443	26	471,584	6	2,670,372	29	1,934,771	13	526,801	5
TOTAL KZN	2015	6,426,764	540,206	8												
Ugu	1995	667115	145972	22	-	-	207,607	31	37393	6	106,092	16	35488	5	11763	2
	2011	722484	57,641	12	27,222	4	179,021	30	37,156	6	188,044	28	102,081	9	26,805	3
uMgungundlovu	1995	892004	142395	16	-	-	214,350	24	54181	6	204,370	23	91178	10	32498	4
	2011	1017763	60,378	8	31,817	3	202,099	25	46,523	5	279,279	29	198,560	13	66,576	6
uThukela	1995	572254	121022	21	-	-	156,578	27	34459	6	104,166	18	35954	6	8979	2
	2011	668846	54,503	13	26,129	4	162,328	32	33,651	6	171,580	28	100,496	9	20,516	3
uMzinyathi	1995	458436	141205	31	-	-	126,510	28	20161	4	56,547	12	18877	4	4823	1
	2011	510838	68,177	19	21,712	4	134,684	29	25,337	5	112,276	23	57,050	6	11,340	3
Amajuba	1995	426906	66497	16	-	-	110,356	26	26695	6	94,612	22	39620	9	10210	2
	2011	499841	25,352	7	18,876	4	111,976	24	23,469	5	136,124	26	90,494	11	22,818	6
Zululand	1995	721742	182459	25	-	-	206,339	29	37921	5	107,959	15	36293	5	8933	1
	2011	803575	81,939	16	34,436	4	203,431	34	39,386	6	184,291	29	115,438	8	20,057	3
uMkhanyakude	1995	523447	172647	33	-	-	143,732	28	23757	5	59,744	11	19616	4	4193	0
	2011	625845	81,067	17	26,800	4	160,445	29	30,376	5	135,216	23	81,548	7	14,161	3
uThungulu	1995	790772	192849	24	-	-	213,589	27	39377	5	116,315	15	49992	6	14788	2
	2011	907520	85,576	14	33,787	4	205,853	28	40,857	5	212,626	27	155,750	10	37,423	4
iLembe	1995	543858	123447	23	-	-	150,154	28	30650	6	90,664	17	34709	6	6826	1
	2011	606810	58,341	13	21,992	4	139,190	25	30,367	5	157,364	26	96,882	8	19,610	3
Sisonke	1995	408090	79010	19	-	-	145,344	36	24877	6	60,320	15	13121	3	5845	1
	2011	461421	26,549	12	19,618	4	135,738	38	28,412	7	121,433	28	48,091	6	12,749	3
eThekwini	1995	2833797	324014	11	-	-	574,271	20	159757	6	729,421	26	408906	14	136761	5
	2011	3442362	121,266	6	89,311	3	553,678	20	136,050	5	972,139	33	888,381	20	274,746	7

Source: Stats SA

Table 94: Highest Level of Education (Grouped) by District 2011

STATS SA CENSUS 2011 HIGHEST EDUCATION LEVEL (GROUPED) BY DISTRICT PER PERSON																							
	Ugu	%	UMgungundlovu	%	uThukela	%	uMzinyathi	%	uMkhanyakude	%	uThungulu	%	Sisonke	%	Amajuba	%	Zululand	%	iLembe	%	eThekwini Metropolitan	%	TOTAL
No schooling	57,641	9	60,378	7	54,503	10	68,177	16	81,067	15	85,576	11	26,549	7	25,352	6	81,939	12	58,341	11	121,266	4	720,892
Some primary	206,243	33	233,916	26	188,458	33	156,396	36	187,245	35	239,641	31	155,356	39	130,852	30	237,867	35	161,182	31	642,989	21	2,540,474
Completed primary	37,156	6	46,523	5	33,651	6	25,337	6	30,376	6	40,857	5	28,412	7	23,469	5	39,386	6	30,367	6	136,050	4	471,642
Some secondary	191,133	31	284,793	32	173,870	30	113,297	26	136,573	26	216,697	28	122,774	31	139,364	32	186,587	27	159,934	30	998,760	33	2,724,075
Grade 12/Std 10	102,081	16	198,560	22	100,496	18	57,050	13	81,548	15	155,750	20	48,091	12	90,494	21	115,438	17	96,882	18	888,381	29	1,934,944
Higher	28,849	5	69,086	8	21,384	4	11,715	3	14,442	3	41,465	5	13,232	3	26,220	6	20,954	3	20,273	4	283,834	9	551,497
TOTAL	623,103		893,256		572,362		431,972		531,251		779,986		394,414		435,751		682,171		526,979		3,071,280		8,942,525

Source: Stats SA Supercross: Census 2011

Table 95: Household Infrastructure for KZN Province

HOUSEHOLD INFRASTRUCTURE KZN PROVINCE STATS SA CENSUS 2011 (SUPERCROSS)																	
DISTRICT	Traditional dwelling/ hut/ structure made of traditional	% of District population	Informal dwelling (shack; in backyard) - Informal dwelling	% of District population	Wood for cooking food	% of District population	No access to sanitation (toilet)	% of District population	No access to Piped (tap) water	% of District population	No energy or fuel for cooking	% of District population	no energy or fuel for heating	% of District population	no energy or fuel for lighting	% of District population	POPULATION
Ugu	53,132	7%	7,923	1%	49,667	7%	8,397	1%	29,827	4%	435	0.06%	28,910	4%	1,139	0.16%	722,484
uMgungundlovu	58,189	6%	18,386	2%	33,132	3%	8,394	1%	24,290	2%	516	0.05%	21,200	2%	1,009	0.10%	1,017,763
uThukela	47,353	7%	1,994	0%	41,664	6%	12,398	2%	29,785	4%	459	0.07%	13,558	2%	797	0.12%	668,848
uMzinyathi	48,563	10%	2,677	1%	51,899	10%	14,746	3%	38,735	8%	311	0.06%	6,943	1%	972	0.19%	510,838
uMkhanyakude	32,811	5%	2,092	0%	74,114	12%	23,624	4%	48,909	8%	475	0.08%	30,728	5%	1,754	0.28%	625,846
uThungulu	54,380	6%	4,757	1%	56,835	6%	23,392	3%	32,865	4%	660	0.07%	33,661	4%	1,438	0.16%	907,519
Sisonke	60,829	13%	4,200	1%	55,238	12%	3,528	1%	39,105	8%	282	0.06%	7,354	2%	648	0.14%	461,419
Amajuba	7,949	2%	5,099	1%	6,971	1%	3,874	1%	8,540	2%	337	0.07%	11,806	2%	401	0.08%	499,839
Zululand	39,485	5%	1,905	0%	53,873	7%	31,272	4%	48,350	6%	451	0.06%	19,364	2%	914	0.11%	803,575
iLembe	40,417	7%	13,225	2%	38,562	6%	9,191	2%	30,178	5%	401	0.07%	28,807	5%	1,190	0.20%	606,809
eThekwini Metropolitan	40,188	1%	149,289	4%	14,272	0%	20,256	1%	26,814	1%	2,403	0.07%	150,248	4%	4,140	0.12%	3,442,361
TOTAL	483,296	5%	211,547	2%	476,227	5	159,072	2%	357,398	3%	6,730	0.07%	352,579	3%	14,402	0.14%	10,267,301

Source: Stats SA Supercross: Census 2011

Table 96: Roughly Calculated Gross Enrolment Ratios (GER) for Primary Schooling in 2011

ROUGHLY CALCULATED GROSS ENROLMENT RATIOS (GER) FOR PRIMARY SCHOOLING IN 2011			
DISTRICT	**POPULATION 5-14**	**PRIMARY ENROLMENT IN 2011**	**GER**
Ugu	152,426	133,932	88
uMgungundlovu	184,309	143,810	78
uMzinyathi	156,599	130,804	84
uMkhanyakude	132,307	120,871	92
uThungulu	161,744	152,182	94
Sisonke	201,367	186,647	93
Amajuba	111,389	93,121	84
Zululand	109,753	83,174	76
iLembe	205,384	186,923	91
Zululand	127,807	102,556	81
eThekwini	**538,308**	**389,789**	**73**

**** Calculation does not account for overage and under age enrolments and for class repetition***

Table 97: Critical Indicators of Schools' Status 2011

PROFILE OF SCHOOLS CRITICAL INDICATORS OF SCHOOLS' STATUS 2011												
GENERAL STATUS OF SCHOOLS	KZN	%	DISTRICT									
			UGU	UMGUNGUN-DLOVU	UTHUKELA	UMZINYATHI	AMAJUBA	ZULULAND	UMKHANYA-KUDE	UTHUNGULU	ILEMBE	ETHEKWINI	SISONKE
Number of learners	2975288	-	225911 8%	187677 6%	226320 8%	221309 7%	153179 5%	325854 11%	247192 8%	317663 11%	180175 6%	699700 24%	190308 6%
Number of learners in public primary schools	1723809	58	133932 8%	143810 8%	130804 8%	120871 7%	83174 5%	186923 11%	152182 9%	186647 11%	102556 6%	389789 23%	93121 5%
Number of learners in public secondary schools	883601	30	74988 8%	17645 2%	66094 7%	51593 6%	45583 5%	99632 11%	81764 9%	105812 12%	57408 6%	243071 28%	40011 5%
Number of learners in independent schools	37304	1.2	4489 12%	6359 17%	1932 5%	934 3%	1037 3%	1060 3%	1283 3%	2167 6%	1255 3%	15884 43%	904 2%
Number of learners in public	157	0.5	698 4%	2218 14%	555 4%	403 3%	1424 9%	498 3%	319 2%	1274 8%	367 2%	7610 48%	368 2%

LSEN schools	34												
Number of learners in public combined schools	314840	10.3	11804 4%	176456%	269359%	4750815%	219617%	3774112%	11644 4%	2176377%	18589 6%	4334614%	55904 18%
Number of ordinary public schools	5760	-	491 9%	424 7%	458 8%	479 8%	252 4%	579 10%	543 9%	670 12%	438 8%	972 17%	454 8%
Number of independent schools	169	-	13 8%	17 10%	9 5%	4 2%	15 9%	5 3%	4 2%	8 5%	3 2%	86 51%	5 3%
Number of primary schools	3641	62	327 9%	332 9%	282 8%	270 7%	143 4%	302 8%	374 10%	435 12%	284 8%	647 18%	245 7%
Number of secondary schools	1465	26	140 10%	46 3%	117 8%	109 7%	53 4%	186 13%	154 11%	193 13%	117 8%	273 19%	77 5%
Number of combined schools	654	13	24 4%	46 7%	59 9%	100 15%	56 9%	91 14%	15 2%	42 6%	37 6%	52 8%	132 20%
Number of LSEN schools	71	1.2	3 4%	9 13%	3 4%	3 4%	6 8%	3 4%	3 4%	7 10%	2 3%	30 42%	2 3%
Number of ABET centres	1105	n/a	82 7%	62 6%	41 4%	35 3%	46 4%	119 11%	109 10%	166 15%	132 12%	203 18%	110 10%
Number of ABET learners	521124	n/a	3643 7%	1898 4%	1147 2%	1114 2%	2593 5%	6114 12%	6194 12%	10795 21%	3857 7%	11178 21%	3591 7%
Number of ABET educators	8662	-	662 10%	229 3%	187 3%	206 3%	238 3%	605 9%	1039 15%	1210 18%	626 9%	1235 18%	625 9%

Source: KZN Department of Education; EMIS and Strategic Plan 2011

Table 98: Institutions of Higher Education in KZN

INSTITUTIONS OF HIGHER EDUCATION IN KZN																											
INSTITUTION	TOTAL ENROLMENT	AREAS OF DEGREES PROGRAMMES															LOCALITY - DISTRICTS										
		Agriculture	Law	Applied Sciences	Engineering	Bus Management	Clothing & Textiles	Communication &	Creative Arts	Education Dev	Finance	Maritime	Medical	Public Management	Tourism	Food Sciences	Computer and	Ugu	Umgungundlovu	Uthukela	Umzinvathi	Umkhanyakude	Uthungulu	Sisonke	Amajuba	Zululand	Ilembe	eThekwini
PUBLIC (Provincial Main Campus)																											
Durban University of Technology (DUT)	24,840	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓									✓
University of Kwazulu-Natal	41,762	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓									✓
University of Zululand	15,592	✓	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓		✓						✓					
Mangosuthu University of Technology	10,286	✓		✓	✓	✓		✓		✓	✓		✓					✓	✓									✓
PUBLIC (Out of Province Main Campus)																											
UNISA																		✓	✓				✓		✓			✓
REGISTERED PRIVATE																											
Centre for Fine Art Animation & Design (Pty) Ltd	150							✓																				✓
RS 23 Computer College South						✓											✓											✓

Africa (Pty) Ltd.																										
Camelot International Pty (Ltd)	32 FT 10 PT											✓														✓
CTI Education Group (Pty) Ltd	APPROX 650					✓										✓										✓
Damelin (Pty) Ltd						✓		✓			✓		✓	✓		✓										✓
Durban Computer College (Pty) Ltd t/a DCC Campus	1200									✓	✓		✓	✓		✓										✓
Embury Institute for Teacher Education (Pty) Ltd										✓																✓
Exercise Teachers Academy (Pty) Ltd t/a ETA	80 ft 35 pt 100 sharks academy											✓														✓
Health and Fitness Professionals Academy (Pty) Ltd t/a Health and Fitness Professionals Association (HFPA)												✓														✓
ICESA City											✓		✓	✓		✓		✓								✓

Campus (Pty) Ltd																											
Independent Institute of Education (Pty) Ltd	2700				✓	✓		✓	✓	✓	✓		✓	✓			✓											✓
Inscape Design College (Pty) Ltd				✓			✓																				✓
Life Healthcare Group (Pty) Ltd	225												✓														✓
MANCOSA (Pty) Ltd t/a Management College of SA						✓				✓				✓			✓										✓
Midrand Graduate Institute (Pty) Ltd t/a MGI						✓		✓		✓	✓		✓	✓	✓		✓										✓
Oval International Computer Education (Pty) Ltd						✓								✓	✓		✓										✓
PC Training and Business College (Pty) Ltd						✓											✓		✓								✓
Production Management Institute of SA(Pty) Ltd (PMI)						✓								✓													✓

Regent Business School (Pty) Ltd t/a Regent Business School	409					✓				✓	✓		✓														✓
South African School of Motion Picture Medium & Live Performance (Pty) Ltd t/a AFDA								✓																			✓
St. Augustine College of South Africa (Theology)										✓				✓													✓
St Joseph's Theological Institute (Theology)																			✓								

Source: Individual universities and DHET HEMIS Database

Table 99: Graduation Rates by Specific Programmes for 1 University

ENROLMENTS AND GRADUATES DURBAN UNIVERSITY OF TECHNOLOGY 2011									
PROGRAMME	NATIONAL DIPLOMA			BACHELORS			MASTERS		
	Enrolment	Graduates	Rate	Enrolment	Graduates	Rate	Enrolment	Graduates	Rate
Agriculture	127	90	70.87	13	55	423.08*	-	-	
Applied Sciences	333	113	33.93	72	116	161.11	11	33	300.00

Building Sciences	670	55	8.21	83	56	67.47	-	41	
Business Management	2117	256	12.09	579	413	71.33	6	83	1383.33
Clothing & Textiles	272	50	18.38	28	65	232.14	4	34	850.00
Communication & Media	1436	258	17.97	199	219	110.05	20	120	600.00
Creative Arts	730	139	19.04	78	233	298.72	16	103	643.75
Education Development	1138	235	20.65	1002	69	6.89	7	164	2342.86
Engineering	6193	304	4.91	1488*	202	13.58	56	208	371.43
Finance	2063	58	2.81	371	33	8.89	9	1	11.11
Medical	1332	10	0.75	676	32	4.73	136	3	2.21
Tourism	311	3	0.96	56	67	119.64*	4	178	4450*
Food Sciences & Related	541	175	32.35	56	52	92.86	21	64	304.76
*** Some graduation rates are excessive where there is a decline in current enrolment and previous cohorts are still graduating**									

Source: DUT Database

3. THE DEMAND FOR SKILLS

Table 100: Unemployment by Local Municipality 2001-2011

UNEMPLOYMENT BY LOCAL MUNICIPALITY, 2001-2011											
District	**10 YEAR PERIOD**										
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Ugu	24.8	31.5	36.9	37.5	37.0	36.1	34.8	32.5	30.6	29.5	30.0
uMgungundlovu	17.8	23.0	27.2	27.6	27.1	26.0	24.6	22.1	20.1	19.6	19.8
uThukela	32.1	37.9	41.5	40.2	37.7	34.9	31.5	27.0	23.1	22.2	21.5
uMzinyathi	36.4	43.6	48.5	48.4	47.2	45.7	44.0	41.2	38.7	37.2	36.7
Amajuba	27.9	34.7	39.9	40.1	39.4	38.1	35.6	31.6	28.3	26.7	27.1
Zululand	34.9	41.9	46.5	46.3	44.9	43.3	41.3	37.9	34.7	32.3	31.0
uMkhanyakude	39.3	45.6	49.1	47.6	45.0	42.0	38.5	33.7	29.2	27.2	25.8
uThungulu	24.3	30.6	35.3	35.6	34.9	33.7	32.0	29.1	26.7	24.9	24.7
iLembe	21.7	27.2	31.8	31.9	30.9	29.5	27.8	25.2	23.0	21.5	21.3
Sisonke	28.4	35.5	40.8	41.2	40.4	39.2	37.8	35.4	33.1	31.0	30.5
eThekwini	17.3	22.0	25.8	25.8	25.2	24.1	22.3	19.4	17.3	16.8	16.9

Source: Quantec 2012

Table 101: Employment by Industry: KZN

EMPLOYMENT BY INDUSTRY: KZN PROVINCE					
INDUSTRIAL SECTOR	**Q1 (2008)**		**Q2(2011)**		% CHANGE
	Number	**%**	**Number**	**%**	
Agriculture	129,000	5.0	99,000	4.0	-23
Mining	8,000	0.3	6,000	0.2	-25
Manufacturing	441,000	17.2	397,000	15.9	-9.9
Utilities	13,000	0.5	18,000	0.7	38
Construction	209,000	8.2	235,000	9.4	12.44
Trade	593,000	23.1	555,000	22.2	-6.4
Transport	168,000	6.6	181,000	7.2	7.7
Finance	289,000	11.3	274,000	11.0	-5.2
Community & Social Services	484,000	18.9	509,000	20.4	5.2
Private Households	229,000	8.9	226,000	9.0	-1.3
TOTAL	**2,563,000**		**2,500,000**		

Source: KZN Department of Economic Development, Tourism and Environmental Affairs, 2011

ANNEXURE 2: DETAIL EMPLOYMENT PROJECTION TABLES

KZN Labour Market High Growth: Formal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1] Formal empl	139 917	228 179	354 929	428 950
I02: Mining and quarrying [QSIC 2]	8 614	5 393	1 640	2 745
I03: Manufacturing [QSIC 3] Formal Empl	225 440	263 225	295 522	373 869
I04: Electricity, gas and water [QSIC 4]	7 577	7 378	3 795	5 472
I05: Construction [QSIC 5] Formal Empl	86 205	134 765	248 439	420 026
I06: Wholesale, retail, catering accommodation Formal Empl	310 841	433 634	598 486	745 360
I07: Transport, storage and communication Formal Empl	76 489	104 573	142 156	184 435
I08: Finance, insurance, real estate and business services Formal Empl	304 014	403 228	523 986	649 529
I09: General government Formal Empl	332 495	435 958	547 895	674 818
I10: Community, social and personal services Formal Empl	281 532	378 184	502 107	636 398
Total	**1 773 124**	**2 394 517**	**3 218 956**	**4 121 602**

KZN Labour Market High Growth: Informal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1]: Informal Empl	21 991	22 604	17 885	22 576
I02: Mining and quarrying [QSIC 2]	21	2 097	638	1 068
I03: Manufacturing [QSIC 3]: informal Empl	39 444	44 281	44 941	50 982
I04: Electricity, gas and water [QSIC 4]	668	642	330	476
I05: Construction [QSIC 5]: Informal Empl	105 094	156 519	177 264	96 426
I06: Wholesale, retail, catering accommodation informal Empl	253 357	325 394	376 083	446 648
I07: Transport, storage and communication Informal Empl	64 230	86 890	106 491	120 858
I08: Finance, insurance, real estate and business services [QSIC 8] informal Empl	53 527	63 158	59 253	69 171
I09: General government [QSIC 91] Informal Empl	0	0	0	0
I10: Community, social and personal services Informal Empl	98 748	129 295	147 587	162 285
Total	**637 080**	**830 880**	**930 471**	**970 489**

KZN Labour Market Medium Growth: Formal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1] Formal empl	139 917	197 666	275 301	307 916
I02: Mining and quarrying [QSIC 2]	8 614	4 672	1 272	1 971
I03: Manufacturing [QSIC 3] Formal Empl	225 440	228 026	229 222	268 377
I04: Electricity, gas and water [QSIC 4]	7 577	6 392	2 944	3 928
I05: Construction [QSIC 5] Formal Empl	86 205	116 744	192 702	301 510
I06: Wholesale, retail, catering accommodation Formal Empl	310 841	375 647	464 216	535 046
I07: Transport, storage and communication Formal Empl	76 489	90 589	110 264	132 394
I08: Finance, insurance, real estate and business services Formal Empl	304 014	349 307	406 430	466 255
I09: General government Formal Empl	332 495	377 661	424 976	484 408
I10: Community, social and personal services Formal Empl	281 532	327 612	389 460	456 829
Total	**1 773 124**	**2 074 315**	**2 496 787**	**2 958 634**

KZN Labour Market Medium Growth: Informal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1]: Informal Empl	21 991	19 582	13 873	16 206
I02: Mining and quarrying [QSIC 2]	21	1 817	495	766
I03: Manufacturing [QSIC 3]: informal Empl	39 444	38 359	34 859	36 597
I04: Electricity, gas and water [QSIC 4]	668	556	256	342
I05: Construction [QSIC 5]: Informal Empl	105 094	135 589	137 495	69 218
I06: Wholesale, retail, catering accommodation informal Empl	253 357	281 881	291 709	320 620
I07: Transport, storage and communication Informal Empl	64 230	75 271	82 600	86 756
I08: Finance, insurance, real estate and business services [QSIC 8] informal Empl	53 527	54 712	45 959	49 653
I09: General government [QSIC 91] Informal Empl	0	0	0	0
I10: Community, social and personal services Informal Empl	98 748	112 006	114 476	116 494
Total	**637 080**	**719 772**	**721 721**	**696 652**

KZN Labour Market Low Growth: Formal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1] Formal empl	139 917	182 773	236 526	244 584
I02: Mining and quarrying [QSIC 2]	8 614	4 320	1 093	1 565
I03: Manufacturing [QSIC 3] Formal Empl	225 440	210 844	196 936	213 177
I04: Electricity, gas and water [QSIC 4]	7 577	5 910	2 529	3 120
I05: Construction [QSIC 5] Formal Empl	86 205	103 342	110 775	145 532
I06: Wholesale, retail, catering accommodation Formal Empl	310 841	329 110	352 781	370 777
I07: Transport, storage and communication Formal Empl	76 489	83 763	94 733	105 163
I08: Finance, insurance, real estate and business services Formal Empl	304 014	322 987	349 186	370 356
I09: General government Formal Empl	332 495	349 205	365 119	384 775
I10: Community, social and personal services Formal Empl	281 532	302 927	334 606	362 869
Total	**1 773 124**	**1 895 182**	**2 044 284**	**2 201 918**

KZN Labour Market Low Growth: Informal Employment

Industry	2015	2020	2025	2030
I01: Agriculture, forestry and fishing [QSIC 1]: Informal Empl	21 991	18 106	11 919	12 873
I02: Mining and quarrying [QSIC 2]	21	1 680	425	609
I03: Manufacturing [QSIC 3]: informal Empl	39 444	35 469	29 949	29 070
I04: Electricity, gas and water [QSIC 4]	668	514	220	271
I05: Construction [QSIC 5]: Informal Empl	105 094	129 978	172 914	148 944
I06: Wholesale, retail, catering accommodation informal Empl	253 357	278 875	296 673	308 896
I07: Transport, storage and communication Informal Empl	64 230	69 599	70 966	68 912
I08: Finance, insurance, real estate and business services [QSIC 8] informal Empl	53 527	50 589	39 486	39 441
I09: General government [QSIC 91] Informal Empl	0	0	0	0
I10: Community, social and personal services Informal Empl	98 748	103 566	98 352	92 533
Total	**637 080**	**688 377**	**720 904**	**701 549**